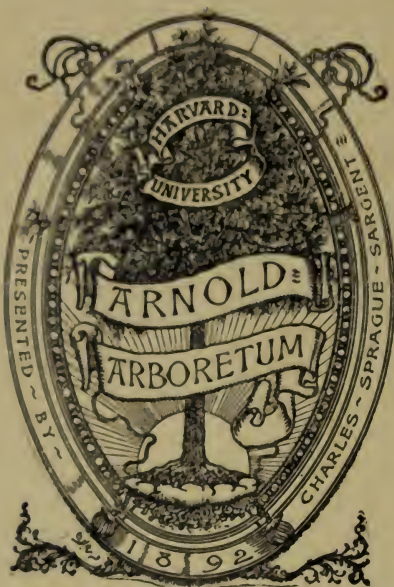


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PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1838.

PROCEEDINGS

OF THE

HORTICULTURAL SOCIETY

OF

LONDON,—

FROM MAY, 1838, TO DECEMBER, 1843.

LONDON:

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1844.

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PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1838.

No. I.

May 1, 1838.

ANNIVERSARY MEETING.

ON this occasion, the following Gentlemen were elected Officers for the ensuing year :

Thomas Andrew Knight, Esq., President.
Thomas Edgar, Esq., Treasurer.
George Bentham, Esq., Secretary.

The following Fellows of the Society were also elected into the Council for the ensuing year :

Henry Bevan, Esq.
Sir Charles Lemon, Bart., M.P.
Sir Oswald Mosley, Bart.

in the room of James Robert Gowen, Esq. ; Richard Horsman Solly, Esq. ; and Sir Henry Willock ; who went out by rotation.

The Report, upon the state of the Society's Accounts for the year ending 31st March, 1838, was read by Wm. Hasledine Pepys, Esq., one of the Auditors :

REPORT OF THE AUDITORS.

THE Auditors have the pleasure to present to this Annual General Meeting of the HORTICULTURAL SOCIETY OF LONDON, being the Twenty-ninth since its Incorporation by Royal Charter,

an Abstract of the Accounts for the past Year, shewing a surplus of Income over Expenditure to the amount of £1557..15..2.

The CASH ACCOUNT for the year ending 31 March last is as follows :

D ^a .	To Balance at Bankers, 1st April, 1837,	£219	10	9
	To ditto in hands of Assistant Secretary,	29	18	5
	To amount of various Receipts,	5705	3	2
		<hr/>		
		£5954	12	4
C ^a .	By Bond paid off,	£1000	0	0
	By various payments by Checks, 2161	11	9	
	By ditto through Assistant Sec., 2474	18	4	
		<hr/>		
		5636	10	1
	Leaving a balance of	£318	2	3
	Being with Sir W. P. Call & Co. £313	2	2*	
	Assistant Sec. per P. C. Book,	5	0	1
		<hr/>		
		£318	2	3

It will be seen that the discharge of a bond of £1000. as promised in the last Report, has been carried into effect.

The outstanding debt of the Society is now reduced to £12,898..0..9, of which £10,350. is on Bond: to meet this, there remains due to the Society on open account (including the cash balance) £6204 .16..10, besides the other assets of the Society, consisting of the House in Regent Street with the Furniture, the Library, the Garden and various property therein, of which the Auditors have not thought it necessary to call for any special estimates, as it must be sufficiently obvious that the intrinsic value of such assets, without reference to their use and necessity in forwarding the objects of the Institution, very considerably exceeds the liabilities of the Society.

In conclusion, the Auditors cannot refuse themselves the satisfaction of stating that the Books and Accounts are still accurately kept, and afford evident proof that the interests of the Society are attended to most carefully.

21, REGENT STREET,
24th April, 1838.

JOHN HEARNE.
WM. HASLEDINE PEPYS.
A. PEYTON PHELPS.
GEORGE ROLLISSON.

* This amount, together with £66..6..5. appertaining to "Garden Exhibitions, 1838," forms the Cash Balance per Banker's Book, £379..8..7.

ABSTRACT OF INCOME AND EXPENDITURE, between the 1st of April, 1837, and 31st of March, 1838.

Dr.		£.	s.	d.	Cr.		£.	s.	d.
To admission fees from Fellows		316	1	0	By rents, rates, taxes, &c. Regent Street, and Chiswick		595	7	10
To compositions for life from ditto		336	0	0	By repairs of house and furniture in Regent Street		30	17	11
To annual subscriptions, due 1st May, 1837		4026	15	0	By housekeeping expences, Regent Street		40	17	10
To amount of Transactions sold		85	7	0	By salaries		790	19	0
To rent of apartments let off in Regent Street		140	0	0	By interest on bonded debt		540	0	0
To garden produce sold		61	10	0	By cost of publishing Transactions		273	1	7
To amount charged to Fellows for packages, &c. (see contra)		53	18	11	By library charges		27	1	11
To balance transferred from "Garden Exhibition" Account		1519	6	4	By printing, stationery, and stamps		68	5	10
					By medals and rewards at Ordinary Meetings		93	4	6
					By cost and charges on foreign importations, &c.		89	9	7
					By foreign missions—Collector in Mexico		351	18	8
					By expense of meetings, postage, &c.		114	12	9
					By miscellaneous expences in Regent Street		7	7	6
					By ditto at Chiswick, for seeds, plants, carriage, &c.		163	11	6
					By garden charges for implements, mats, &c.		87	11	7
					By Do. tan, dung, mould, &c.		54	6	3
					By Do. baskets, &c. for packing plants, seeds, &c. sent to Members		123	4	6
					By garden current labour		1127	15	7
					By Do. extra works, for repairs to buildings, &c.		236	12	0
					By Do. coals and coke		164	16	9
					By balance, being surplus of Income over Expenditure		4981	3	1
							1557	15	2
							£. 6538	18	3

May 1, 1838.

ORDINARY MEETING.

THE following were elected Fellows of the Society :

James Beech, Esq., Brandon, Warwickshire.

Lieutenant-General Sir Thomas Bradford, 27, Upper Harley Street.

Thomas Curtis, Esq., 19, Gloucester Place, New Road.

James Hunter, Esq., Hafton, Dunoon, Argyleshire.

Dr. Charles Lush, 3, Lower Brook Street.

William Newnham, Esq., Oriental Club.

Miss Marianne Yates, Fairlawn, near Tonbridge, Kent.

A paper was read "On the cultivation of the Strawberry," by John Disney, Esq., F.H.S.

The author stated that having found the ordinary modes of preserving clean the fruit of the Strawberry while growing ineffectual, he had devised the following method. He first raises the beds into ridges from 4 to 6 inches high, and 24 inches apart at the upper edge, planting the runners in the valleys at the distance of 12 or 15 inches. Then, when the flowers appear, he paves the whole of the ground with the large flat pebbles easily procured in gravel pits, selecting such as are 3 or 4 inches in diameter, and about an inch thick. From this plan the author finds that he derives the following advantages :

1. The rain water runs in between the pebbles, and readily finds its way to the roots of the Strawberry plants ; while on the other hand it is not lost by evaporation.

2. The surface of the stones is always clean, no soil is therefore is splashed upon the fruit.

3. The surface of the stones becomes sensibly warm, and furnishes reflected heat to the fruit ; at the same time no obstacle is offered to the production of strong and healthy runners.

The following objects were exhibited :

From Mr. Beaton, Gardener to Thomas Harris, Esq., F.H.S. ; *Tweedia cœrulea* ; a new half hardy perennial, with beautiful deep sky-blue flowers, recently introduced from Buenos Ayres.

From Mr. Thomas Brown, F.H.S., Nurseryman, Slough, a beautiful specimen of the *double purple Azalea indica*, and another of the *white variety* of *Azalea ledifolia*. The former, from its size, and the profusion of double pink flowers with which it was loaded, formed a most attractive object.

From Messrs. Chandler and Sons, Nurserymen, Vauxhall; a small collection of green-house plants, among which were *Epacris paludosa*, a seedling *Rhododendron arboreum*, and the two varieties of *Camellia japonica* called *elegans* and *formosa*.

From William Hasledine Pepys, Esq., F.H.S., a remarkably fine *Cucumber* grown upon the trellis inside a forcing-house.

From Mr. John Davis, gardener to Sir Simon Clarke, Bart., F.H.S., of Oak Hill, near East Barnet, a *Black Antigua Pine-apple*, weighing $3\frac{1}{4}$ lbs. and some *White Sweetwater Grapes*, so well grown as to resemble fine specimens of the Muscat of Alexandria.

From John Disney, Esq., F.H.S.; very fine fruit of the *Golden Harvey* and *Nonpareil Apples*, in illustration of his manner of keeping fruit of this description. The apples were found upon trial to have preserved their flavour in great perfection.

From Mr. D. Ferguson, gardener to Peter Cæsar Labouchère, Esq., F.H.S., a plant of *Loasa lateritia*, a stinging, twining, green-house herbaceous plant, with brick-red flowers, recently introduced from Tucuman, by Mr. Tweedie.

From Miss Garnier, of Wickham, near Southampton, a specimen of an *Amaryllis* or *Hippeastrum*, from Brazil, and a variety of *Gesnera Douglassii* (Bot. Reg. t. 1110.) The latter had larger flowers than the original species, but they were paler externally, and the markings inside the corolla were of a less vivid brown. These were accompanied by a small specimen of *Gesnera faucialis* (Bot. Reg. t. 1785.), one of the most brilliantly coloured of Brazilian herbaceous plants.

From Richard Harrison, Esq., Aighburgh, near Liverpool, a specimen of *Cyrtopodium punctatum*. This was a very beautiful Orchidaceous plant, with a panicle of long bright yellow flowers, stained and mottled with crimson; even the large reflexed bracts were coloured in a similar manner, and contributed to the general richness of the inflorescence. It was much more brightly marked than the specimen from which a figure was published in the Botanical Magazine, (fig. 3507.); and had acquired all the depth of colour which the species gains in St. Domingo and the continent of equinoctial America, of which it is a native.

From Mr. Ingram, F.H.S., three beautiful seedling *Verbenas*, raised in Her Majesty's Garden at Windsor, between *V. chamædrifolia* and *V. Tweediana*.

From Mrs. Lawrence, F.H.S., a collection of thirty Greenhouse and Stove plants. The most striking species were the following: a large specimen of *Clianthus puniceus*; *Erica aristata major*; a very fine plant of the white variety of *Gloxinia*; *Epacris onosmaeflora* (Bot. Mag. t. 3168.) a very pretty greenhouse plant from New Holland; *Peristeria cerina*, a curious Orchidaceous plant, whose flowers lie upon the ground in clusters like little cups of yellow wax; a *Leucopogon* and an *Oxylobium* apparently new;

a very fine specimen of the variety of *Azalea indica* called *Hibberti*, and a *Cleome* with large deep purple blossoms.

From Sir Charles Lemon, Bart., M. P., F.H.S., some specimens of plants in flower from the open ground at Carlew, in Cornwall; they having completely resisted the severity of the late winter, in that mild part of England. Among them were the New Holland *Acacias diffusa* and *stricta*, *Azalea ledifolia* with purple flowers; *Erica australis* and *mediterranea*, all which were completely destroyed in the neighbourhood of London; and, what was still more remarkable, shoots in full flower of *Rhododendron arboreum*, which Sir Charles Lemon stated was becoming a tree at Carlew.

From John Luscombe, Esq. of Coombe Royal, near Kingsbridge, Devonshire, a basket of *Lime* fruit, apparently of the *sweet* kind. Mr. Luscombe stated that these fruits had been produced without the aid of fire-heat in winter, having been only protected by a glazed frame; and that he had found the trees, although considered by some to be more tender than the Orange, Lemon, or Citron, not to have sustained the slightest injury from the unusual severity of the winter.

From Mr. Mountjoy, nurseryman, Ealing, a large collection of *Heartsease*.

From Mr. Thomas Naylor, of Brixton, a collection of *Auriculas* and *Hyacinths*.

From Mr. Nieman, gardener to Peter Cæsar Labouchère, Esq. F. H. S. of Hylands near Chelmsford, *Black Hamburgh Grapes*, *Kidney Beans*, and some remarkably large *Keen's seedling strawberries*.

From Mr. Spence, gardener to R. Durant, Esq. F. H. S. of Putney Hill, a beautiful specimen of the yellow variety of *Brugmansia sanguinea*; the specimen measured 15 feet in circumference, and had upwards of 42 of its large yellow flowers expanded upon it. It was accompanied by a *Yellow China Rose*, one of the flowers of which measured 13 inches in circumference, a species of *Lime*, and a pretty pink variety of *Grevillea sericea*.

From Mr. Springall, gardener at Taplow Lodge in Buckinghamshire, a specimen of *Oxalis floribunda*, completely covering a basket, 12 inches in diameter, in which it was placed.

From the Society's Garden, a collection of *Narcissi* and *Ribes*, together with several greenhouse plants; among which was *Habranthus concolor*, a new species sent from Mexico by Mr. Hartweg, the Society's collector in that country. It may be described as follows: *Bulbs round, black. Leaves several, glaucous, obtuse, a foot and more long, fully half an inch wide, longer than the scape, which bears a single pale green whole-coloured flower. Spathes bifid, cylindrical, fitting the base of the peduncle tightly. Peduncle erect, slightly compressed, nearly three inches long. Perianth campanulate, nearly erect, rather spreading at the point, two inches long; segments obtuse. Faucial ring composed of six short*

fringed lines, of which one belongs to each segment of the perianth, and the whole form an apparently continuous line at the back of the base of the filaments. Stigma three parted, with narrow re-curved divisions.

The following Medals were awarded :

The *Silver Knightian*, to Richard Harrison, Esq. for *Cyrtopodium punctatum* ; Mr. Thomas Brown, for his double purple *Azalea indica* ; Mr. Spence, for the yellow *Brugmansia bicolor* ; Mrs. Lawrence, for that part of her collection which consisted of *Cleome purpurea*, *Peristeria cerina*, the species of *Oxylobium*, *Hovea Celsi*, and *Epacris onosmæflora*.

The *Silver Banksian*, to Mr. John Davis, for his Grapes ; Mr. Beaton for his *Tweedia cærulea* ; Mrs. Lawrence for *Clianthus puniceus* ; Mr. G. H. Nieman for forced fruit, and Mr. Springall, for *Oxalis floribunda*.

The following presents were announced :

The *Botanical Register*, No. 5, New Series, by Messrs. Ridgway and Sons.

The *Suburban Gardener*, No. 12, by John Claudius Loudon, Esq.

The *Arboretum* and *Fruticetum Britannicum*, No. 58, by the same.

Comptes rendus des Séances de L'Académie des Sciences, etc. by the Academy of Sciences of Paris. Nos. 11, 12, 13, 14.

May 15, 1838.

Thomas Andrew Knight, Esq., the President of the Society, having died on the 11th inst, it was considered by the Council a proper mark of respect to the memory of this lamented gentleman, not to hold any public meeting of the Society until after his funeral, and consequently no meeting was held this day ; of which notice was given by advertisement in the principal newspapers.

May 26, 1838.

EXHIBITION AT THE GARDEN.

This, the first meeting at the Society's Garden for the year 1838, was remarkable for the extraordinary number and beauty of the objects exhibited. Although the weather was very cold for the season the visitors were more numerous than usual, the number passed through the gates having been 2,966, exclusive of exhibitors.

The flowers and fruit were arranged in five tents, and extended altogether to the length of nearly 700 feet ; and it was estimated at least 900 specimens of plants, 26 boxes of cut flowers, and 47 dishes of fruit were brought together for competition.

The Judges of the Exhibition were :— Mr. J. Weedon, Gardener to R. H. Cox, Esq., of Hillingdon ; and Mr. Thompson, Gardener to Lady Gambier, of Iver, near Uxbridge ; for Florists' Flowers. Mr. John Anderson, Gardener to the Earl of Essex ; and Mr. Peter Macarthur of the Edgeware Road ; for Fruit. Mr. Chas. Mackintosh, Gardener to his Majesty the King of Belgium, at Claremont ; Mr. T. M. Lindsay, late Gardener to the Earl of Caernarvon, at Highclere ; Mr. John Hislop, Gardener to the Hon. Fulk Greville Howard, of Ashted Park ; Mr. John Bisset, Gardener to Admiral Sir T. Williams, of Burwood House, near Cobham ; Mr. J. Frost, Gardener to the Lady Grenville, at Dropmore ; Mr. John Lumsden, Gardener to H. Bevan, Esq., of Cambridge House, near Twickenham ; together with Dr. Henderson, and John Rogers, Esq., jun., for all other objects of exhibition.

Their award was as follows :

THE GOLD KNIGHTIAN MEDAL.

To Mr. John Green,* Gardener to Sir E. Antrobus, Bart, F.H.S., for a large collection of Stove and Greenhouse Plants.

To Mrs. Lawrence, F.H.S., for a large collection of Stove and Greenhouse Plants.

To Sigismund Rucker, Esq., F.H.S., for a collection of six Orchidaceous Plants.

THE GOLD BANKSIAN MEDAL.

To Mr. Bannon, Gardener to S. Jones Lloyd, Esq., F.H.S. for a small collection of Stove and Greenhouse Plants.

To Mr. Pratt, Gardener to Wm. Harrison, Esq., F.H.S, for a collection of Cape Heaths.

To Messrs. Lucombe and Pince, for a plant of *Statice arborea*.

THE LARGE SILVER.

To Mrs. Lawrence, F.H.S., for Cape Heaths.

To Sigismund Rucker, Esq., F.H.S., for a collection of Orchidaceous Plants.

To Mr. George Glenny, F.H.S., for a large collection of Stove and Greenhouse Plants.

* The Judges awarded only a gold Banksian medal for this collection ; but it having appeared to the Exhibition Committee that justice had not in this instance been done to the splendid collection exhibited by Mr. Green, they unanimously agreed that he was fully entitled to a first Gold Medal.

To Mr. John Green, Gardener to Sir E. Antrobus, Bart., F.H.S., for tall Cacti.

To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a specimen of *Araucaria excelsa*.

To Mr. George Glenny, F.H.S., for a small collection of Stove and Greenhouse Plants.

To Mr. John Davis, Gardener, to Sir S. Clarke, Bart., F.H.S., for Pine Apples.

To Mr. W. Barton, for a species of *Dryandra*.

To Mr. Hunt, Gardener to Miss Trail, of Hayes Place, near Bromley, in Kent, for *Pelargoniums*.

To Mr. R. Hamilton, of Beaver Lane, Hammersmith, for *Pelargoniums*.

To Mr. George Glenny, F.H.S., for Melon-shaped Cacti.

To Edmund Foster, Esq., of Clewer, for a Seedling *Pelargonium*.

To Edmund Foster, Esq., for Herbaceous *Calceolarias*.

To Mr. John Green, Gardener to Sir Edward Antrobus, Bart., F.H.S., for Shrubby *Calceolarias*.

To Mr. Davis, Gardener to Sir S. Clarke, Bart., F.H.S., for Grapes.

THE SILVER KNIGHTIAN.

To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a large collection of Stove and Greenhouse Plants.

To Messrs. Chandlers, of Vauxhall, for the same.

To Mr. George Barnes, Gardener to G. W. Norman, Esq., F.H.S., for a small collection of Stove and Greenhouse Plants.

To Mr. Falconer, Gardener to A. Palmer, Esq., Cheam, for the same.

To Mr. Pratt, Gardener to Wm. Harrison, Esq., of Cheshunt, for the same.

To Mr. R. Gunter, F.H.S., for Pine Apples.

To Mr. William Brown, Gardener to Messrs. Cridland and Clews, of Turnham Green, for Strawberries in pots.

To Mr. Wm. Smith, of Norbiton, near Kingston, for Chinese *Azaleas*.

To Mr. Pratt, Gardener, to Wm. Harrison, Esq., F.H.S., of Cheshunt, for Melon-shaped Cacti.

To Mr. Gunner, Gardener to G. D. Larpent, Esq., for Cape Heaths.

To Mr. Bevis, Gardener to J. Allcard, Esq., for *Oncidium crispum*.

To Messrs. Lane, of Great Berkhamstead, for a miscellaneous collection of Roses.

To Mr. George Glenny, F.H.S., for tall Cacti.

To Mr. Spence, Gardener to R. Durant, Esq., F.H.S., for *Cereus speciosissimus*.

To Messrs. Lucombe and Pince, of Exeter, for *Erica pro-*
pendens.

To Mr. George Glenny, F.H.S., for *Cereus serpentinus*.

To Messrs. Lucombe and Pince, of Exeter, for *Siphocampylus*
bicolor.

To Messrs Young, of Epsom, for *Clematis azurea*.

To Mr. Wm. Redding, Gardener to Mrs. Marryat, F.H.S., for
Kennedyia Marryattiae.

To Mr. Ledyard, Webb's Lane, Hammersmith, for *Heart-*
case.

To Mr. Mountjoy, of Ealing, for the same.

To Mr. Wm. Cock, jun., of Chiswick, for *Pelargoniums*.

To Mr. Wm. Gaines, of Battersea, for the same.

To Mr. John Green, Gardener to Sir Edward Antrobus, Bart.
F.H.S., for *Herbaceous Calceolarias*.

To Mrs. Lawrence, F.H.S., for *Shrubby Calceolarias*.

To Mr. Gunter, F.H.S., for *Grapes*.

THE SILVER BANKSIAN MEDAL.

To Mr. John Stewart, Gardener to the Lord Ashburton, F.H.S.,
for *Strawberries*.

To the same, for *Kennedyia nigricans*.

To Mr. James Dunsford, Gardener to Baron Dimsdale, for
Kennedyia bimaculata.

To Messrs. Lucombe and Pince, of Exeter, for *Heliconia*
brasiliensis.

To Mr. Douglas, Gardener to Earl de Grey, F.H.S., for *Boronia*
serrulata.

To Mr. Pratt, Gardener to Wm. Harrison, Esq., of Cheshunt,
for *Erica hybrida*.

To Mr. Ferguson, Gardener to P. C. Labouchère, Esq., F.H.S.,
for *Verbena Tweediana*.

To the same, for *Lasiopetalum solanaceum*.

To Mr. Hunt, Gardener to Miss Traill, for *Clematis florida*
var. *Sieboldi*.

To Mr. King, Gardener to Miss Fuller, of Hillingdon, for
Heartsease.

To Mr. Hurst, Gardener to J. Batho, Esq., of Cheshunt, for
the same.

To Mr. W. Gaines, of Surrey Lane, Battersea, for the same.

To Mr. Pratt, Gardener to Wm. Harrison, Esq. F.H.S., for
Pelargoniums.

To Mr. Hill, of Hammersmith, for the same.

To Mr. J. Lane, Gardener to J. H. Palmer, Esq., for *Herba-*
ceous Calceolarias.

To the same for *Shrubby Calceolarias*.

To Mr. Falconer, Gardener to Archdale Palmer, Esq., for
Apples.

To Mr. Snow, Gardener to Earl de Grey, F.H.S., for Cucumbers.

To Mr. Chapman, of Vauxhall, for Grapes.

To Mr. Snow, Gardener to Earl de Grey, F.H.S. for Grapes.

The result of this award as compared with the objects exhibited, is shewn by the following table.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Greenhouse Azaleas - - -	1	—	—	—	1	—
Melon-shaped Cacti - - -	2	—	—	1	1	—
Heartsease - - -	17	—	—	—	2	3
Cape Heaths - - -	3	—	1	1	1	—
Exotic Orchidaceæ, in sixes - -	2	1	—	1	—	—
Ditto, single specimens - - -	2	—	—	—	1	—
Pelargoniums, in twelves - - -	7	—	—	2	2	2
Rhododendrons, in pots - - -	1	—	—	—	—	—
Miscellaneous Roses - - -	1	—	—	—	1	—
Large collections of Stove and Green-house Plants - - -	5	2	—	1	2	—
Small collections of Stove and Green-house Plants - - -	6	—	1	1	3	—
Alstromerias - - -	1	—	—	—	—	—
Herbaceous Calceolarias - - -	6	—	—	1	1	1
Shrubby Calceolarias - - -	3	—	—	1	1	1
Cucumbers - - -	19	—	—	—	—	1
Tall Cacti - - -	2	—	—	1	1	—
Grapes - - -	5	—	—	1	1	1
Melons - - -	7	—	—	—	—	1
Pine Apples - - -	3	—	—	1	1	—
Miscellaneous Succulent Plants - -	1	—	—	—	—	—
Rare plants not in flower - - -	2	—	—	1	1	—
Fine single specimens of ornamental Plants - - -	39	—	—	2	2	8
New and fine single specimens of ornamental Plants - - -	8	—	1	—	3	—
Miscellaneous - - -	36	—	—	—	1	2
Total - - -	179	3	3	15	26	20

PROCEEDINGS

OF THE

HORTICULTURAL SOCIETY OF LONDON.

1838.

No. II.

June 5, 1838.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Sir Frederick Adair Roe, Bart. 96, Piccadilly, and Ranelagh House, Fulham.

Edward Everard, Esq. of Middleton, near Lynn Regis.

Extracts were read from the Meteorological Journal kept at the Garden during the year 1837.

The following were the monthly results as regards some of the more striking phænomena of the season.

	Mean Pressure; in inches.	Mean Tem. Fahr.	Max. Tem. in shade.	Min. Temper.	Amount of rain ; in inches
January	29.956	38° 58	50° 90	12° 20	3.03
February	29.969	41° 20	55° 40	26° 60	2.01
March	29.979	37° 94	49° 46	19° 40	0.54
April	29.811	41° 95	63° 50	23°	1.13
May	29.957	49° 62	74° 30	30° 20	1.07
June	30.009	60° 08	80° 60	35° 60	1.31
July	29.969	63° 16	83° 30	37° 40	1.78
August	30.002	62° 53	86° 90	39° 20	3.04
September	29.894	55° 68	72° 50	35° 06	0.91
October	30.119	50°	73° 40	27° 14	2.39
November	29.861	40° 22	55° 40	22° 10	1.32
December	29.964	41° 38	54° 50	23° 90	1.35

It was stated that the mean temperature of 1837, was 48.52 Fahr. while the mean of 10 preceding years, as registered at the Garden was 50.62 , and consequently the year 1837 was about 2° colder than usual, notwithstanding the absence of severe weather in January, and the extraordinary mildness of December. The lowness of temperature occurred in the growing part of the season, and more especially in March, April, and May. The season was not only colder but much drier: for the whole amount of rain was only 19.88 inches, which is about 4 inches below the average quantity that falls round London.

Mr. Thompson communicated a memorandum concerning the temperature of the earth for the 7 last months of 1837; as indicated by two Geothermometers buried in the soil, one a foot, and the other 2 feet below the surface, and compared with a common thermometer suspended in the air 3 feet above them.

The monthly results are expressed in the following table.

	Mean Temperature of earth indicated by the two Geothermometers.	Mean Temperature of air indicated by a common Thermometer 3 feet above ground.
June	59.01	60.08
July	64.19	63.16
August	63.38	62.53
September	57.92	55.68
October	53.60	50.00
November	44.62	40.22
December	42.74	41.38
Mean	55.06	53.29

From the above, it appears that the difference between the terrestrial temperature at the above depths, (1 and 2 feet), and that of the atmosphere near the surface of the earth, is $1\frac{7}{10}$ Fahr. But as the ground is comparatively warmer than the atmosphere in the autumn, and colder in spring, it may be inferred that the mean temperature of the earth, a little below the surface, agrees very closely with that of the atmosphere, taking the average of the whole year into account.

The average of the 1 foot Geothermometer was 55.01
of the 2 feet do. was 55.13

The difference being only about $\frac{1}{10}$ of a degree.

The highest temperature indicated by the 1 foot Geothermometer, was 69° , and by the 2 feet instrument 66° . This occurred about the 28th of July; but on the whole, July and August maintained nearly an equal terrestrial temperature. The difference between these months and December, was upwards of 20° .

The following objects were exhibited ;

From Mrs. Lawrence F.H.S., a small collection of plants, among which a beautiful specimen of *Pavetta caffra* was conspicuous for its numerous close cymes of snow white flowers.

From George Barker Esq. F.H.S., a flowering spike of the sweet-scented *Epidendrum primulinum*, a new green flowered Orchidaceous plant which he had introduced from Cuba.

From Messrs. Lowe and Co. of Clapton, plants in flower of the rare *Chysis aurea*, the beautiful *Statice arborea*, and *Clematis cærulea* ; it was stated by Mr. Lowe that the latter, which is one of the handsomest species of *Clematis* (see Botanical Register vol. 23. t. 1955.) proved perfectly hardy during the late winter.

From W. Bromley Esq. F.H.S., a small collection of Green-house plants, among which was a flowering specimen of *Banksia speciosa*.

From Mr. Dennis, Nurseryman, Chelsea, a collection of *Pelargoniums*.

From Mr. Dunsford, Gardener to Baron Dimsdale, specimens of *Coryanthes speciosa*, an extremely curious Orchidaceous plant, and of *Combretum purpureum*.

From the Hon. W. F. Strangways, F.H.S., a collection of cut flowers, and models of baskets used in the Garden at Abbotsbury in Dorsetshire, for protecting plants in winter.

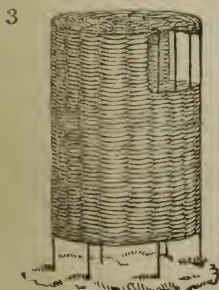
These models were intended to shew how easily plants and shrubs may be protected in the open air, and how the mode of protection may be varied according to circumstances.



No. 1. is the simplest form of basket or circular hurdle, intended to protect low bushes or growing herbaceous plants. It is well adapted for plants coming into flower.



No. 2. Bell-shaped, with a handle. Very convenient for covering plants that shoot early in the year, at night.



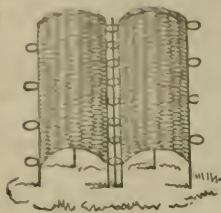
No. 3. Large cylindrical basket, to cover tall shrubs, with a vizor or window to be turned towards the sun, or away from the wind, but to admit air. These are chiefly adapted for permanent defences in the winter.

4



No. 4. Semicircular hurdle, to protect plants trained against a wall, especially if newly planted and exposed to a sunny or windy quarter.

5



No. 5. is a double semicircular hurdle or split cylinder, with loops on each side forming hinges or clasps. This is useful to put round the stems of young trees, whose branches are too spreading to allow of a circular hurdle being passed over them from above. It is used as a protection against hares and rabbits in a shrubbery.

These contrivances are particularly adapted for gardens near the sea, or in any windy situation: or for pleasure grounds not secured against game. They are of common hurdle work, of hazel and withy, the main stakes being made strong and pointed so as to be firmly fixed in the earth. Those that are used for winter protection or for the tenderer plants may be filled with straw or covered with a mat. They are particularly useful in the spring, as they are easily put on and off according to the weather, and are more healthy for many plants than a close covering, being permeable to the air. The forms only are represented in the margin; the size and proportions being varied according to the use for which they are intended. Small semiglobular close chip baskets, not above a foot high, are also used, as shades for delicate alpine plants in sunny or windy weather.

From Mr. Glendinning, Gardener to the Lord Rolle, F.H.S., six fine *Queen Pine Apples*.

From Messrs. Chandler and Son, a beautiful collection of varieties of *Rhododendron Catawbiense*.

From the Revd. W. Mansfield, Rectory, Milton Bryant, Bedfordshire, two seedling *Calceolarias*.

From Mr. John Lumsden, Gardener to Henry Bevan Esq., F.H.S., a very fine collection of 10 shrubby *Calceolarias*, and a plant of the beautiful Brazilian *Manettia cordifolia*, trained in various directions over a treillage fixed to the pot, and covering it so completely as to form a bed of deep rich green, along which the long crimson trumpet-shaped flowers hung in great profusion.

From Mr. Myatt of Deptford, stalks of a new kind of *Rhubarb*, called the "Victoria." It appeared to be a variety of *Rheum hybridum*, of enormous size; the leafstalks were each two feet

eighteen inches long, and 6 inches in circumference, and 12 of the stalks weighed 46 lb.

From Mr. Mountjoy of Ealing, a fine collection of *Heartsease*, *Verbena incisa*, and *Stylidium graminifolium*, with its curious irritable flowers.

From Mr. W. P. Ayres, Gardener at Chicksands Priory, Bedfordshire, two varieties of *Lettuce*, called the Acme American Cabbage, and the Acme Spanish Cos, said to be new and hardy.

From Thomas N. Parker Esq. F.H.S. of Sweeney Hall, near Oswestry, specimens of the *Sweeney Nonpareil Apple*. They were in excellent preservation, notwithstanding the lateness of the season, and quite acid enough for kitchen use. They fully proved the claim of this apple to be considered one of the best of the late keepers.

From the Society's Garden, a collection of hardy and greenhouse plants, among which were fine specimens of the *Syringa Josikæa*, a very striking species of Lilac, found wild a few years since in Transylvania on the estate of the Countess Josiká near Sebes in Klausenburg; it differs from the common Lilac in having narrower and thicker leaves, and darker flowers, with much less fragrance. *Helichrysum scorpioides* D. C. a pretty half-hardy herbaceous plant, just received from Van Diemens land, and the brilliant white *Spiræa barbata* (*Hoteia japonica Decaisne*, *Spiræa japonica* of Gardeners) were also in this collection.

The following Medals were awarded;

The *Silver Knightian* to Mr. John Lumsden for *Calceolarias*; and to George Barker Esq. for his *Epidendrum primulinum*.

The *Silver Banksian* to Mrs. Lawrence, for *Pavetta Caffra*; to Mr. Glendinning, for Pine Apples; to Messrs. Lowe and Co. for *Clematis azurea*; to Mr. Myatt, for *Victoria Rhubarb*; to Messrs. Chandlers, for the varieties of *Rhododendron catawbiense*; and to Mr. Mountjoy, for his *Heartsease*.

The following Presents were announced;

A Treatise on the culture of the red Rose, Strawberry, Brazil Gooseberry, Peach, Mango and Grape Vine, by W. Ingledeu Esq. with notes by Dr. Wight. Presented by Dr. Lush.

Botanical Register No. 6, for 1838, by Messrs Ridgways.

Arboretum and Fruticetum Britannicum, Nos. 49, 50 and 51. and the *Suburban Gardener*, No. 13, by J. C. Loudon Esq.

The *Floricultural Cabinet* for May, by Mr. Jos. Harrison.

No. 71 of the *British flowering plants*, by the author, Mr. W. Baxter.

Du Ponceau on Chinese writing, forming Vol. 2 of the Trans. of the American Phil. Soc. held at Philadelphia. 8vo. Phil. 1838, by the American Philosophical Society

Transactions of the Society of Arts, Vol. 51. Part 2, by the Society of Arts, &c.

The *Athenæum* Newspaper for May, by the Editor.

Comptes rendus des séances de L'Académie des Sciences, etc.
Nos. 15, 16, 17, 18, 19. by the Academy of Sciences of Paris.

Acta Academia Naturæ curiosorum Vol. 18 Part 1. by the Academy.

June 16, 1838.

EXHIBITION AT THE GARDEN.

The number of Visitors upon this occasion was 6405, exclusive of exhibitors. The arrangements remained as before, except that about 500 feet of tables had been added in one of the long tents, in order to receive large specimens of plants.

The method of judging was altered by arranging the duties of the Judges under 5 separate heads, to each of which distinct Judges were assigned, and it was found that by this plan the exhibitions submitted to competition could be more particularly examined.

The award was as follows :

THE GOLD KNIGHTIAN MEDAL.

To Mrs. Lawrence F.H.S., for a large collection of Stove and Greenhouse Plants.

To Sigismund Rucker Esq. Jun. F. H. S. , for a collection of Orchidaceous plants.

To Messrs. Rollisson of Tooting, for a collection of Orchidaceous plants.

THE GOLD BANKSIAN.

To Mr. John Green, Gardener to Sir Edmund Antrobus Bart., F.H.S., for a large collection of Stove and Greenhouse plants.

To Messrs. Rollisson of Tooting, for a large collection of Stove and Greenhouse plants.

To Mr. Falconer, Gardener to A. Palmer Esq. for a small collection of Stove and Greenhouse plants.

To Mrs. Lawrence, F. H. S , for Cape Heaths.

THE LARGE SILVER.

To Mr. Redding, Gardener to Mrs. Marryat, F. H. S., for a large collection of Stove and Greenhouse plants.

To Mr. J. Lane, Gardener to John Horsley Palmer, Esq., F. H. S., for a small collection of Stove and Greenhouse plants.

To Mr. Pratt, Gardener to W. Harrison Esq., F. H. S., for Cape Heaths.

To Messrs. Rollisson of Tooting, for Cape Heaths.

To Mr. John Davis, Gardener to Sir Simon Clarke, Bart., F. H. S., for Grapes.

To the same, for Pine Apples.

To Messrs. Rollisson, for a collection of Orchidaceous plants.

To Robert Mangles Esq. F. H. S., for a new species of *Thysanotus*.

To Messrs. Young and Co. of Epsom, for *Clematis florida* var. *Sieboldi*.

To Mr. Cock, Jun. of Chiswick, for *Pelargoniums*.

To Mr. Catleugh, of Hans Place, Sloane Street, for the same.

To Mr. J. Green, Gardener to Sir E. Antrobus, Bart. F. H. S., for herbaceous *Calceolarias*.

To the same, for shrubby *Calceolarias*.

THE SILVER KNIGHTIAN.

To Mr. Coady, Gardener to Henry Pownall, Esq., F. H. S., for a small collection of Stove and Greenhouse plants.

To Mr. Geo. Mills, F. H. S., Gardener to Baroness Rothschild, for Grapes.

To the same, for Pine Apples.

To Mr. Pratt, Gardener to Wm. Harrison, Esq., F. H. S., for Melons

To Mr. Glendinning, Gardener to the Lord Rolle, F. H. S., for Pine Apples.

To Messrs. Rollisson, for *Oncidium altissimum*.

To Mr. B. Fielder, Gardener to W. Linwood, Esq. F. H. S., for *Cattleya crispa*.

To the same, for *Oncidium bifolium*.

To Mr. R. Abbott, Gardener to John Jarratt, Esq. F. H. S., for *Oncidium Lemonianum*.

To Mr. H. Pratt, Gardener to Wm. Harrison, Esq. F. H. S., for *Nepenthes distillatoria*.

To Mr. Coady, Gardener to H. Pownall, Esq. F. H. S., for *Pimelea decussata*.

To Mrs. Lawrence, F. H. S., for *Erica ventricosa superba*.

To R. Mangles, Esq. F. H. S., for a new species of *Chorizema*.

To the same, for a new species of *Daviesia*.

To Mr. W. Smith, of Norbiton, for *Azalea indica Danielsiana*.

To the same, for hardy *Azaleas*.

To Mr. W. Redding, Gardener to Mrs. Marryat, F. H. S., for *Spiraea barbata*.

To Mr. James Lane, Gardener to J. H. Palmer, Esq. F. H. S., for tall Cacti.

To Mrs. Fleming, of Binstead, Isle of Wight, for Chinese and Noisette Roses.

To the same, for Miscellaneous Garden Roses.

To Mr. Bridges, of Hampton, for Heartsease.

To Mr. Mountjoy, of Ealing, for the same.

To Mr. Gaines of Battersea, for Pelargoniums.

To Mr. Falconer, Gardener to A. Palmer, Esq., for herbaceous Calceolarias.

To Mr. Stewart, of Salt Hill, for shrubby Calceolarias.

To Mr. Nieman, Gardener to P. C. Labouchère, Esq., F. H. S., for Peaches.

To the same, for Raspberries.

To the same, for Apricots.

To the Rev. Mr. Garth, of Farnham, Surrey, for a seedling Pelargonium.

To Captain Foster, of Warmwell House, Dorchester, for seedling Calceolarias.

THE SILVER BANKSIAN.

To Mr. R. Buck, F. H. S., of Blackheath, for Grapes.

To Mrs. Fleming, Binstead, Isle of Wight, for Cherries.

To Mr. Nieman, Gardener to P. C. Labouchère, Esq., F. H. S., for Strawberries.

To Mr. Butcher, Gardener to S. Farmer, Esq. of Nonsuch Park, for Apples.

To Mr. Hardy, Gardener to the Rev. F. Beadon, F. H. S., for *Oncidium flexuosum*.

To Mr. B. Fielder, for *Helichrysum scorpioides*.

To Mr. Andrew Toward, Gardener to H. R. H. the Duchess of Gloucester, for *Clintonia pulchella*.

To R. Mangles, Esq. F. H. S., for a new species of *Grevillea*.

To the same, for another new species of *Grevillea*.

To Mr. Smith, of Norbiton, for a hybrid *Azalea*.

To Messrs. Rollisson, for *Helichrysum macranthum*.

To the same, for a new variety of *Azalea indica* imported from China.

To Mr. Lane, Gardener to J. H. Palmer, Esq. F. H. S., for *Azalea indica lateritia*.

To Mr. H. Cobbett, of Horsell, near Woking, Surrey, for Miscellaneous Garden Roses.

To Mr. George King, Gardener to Miss Fuller, of Hillingdon Place, for Heartsease.

To Mr. Lidgard, of Webb's Lane, Hammersmith, for the same.

To Messrs. Lane, of Great Berkhamstead, for the same.

To Mr. Gaines, of Battersea, for the same.

To Messrs. Colley and Hill, of Hammersmith, for Pelargoniums.

To Mrs. Lawrence, F. H. S., for Herbaceous Calceolarias.

To Mr. R. Atlee, Gardener to H. Beaufoy, Esq., of Stockwell, for shrubby Calceolarias.

To E. Foster, Esq., of Clewer, for a seedling Pelargonium.

The result of this award, as compared with the objects exhibited, is shown by the following table :

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Hardy Azaleas - - -	1	—	—	—	1	—
Melon-shaped Cacti - -	1	—	—	—	—	—
Heartsease - - - -	13	—	—	—	2	4
Cape Heaths - - -	3	—	1	2	—	—
Collections of Orchidaceous Plants	3	2	—	1	—	—
Single specimens of Orchidaceous Plants	11	—	—	—	4	1
Pelargoniums - - -	5	—	—	2	1	1
Chinese and Noisette Roses - -	1	—	—	—	1	—
Miscellaneous Roses - -	2	—	—	—	1	1
Large collections of Stove and Green-house Plants - - - }	4	1	2	1	—	—
Small collections of Stove and Green-house Plants - - - }	4	—	1	1	1	—
Herbaceous Calceolarias - -	5	—	—	1	1	1
Shrubby Calceolarias - -	3	—	—	1	1	1
Tall Cacti - - - -	2	—	—	—	1	—
Grapes - - - - -	8	—	—	1	1	1
Melons - - - - -	7	—	—	—	1	—
Pine Apples - - - -	5	—	—	1	2	—
Peaches - - - - -	1	—	—	—	1	—
Rare plants not in flower - -	3	—	—	—	1	—
Fine single specimens of ornamental Plants - - - }	17	—	—	—	2	2
New and fine single specimens of ornamental Plants - - - }	24	—	—	2	4	6
Miscellaneous - - - -	18	—	—	—	4	4
Total - - - - -	141	3	4	13	30	22

June 19, 1838.

SPECIAL GENERAL MEETING.

This was convened, conformably to the provisions made by the Bye Laws, for the purpose of electing a President in the room of Thomas Andrew Knight, Esq. deceased, and for filling up the vacancy thus occasioned in the Council.

The chair was taken by H. Moreton Dyer, Esq. Vice-President.

The following resolutions put by the Rev. Edwin Prodgers, and seconded by the Secretary, were carried unanimously.

“ That this Meeting deeply deplore the loss the Society has sustained by the death of their late President Thomas Andrew Knight, Esq. an individual not less distinguished for his private worth, than for his public usefulness, whose memory from the urbanity of his manners, the kindness of his disposition, his attachment to science generally, and more especially to that branch patronized by this Society will be long cherished, as his decease is sincerely lamented.”

“ That this expression of sympathy and condolence be communicated to his wife and family.”

The Chairmain then announced on the part of the Council, that it had been determined to recommend as the new President of the Society, the Most Noble William Spencer Cavendish, Duke of Devonshire, and as a new member of the Council, Sir Philip de Malpas Grey Egerton, Bart., M. P.

At the close of the Ballot the office of Scrutineers was undertaken by the Rt. Hon. W. Sturges Bourne, Sir Oswald Mosley, Bart. and Wm. Harrison, Esq., who reported that the election had unanimously fallen upon

His Grace the Duke of Devonshire, as *President* ;

and

Sir Philip de M. Grey Egerton, Bart., as a *new Member of the Council*.

June, 19, 1838.

ORDINARY MEETING.

The following candidate was elected Fellow of the Society.

William Shackell, Esq. of Hammersmith.

The following objects were exhibited ;

From the Honourable Wm. Fox Strangways, F. H. S., a stick of the Olive Tree, which had been killed in the garden at Abbotsbury by the last winter. It was grown at the foot of the terrace at Abbotsbury at a distance from any wall. It had never been covered in the winter ; and was raised from a cutting taken from a greenhouse plant in 1829 or 30, struck in a pot, then planted out and the whole of the original cutting which was crooked, cut off. So that this stick was a young shoot from the root, not more than seven years growth, produced entirely in the open air. It measured (the end shoots cut off) 5 feet in length, 1 foot round the base.

From Thomas Harris, Esq., F. H. S., of Kingsbury, a very extensive and remarkable collection of *Cactaceous plants*. Many of the specimens were aged individuals imported from Mexico, and some of them exhibited in a striking manner the transition from round or spheroidal stems to compressed and sinuous ones. *Opuntia senilis* and several specimens of *Cereus senilis* were present in great perfection ; as were some seedlings of the latter, nine months old, which were quite free from the long hoary hairs, which give that plant so singular an appearance when old. This collection was accompanied by a small collection of greenhouse plants, among which were *Diplolena Dampieri* and *Hoitzia mexicana*.

From Mr. John Lumsden, Gardener to H. Bevan, Esq., F. H. S., a dish of fine *Elruge Nectarines*.

From Sir C. Lemon, Bart., a dish of *Lemons* ripened at Carclew.

From James Bateman, Esq., F. H. S., specimens of the *Epidendrum macrochilum*, and of a new species of that genus which he proposes to call *Epidendrum alatum*. The latter was accompanied by the following memorandum.

“ A remarkably fine and distinct new species of *Epidendrum* discovered by Mr. Skinner in the interior of Honduras and kindly sent to me from thence in the summer of 1837. The habit is exceedingly striking, the leaves being dark green, two feet long, gracefully curved, and placed in twos and threes on the apex of the large oval pseudo-bulbs. It grows very freely, and though now flowering for the first time, and therefore of course with not

half the vigour that may be expected from it, produced a spike three feet in height on which forty flowers were in perfection at the same moment.

"It has continued in beauty for upwards of six weeks, scenting the whole house wherein it grew with one of the most delicate and delightful perfumes imaginable. The gold margin to the lip contributes much to the elegance of its appearance and its column is furnished with a pair of pseudo-wings which have suggested the name. It will be figured in part 4 of the *Orchidaceæ* of Mexico and Guatemala."

Unfortunately these specimens had been almost destroyed by the carriage from Knypersley.

From the Society's Garden, a variety of Hardy Greenhouse plants among which was a very remarkable hybrid *Mimulus*, of striking beauty, which had been raised between *M. cardinalis*, and *M. roseus*. It possessed the vigorous growth of the former, while its foliage had become more firm, and the flowers were of the colour of *M. roseus* suffused with an admixture of the scarlet of *M. cardinalis*. This plant, called *Mimulus roseo-cardinalis*, had been presented to the Society by Lieut.-Col. Fielding, F. H. S.

A *Banksian* medal was awarded to Mr. Lumsden for his *Nectarines*. It was also stated that a *large Silver medal* would have been assigned to Mr. Harris for the fine collection of Cactaceous plants, had that gentleman not requested that they should not be taken into account by the Judges.

The following presents were announced ;

Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, vol. 8 part 1 ; by the Society.

Comptes rendus hebdomadaires des Séances de l'Académie des Sciences, Nos. 20, and 21, by the Academy of Sciences.

July 3, 1838.

ORDINARY MEETING.

His Grace the Duke of Devonshire, President, took the chair.

The following were elected Fellows of the Society ;

John Frere, Esq., Stamford Brook, Chiswick.

John Hague, Esq., Duesbury near Wakefield.

George Thomas Maitland Purvis, Esq., Blackbrook Cottage, near Fareham.

George Webster, Esq., 1, Old Palace Yard, Westminster, and Sudbury Priory, Harrow.

The following letter was read from Sir W. E. R. Boughton, Bart., in acknowledgement of the resolution passed at the Special General Meeting on the 19th of June.

Blenheim Hotel,
June 26, 1838.

My dear Sir,

I have received, forwarded to me in London, the resolutions of a Special Meeting of the Horticultural Society of London, communicating their great regret at the death of their late President, to his afflicted widow and family. May I beg the favor of you to convey to the Society the sincere thanks of Mrs. Knight, and of every individual of the family, for this very flattering condolence, which expresses with so much force and feeling the high sense they entertain of his private worth and public services. Mr. Knight's warm attachment to the welfare of the Horticultural Society, and to its pursuits, has been fully proved by the ardour and constancy, with which he applied his very original mind to the objects of the Society, as influenced by the investigation of the laws of Nature. From his earliest youth he viewed the prosperity of such an Institution as a subject of much national importance, and he considered, that it would exert an influence, as it has done, to a great extent, in spreading amongst the people a knowledge of the true principles of vegetable physiology, of procuring for them an increased supply of food, and of adding largely to the general comforts and happiness of mankind. These were the objects Mr. Knight kept constantly in view, and which the Horticultural Society have so successfully promoted. With every grateful acknowledgment for the honor they have done to his memory, and with my best wishes for their continued prosperity, I remain,

My dear Sir,

Very faithfully yours,

George Bentham, Esq.

W. E. ROUSE BOUGHTON.

&c. &c. &c.

The following objects were exhibited ;

From James Bateman, Esq., F. H. S., beautiful specimens of *Cattleya intermedia*, *Cynoches ventricosum* an epiphyte with a delicious odour, *Dendrobium chrysanthum*, and the rare *Dendrobium secundum* ; the latter was in a state of very unusual perfection. The *Cynoches* had flowers much larger than usual, the sepals and petals more fleshy, the column terete, and the anther and pollen masses were abortive. It was however stated by Mr. Bateman, in a note that accompanied the collection, that the flowers were produced from the same plant as that which yielded the specimen represented in his *Orchidaceæ of Mexico and Guatemala*, and which had previously blossomed 5 times without exhibiting any disposition to vary.

From Messrs. Dart and Sons, 69 Strand, a model of a *self-acting ventilator* for hothouses, pits, or any similar places. It worked by the expansion and contraction of a pyrometer formed of a hollow cylinder of zinc, and appeared to be sensible of very small differences in temperature.

From the Hon. W. F. Strangways, F. H. S., various cut flowers, among which were beautiful specimens of *Pisum maritimum* wild, from the sea coast of Dorsetshire, and branches of *Pittosporum Tobira* and *Veronica decussata*, which had stood out during the last winter in the open border at Abbotsbury.

From Mr. Charles Marshall, Gardener to Mrs. Langley of Kingston, specimens of a *Bean*, which was stated to be a fortnight earlier than the common Longpod Bean, from among a crop of which the seed was saved.

From G. H. Ward, Esq., F. H. S., small specimens of a kind of *Carrot*, imported from Thoulouse, and said to measure there from 3 feet to 3 feet 6 inches in length.

From W. R. Hamilton, Esq., Stanley Grove, Chelsea, a species of *Arum* brought by his son Mr. W. I. Hamilton from the banks of the Mesistus in Asia Minor, four days journey south of Cyzicus. It proved to be *Arum Dracunculus*.

From Mr. Mountjoy of Ealing, *Fuchsia fulgens* and *Lophospermum grandiflorum*.

From Mr. Myatt of Deptford, specimens of three new varieties of *Strawberry*

From Mr. Hogg of Paddington, six seedling *Pinks* of the present year ; and also a collection of *Pinks*.

From R. Harrison, Esq., F. H. S., of Aighburgh near Liverpool, a new species of *Oncidium* (*pulvinatum*,) imported from Brazil. It had produced a straggling zigzag panicle, 6 or 7 feet long, with very much the appearance of *O. divaricatum*, from which it differed in the form of its labellum, and in having a convex villous cushion at the base of that organ.

From the Society's Garden, a variety of plants in flower.

The following Medals were awarded ;

The *Silver Knightian* to Richard Harrison, Esq., for *Oncidium pulvinatum*, and to James Bateman, Esq., for *Dendrobium secundum*.

The following presents were announced ;

Arbres fruitiers, leur culture en Belgique, et leur propagation par la graine, 2 vols. 8vo. Louvain, 1836, by the author, Dr. Van Mons, C. M. H. S.

Abrégé de Chimie, 5 Parts, 8vo. Louvain, 1831-35, by the same.

Journal of the Royal Geographical Society, Part 2, Vol. 8, and an *Address to the Society* delivered at the anniversary, May 21, 1838, by the President. W. R. Hamilton, Esq., by the Society.

Arboretum et Fruticetum Britannicum, Nos. 62, and 63, and the *Suburban Gardener*, No. 14, by J. C. Loudon, Esq.

British flowering plants, No. 72, by the author, Mr. W. Baxter.

Harrison's floricultural cabinet for July, by the Editor.

The Athenæum newspaper for June, by the Editor.

The Pomona Italiana, No. 39, by the Marquess of Bristol.

Transactions of the Linnean Society, Vol. 18, Part 1, and a *List of the Fellows*, by the Society.

Transactions of the Horticultural Society of Berlin, Vol. 13, Part 2, and a *List of Members*, by the Society.

It was also announced that a copy of the *Flora Fluminensis*, in 11 volumes folio, had been added to the Society's Library.

PROCEEDINGS

OF THE

HORTICULTURAL SOCIETY OF LONDON.

1838.

No. III.

July 11, 1838.

EXHIBITION AT THE GARDEN.

This Exhibition, the last for the season, was attended, by 6546 Visitors, and was not less remarkable than either of the preceding for the number and beauty of the objects placed upon the table.

The following award was made by the Judges :

THE GOLD KNIGHTIAN MEDAL.

To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for a large collection of Stove and Greenhouse plants.

To Mr. Mylam, Gardener to S. Rucker, Esq. Jun. F.H.S., for a collection of Orchidaceous plants.

To Messrs. Rollisson, for a collection of Orchidaceous plants.

THE GOLD BANKSIAN.

To Mr. Green, Gardener to Sir E. Antrobus, Bart., F.H.S., for a small collection of Stove and Greenhouse Plants.

To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a large collection of Stove and Greenhouse plants.

THE LARGE SILVER.

To Mr. Ferguson, Gardener to Peter Cæsar Labouchère, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.

To Messrs. Rollisson of Tooting, for a small collection of Stove and Greenhouse plants.

To the same, for a collection of Orchidaceous Plants.

To Mr. Mylam, Gardener to S. Rucker, Esq. Jun. for a collection of Orchidaceous plants.

To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for Cape Heaths.

To Edward Baker, Esq., M.P. F.H.S., for Pine Apples.

To Mr. J. Davis, Gardener to Sir S. Clarke, Bart, F.H.S., for Grapes.

To Mr. J. Bruce, Gardener to B. Miller, Esq., for *Musa Cavendishii*.

To Mr. T. Rivers, of Sawbridgeworth for 50 varieties of garden Roses.

To Mr. T. Sewell, Gardener to R. G. Alston, Esq., F.H.S., for 50 varieties of garden Roses.*

To Messrs. Lane, of Great Berkhamstead for miscellaneous garden Roses.

To Mr. Milne, Gardener to C. S. Chauncey, Esq., F.H.S., for miscellaneous garden Roses.

To Messrs. Rollisson, for *Lilium venustum*.

To the same, for *Phalænopsis amabilis*.

To Mr. Falconer, Gardener to A. Palmer, Esq., for *Alströmerias*.

To Mr. Catleugh, Hans Street, Sloane Street, for *Pelargoniums*.

To Mr. Cock, of Chiswick, for *Pelargoniums*.

THE SILVER KNIGHTIAN.

To Mr. Chapman, of Vauxhall, for Grapes.

To Mr. Barnes, Gardener to P. Grillion, Esq., of East Acton, for Peaches.

To Mr. Paxton, Gardener to His Grace the Duke of Devonshire, Pres. H.S., for Pine Apples.

To Mr. M'Culloch, Gardener to J. Dupré, Esq., of Wilton Park, Bucks, for Nectarines.

To Mr. Falconer, Gardener to Archdale Palmer, Esq., of Cheam, for Apples.

To Mr. Patrick Flanagan, Gardener to Sir Thomas Hare, Bart. for melons.

To Messrs. Rollisson, for a collection of Orchidaceous plants.

To Mr. George Glenny, F.H.S., for a collection of Orchidaceous plants.

To Mr. I. Bruce, Gardener, to B. Miller, Esq., for a small collection of Stove and Greenhouse Plants.

* Owing to a clerical error, in entering the objects of Exhibition, a very fine collection of Roses, from Mr. Milne, Gardener to C. S. Chauncey, Esq., was missed by the Judges; an omission afterwards rectified by the Council, who directed the Large Silver Medal to be assigned to it.

To Mr. Ferguson, Gardener to Peter C. Labouchère, Esq., F.H.S., for *Alströmerias*.

To Mr. Mylam, Gardener to S. Rucker, Esq., Jun. F.H.S., for ferns.

To Mr. Conway, Gardener to L. Sullivan, Esq., F.H.S., for Cockscombs.

To Mr. Lidgard, Webb's lane Hammersmith, for Irises.

To Mr. Ferguson, Gardener to P. C. Labouchère, Esq. F.H.S., for cut flowers.

To Mr. John Lee, of Hammersmith, F.H.S., for *Fuchsia fulgens*.

To Mr. G. Leslie, Gardener to J. Fleming, Esq. M.P., F. H. S., for *Lisianthus Russellianus*.

To Messrs. Rollisson, for *Philibertia gracilis*.

To the same, for *Huntleya Meleagris*.

To Mr. H. Pratt, Gardener to Wm. Harrison, Esq., F.H.S., for *Gesnera splendens*.

To Mr. George Glenney, F.H.S., for *Cymbidium aloifolium*.

To Mr. S. Hooker of Brenchley, F.H.S., for 50 varieties of garden Roses.

To Mr. H. Pratt, Gardener to William Harrison, Esq., F.H.S., for 50 varieties of garden Roses.

To Mr. T. Rivers, of Sawbridgeworth, for Chinese and Noisette Roses.

To Messrs. Wood, of Woodlands near Maresfield, for miscellaneous garden Roses.

To Mr. Green, Gardener to Sir E. Antrobus, Bart. F.H.S., for herbaceous *Calceolarias*.

To Mr. Wilmer, of Sunbury, for Pinks.

To Mr. Solomon Hale, of Uxbridge, for Pinks.

To Messrs. Lane, of Great Berkhamstead, for Heartsease.

To Mr. Bridges, of Hampton, for Heartsease.

To Messrs. Colley, and Hill of Hammersmith, for *Pelargoniums*.

To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Pelargoniums*.

THE SILVER BANKSIAN.

To Mr. M'Onach, Gardener to Edward Foster, Esq., of Clewer, for Pine Apples.

To Mr. R. Errington, Gardener to Sir Philip Egerton, Bart. M.P., F.H.S., for Peaches.

To Mr. G. Shiells, Gardener to Lord Blantyre, Erskine house, Glasgow, for Peaches.

To Mr. Andrew Toward, Gardener to Her Royal Highness the Duchess of Gloucester, for Nectarines.

To Mr. Nieman, Gardener to Peter Cæsar Labouchère, Esq.; F.H.S., for Grapes.

To the same, for melons.

To Mr. Marshall, Gardener to Mrs. Langley, of Kingston, for *Campanula fragilis*.

To Mr. Thos. Jackson, of Kingston, for *Campanula garganica*.

To Mr. Upright, Gardener to G. C. Ridge, Esq., of Morden park, for *Pelargonium tricolor*.

To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Manettia cordifolia*.

To Mr. Pratt, Gardener to Wm. Harrison, Esq. F.H.S., for *Gardoquia multiflora*.

To Mr. Upright, Gardener to G. C. Ridge, Esq., for *Loasa lateritia*.

To Mr. J. Maher, Gardener to the Hon. Col. Westenra, at Fifield, for *Lobelia heterophylla*.

To Messrs. Rollisson, for *Stanhopea oculata*.

To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for *Anagallis tenella*.

To Mr. F. J. Buck, of Chelsea, for *Crassula coccinea*.

To Mr. Conway, Gardener to Lawrence Sullivan, Esq., F.H.S., for specimens of *Crassula versicolor*.

To Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., for a miscellaneous collection of Greenhouse plants.

To Messrs. Wood, of Woodlands, near Maresfield, for 50 varieties of garden Roses.

To Messrs. Paul, of Cheshunt, for 50 varieties of garden Roses.

To Mr. S. Hooker, of Brenchley, F.H.S., for miscellaneous garden Roses.

To Mr. Cobbett, of Horsell, near Woking, for miscellaneous garden Roses.

To Mr. John Green, for a single specimen of an herbaceous *Calceolaria*.

To Mr. H. Bridges, of Carshalton, for Pinks.

To Mr. George King, Gardener to Miss Fuller of Hillingdon, for Pinks.

To Mr. Attwell, of Uxbridge, for Pinks.

To Mr. George King, Gardener to Miss Fuller of Hillingdon, for Heartsease.

To Mr. Henbrey, of Croydon, for Heartease.

To Mr. Conway, Gardener to L. Sullivan, Esq., F.H.S., for *Pelargoniums*.

To Mr. Catleugh of Hans street, Sloane street, for a large collection of *Pelargoniums*.

The Judges then proceeded to consider a complaint made by Mr. Pratt, Gardener to William Harrison, Esq. F.H.S., that a small collection of Stove and Greenhouse plants exhibited by him at the last Garden Meeting had been passed without notice ; when it appeared that his collection, which was the best of its

class, had been accidentally overlooked in the award; **THE GOLD BANKSIAN MEDAL**, to which Mr. Pratt would have been entitled had the omission not taken place, was consequently assigned to his exhibition.

The following table shows the result of this award, as compared with the objects exhibited.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Pinks - - - -	7	—	—	—	2	3
Heartsease - - - -	9	—	—	—	2	2
Cape Heaths - - - -	1	—	—	1	—	—
Collections of Orchidaceous Plants	6	2	—	2	2	—
Single specimens of Orchidaceous Plants	4	—	—	1	2	1
Pelargoniums - - - -	5	—	—	2	2	2
Roses - - - -	29	—	—	5	4	4
Large collections of Stove and Green-house Plants	4	1	1	—	—	—
Small collections of Stove and Green-house Plants	7	—	2	2	1	—
Alströmérias - - - -	2	—	—	1	1	—
Balsams - - - -	1	—	—	—	—	—
Herbaceous Calceolarias - - - -	1	—	—	—	1	—
Succulent Plants - - - -	1	—	—	—	—	1
Single Plants not in flower - - - -	5	—	—	—	—	—
Single Plants in flower - - - -	27	—	—	—	2	8
New Plants - - - -	11	—	—	1	2	1
Grapes - - - -	7	—	—	1	1	1
Melons - - - -	7	—	—	—	1	1
Pine Apples - - - -	6	—	—	1	1	1
Peaches and Nectarines - - - -	9	—	—	—	2	3
Miscellaneous - - - -	30	—	—	1	5	2
Total -	179	3	3	18	31	30

The following is a comparative view of the number of Visitors at the three Garden Meetings, together with the number of separate Exhibitions and of Medals awarded upon each occasion.

	May	June	July	Totals
Number of Visitors -	2966	6405	6546	15,917
Number of separate Exhibitions -	179	141	179	499
Number of Medals awarded -	67	72	85	224

July, 17, 1838.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society ;

William Clay, Esq. M. P. 17, Nottingham place, and Fulwell Lodge, Twickenham.

Thomas Watson, Esq. 7, Aldermanbury.

The following objects were exhibited ;

From Mr. William Cock, Jun , of Chiswick, a collection of 12 very fine *Pelargoniums*, of most unusual size and beauty.

From A. B. Lambert, Esq., F.H.S., a specimen of *Pourretia rubicaulis*, a large Bromeliaceous plant with dull purple flowers, native of Chili, now blossomed for the first time.

From J. L. Elliot, Esq., F.H.S., some finely grown *Cucumbers*.

From S. Rucker, Esq. Jun., F.H.S., specimens of the curious *Stanhopea insignis*, and of a species of *Cirrheæ*, apparently not different from *C. tristis*.

From Messrs. Chandler, and Co. of Vauxhall, a specimen of *Zigadenus elegans*, a rare and curious North American herbaceous plant, with pale green and white flowers in size and form resembling those of an *Ornithogalum arabicum*.

From John Williams, Esq., C.M.H S., of Pitmaston near Worcester, specimens of *Dictamnus albus*, in a monstrous condition. Mr. Williams stated, in a letter which accompanied the specimens, that the plant producing them had previously borne flowers of the ordinary kind ; that in May it was freely watered with a liquid the colour of coffee, taken from a tank receiving the drainage of a stable-yard ; that in the July or August following it was again watered with the same mixture having about an ounce and half of green vitriol (sulphate of iron) dissolved in it, Mr. Williams having in a former experiment found that this salt gave the leaves of the *Hydrangea* a very dark green colour, and caused the production of some blue flowers. To this treatment of the *Fraxinella*, however, Mr. Williams did not assign the monstrosity in question, because the two adjoining plants, which had the same treatment as to liquid manure, flowered this year in great perfection. But the leaves this year of the plant which produced the monstrous flower were stated to be of a more yellow colour than those of the two adjoining plants ; which was not the case the preceding year. The sulphate of iron was broke into small pieces, and the ounce and half mixed in a water-pot containing about three gallons ; it appeared possible that the plant with monstrous flowers might have received the last portion from the bottom of the water-pot more highly charged with the solution of iron.

This proved to be an instance of one of those monstrous formations sometimes found in plants, when the parts of the flower resume more or less the state of leaves, and which thus explain the laws upon which flowers are constructed. It appears from the observations of Botanists that a flower is a bud, the scales or rudimentary leaves of which are arranged in circles within each other, and changed in form, colour, and even structure according to the offices they have to perform in their altered condition. For this reason, however different the calyx, the corolla, the stamens, or the carpels of a flower may be from leaves, they are each or all liable to revert to the form of ordinary leaves if any accidental circumstance occurs to interfere with their development as floral organs. In such instances the centre of the flower will often extend itself into a branch clothed with leaves, just as a leaf-bud does, and the parts whose destination has been altered from that of floral organs to leaves will, like ordinary leaves, produce other buds in their axils.

In the case of Mr. Williams's plant the 5 sepals were unchanged, the 5 petals were converted into dull greenish purple serrated simple leaves, the 10 stamens remained unaltered, and the centre, which had been intended for a pistil composed of 5 carpels, was lengthened into a short branch bearing a circle of 5 ovate, dull brownish red, toothletted, hairy, glandular leaves.

The following cut represents the appearance of one of these flowers when magnified.

(*a*, the sepals; *b*, the altered petals; *c*, the stamens; *d*, the lengthened centre, surmounted by the 5 carpels changed to leaves.)



In a subsequent communication, Mr. Williams stated that upon re-examining the plant from which the flowers just described had been taken, he found an instance where a kind of pentapetaloid flower took the situation which the fruit would have found had the structure been of the usual kind. In the centre of this

flower a head had formed and shot out with a second similarly shaped green flower having yet another shoot from its centre, and above this a second flower exactly resembling the first, having five stamens and anthers with an appearance of pollen contained in them.

It happened upon this occasion that these singular facts were illustrated by the exhibition of a specimen of Common White Clover, (*Trifolium repens*) in which all the parts of all the flowers were converted into green trifoliate leaves. The cases of pears, and apples, in which one fruit grows out of another, were mentioned as other analogous instances, and reference was made to a very extraordinary malformation in the Potatoe, specimens of which had been sent to the Society by the late President.

In this Potatoe, while many of the flowers were perfect, and produced fruit without any thing remarkable being observed in them, others *formed tubers between the fruit and the calyx*, as is shown in the following cut, where *Fig. 1.* represents a cluster of fruit and tubers as they appeared when growing, and *Fig. 2.* a single flower, separated from the remainder, with the ripe fruit in the middle, a single tuber on one side, and on the other side a tuber itself sprouting into other tubers.

Fig. 1.



Fig. 2.



In this instance there was no alteration of position or transformation of parts into leaves, but the floral organs, and especially the sepals, evinced the power, inherent in them as leaves, of producing in their axils buds which grew into branches in the form of tubers.

From the Society's Garden, among many kinds of flowers and fruit, a specimen of *Philadelphus Gordonianus*, a new and handsome hardy shrub, sent from North West America by the late Mr. Douglas.

The following Medal was awarded ;

The *Silver Knightian* to Mr. William Cock, Jun. for his very fine specimens of *Pelargonium*.

The following presents were announced ;

The Botanical Register, for July, by Messrs. Ridgways.

Lists of Members of the British Association for the advancement of Science, by the Association.

Comptes rendus hebdomadaires des Séances de l'Académie des Sciences, Nos. 22, 23, 24, 25, by the Academy of Sciences of Paris.

Aug. 7, 1838.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Howell Gwyn, Esq., of Baylan near Neath.

George Heneage, Esq., of Hainton, Lincolnshire.

Sir Rowland Hill, Bart. M.P., of Hawkstone Park, Shropshire.

William Charles Smith, Esq., of Shortgrove Hall, Essex.

The Chairman announced, that the President, His Grace the Duke of Devonshire, had had the honour of an audience with HER MAJESTY, who had been graciously pleased to inscribe her name in the obligation Book as PATRON OF THE SOCIETY.

A paper by Mr. Thomas Sellers was read " upon the cultivation of *Combretum purpureum*."

The author of this communication stated, that in the year 1834, there existed, at Mostyn Hall near Holywell, a plant of this species, which occupied 308 superficial feet of the trellis on the back wall of a hothouse. Its shoots were trained upon wires at the distance of from 7 to 8 inches, and produced in one season 557 panicles of crimson flowers, all expanded at the same time, namely, in the month of July; from which period it continued to flower till late in the autumn, although not so abundantly as at first.

The author ascribed the healthy, and vigorous state of this specimen to the manner in which it was grown. It was described as occupying with its roots a chamber about 3 feet deep, and 18 inches square, formed in the corner of a Pine Pit, from which it was separated by a 4 inch wall, pigeon-holed at the bottom; within the chamber, as high as the last of the pigeon-holes, stones and brickbats were deposited, so as to ensure a perfect drainage. The soil consisted of strong loam, mixed with $\frac{1}{6}$ of rotten dung, and $\frac{1}{12}$ of river sand, and left in a heap some time previous to using. Great importance was assigned to the drainage.

The trellis, upon which the plant was trained, had been gradually covered, by successively stopping the leading shoots, so that the result was a uniform distribution of branches. In the first instance a leading shoot was conducted up the trellis, over the walk which separated the bark-bed from the back wall of the house, at such a height as to leave room to pass under it. It was first stopped at the third wire on the back wall; of the vigorous side shoots subsequently produced, 3 were selected to cover the 3 first wires, and the remainder were pinched off close to

the stem. The next year the leader was again stopped and 3 more lateral branches laid in; and so on till all the wires were filled. As the branches upon the wires became strong they produced shoots of various lengths; of these the stronger ones were cut back to a single eye, but such as were from 2 to 6 inches in length were preserved; and this operation was repeated every spring.

The author added that in cultivating this plant it is important not to disturb the roots, which find their way through the pigeon-holed sides of the chamber into the tan-pit, until they become as thick as a quill. When the tan is renewed in the autumn, such roots may be selected and coiled into small 60 pots, filled with light earth, where they are to remain till the following spring, by which time they will have firmly established themselves. At that season they may be severed from the parent plant, 3 or 4 inches in length being left above the edge of the pot, and grafted in the usual way; by which means this species may be rapidly multiplied. It is however necessary, in performing the operation, to leave on the scion a *heel* about 4 inches long, which may be inserted in a phial of water tied to the side of the pot. The graft should also be surrounded with clay and placed under a bell-glass in a moderate heat. If the phial is regularly supplied with water, as the scion consumes it, an adhesion will quickly take place with the root which forms the stock, and a young plant will be acquired.

The author added, that the house in which this specimen of *Combretum purpureum* had been trained was left uncovered from November 1830 to February 1834, during which time the thermometer fell to 26° Fahr. The consequence of such exposure to cold was the loss of leaves, but no further injury resulted; whence he concluded that the species need not be treated as a stove plant, but will suit a greenhouse, provided the wood is well ripened in the autumn.

The following objects were exhibited;

From Mrs. Lawrence, F. H. S., a large collection of plants, among which were specimens of *Stanhoepa oculata*, bearing twenty-four flowers; beautiful plants of *Erica viridiflora*, and other heaths; *Cuphea Melvilla*, with 23 heads of scarlet and green flowers; some very fine plants of *Crassula coccinea*; and the rare *Statice sinuata* in great perfection.

From Mr. Thomas Hogg of Paddington, a collection of *Carnations* and *Piccotees*.

From William Newbery, Esq., F. H. S., a *Cucumber*.

From James Bateman, Esq., F. H. S., a variety of *Stanhoepa insignis*, with flowers rather larger than usual; also the spike of a new Epiphyte from Oaxaca, called by its possessor *Mormodes pardina*. The latter specimen consisted of 17 beautiful yellow

and brown flowers, which emitted a perfume resembling a mixture of Pine Apple and Heliotrope.

From the Hon. and Rev. W. Herbert, F. H. S., a specimen of *Cymbidium crassifolium*. Unfortunately this plant had been much injured by its journey; it however proved to be new to our Gardens. Mr. Herbert stated that he had received it a few years since from Calcutta, that its spike was pendulous, and 3 feet 8 inches long, with 20 large flowers of which 17 were perfect; they appeared to have been of a brownish red, on a straw-coloured ground.

From Mr. John Halliday, Gardener to the Lord Sondes, F. H. S., a fine plant of *Manettia cordifolia*, trained to a trellis surrounding the pot in which it grew.

From Messrs. Chandler and Sons, a specimen of *Campanula fragilis*, the hairy variety, hanging over the sides of a flower-pot, and bearing upwards of 100 of its delicate sky blue blossoms. This plant was accompanied by a fine specimen of *Tecoma jasminoides*, a most beautiful greenhouse climbing plant, together with a collection of *Dahlias* and *Piccolees*.

From Mr. Robert Errington, Gardener to Sir Philip de Malpas Grey Egerton, Bart., M. P., F. H. S., a dish of very fine *Murray Nectarines*.

From Dr. Charles Morren, Professor of Botany at Liège, a specimen of the fruit of the true *Vanilla*, which he had obtained in the hothouses belonging to the Botanic Garden of that town. The pod was in all respects as perfectly grown and as highly flavoured as the best samples imported from America. It appeared that Professor Morren had been led to the discovery of the mode of causing the *Vanilla* to bear fruit, by experiments made upon the fertilization of *Orchidaceæ* in general. There are two opinions upon this subject; by some it is supposed that the contact of pollen with the stigma is not necessary in these plants, but that the influence of the pollen is communicated to the latter during the time that the pollen-masses lie in the cavity of the anther: this is more particularly the opinion entertained by Mr. Francis Bauer; other Botanists believe that actual contact between the pollen and stigma is necessary to produce fertilization. It is well known that the *Orchidaceæ* cultivated in hothouses, like the *Vanilla*, rarely bear their fruit, but that the flowers drop off shortly after expansion. Professor Morren, having seen at Paris that M. Adolphe Brongniart had succeeded by artificial fertilization in causing *Brassia maculata* to bear fruit, undertook some similar experiments at Liège, in the course of which he obtained capsules from *Bonatea speciosa*, *Brassia maculata*, *Oeceoclades maculata*, *Epidendrum cochleatum*, *Cymbidium sinense*, four species of *Calanthe*, &c. This led him to observe the effect of applying its pollen to the stigma of *Vanilla*; and the result was the

perfect maturation of a fruit, which filled the air of the hot-house with its fragrance, especially in the morning, and during the hotter part of the day. As the Vanilla plant flowers in great abundance at Liège, advantage has been taken of this circumstance to convert it to commercial purposes, and it appears that the abundance of excellent fruit, which it may be made to produce, renders it of some importance in this respect in a country where Vanilla is in much use. The first crop obtained in the commencement of the present year from a single plant consisted of 54 ripe pods, and the second crop shews signs of amounting to more than 100. Professor Morren states that the Vanilla thus successfully cultivated by him is *V. planifolia*, and not the *V. aromatica* of the Hortus Kewensis.

From Mr. Thomas Naylor of Brixton, flowers of *Piccotees*, *Carnations* and *Heartsease*.

From the Society's Garden, a collection of various plants in flower, among which the *Calandrinia discolor*, was particularly conspicuous. This species is hardy during the summer, when it becomes an object of great beauty in the flower garden. It resembles *C. grandiflora*, but its flowers are four times as large, and they have the valuable property of not closing when the sun is absent; on the contrary they remain fully expanded even in the most cloudy weather. There was also a fruit of the Trinidad Pitch Lake Pine, weighing 5 lbs. 12 oz. It is known to pine growers that this variety has the reputation of acquiring as much as 26 lbs. weight in the Island of Trinidad, but there is an opinion that its quality is not good. It appeared however from the specimen now exhibited that its flavour is much above, rather than below, the average of Pine Apples, and that it is a very valuable variety.

The following Medals were awarded ;

The *Silver Knightian* to James Bateman, Esq., for *Mormodes pardina*, and to Mrs. Lawrence, for her *Heaths*.

The *Silver Banksian* to Messrs. Chandlers for *Campanula fragilis*; to Mr. Thomas Naylor for *Piccotees*; to Mr. Thomas Hogg for *Carnations*; to Mr. Errington for his *Nectarines*; and to Mrs. Lawrence for *Crassula coccinea*.

The following Presents were announced ;

The Naturalist, No. 23, of Vol. 3, by the Editor, Neville Wood, Esq.

Figures and Descriptions of the British Flowering Plants, No. 73, by the Editor, Mr. William Baxter.

Harrison's Floricultural Cabinet and Florist's Magazine, for August, by the Editor.

The Suburban Gardener and Villa Companion, No. 15, by the Author, J. C. Loudon, Esq.

Report of the Agricultural and Horticultural Society of India, (read January, 10, 1838), by the Society.

Systematische Anleitung zur Kenntniss der pflaumen, (Erstes heft), by the Author, Dr. Liegel.

Descrizione delle Isole di Tremiti e del Modo come renderle colture. Svo. Napoli, 1838, and *Discorso intorno l'origine del Villaggio S. Ferdinando e sopra le principali cose che quivi si coltivano*, by the Author, Professor Gasparini.

The Botanical Register, for August, by the Publishers.

The Athenæum, for July, by the Editor.

Comptes rendus, &c. No. 26, first half year ; and Nos. 1, and 2, second half year, 1838, by the Academy of Sciences of Paris.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1838.

No. IV.

August 21, 1838.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society ;

Major Mac Douall, 2d Regt. Life Guards, 20, Park Lane.
John Walbank Childers, Esq. M. P. 40, Eaton Place.

The following objects were exhibited ;

From Messrs. Mountjoy, Nurserymen, Ealing, *Passiflora nigel-liflora*, a species nearly related to the well known *P. fœtida*. The flowers were surrounded by a curious glandular fringed involucre, which, it was stated, produces some curious phenomena of motion, and presents a beautiful appearance if viewed in water under a microscope. The oily matter contained in the glands is apparently expelled with some force into the water, where it causes eddies and a disturbance of a remarkable kind.

From Sir Henry Martin, Bart. specimens of *West Indian Fruits*, sent from his estate in the island of Antigua, in a supersaturated solution of salt. The forms of the several kinds were preserved, but the colour and every other quality was destroyed, and the specimens had also acquired an offensive smell.

From the Misses Garnier, of Wickham, a plant of *Crinum* (*Commelyni* ?) imported by them from Rio Janeiro.

From Mr. Patrick Flanagan, F. H. S., Gardener to Sir Thomas Hare, Bart., fruit of four kinds of *Grapes*, the Hampton Court and Green Persian *Melons*, and a specimen of the Black Antigua *Pine Apple*.

From Mr. John Maher, Jun., Gardener to the Honourable John Westcote, of Fifield in Buckinghamshire, a specimen of a seedling *Dahlia* called "Maher's Victoria."

From Messrs. Chandler and Sons of Vauxhall, a plant of *Statice flexuosa*, and a collection of *Dahlias*.

From Mr. H. Pratt, Gardener to William Harrison, Esq., F. H. S., fine plants of the *Erica Bowicana* and *Ewerana*, a *Melon*, and a collection of *Dahlias*.

From Mr. Adam Paul, Nurseryman, Cheshunt, a beautiful collection of *Roses*.

From Mr. Robert Buck, F. H. S., a fruit of the Citron *Melon*, a small variety of very delicate flavour.

From Messrs. Rollisson and Sons, Nurserymen, Tooting, a magnificent specimen of the beautiful new Japan Lily, called *Lilium speciosum*, together with *Maxillaria vitellina*, a rare Brazilian epiphyte, and *Renanthera coccinea*, in great perfection. Of the latter it was stated that the probable cause of its so seldom flowering in collections, might perhaps be found in the dissimilarity between its treatment in gardens, and its natural habits. It is a common plant at Macao, where it is planted in pots of the hard mud of the country, and runs over old walls, producing its gaudy panicles of scarlet flowers in abundance annually. During the warm season it pushes forth vigorous branches, and clings by its long twisted roots to any substance it may be placed near; but during winter it is exposed to a temperature of 40° Fahr. and in the spring it is parched by cold north winds, which are so dry as to split timber and to produce much inconvenience to the human constitution.

From Mr. John Breese, Gardener to Sir Thomas Neave, Bart. of Dagnam Park, a noble bunch of the *Cannon Hall Muscat* grape. It was very like the figure published in the Transactions of the Society, vol. i. n. s. p. 169, fig. 5. but was larger in all respects, and it fully established the claim of this valuable variety, to be placed on a level, in point of excellence, with the Muscat of Alexandria. In the opinion of Mr. Breese it even excels that variety, as it is earlier, and has but one stone in a berry.

From the Society's Garden, a collection of flowers, among which were *Fuchsia cylindrica*, a pretty new diœcious species with scarlet flowers, from Mexico, and *Ledocarpon pedunculare*, a little known half hardy Chilian shrub, with clusters of large brilliant yellow flowers.

The following Medals were awarded;

The *Large Silver* to Messrs. Rollisson and Sons, for *Lilium speciosum*.

The *Silver Banksian* to Mr. H. Pratt, for his Heaths; to Mr. Adam Paul, for his *Roses*; and to Mr. John Breese, for his *Cannon Hall Muscat Grapes*.

The following Presents were announced ;

Flora Batava, No. 114, from His Majesty the King of Holland.

It was also stated that the Society's copy of the *Flora Græca*, had been recently completed by the purchase of ten fasciculi, from Vol. IV. fasc. 2, to Vol. IX. fasc. 1.

Sept. 4, 1838.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Tobias Frere, Esq., Odiham, Southampton.

Charles Muriel, Esq., Wellington Street, London Bridge.

James Webster Gordon, Esq., Madeira.

The following objects were exhibited ;

From James Bateman, Esq., F.H.S., flowers of "the *Soap Plant*" of Peru, of which the following account was read :—"It was picked up last year by Mr. Skinner, on a sandy plain in Peru, and, from its tuberous roots producing an excellent lather when used for washing, has obtained the denomination of the 'Soap plant.' It has a thick tuberous tap-root, of a deep yellowish colour ; and though it had been wrapped up in paper for more than half a year in a close box, it immediately vegetated when plunged about three months since in a border in the open air here." It has since been described in the *Botanical Register*, for 1838, misc. No. 141, under the name of *Agave saponaria*.

From Mr. George Mills, F.H.S., Gardener to Madame de Rothschild at Gunnersbury Park, a very handsome specimen of the *Fuchsia fulgens*.

From John Luscombe, Esq. of Coombe Royal, near Kingsbridge in Devonshire, a basket of the *Nonsuch Plum* ; a fine variety raised between the Green Gage and Coe's Seedling, and an abundant and never failing bearer.

From Mrs. Marryat F.H.S., a fine specimen of *Musa speciosa* ; flowers of *Salvia leucantha*, a little known Mexican half hardy herbaceous plant, with white hairy flowers situated amongst deep rose coloured bracts and calyxes ; six varieties of the dwarf *Cockscomb* ; *Amaryllis calyptrata*, a green flowered Brazilian bulb ; and *Lavatera maritima*, a pretty half hardy kind of Tree mallow, inhabiting the South of Europe, and apparently lost to the gardens

of this country until reintroduced by Mrs. Marryat, although cultivated in the year 1597 by Gerarde.

From Mr. J. Davis, Gardener to Sir Simon Clarke Bart. a *Queen Pine Apple*, weighing $4\frac{1}{2}$ lbs ; and two plants of *Helichrysum proliferum*.

From Messrs. Rollisson and Sons of Tooting, very beautiful specimens of *Cattleya crispa*, an epiphyte with large white flowers in the centre of which is a dark purple lip ; and *Stauhoepea insignis*.

From R. W. Eyles, Esq , F.H.S., a seedling *Dahlia*.

From Mr. Joseph Kirke, F.H.S., specimens of the *Washington Plum*, one of the finest varieties of this fruit ; and the *Duchess of Oldenburgh Apple*, a handsome autumnal variety, covered like a Plum with a white bloom.

From Mr. J. A. Henderson, F.H.S., a seedling *Pine Apple*, weighing 3 lbs. 4 oz.

From the Garden of the Society, specimens of various flowers and fruit, among which were ; *Philibertia grandiflora* ; *Catasetum citrinum*, a new orchidaceous plant introduced by the Society from Mexico ; and *Amphicome arguta*, a beautiful half hardy herbaceous plant, with long tubular pink flowers, introduced from the Himalaya mountains by Professor Royle. Among the fruits were the *Acton Scot Peach* ; the late *Duke Cherry*, a most valuable late variety, with the quality of the May Duke ; the *Nectarine Plum*, an excellent bearer, its only fault being that of easily losing the bloom off the fruit ; and the *Summer St. Germain* and *English Caillot Rosat Pears*, both good bearers, ripening at a time when good pears are not plentiful.

The following Medals were awarded ;

The *Silver Knightian* to Messrs. Rollissons , for *Cattleya crispa*.

The *Silver Banksian* to Mr. George Mills, for *Fuchsia fulgens*, and to Mr. Redding, Gardener to Mrs. Marryat, for the *Cockscombs*.

The following Presents were announced ;

The Botanical Register, for September, from the Publishers.

British Flowering Plants, No. 74, from the Author, Mr. William Baxter.

Proceedings of the Geological Society, Nos. 57 and 58, from the Society.

The Athenæum, for the month of August, from the Editor.

Comptes rendus, &c. Nos. 3, 4, 5, 6, of the second half year, 1838, from the Academy of Sciences of Paris.

Annales des Sciences Physiques et Naturelles d'Agriculture et d'Industrie, publiées par la Société Royale d'Agriculture, &c. de Lyons, T. 1, livraisons, 1, 2, 3.

Extraits des Annales, &c Séance publique et Exposition de fleurs et autres produits de l'Horticulture, &c. April, 1838.

De l'Hybridité dans les Plantes et les Animaux, par N. C. Seringe.

Notice sur la Culture des Oseraies dans le département de l'Aisne, Par M. C. Millet-d'Aubenton, 8vo. Lyon, 1837.

Notice sur l'Oxalide de Deppe, par J. L. Henon, 8vo. Lyon, 1838.

Liste des exemplaires desséchés de la revision inédite du Genre Salix, par N. C. Seringe, (Geneva, 1834.)

Essai de Formules Botaniques représentant les caractères des plantes par des signes analytiques qui remplacent les phrases descriptives, par Messrs. Seringe et Guillard, 4to. Paris, 1836; the seven last works from M. Seringe.

Journal of the Royal Asiatic Society, No. 9, Proceedings of the Committee of Agriculture and Commerce, held May 24, 1838, and a Catalogue of the Chinese Library of the Society, by the Rev. S. Kidd; from the Society.

Sept. 18, 1838.

ORDINARY MEETING.]

Extracts were read from a letter, addressed to the Vice-Secretary, by Dr. Hugh Falconer, Superintendent of the Botanical Garden of Saharunpur, and dated Cashmeer, January 24, 1838.

“ I have been gratified to find that the Himalayan seeds, sent by me, succeeded so well with the Horticultural Society.”

“ As the result seems to have interested you, I may mention the mode in which the collection and package were managed. The seeds are collected generally on a march along an extensive tract of country; as a general rule, the pericarps are not detached, but the fruit and seed immediately packed up in paper; the closed paper packets, especially those containing bacate, or juicy fruits, are daily exposed freely to the sun; and, to increase the heating effect of the solar rays, the packets are spread out on a black blanket, and kept so till the paper of the packets feels dry: a man being employed in turning them occasionally; the paper imbibes moisture during the night, and the process is repeated till all moisture is thoroughly dissipated. In the rains, which embrace about half the seed season in the Himalayas, the sun is not available, and the packets are daily dried before a gentle fire, till the same effect is produced; but the result is much more uncertain as regards subsequent germination. In packing up the packages for transmission to Europe, the little

packets are folded up loosely in a couple of envelopes of paper ; and an invariable caution is given along with them, never to let the packages get into a box or trunk ; much less into the ship's hold, but to suspend them loosely from an airy corner of the cabin, free from the risk of moisture and spray."

" On a march, where you move daily under canvas from place to place, the amount or duration of shade required for drying seeds, or their fleshy coverings, is not available, or I should certainly never torrify the packets in the sun ; all that can be said of the method, is that it speedily dries the seeds without killing them. The management on board ship appears to me to be every thing ; loose wrappers, free exposure to the air in shade, and exemption from boxes, trunks, or the hold."

" The exposure to the sun, with the augmented heating effect, produced by radiation, on a black blanket, is perhaps interesting with reference to the conditions, mentioned by you at page 304 of your *Introduction to Botany*, 2d Edition : but the effect is probably merely a heating one, as the opacity of the paper, and the reflecting quality of the light colour, must prevent the luminous rays being transmitted to the seeds. I should certainly expect a different result in the end with reference to germination, if the seeds were directly exposed."

" On one occasion, I received from England a large investment of Garden vegetable seeds from a London Seedsman. They were packed in the thick dark brown paper, which is generally used by Grocers and Seedsmen, and which, for the facility of folding, is usually in a somewhat damp state. The packages were nailed up in a large wooden box, with numerous folds of this paper, and the box then hermetically sealed in a tin case ; it then found its way into the ship's hold. The damp paper, which in the temperature of England, say at 50°, would have mattered little, became an important agent when the ship got into the tropics ; at about 80° the damp became a hot vapour, and when the seeds reached me, I found them all in a semipulpy and mildewed state, in fact parboiled by the steam process, and out of a £30. investment, not a seed germinated.

" I shall soon have the pleasure of sending you another collection, made on the hills to the westward, and in Cashmeer, where I now am.

" I have found the Prangos pabularia growing in the valley."

With reference to this communication, it was stated that by far the greater part of the seeds alluded to by Dr. Falconer, were in a fresh state when they reached the Society, and presented a remarkable contrast with those which usually arrive from Calcutta, and elsewhere. There can be no doubt, that the most important precaution to observe, in conveying seeds safely through a long voyage, consists in exposing them freely to the air ; because if that is attended to, the damp which, when in com-

bination with a high temperature contributes so much towards destroying the germinating power of seeds, is dissipated as fast as it is formed. It was added, that in the experience of the Vice Secretary, no better plan was known for sending to great distances most kinds of seeds, than, after being well dried, packing them loosely in common brown paper, and enclosing them, without pressure, in small coarse canvas bags, suspended from the sides of a cabin, where they could be kept dry. The Society had tried various other methods, such as packing in sugar, and in charcoal; enclosing in tin cases, in bottles sealed up, &c.; and all such plans invariably proved unfit for the preservation of the germinating principle of seeds; especially the two last, which had long been known to be a means of destroying, rather than preserving life, although still persevered in.

It was added, in illustration of these observations, that the most successful instance of introducing seeds of the Deodar Cedar, from India, occurred some years since, when a plan, similar to that now recommended for adoption was adhered to. In the year 1831, the Honourable T. Leslie Melville, on his return to England, brought with him some cones of the Deodar thrown loosely into a drawer in his cabin; these were presented to the Society by that gentleman, and were so fresh, that nearly the whole of them germinated immediately upon being sown, and in fact furnished the principal part of the plants which the Society has been for some years distributing of this most valuable tree.

The following objects were exhibited;

From Mrs. Lawrence, F. H. S., a collection of *Store and Green house Plants*, among which were a fine plant of *Cuphea Melrilla*, a beautiful hothouse herbaceous plant, with tubular flowers, coloured scarlet and green; *Geissomeria longiflora*, a red flowered Brazilian herbaceous plant, producing a fine appearance when well grown; several *Cape Heaths*; and a handsome specimen of *Statice sinuata*, a greenhouse undershrub, inhabiting rocky places in the eastern parts of the Mediterranean, with very bright blue flowers. The latter, although long an inhabitant of gardens, is now but seldom cultivated; but it appeared, from the specimen exhibited, that, under skilful management, it becomes a plant of very great beauty.

From Messrs. Chandler and Sons, a collection of very select *Dahlias*, among which were all the finest flowers of the season.

From Mr. Richard Clarke, Gardener to Sir James Leman, Bart. of Ealing, a dish of *fine Grapes*.

From the Garden of the Society, a collection of *Dahlias*, and other *flowers*, together with numerous varieties of *fruit*. Among the latter, the following deserve particular mention;

The *George the 4th Peach*, one of the best of the American Peaches; and the *Bellegarde*, one of the oldest varieties, well known as an excellent forcing Peach.

The *Diamond* and *Pond's Seedling Plums*, two fine varieties, larger and better than the *Red Magnum Bonum*; the *Nelson's Victory* or *Knevet's late Orleans Plum*, a great bearer for kitchen use; and *Kirke's Plum*, a dessert variety of considerable excellence.

The *Bigarreau Tardif de Hildesheim Cherry*, a variety received by the Society from Dr. Adrian Diel of Nassau Dietz; of small size, and almost as deep in colour as a *Morello*, but sweet, and capable of being kept for some weeks later than that variety.

The *Banksian Medal* was awarded to Mrs. Lawrence for her *Statice sinuata*.

The following Presents were announced;

Comptes rendus, &c. Nos. 7, 8, 9, of the second half year, 1838, from the Academy of Sciences of Paris.

Philosophical Transactions of the Royal Society, Parts 1 and 2, 1837 and Part 1, 1838; *Proceedings of the Royal Society*, Nos. 29 to 33 inclusive; and *Abstracts of the Papers Printed in the Philosophical Transactions*, from 1830 to 1837, inclusive; from the Royal Society.

Oct. 2, 1838.

ORDINARY MEETING.

The following candidate was elected a Fellow of the Society;

Mr. R. S. Mountjoy, Ealing.

A notice was read of a *Pine Apple*, called the *Moore Green seedling*, of which a specimen had been received from James Taylor, Esq., F. H. S., of Moore Green near Birmingham. It had been raised at the above place from seed of the *Enville Pine*, which fruited late in the season in a pit, along with several other sorts, ripening likewise about the same time; from all of which, Mr. Taylor states that the seedling differs in flavour, Mr. Thompson reported that the specimen weighed 2 lb. 12 oz. was of a somewhat globular form, with a cocks-combed crown, resembling that of an *Enville*, when the latter assumes, as it frequently does, that shape. The pips were moderately prominent; scales acutely pointed, their apex reaching to the centre of the pips; colour bright orange; flesh, considered equal in quality to that of the *Enville*.

There was also read a notice, by Mr. Robert Thompson, of a new variety of Plum, called the *Royale hâtive*. The author stated, that although a purple Plum, matching in point of flavour the Green Gage, had already been discovered in the Reine Claude Violette, yet that it had still remained an object of importance to procure new varieties of equal excellence, whose period of maturity should be different. This had now been, in one respect, attained by the discovery of the variety in question. It was received into the Society's Collection from the Nursery of M. Noisette, of Paris, and fruited for the first time this season. It is mentioned in the *Almanach du Bon Jardinier* and in *Noisette's Manuel*, p. 494, where it is described, as a large violet fruit, with a flavour resembling that of the Reine Claude Violette. It appears to be quite distinct from every other variety, except perhaps one called *Miriam*, of which scions had been received from M. Stoffels of Mechlin, and which will probably be found synonymous, in which case the name proposed by Mr. Stoffels would have to be adopted.

The author described the variety in the following terms; Fruit fully larger than that of the Reine Claude Violette, to which in appearance and flavour it has great resemblance. In form it is roundish; the few specimens examined were rather broader next the stalk, which is about half an inch in length, thick, and not inserted in a hollow. Skin purple, dotted and traced with a golden brown. Flesh yellow, slightly adhering to the stone, but parting from it when well ripened. Flavour exceedingly rich. Stone small, ovate, compressed. Shoots very downy; leaves slightly pubescent above: two characters which will always prevent its being confounded with the Reine Claude Violette, the shoots and leaves of which are smooth. It ripens about a fortnight, or three weeks, before the Reine Claude Violette and Green Gage. The Vice Secretary stated, that although he could not say that this new variety equalled the Green Gage, yet that it was undoubtedly one of very great excellence.

The following objects were exhibited;

From James Bateman, Esq., F.H.S., a specimen of *Maxillaria Colleyi*, a new and very rare epiphyte, of no beauty, nearly related to *M. squalens*. It was discovered by Mr. Colley, Mr. Bateman's Collector in Demerara, and had a disagreeable smell of ripe Melons. It has been described in the *Botanical Register* for 1838, Misc. No. 161.

From Mr. John Davis, Gardener to Sir Simon Clark, Bart. F.H.S., some very fine fruit, consisting of two *Black Jamaica*, and one *Queen Pine Apple*, and *Muscat of Alexandria Grapes*; also a beautiful specimen of the graceful *Russelia juncea*.

From Mr. James Lane, Gardener to J. H. Palmer, Esq., F.H.S., some very beautiful *Black Hamburg Grapes*.

From Mr. Robert Buck, of Blackheath, *Black Hamburgh*, and *Cannon Hall Muscat*, *Grapes*.

From Messrs. Chandler and Sons, a collection of *Dahlias*.

From the Garden of the Society, among a variety of flowers, some specimens of the *Polygonum amplexicaule*, a very pretty species, with crimson flowers, quite new to our gardens; it had been raised from seeds, sent to the Society from Dr. Falconer, of Saharunpur. Also a collection of *Fruit*, the most remarkable of which was a new *Morello Cherry*, called *Büttner's October Morello*, which, to all the good qualities of the variety after which it is named, bears abundantly as a standard, on which it will hang several weeks later than the *Morello*.

The *Banksian Medal* was awarded to Mr. John Davis for his *Pine Apples*, and to Mr. James Lane, for his *Grapes*.

The following Presents were announced;

The *Botanical Register* for October, from the Publishers.

The *Athenæum* for the month of September from the Editor.

Oct. 16, 1835.

ORDINARY MEETING.

There was read the following extract from the Meteorological Journal kept in the Society's Garden.

	Mean Pressure;	Mean Tem- perature.	Max.Temp. in shade.	Min. Temp. in shade.	Amount of rain; in inches
January	29.926	27.86	49	—4	.27*
February	29.624	33.17	53	14	2.22
March	29.839	42.09	62	24	.86
April	29.786	44.06	69	16	.52
May	29.905	52.33	78	26	.92
June	29.880	59.89	83	35	3.65
	29.826	43.23			8.44

From which it appears, that the mean pressure for February was remarkably low: more so than in any corresponding month for many years immediately preceding, with the exception of February, 1833.

(* Melted Snow.)

Moreover, on comparing the mean temperature of the respective months, with the average of similar periods, deduced from observations made in the Garden for a series of years, it appears that each of the above months was below the mean, in the following degree.

January	.	.	.	.	8.44
February	.	.	.	.	8.03
March	.	.	.	.	1.47
April	.	.	.	.	4.70
May	.	.	.	.	4.15
June	.	.	.	.	1.23

The quantity of rain was also from 3 to 4 inches less than usual ; so that the season, up to the end of June, had been unusually cold and dry.

The following objects were exhibited ;

From Sir John Herschel Bart., flowers of *Satyrium candidum* and *S. carneum*, two terrestrial orchidaceous plants introduced by him from the Cape of Good Hope, and brought into a flowering state in an open garden, in Hanover Terrace, Regent's Park ; they were accompanied by *Cyanella lutea*, and *Vieusseuxia aristata*, two bulbous plants from the same country. The appearance of the *Satyriums*, one of which was new, and the other very rare in this country, excited great attention, in consequence of the well known difficulty of cultivating the beautiful terrestrial Orchidaceæ of their part of the world. An enquiry was, therefore, subsequently addressed to Sir John Herschel, as to the circumstances under which such plants are naturally found, and the method pursued by him in their cultivation : to which the following reply was obligingly given.

“ As regards their native habits, and the culture I should consider most in accordance therewith, and, therefore, more likely (*a priori*) to succeed in this country, the following is about the amount of my knowledge.

“ 1. *Satyrium carneum* ; (the large flowered, pale pink species, with a close spike on a tall stem). The finest specimens grow in *deep pure sand*, but always among low shrubby vegetation, which affords a certain degree of shelter to them before the flower-stalk rises, and whose roots and their *rejectamenta*, no doubt, supply nourishment. However, I have grown them well in somewhat richer but still very sandy soil, and quite without shelter, and the largest spike I ever saw was the result. The essential condition seems to be very effectual *drainage*, as much water as the soil will retain while they are leafing, with a temperature not less than 50°, and increasing as the flower-stalk rises, while, at the same time, the supply of water must be cut off entirely, as they are especially apt to rot, if any wet gets into the inner folds of the leaves. In fact from the moment the first sign of the flower-stalk appears, they cannot be kept too dry, and while flowering, heat and sunshine in abundance are required, or the flower is pallid.

When the flower is thoroughly withered, and the stalk dried, *the heat and dryness* must be still continued, to ripen the tubers. I have had the soil, in which the tubers remained, heated by the sun *at the surface* to 140° and upwards, and as dry as mere dust, and this state of things lasts a month, at least, after the flowering.

" 2. *Satyrium papillosum*, (pink flowers, in the natural climate rich crimson). I have never found this in the sandy flats about the Cape. My roots were all taken from *clay*, baked by the sun nearly to the consistence of a brick, at 'De Koch's,' a place about 40 miles east of Cape Town, in the district of 'Hot-tentot's Holland.' They were then in flower, rather past their maximum. Nevertheless they grew well enough in the peaty-sand of which my garden consisted, and to admiration in a fine black sand enriched with vegetable matter, from the shrubby hills in the neighbourhood. Plenty of water and moderate temperature while leafing, diminished supply of wet and increased heat as the flower rises, and total dryness *with heat*, when all is withered, seem to be the conditions.

" 3. *Satyrium candidum*; (white flower, with very long spurs, and rich orgeat-like odour). This delicious plant, when dried, leaves, stalk, and all, preserves apparently *ad infinitum*, a rich and powerful flavour of the tonquin bean, or sweet woodroffe, a flavour common to many flowers, and dried plants, and depending, I have little doubt, on some peculiar vegetable principle *not* in the nature of an essential oil, but less volatile. Its habitat at the Cape is in deep sand, in flat exposures, but so drained as never to be decidedly inundated in the wettest season, and perfectly dry in the hot months. It does not seem in this country to require much heat. It has flowered freely in boxes and pots of bog earth, exposed while leafing, (only matted in very cold clear nights,) and taken in doors, when the flowers began to appear and kept very dry. But I have now several flowering in the open air, under a south wall in a rich garden mould. Like all the Cape plants, however, I presume that not only perfect dryness, but, (at least for a time, at the commencement of the dormant state,) increased heat, will be needed to ripen the tubers. The scent is *finer* here than at the Cape. Specimens of the *Satyrium candidum* are now in full flower in the open air, in spite of the bad weather and very sharp frosty nights, we have had this month; a light mat, at night, has been their only defence.

" 4. *Satyrium cucullatum*; (green flower, with an intense odour of pepper; the scent here is also stronger, I think, than in the native climate). Its habitat is nearly the same as that of the *S. candidum*, and they are *sometimes*, (not commonly,) found mixed. If anything it delights in moister sand; it flowers rather earlier; I find *here*, that they continue to demand a little water, even while in flower. My specimens, however, are few and sickly.

" 5. *Satyrium chrysostachyum*. It failed to flower here this year, though in soil brought from the Cape, (fine black sand rich in vegetable particles,) as, I apprehend from, inattention to watering the roots. They frequent very moist places, even swamps, (i. e. in the wet season,) though perfectly dry at the end of the hot months, and seem to require moisture so long as the flower continues, as well as increased heat. However, when dormant, perfect siccidity is requisite, no doubt, for these as for the rest.

" 5. *Disa graminifolia*. (*Herschelia caelestis*, Lindl.) It is of delicate management. Even at the Cape, I could hardly get it to bear transporting from the *bulrushy sand*, where it luxuriates, among an infinity of harsh sour grasses, and rush-like vegetation, about 18 inches or 2 feet high. Yet I have had one flower-stalk from it this summer. It is a very beautiful and singular looking flower. It seems to pine for want of its natural companions, and except in soil taken from such localities will probably not thrive.

" 7. *Disa grandiflora*. It grows on, or near the summit of the Table Mountain, where the temperature is *occasionally* $31^{\circ}\frac{1}{2}$, and occasionally also $96^{\circ}\frac{1}{2}$, (these were the minimum and maximum of a self registering thermometer, I left there for three years). Its habitat is on the margin of pools of standing water, the drainage of the boggy slopes of the mountain, wherein its roots are immersed. These are dry or nearly so in summer. In such localities, it is of course frequently involved in the dense mist of the clouds, which even in the hottest months, often cover the whole summit of the mountain, for a week or a fortnight uninterruptedly. It languished for two years by a pond in my garden, but would, I think, have grown accustomed to the change. I presume a moderately warm, habitually damp atmosphere would suit it."

From Mr. Mountjoy, F.H.S., of Ealing, specimens of the *Silene laciniata*, a beautiful Mexican herbaceous plant.

From Mrs. Marryat, a species of *Pothos* from Demerara, *Tropæolum tuberosum*, and the rare *Gusmannia tricolor*, which derives its name from its spike of imbricated bracts being distinctly coloured, scarlet, green, and white.

From Messrs. Wood and Son, Nurserymen, Maresfield, a very fine collection of *Roses*.

From Mr. Henry Pratt, Gardener to William Harrison, Esq., F.H.S., two *Queen Pine Apples*, weighing $3\frac{1}{2}$ lbs. each.

From Henry Crace, Esq., of Lennard Place, St. John's Wood, a *Collection of Apples*, from trees grafted on the Paradise Stock.

From A. F. Bainbridge, Esq., F.H.S., a specimen of *Amaryllis Belladonna*.

From Sadi Ombark Benbey, some noble specimens of the *Onion*, as commonly grown in Morocco; each bulb weighed $2\frac{1}{4}$ lbs., or thereabouts. They were of the variety called the "Flat Tripoli."

From Mr. George Leslie, Gardener to John Fleming, Esq., F.H.S., of Stoneham Park, a noble *Queen Pine Apple*, weighing 4½ lbs.

From John Fassett Burnett, Esq., F.H.S., fine specimens of, the *Emperor Alexander*, and *Golden Noble Apples*, and of *Gansels Bergamot Pears*.

From S. W. Silver, Esq., F.H.S., of Abbey Road, St. John's Wood, some most beautiful specimens of the *Emperor Alexander Apple*.

From Messrs. Lowe and Co. of Clapton, a specimen of *Gardouquia betonicoides*, a pretty new purple flowered herbaceous Mexican plant.

From the Garden of the Society, a collection of various plants, and fruits, among which the following Pears require particular notice ;

The *Beurré Bosc* ; in good years this is perhaps the highest flavored of its season ; the *Calebasse*, a sweet, but not a melting Pear ; the *Flemish beauty*, a good bearer on a standard, and of a peculiar sweet flavour, which many persons admire ; the *Fondante d'Automne*, one of the very finest of hardy Autumn sorts, and an excellent bearer.

The following Medals were awarded ;

The *Silver Knightian* to Messrs. Wood and Sons of Maresfield, for Roses.

The *Silver Banksian* to Sir John Herschel, Bt. for Cape Satyriums ; to Mrs. Marryat, for *Gusmannia tricolor* ; to S. W. Silver, Esq. for Alexander Apples ; to Mr. George Leslie, for a *Queen Pine Apple* ; to Mr. Mountjoy, for *Silene laciniata*.

The following presents were announced ;

Comptes rendus, &c. Nos. 10, 11, 12, from the Academy of Sciences at Paris.

Baxter's British Flowering Plants, No. 75, from the Editor.

Harrison's Floricultural Cabinet for October, from the Editor.

Catalogue des Végétaux en tous genres disponibles pour l'automne 1838, et le printemps 1839, dans l'établissement des frères Baumann, à Bollwiller, from the Author.

Verzeichniss der warmen und Kalten Hauspflanzen welche in dem garten des Dr. Kreysig in Dresden unterhalten werden, Dresden, 1829, from the Author.

Proceedings of the Geological Society of London, Index to Vol. II. from the Geological Society.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1838.

No. V.

Nov. 6, 1838.

ORDINARY MEETING.

The following objects were exhibited ;

From Messrs. Chandler and Sons, eighteen varieties of the beautiful seedling *Chinese Chrysanthemums* raised in Jersey.

From John Luscombe, Esq., of Coombe Royal, near Kingsbridge, in Devon, specimens of the fruit of the *Lime* tree produced at that place. They were accompanied by some clusters of *Seville oranges*, taken from a very old tree, protected by a wooden frame only ; sometimes as many as sixteen fruit are produced in a bunch ; one of the oranges exhibited, the produce of a young tree, protected in winter by reeds, was rather more than a foot in circumference.

From John Williams, Esq., of Pitmaston, near Worcester, specimens of seedling *Pears*. One, "the Chaumontel Swan's Egg," was raised from the seed of the Chaumontel impregnated with the pollen of the Swan's Egg ; it was a middle-sized obovate fruit with a short stalk, a large open eye, a russet skin, and a rich sugary flavour. Mr. Williams stated that it bears well as a standard, and will be in season in the end of October ; the tree grows with upright branches like the Swan's Egg. The other was a very small roundish obovate Pear raised from the "seed of the Green Chisel and pollen of the Poire d'Auch ;" it does not appear to possess merit of the first kind, the flesh, though sugary, being rather gritty. Mr. Williams found it succeed

admirably on a north wall, where it ripens about the end of September, succeeding the Jargonelle.

From Mr. George Leslie, Gardener to John Fleming, Esq., F.H.S., a *Queen Pine*, weighing 4½ lbs.

From William Wells, Esq., some *preserve* prepared from the fruit of *Gaultheria Shallon*; it did not prove of good quality.

From Mr. George Glenny, four specimens of Plants in flower.

From Mrs. Lawrence, a collection of twenty-four *Store* and *Green-house Plants*, among which were fine specimens of *Geissomeria longiflora*, a beautiful Brazilian undershrub; *Phaius maculatus*, an Indian orchidaceous plant; and the new Mexican *Fuchsia fulgens*.

From Mr. Robert Wilson, Gardener to the Duke of Norfolk, a collection of noble specimens of fourteen kinds of *Pears*, from standard trees, ripened in the gardens at Arundel Castle; those of the Seckle were singularly fine and well coloured.

From Henry Crace, Esq., of St. John's Wood, some specimens of the *Marie Louise* and *Duchesse d'Angoulême Pears*. Mr. Crace stated that he had gathered two thousand two hundred fruit of the former from five small trees, and that he calculated three hundred more to have fallen; he ascribed the productiveness of the trees and the fineness of the fruit to the roots of the trees being covered with dung and watered since the month of July.

From the Garden of the Society various *flowers and fruits*; among the former were the Chinese tufted *Celosias*, white, yellow, and red, much more beautiful than the Cockscomb *Celosias* usually cultivated. Of the fruit the following *Pears* were the most novel;

The *Comte de Lamy*, a very sugary standard sort;

The *Colmar Neill*, resembling the white Doyenné, but the tree hardier;

The *Aston Town*, a good sort, well adapted, from its size, for high standards, and an abundant bearer;

The *Belmont* and *Brougham*, varieties raised by the late President, excellent bearers, and best flavoured from standards;

The *Burgermeester*, a good Pear, almost similar in flavour to the *Beurré Bosc*;

And the *Charles d'Autriche*, even a finer Pear than the *Beurré Diel*, and bearing well as a standard.

The following Medals were awarded;

The *Silver Knightian* to Mrs. Lawrence, for *Geissomeria longiflora* and *Phaius maculatus*, and to Mr. Robert Wilson, for *Pears*.

The following presents were announced;

Harrison's Floricultural Cabinet for November, from the Editor.

The *Botanical Register* for November, from the Publishers.

Barter's British Flowering Plants, No. 76, from the Editor.

The *Athenæum* for the month of October, from the Editor.

Flora Batava, No. 115, from his Majesty the King of Holland.

Comptes rendus des Séances de l'Académie des Sciences, &c. Nos. 13, 14, 15, 16, 17, from the Academy of Sciences at Paris.

Verhandlungen der Gesellschaft des vaterländisches Museums in Böhmen, from 1823 to 1826, and from 1832 to 1838, from the President, Count Sternberg.

Dec. 4, 1838.

ORDINARY MEETING.

There was read; A Report upon the Effects produced on Plants by the Frost which occurred in England in the Winter of 1837-8. By the Vice Secretary.

The author stated, that in consequence of the unusual severity of the season reported upon, he had applied to various persons resident in different parts of the country for information respecting the effects of the cold upon plants, as observed by them. After mentioning the circumstances under which each set of observations was made, and showing that while the thermometer fell as low as $12\frac{1}{2}^{\circ}$ Fahr. below zero in some parts of Kent, it was not observed at Dublin and Kilkenny below 20° above zero, while in the Isle of Wight it fell to 15° and in Cornwall to 12° above zero, the reporter proceeded to examine the results thus produced, firstly in a tabular manner with reference to particular species, and secondly geographically, by stating under separate heads, and in great detail, the effect of cold upon plants introduced to gardens from Australia, California and Mexico, China, Japan, New Zealand, the West Indies, North America, excluding California and Mexico, the Himalaya Mountains, Cape of Good Hope, South of Europe, Levant and North of Africa with adjacent islands, and finally from Chili and similar South American regions.

With reference to this interesting subject, the following statements were made.

"Of *Australian* plants, none seem to have been able to bear so much as even $+12^{\circ}$, except *Billardiera longiflora*, which is recorded at Glasgow to have borne -1° at the foot of a south wall, and a *Eucalyptus*, called *alpina*, which escaped at Norwich; it will, however, be probably found that this circumstance is, in both cases, attributable to some unexplained cause. It, therefore,

seems useless to attempt to naturalize New Holland plants in the midland and northern parts of England. On the coast of South Wales, where the thermometer did not fall below $+15^{\circ}$, *Leptospermum lanigerum* is the only species which appears to have survived; at Carclew, in Cornwall, where the climate is generally very mild, although the temperature is *reported* to have reached $+12^{\circ}$, almost all the New Holland and Van Diemen's Land plants either perished outright or were irrecoverably damaged; the only exceptions being *Acacia stricta*, *affinis*, *Sophora*, and *diffusa*, *Callitris cupressiformis*, *Correa alba*, *Calistemon lanceolatus*, *Grevillea rosmarinifolia*, *Leptospermum ambiguum*, and *Sollya heterophylla*. It is only in some favoured spots, and in the mild climate of Ireland, that any considerable number of Australian plants have proved really hardy, and even in those places a great many species died.

"Upon the plants of *New Zealand* there is little to remark, except that there seems no probability of their (in many cases) acquiring a permanent station in these islands. *Phormium tenax*, the New Zealand flax plant, escaped in a swamp at Carclew, a circumstance that should not be overlooked by those who hope to make it a subject of common cultivation in the milder parts of Ireland.

"Of the natural habits of *Chinese* plants little is known with precision. Many, no doubt, are obtained from the northern provinces where the winter cold is severe; and it is to be presumed that they are what we find hardy enough to sustain a temperature of $-4\frac{1}{2}^{\circ}$, or lower. Among these are especially deserving of notice the beautiful *Cunninghamia sinensis*; *Amygdalus pumila*; *Fraxinus lentiscifolia*, a forest tree of the most ornamental character; *Glycine sinensis*; *Juniperus chinensis*, a valuable evergreen; the noble *Yu-lan*, or *Magnolia conspicua*; *Kœlreuteria paniculata*, a fine deciduous tree; tree *Pæonies*; *Taxodium sinense*, and the magnificent climber *Bignonia grandiflora*. Of the Chinese *Azaleas*, *A. indica alba* proved the most hardy. One scarcely knows in what light to regard the unexpected fact of *Illium anisatum* having escaped at Claremont, where it was exposed to a temperature of -12° ; but it is worthy of notice, that *I. floridanum* is reported in so many places to be hardy, that no doubt can remain upon that point at least. The fact of *Pittosporum Tobira* not having suffered in South Wales more than *Arbutus Unedo*, is important, and renders it desirable that this handsome evergreen should become the subject of experiments as to its hardy qualities elsewhere. *Thea viridis* stood where *T. Bohea* was killed.

"Such *Japanese* plants as have been the subject of experiment, have, in the greatest number of cases, afforded evidence that the vegetation of the colder parts of that region is well suited to our own. If *Eriobotrya japonica*, *Ligustrum lucidum*,

Laurus Camphora, and some others, were unable to resist the winter, probably in consequence of their being naturally found in warm vallies, on the other hand, thirteen or fourteen other shrubs proved hardy, among which are the beautiful new species of *Clematis*; and even certain varieties of *Camellia japonica* exhibited a power of enduring cold which could not have been anticipated.

“ The species native of the *Himalaya mountains*, resisted the cold to so great an extent, that there can be no doubt of a large proportion of the vegetation of those northern parts of India proving hardy in England, Wales, and Ireland. This fact alone is of the highest interest, because there certainly is no country more accessible to us, or whose productions are more worthy of being imported, whether for their value as timber, their beauty and variety as forest trees, or their brilliancy as objects of ornament. The mere knowledge that the noble Deodar cedar is capable of enduring the utmost rigour of an English winter is almost alone sufficient to compensate for the destruction produced by the frost among other plants. All the Pines and Firs appear more or less hardy, except *Pinus longifolia*, which is not a mountain-species. *Benthamia fragifera*, although tender in the midland counties, appears at home in Cornwall and Devonshire; the beautiful *Berberis*, many *Cotoneasters*, a *Euonymus*, *Juniperus recurva*, *Leycesteria formosa*, all the *Spiræas*, *Viburnum cotinifolium*, and above all, the magnificent *Rhododendron campanulatum* have to be added to our lists of common shrubbery plants. *Clematis montana* too proved so robust that we have not only secured that addition to our climbing plants, among which variety is so much wanted, but there are well-grounded expectations of some of the many other beautiful species of the same genus still to introduce, proving equally suited to this climate.

“ With regard to the plants of the *South of Europe* and adjacent countries, some facts prove new, others confirm opinions which were not previously established to the satisfaction of every one, and a few are inexplicable upon any known principle. That *Aristolochia sempervirens*, a native of Candia; and *Peganum Harmala*, a common Syrian plant; *Ilex balearica* and *Buxus balearica*, evergreens inhabiting the islands of Majorca and Minorca; *Juniperus oxycedrus*, quite a southern bush; *Pistacia Terebinthus*, which is not found wild north of the coast of the Mediterranean, should all have been found hardy, where such plants as the Tamarisk, *Arbutus Unedo*, and the Cypress perished, are results which could hardly have been anticipated. They are, however, of the first importance, because it will induce the more general cultivation of those among them which are beautiful. It is interesting to know that *Arbutus Andrachne* is more hardy than *A. Unedo*, a fact which may perhaps be con-

nected with their very different localities when wild ; the former being exposed to the severe cold of south eastern Europe, while the latter, although wild in Ireland, is more peculiar to the west of Europe. Connected with this is the important fact, that *A. Andrachne* inarched upon *A. Unedo*, in which condition it is usually sold in the nurseries, is unfit for planting, because of the tenderness of its stock. By taking care that plants of *A. Andrachne*, and also *A. hybrida*, are on their own roots, two fine evergreens may be considered secured to the gardens of the greater part of England. That there should be a variety of the Olive hardy enough to bear— $4\frac{1}{2}^{\circ}$ without the slightest injury, may be a fact of value to the Olive grower in many parts of Europe, and renders it probable that this useful tree may be profitably raised for its oil in any part of Ireland. To the fruit grower the hardiness of the Green Ischia Fig is a valuable fact, for it will enable this variety to be cultivated much further to the north, than it has hitherto been thought possible to possess Figs as open standards. The Aleppo Pine seems to have generally perished ; but *Pinus brutia*, a Calabrian species very like in habit, seems to be hardy. There has been some difference of opinion as to the comparative hardiness of the species of *Cerasus* called “Laurels” in this country. The fact is now established beyond doubt that *C. lusitanica*, the Portugal laurel, is much more hardy than *C. Laurocerasus*, the common laurel. This could not have been expected from what are reported to be the natural habits of those two species ; the former inhabiting the mountains of Portugal and Madeira, where the climate is softened by the mild air of the Atlantic, and the latter being found on the mountains of the most eastern parts of Europe and of Persia, where the winters are more rigorous than in western countries. The death of the Sweet Bay and the Laurustinus, on the other hand, corresponds with what might be anticipated from their inhabiting only the warm rifts of calcareous rocks in the south of Europe, where, if their branches are ever killed, their roots are secured against all chances of destruction.

“On *Cape* plants there is little to observe further than that all the shrubby species are evidently too tender to deserve cultivation, without protection, north of Cornwall and Devonshire. It is, however, satisfactory to find that the hardskinned Cape Bulls and tuberous *Pelargonium* will live in the open border, with only the aid of a covering of fern-leaves, provided the border is well drained ; and the undoubtedly hardy habits of *Aponogeton distachyon*, and *Richardia africana*, have secured to us two additional handsome aquatics.

“The low southern latitudes of *South America* have furnished a few accessions to hardy collections, among which the *Araucaria Dombeyi* is the most interesting for the possessors of parks and large gardens, and it has now become an object of some national

importance to procure supplies of seeds of this plant from Valparaiso ; for to introduce in abundance so remarkable a vegetable production as this when old, with columnar trunks often 100 feet high, surmounted by a pyramid of its grotesque branches, would be an object scarcely less than national, even if the plant did not furnish excellent timber, and an abundance of valuable resin. It also appears that *Aristotelia Macqui*, and the *Escallonias*, *rubra* and *glandulosa*, all beautiful evergreens, are about as hardy as a *Laurustinus*, that the graceful little *Berberis empetrifolia* is regardless of cold, and that *Colletia horrida*, *Duvaua ovata*, and *Heimia salicifolia*, also seem likely to bear this climate.

“ Of *Californian* and *Mexican* plants, the former prove more tender than those from Mexico : a circumstance doubtless to be explained by the Californian species having been taken indiscriminately from warm vallies and mountain sides, while no one has thought of naturalizing any Mexican species except from the cold mountain ridges. All the beautiful pines and firs from these regions, of whose habits so little was previously known, prove to be hardy wherever they have been tried, with the exception of *Pinus insignis* and *P. leiophylla*.

“ The winters of *North America* are usually so rigorous north of the districts warmed by the Gulf of Mexico, that to state that a plant is from the United States, is usually equivalent to saying it is hardy. There are, however, some exceptions to that rule, and it was requisite to possess the experience of such a winter as this, in order to judge whether the plants from the British possessions on the Pacific would be as hardy as those from the Atlantic side of the Rocky mountains. The latter seems now to be well established, for of all the numerous valuable plants introduced by the Society from North West America, not one of any importance, with the exception perhaps of *Arbutus procera*, proved tender ; and what is of the utmost practical importance, it is now clear that *Abies Douglasii*, a species which grows as fast as the larch, has much better timber, is evergreen, and reaches an enormous size, is perfectly suited to the climate of Great Britain. *Yuccas* also resisted the frost so very generally, that they may be safely introduced into gardens as hardy endogenous shrubs ; and the same observation applies to *Vaccinium ovatum*, one of the handsomest of evergreens.”

The author next proceeded to advert to the singular fact, that in those places where the cold was *very severe* the more plants were exposed the less they suffered, and vice versa. This he explained upon the supposition, that in warm places vegetation had already made some progress, and plants were stimulated prematurely into growth, their stems were filled with fluid, and they were, in consequence, affected by frost in a much greater

degree, than when, from the coldness of a station, they were kept in their ordinary winter condition.

The temperature of the earth at different depths, during the prevalence of the frost, was mentioned as explaining why so many trees that had been killed to the ground were afterwards observed to spring up again. In the Society's garden two thermometers were buried in the earth, one at the depth of 1 foot, the other at the depth of 2 feet, and their indications were noted daily, when it was found that the ground was never frozen to the depth of a foot, even while the temperature of the surface was as low as $4\frac{1}{2}^{\circ}$ below zero, and that it did not fall to within 5° of freezing at the depth of 2 feet during the same period.

The last subject which had engaged the author's attention was the physical effect of extreme cold upon plants. After noticing the opinions upon this subject, given by Professors Göppert of Breslau, and Morren of Liège, and describing various observations which he had himself made, he arrived at the conclusion, that the more important phenomena connected with the action of extreme cold upon plants, consist in the distension of cellular succulent parts, often attended by laceration, and always by a destruction of irritability; the expulsion of air from the aëri-ferous passages and cells; the introduction of air into parts intended exclusively to contain fluid; a chemical decomposition of the tissue and its contents, especially of chlorophyll; a destruction of the vitality of the latex, and a stoppage of the action of its vessels; and finally, an obstruction of the interior of the tubes of pleurenchyma, by the distension of their sides.

This report was stated to contain observations upon between six and seven hundred species and varieties.

The following objects were exhibited;

From Mr. John Lumsden, gardener to Henry Bevan, Esq., six fruits of *Oranges*.

From A. P. Phelps, Esq., fruit of the *Jujube*, and of the *Cerise du Japon* of the shops, or *Physalis Alkekengi*.

From Mr. George Glenny some *stove* and *greenhouse* plants.

From Robert Gunter, Esq., three *Queen Pine Apples*, the largest of which weighed 4lb. 13 oz.

From Mr. J. Bowers, two branches of a *seedling Grape*.

From Mr. T. Harding, Gardener to the Rev. Frederick Beadon, a collection of *Apples*.

From Mr. J. Falconer, Gardener to Archdale Palmer, Esq., a specimen of *Ornithogalum thyrsoides*.

From Mrs. Lawrence, a collection of 22 *Stove and Greenhouse plants*, including a very fine specimen of *Plumbago rosea*, and another of *Luculia gratissima*.

From Mr. John Green, Gardener to Sir Edmund Antrobus, Bart.,

a *Cucumber*, and several very fine greenhouse plants, among which was a beautiful plant of *Luculia gratissima*. This charming species, whose perfume is of the most grateful kind, and whose broad heads of flesh-coloured flowers rival those of the *Hydrangea*, was imported some years ago, but has gone very much out of cultivation in consequence of an erroneous statement that it is hardy. That is not the case, nor was it ever probable that the plant would bear an English winter, for it is only on the smaller and lower mountains of Nepal that it is met with in a wild state; as on the naked rocks of Nag-Urjoon, Bechiako, and Koolakan, and on the Pundua hills on the frontier of Sylhet; in those places it is said to form a tree from 16 to 20 feet high, with a stem 6 inches in diameter. As it flowers all the year round, this is a most desirable plant for a conservatory, or as a shrub of the open border, during the warmer months of summer.

From Mr. Peter Don, Gardener to James Bateman, Esq., specimens of four kinds of *Epiphytal Orchidaceæ*; viz. 1. a new species of *Maxillaria* from Honduras; 2. *Bolbophyllum caseum* of Manilla, a little brown-flowered species, named from its smelling strongly of cheese; 3. *Lælia albida*, a new Mexican plant, with flowers rivalling the Cowslip in their fragrance, and 4. the rare and beautiful *Epidendrum Skinneri*. Concerning the latter, Mr. Bateman communicated the following note.

“The exquisite beauty of the flowers of *Epidendrum Skinneri*, and the season at which they are produced, render the plant one of singular interest to the lovers of *Orchidaceæ*; unfortunately, however, it has universally been found extremely difficult to manage. Its flower-spikes, it is true, were always forthcoming, even from the weakest shoots, but the number of flowers which they bore grew less and less each successive season, until at length in too many instances the plant perished altogether.

“The cause of this ill success in its cultivation was obviously owing to the difficulty in preserving its thick fleshy roots from decay; for many were uniformly lost if the plant was kept in a high and damp temperature, or if they came in contact with the masses of turfy peat, in which the majority of *Orchidaceæ* thrive. Having learnt from Mr. Skinner, that the plant was usually found at a considerable elevation, and remembering those very plants, when first imported, were quite interwoven with a number of thorny twigs, I determined to try whether by placing a plant of the species for half the year in a vinery, and attaching it to a sort of basket work, formed of small oak branches, I could not restore it to its pristine health. The spike now sent for exhibition, which is double the strength of the one which the same plant produced last year, is the happy result of my experiment.”

From M. René Langelier, nurseryman at St. Heliers, Jersey, a

collection of Pears, upon which the following note was made by Mr. Thompson. The most important variety in this collection is a pear called *Van-Mons Léon-Leclerc*, raised by M. Léon Leclerc, of Laval. It is a fruit of an oblong form, about 4 inches in length, and nearly 3 inches in diameter. The eye is shallow, small, but open; the stalk rather more than one inch in length, moderately strong, and inserted obliquely; the skin yellowish, everywhere profusely sprinkled with brown, which near the stalk amounts to a sort of russeting. The flesh is yellowish white, buttery, and melting, with a very rich sugary flavour. It proves a pear of first-rate excellence, combining the properties of large size, handsome appearance, and rich flavour. Should it attain equal perfection in this climate, it will be surpassed by none in its season, which will probably be the beginning of December. The *Fortunée Belge*, is the same as the *Fortunée de Parmentier*. The *Beurré d'Arenberg* is the *Glout Morceau*, and this is the case with this sort in the Jersey collections very generally. *Beurré magnifique* is the *Beurré Diel*. *Belle de Jersey* is the *Uvedale's St. Germain*. *Epine d'Hiver* is false, and proves the *Bergamotte de Pâques*. *Delices d'Hardenpont* is different from the various sorts which have perhaps incorrectly borne that name in the collection hitherto received by the Society; it partakes much of the nature and appearance of the *Doyenné blanc*, from which it has probably originated, as many other varieties appear to have done, some of which (as the Colmar Neill) even surpass the above newly-received sort in flavour. *Mollet's Seedling Chaumontel* bears considerable resemblance to the old Chaumontel both in appearance and flavour.

From the Garden of the Society, a collection of various kinds of Pears, together with flowers of *Chrysanthemums* and other plants.

The following medals were awarded;

The *Silver Knightian* to Mr. John Green for *Luculia gratisima*, and to Mr. Gunter for Pine Apples.

The *Silver Banksian* to Mr. P. N. Don, for *Epidendrum Skinneri*, and to Mrs. Lawrence for *Plumbago rosea*.

The following Presents were announced;

Transactions of the Zoological Society, Vol. II. Part 2, and *Proceedings of Ditto*, Nos. 58 to 67 inclusive, from the Society.

Verhandlungen der K. K. Landwirthschafts-Gesellschaft in Wien, VII. Band, 2 Heft. (Neue Folge) from the Society.

Hortus Mauritianus, ou énumération des plantes exotiques et indigènes qui croissent à l'Ile Maurice, par W. Bojer, from S. V. Surtees, Esq. 8vo. 1837.

The Botanical Register, for December, from the Publishers.

Harrison's Floricultural Cabinet for December, from the Editor.

Comptes rendus des Séances de l'Académie des Sciences, &c. Nos. 18, 19, 20, second half year, 1838, from the Academy of Sciences at Paris.

The Athenæum for November, from the Editor.

Jan. 15, 1839.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society ;

Richard Catlow Bowden, Esq., Clapham Common.

Mr. Alexander Pontey, Nurseryman, Plymouth.

Lieut.-Col. Thomas Sowerby, Putteridge Bury, Luton, Bedfordshire.

A communication was read from Sir George Stuart Mackenzie, Bart., upon the result of some experiments he had made upon the cultivation of the Potato. The first experiment related to the difference in productiveness between the point, the middle, and the base of a potato. Three different varieties were taken, and every eye but one was carefully removed from the sets. The results were,

	Point.	Middle.	Base.
No. 1 produced	4lb.	4lb. 6oz.	3lb. 8oz.
2 produced	5lb.	6lb. 3oz.	3lb. 8oz.
3 produced	5lb. 8oz.	7lb. 8oz.	7lb. 8oz.
	<hr/>	<hr/>	<hr/>
Total	14lb. 8oz.	18lb. 1oz.	14lb. 8oz.

It, therefore, appeared that eyes from near the point and base of a potato should be rejected by the planter, and the middle eyes only used. In another experiment, exactly the same quantity of the tuber was taken, with a scoop, from each of the above three sorts, so that each set formed a hemisphere of about half an inch in diameter. Under these circumstances, No. 1. yielded 4lbs. 9oz., No. 2. 2lbs. 4oz. ; the result of No. 3. was considered doubtful.

It was announced that a collection of dried plants from Ceylon had been presented to the Society by the Right Hon. Sir James Steuart Mackenzie, Bart., Governor of Ceylon.

Mention was made of a specimen of the fruit of *Musa Cavendishii* having been received in the interval between the present and the previous meeting, from Messrs. Lucombe, Pince, and Co., Nurserymen, Exeter. It had been produced in the garden of Mrs.

Wells, of Cowley House, near Exeter; seventeen months previously the plant which bore it was a sucker, in the nursery of Messrs. Lacombe and Co., and when it fruited in Mrs. Wells's garden, it had gained a stem $4\frac{1}{2}$ feet in length up to the spathe; the whole weight of the fruit and stem was stated to have been 30lbs. when first cut.

Notice was given of the Exhibitions in the Garden of the Society, under the usual regulations, to take place on the 18th of May, the 15th of June, and the 6th of July.

The publication of a New Part of the Society's Transactions (Vol. II. Part 4, new series,) was announced.

The following objects were exhibited;

From Mrs. Lawrence, a collection of twelve *Stove* and *Greenhouse Plants*, among which were fine specimens of *Heaths*, the rare *Enkianthus reticulatus*, *Griffinia hyacinthina*, and *Hedychium Gardnerianum*.

From Mr. W. Redding, Gardener to Mrs. Marryatt, a fine plant of *Banksia Cunninghamii*, *Protea speciosa*, and five other plants.

From Mr. Toward, Gardener to H. R. H. the Duchess of Gloucester, at Bagshot, two *models of Summer-houses*.

From Mr. John Green, Gardener to Sir Edmund Antrobus, Bart., noble specimens of *Euphorbia Jacquiniflora*, *Azalea indica alba*, and *Poinsettia pulcherrima*. It was stated that the latter, although comparatively new in this country, is not uncommon in gardens in the south of Spain, where it is called *Flor de Pasqua*.

From Mr. John Halley, of Blackheath, two specimens of a seedling *Camellia*.

From Mr. George Glenney, a *Correa*, said to be a hybrid between *C. pulchella* and *C. alba*.

From Mr. H. Pratt, Gardener to William Harrison, Esq., a specimen of the rare *Arctostaphylos tomentosa*.

From A. B. Lambert, Esq., a large specimen of the fruit of a plantain, called *Musa Cavendishii*. It was described to have been produced upon a plant with a stem only four feet high.

From the Hon. W. F. Strangways, *cones* from Naples of *Pinus Pinaster*, *maxima* and *minor*. One of them belonged to the plant considered by Italian Botanists to be the true *Pinus Pinaster*, while that cultivated in England, an intermediate variety, has been considered the *Pinus maritima* of Duroi, and hence two supposed species have been created out of one. It appears, however, that M. Tenore, who sent the cones to England, is now aware of all the forms really belonging to one species.

From Mr. John Davidson, Gardener to the Marquess of Ailsa, at Culzean Castle, in Ayrshire, a dish of *blood red Oranges*, grown in a greenhouse among other plants, where they had no artificial heat whatever, further than what was required to keep

out frost; they were all taken from one tree, of five feet diameter in top. Five dozen ripe fruit, similar to those now shewn, were left upon the tree, and a like number of green fruit was coming on in succession.

From Mrs. Randolph, of 2, Bridge-street, Westminster, specimens of *artificial flowers* prepared from feathers of the natural colour. These were singularly well executed imitations of flowers, the brilliancy of the colours being quite equal to those of natural specimens.

From Petty Vaughan, Esq., a small collection of *Apples* grown at Hallowell, Maine, United States, in about $44\frac{1}{2}$ N. lat. Some of these specimens were not so large as they are sometimes produced in America, but their colouring indicated a much greater degree of sun heat than has been experienced of late in England. Of those in the collection the Boston Russet proved a good apple in this country, and the Rhode Island Greening also succeeds well. The Newtown Pippin is sometimes good in warm seasons and situations; but more frequently its character becomes so much altered, that it is difficult to believe it the very same variety as the imported fruit.

From the Garden of the Society, specimens of various *winter Pears*, and flowers of *Bignonia venusta*, from a Pine Stove, and of two varieties of the fragrant *Chimonanthus*, from the open wall.

The following Medals were awarded;

The *Silver Knightian* to Mr. John Green, for *Euphorbia jacquiniiflora*.

The *Silver Banksian* to Mrs. Lawrence, for *Hedychium Gardnerianum*; to Mr. W. Redding, for *Banksia Cunninghamii*; to Mrs. Randolph, for feather flowers; and to Mr. John Davidson, for blood red Oranges.

The following Presents were announced;

An Account of the Manufacture of the Black Tea, as now practiced at Saddeya in Upper Asiam, by the Chinamen sent thither for that purpose, by C. A. Bruce, Esq. Svo. Calcutta, 1838, from Dr. Horsfield.

Elenchus plantarum novarum minusque cognitarum quas in itinere Hispanicis legit Edmundus Boissier, Svo. Geneva, 1838, from the Author.

Revue sommaire de la famille des Bignoniacées, par M. Aug. Pyr. De Candolle, from the Author.

The Botanical Register for January, from the Publishers.

A Catalogue of the Fellows, Candidates, and Licentiates of the Royal College of Physicians, from the College.

Proceedings of the American Philosophical Society, Nos. 1, 2, 3, and 4, Vol. I., from the Society.

Verhandlungen des Vereins zur Beförderung des Gartenbaues in den Königlich Preussischen Staaten, Vol. XIV. Heft. 1, from the Society.

Tre articoli inseriti nell' Omnibus e nel Lucifero riguardanti le peregrinazioni fatte in alcuni luoghi del regno di Napoli dai Signori Gussone e Tenore nella State del 1838, 8vo. Napoli, 1838, from the Authors.

Harrison's Floricultural Cabinet for January, from the Editor.

The Ladies' Flower Garden of Ornamental Annuals, Part I. by Mrs. Loudon, from the Authoress.

Baxter's British Flowering Plants, No. 78, from the Author.

The Address of H. R. H. the President of the Royal Society, at the Anniversary Meeting, Nov. 30, 1838, and the Proceedings of the Society, No. 35, from the Society.

Flora Batava, No. 116, from H. M. the King of Holland.

Comptes rendus des Séances de l'Académie des Sciences, &c. Nos. 21 to 24 inclusive, second half year, 1838, from the Academy of Sciences.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1839.

No. VI.

Feb. 5, 1839.

ORDINARY MEETING.

The following objects were exhibited ;

From the Hon. W. F. Strangways, a collection of *cut flowers*, among which were three species of *Helleborus*, the half-shrubby *Primula Palinuri*, and specimens of the rare *Crocus Imperati*.

From Mr. George Glenney, a *Rhododendron*, said by the exhibitor to have been raised by himself from seed. It did not appear different from a variety raised some years since by Mr. Waterer, of Knaphill, and called in the Gardens R. *pulcherrimum*.

From the Garden of the Society, flowers of *Bignonia venusta*, from the Pine Stove, and of three varieties of *Chimonanthus fragrans*, from the open wall. It was stated that the method of cultivating the former plant, described in the Transactions of the Society, vol. 2, p. 122, new series, answered perfectly. Also several other *Stove* and *Green-house Plants*, and fruit of eight varieties of *Pear* ; specimens of the *Beurré Rance*, from standards, were particularly good in this collection, as also were the fruit of the *Fondante du bois*, and the *Ne plus Meuris* ; a sort called the *Surpasse Meuris* was of inferior quality.

The following Presents were announced ;

Proceedings of the Geological Society of London, No. 59, Vol. III. from the Society.

Annals of the Lyceum of Natural History of New York, Nos. 1, 2, 3, 4, Vol. IV. from the Society.

Comptes rendus des Séances de l'Académie des Sciences, &c. Nos. 25, 6, 7, second half year, 1838, from the Academy of Sciences.

Botanical Register for February, from the Publishers.

Baxter's British Flowering Plants, No. 79, from the Author.

Harrison's Floricultural Cabinet for February, from the Editor.

The Athenæum for January, from the Editor.

Feb. 19, 1839.

SPECIAL GENERAL MEETING.

The Society proceeded to the election of a new Member of Council in the room of Charles Holford, deceased, when the scrutineers reported that the election had fallen upon Thomas Harris, Esq., of Kingsbury.

ORDINARY MEETING.

The following letter to the Secretary from Mr. W. B. Booth, upon the mode of constructing wire fences, for training espalier fruit trees upon, and for other purposes, was read :—

“ Carclew, January 29, 1839.

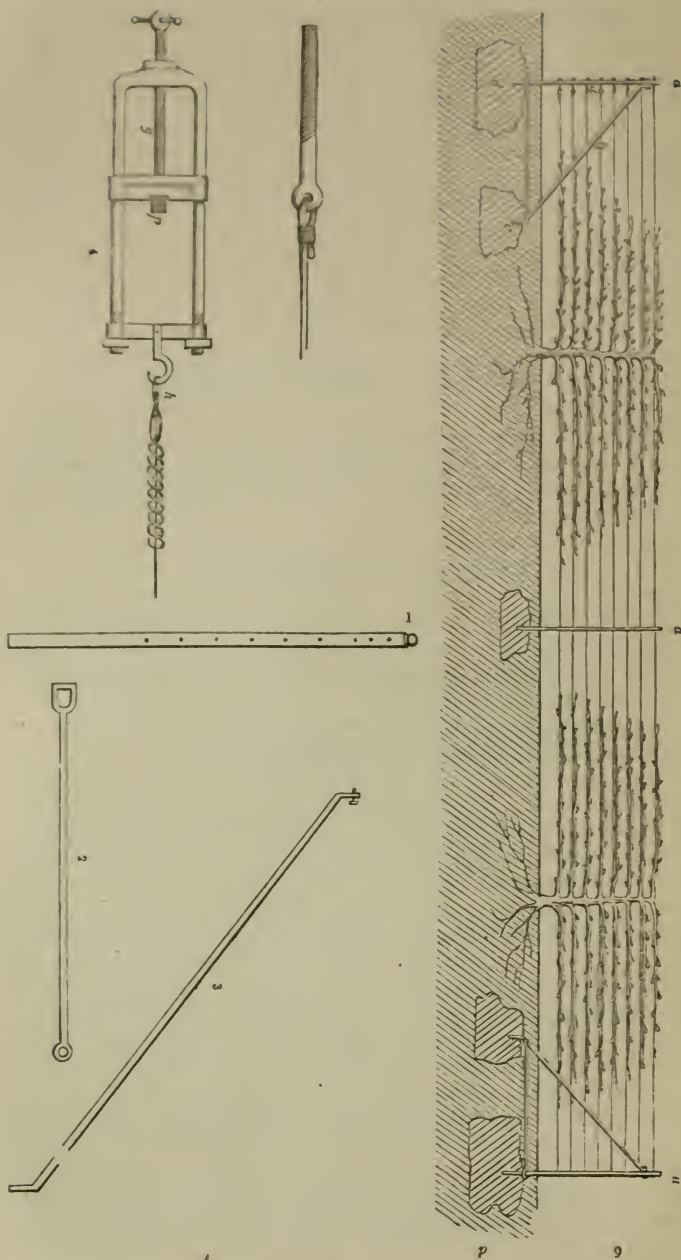
“ SIR,—I beg to hand you the following particulars respecting some wire trellises lately erected here, which you may, probably, not deem unworthy of submitting to the notice of the Horticultural Society.

“ The object for which they are intended is the training of Espalier fruit trees ; and it occurred to me in the course of erecting some wire fencing to divide a portion of the park, that a similar kind of erection might be advantageously introduced into the kitchen garden, which would answer the same purpose as the expensive wooden, or cast iron, trellises usually met with in those places where the Espalier mode of training is adopted. I accordingly submitted the plan to Sir Charles Lemon, who has since had it carried into execution to a considerable extent.

“ Wire erections of the kind I am about to describe are not uncommon, I believe, *as fences*, in some parts of the kingdom ; but in Cornwall it is only within the last few years they have been introduced. Mr. Gilpin, in his excellent “ *Hints on Landscape Gardening*,” p. 217, has noticed the wire fence as being best suited for those parts near to the house, or to the approach, but he has not shewn the manner in which it may be erected. The accompanying sketches and details will, I trust, supply this deficiency,

and enable any one who may be desirous of erecting a wire fence or trellis to do so, with the assistance of a mason and blacksmith, at a very moderate expense. The wire used is known as No. 32. It is about a quarter of an inch in diameter, and is put up in large coils. Each wire measures from 115 to 120 feet in length. The *main upright* posts, (fig. 6 *a a*), are of iron $1\frac{1}{4}$ inch square, and from $5\frac{1}{2}$ to 6 feet high, with holes six or seven inches apart for receiving the small screws and nuts to which the wires are attached, in the way shewn at No. 5. At the opposite end the wire is secured by being bent a little at the point, and having a small wedge driven over it in each of the holes of the upright. Both these main posts are $4\frac{1}{2}$ feet above the level of the ground, and are fixed beneath the surface in large rough blocks of stone, *d e*, with iron wedges, which are more convenient, and answer the purpose quite as well as if they were run in with lead. The *stay bar* is round, and $1\frac{1}{4}$ inch in diameter. It varies in length according to the inclination of the ground, but when the latter is nearly level it is about 7 feet long. The upper end is flattened, and bevelled, so as to square with the upright, to which it is fixed by means of a screw at *f*. The lower end is only a little bent that it may fit into a somewhat smaller block of stone, *e*, than the one at *d*. The *connecting bar*, *c*, is square or round, and need not exceed an inch in either case. It will also vary in length, according to circumstances. On a nearly level surface it must be about 5 feet long, and have an eye at each end large enough for the end of the post and stay to go through. In addition to this, there are uprights of one-inch flat bar by half an inch in thickness fixed in stone, at 30 or 40 feet apart, or even nearer if necessary, for the purpose of stiffening the trellis.

“ In the erection of this kind of trellis it is requisite to have an instrument for drawing the wires like the one represented at fig. 4, to the scale of an inch to a foot, which may be made without much difficulty. The one I have sketched was constructed by our own blacksmith, and is a very efficient contrivance for the purpose. After the stones are bored and set in their places, with the earth firmly rammed around them, the next thing to be done is to fix the main post, *a*, and wedge it tight. It ought to lean about an inch back from the perpendicular, to allow for its giving a little when the whole strain of the wires comes upon it, which will bring it upright. The connecting bar, *c*, is then slipped down over it, while the lower end of the stay bar, *b*, is put through the other eye and into the stone *e*, and the upper end screwed to the main post at *f*. The triangle from which the wires are to be stretched is then complete. A similar triangle must be made at the opposite end, and against the main post of which, *p*, the instrument No. 4, above noticed, is to be placed for the purpose of drawing the wire. This is done with great facility by means of a double piece of rope-yarn twisted several times



round the end of each, and hooked as shewn at *h*. The screw *g* is then worked until the wire enters its proper hole in the post *p*, when it is bent and secured by a wedge as already stated. The nuts on the bolts No. 5, at the end from which the wires were drawn, are then screwed up a little, so as to make all the wires as tight as possible. The cost of the whole averages from eighteen pence to two shillings per yard.

"I have been thus minute with the details of the trellis and the mode of erecting it, in order that those who approve of it may be able to have others erected on the same plan, for either of the purposes to which it has been successfully applied at Carclew.—I am, sir, your very obedient servant,

"WM. B. BOOTH."

The following objects were exhibited ;

From Mr. W. Newson, Gardener to Countess de Salis, a fine specimen of *Clanthus puniceus*.

From Mr. John Green, Gardener to Sir Edmund Antrobus, Bart., a brace of *Cucumbers*, and some handsome green-house plants, the most remarkable of which were *Hardenbergia Comp-toniana*, and *Dillwynia glycinifolia*.

From Mr. Toward, Gardener to H. R. H. the Duchess of Gloucester, a new species of *Zichya* from Swan River. It had unfortunately been injured by frost on its way to the meeting, so that its true character could not be judged of.

From Mr. Steel, Nurseryman, Richmond, some flowers of *Camellias*.

From Mr. Beaton, Gardener to Thomas Harris, Esq., a very remarkable collection of *Cactaceous plants*, chiefly imported from Mexico, and the Spanish Main ; also a fine crimson-flowered *Inga*, and two specimens of a *Testudinaria* from Mexico. Among the former plants was *Cereus senilis* of various lengths, from a seedling two inches high, and supposed to be eighteen months old, to five feet three inches, and it was mentioned that the Duke of Bedford had recently received one of these plants seven feet, and two others ten feet long each ; others were said to be expected as much as fourteen feet long, and of a woolly as well as hairy appearance. Connected with this collection the following note from Mr. Beaton was read to the meeting :—

"At a meeting of the Horticultural Society, held on the 19th of June, 1838, I exhibited a collection of Cacti, amongst which were two or three seedlings which I thought at that time were those of *Cereus senilis*, having raised them from seeds received under that name from Mexico, but I have since ascertained they were those of a species of *Echinocactus*. It will be recollected by the Horticultural Society that those seedlings were destitute of the hairs peculiar to *C. senilis*, which gave rise at the time to an opinion that the hairs were not produced on *C. senilis*

until a certain period of its age, or at least not in the seedling state. I am glad to be now enabled to correct this opinion, by exhibiting a dried specimen of a seedling *C. senilis*, which I have received from Mexico, by which it will be seen that the hairs are produced in that species along with its spines in the seedling state."

From Mr. John Lumsden, Gardener to Henry Bevan, Esq., four *Queen Pine Apples*.

From Messrs. Brown, Nurserymen, of Slough, a *Cineraria Waterhousiana* and *Telopea speciosissima*, the latter in great beauty.

From Mr. Thomas Jackson, Nurseryman, Kingston, flowers of *Garrya elliptica*.

From Mr. George Mills, Gardener to Madame de Rothschild, a fine brace of *Cucumbers*.

From Mr. George Glenney, some green-house plants, among which was a *Hovea ilicifolia*.

From the Garden of the Society, a collection of stove and green-house plants, and specimens of *Pears*. Of the former the most interesting was *Cyrtorchilum maculatum*, a new Orchidaceous epiphyte, very sweet, imported by the Society from Mexico.

Cuttings of the following fruit trees were distributed ;

The Winter Crassane Pear, an excellent bearer as a standard or dwarf ; The Shobden Court Pear, a variety raised by the late President ; it possesses a flavour partaking of that of the Melon and Pine Apple. The Royal Hâtive Plum. This sort resembles the Reine Claude Violette in appearance and high flavour, and ripens considerably earlier. Knight's Large Green Drying Plum, a sort as large as the Washington, and *superior* to it in point of flavour ; it fruited for the first time last season ; its merits as a preserving Plum are not yet known, but as a dessert fruit it will doubtless rank high.

It was announced that a small collection of seeds and bulbs, received by the Society from Mr. Hartweg, their collector in Mexico, was ready for distribution to all applicants.

The following medals were awarded ;

The *Silver Knightian* to Mr. John Green, for his *Hardenbergia Comptoniana*, and *Dillwynia glycinifolia*.

The *Silver Banksian* to Mr. George Mills, for *Cucumbers*, and to the Messrs. Brown, for *Telopea speciosissima*.

The following Present was announced ;

Comptes rendus hebdomadaires des Séances, &c., Nos. 1, 2, 3, 4, first half year, 1839, from the Academy of Sciences at Paris.

March 5, 1839.

ORDINARY MEETING.

The following gentleman was elected a Fellow of the Society ;

John Meares, Esq., of Park Lane, and Plas Llanstephen,
Carmarthenshire.

The following objects were exhibited ;

From Mr. P. N. Don, Gardener to James Bateman, Esq., flowers of *Oncidium pubes*, *Bonatea speciosa*, *Oncidium bifolium* and *Cyrtorchilum maculatum*.

From Mr. R. Errington, Gardener to Sir P. Egerton, Bart., a flowering shoot of *Cereus flagelliformis longissimus*, a most beautiful hybrid between *C. flagelliformis* and *C. speciosus* ; the specimen was cut from a plant having 120 flowers upon it, and grafted upon *C. triangularis* at the height of 6 feet from the ground.

From Mr. Redding, Gardener to Mrs. Marryat, a collection of Greenhouse plants, among which were *Epacris pungens*, *Dendrobium cucullatum*, and *Camellia reticulata* ; also plants of the hardy *Andromeda floribunda* and *Epimedium grandiflorum*.

From Mr. Ansell, of the Camden Nursery, Camden Town, a plant of *Epiphyllum truncatum*.

From John Allnutt, Esq., *Azalea indica alba*, a seedling and two other *Camellias*, and three species of *Epacris*.

From Mr. Newson, Gardener to Countess de Salis, a beautiful specimen of *Azalea indica alba*.

From the Honble. W. F. Strangways, a collection of cut flowers, among which were *Helleborus atropurpureus*, from Hungary and *Tulipa elegans*, from the Caucasus.

From the Garden of the Society, a collection of *Greenhouse plants*, fruits of the Passe Colmar, Easter Beurré, Beurré Rance and Dowler's seedling Pears. The latter was not of first rate quality, but it is useful because it keeps well and is a sure and abundant bearer.

Cuttings were distributed of the following fruit trees, viz. ; The Reine Claude Violette Plum ; one of the few purple Plums of which the flavour will bear comparison with that of the Green Gage. The Nelis d'Hiver Pear ; not a large sort but high flavoured *Syn. La Bonne Malinoise*. The Louise Bonne Pear (of Jersey) ; very different from the old Louise Bonne of the French, which is quite worthless in this country. This will succeed as a standard even in the north of England, where it answers better as such than the Marie Louise ; season October. The Downton Nonpareil Apple ; larger than the old Nonpareil, of a brisk, sharp, yet rich flavour ; hardy and a good bearer.

The following Medals were awarded ;

The *Silver Knightian* to Mr. Newson, for *Azalea indica alba*, and to Mr. Redding, for *Andromeda floribunda* and *Camellia reticulata*.

The *Silver Banksian* to Mr. P. N. Don, for *Oncidium pubes* ; and to John Allnutt, Esq., for *Azalea indica alba*.

The following Presents were announced ;

The *Ladies' Flower Garden*, Nos. 2 and 3, from Messrs. Loudon.

The *Athenæum for February*, from the Editor.

The *Floricultural Cabinet for March*, from Mr. J. Harrison.

The *Botanical Register for March*, from the Publishers.

Baxter's British Flowering Plants, No. 80, from the Author.

March 19, 1839.

ORDINARY MEETING.

The following Fellows were elected ;

Hamilton Gill, Esq., of Shenley Lodge, near St. Albans.

Mrs. Charles Mills, of Camelford House, Oxford Street.

Henry Thomas Hope, Esq., M.P., of 1, Mansfield Street.

A paper was read by Mr. Philip Conway, Gardener to Lawrence Sullivan, Esq., F.H.S., upon an improved plan of constituting Macphail's Pits.

The most novel features in the plan were these ; the pit is filled with blocks of wood to the height of three feet three inches ; and over the blocks are placed a layer six inches thick of fermented leaves, and upon the leaves the earth rests in which the plants are made to grow. The walls of the pit are hollow, and pigeon-holed from the bottom upwards to the height of the blocks of wood. The dung linings are applied externally in the usual way, resting upon the external pigeon-holes ; the heat and moisture they produce pass into the hollow walls which they warm, and thence through the interior pigeon-holes to the blocks of wood, among which they circulate and finally rise into the mould through the layer of fermented leaves. The author stated that the effect of this plan was to produce a fine humid atmosphere, well suited to the growth of Melons and Cucumbers, and that the latter could be grown in such a pit successfully at the earliest seasons of the year.

The following matters were exhibited ;

From Mr. Philip Conway, a brace of *Cucumbers* produced in such a pit as that just described.

From Mr. John Green, Gardener to Sir E. Antrobus, Bart., two noble specimens of *Epacris pungens* and *purpurascens*, together with some other Greenhouse plants.

From Mr. Grey Steel, of Richmond, a basket of cut flowers of *Camellias*.

From Mr. John Weedon, Gardener to R. H. Cox, Esq., of Hillingdon, a brace of *Cucumbers*.

From Mr. P. N. Don, Gardener to James Bateman, Esq., flowers of *Trichopilia tortilis*, *Epidendrum crassifolium*, *Bonatea speciosa*, *Oncidium viperinum* and *Dendrobium fimbriatum*; concerning the latter the following memorandum by Mr. Bateman was read.

"*Dendrobium fimbriatum* does not receive half the attention it deserves, for I can truly say, that as yet I have never beheld any species of the Orchidaceæ that produces such an overwhelming burst of beauty as itself. I have now about sixty bunches in the highest perfection on my plant, which is suspended from the rafters in a pot not more than a foot in diameter; the stems droop over the margin of the pot equally on every side, and the ocean of flowers that dangle at their extremities looks more like enchantment than reality. The plant never fails to flower, and its management is the simplest thing in the world, requiring merely to be removed to any dry, cool place (I believe a common living room would answer every purpose) during the winter months, and to have plenty of heat and moisture during its season of summer's growth. It may be retained to a longer or shorter period in its winter quarters, according to the season when you wish it to produce its flowers, for they will begin to make their appearance immediately after its translation from a cool place to a warm."

From Mr. George Glenny, a collection of *Greenhouse plants*.

From Mr. William Redding, Gardener to Mrs. Marryat, specimens of *Epimedium grandiflorum*, *Billbergia fasciata*, *Dendrobium aureum*, a deliciously violet-scented species from Ceylon, *Hovea lanceolata*, *Sisyrinchium grandiflorum*, and some other plants.

From Messrs. Chandler and Sons, a very beautiful *new* variety of *Camellia japonica*, imported by Mr. Reeves in the year 1837.

From Mr. Brown, of Slough, a seedling *Epacris impressa*, *Rhododendron arboreum roseum*, and the beautiful *variegated Azalea indica*.

From the Garden of the Society, a collection of *Greenhouse plants*.

The following Medals were awarded;

The *Silver Knightian* to Mr. John Green, for his two species of *Epacris*.

The *Silver Banksian* to Mr. Steel of Richmond, for *Camellias*; to Mr. John Weedon, for Cucumbers; to Mr. P. N. Don, for *Oncidium viperinum*, and *Dendrobium fimbriatum*; to Mr. Brown, for *Azalea indica variegata*; to Mr. W. Redding, for *Hovea lanceolata* and *Sisyrinchium grandiflorum*, and to Messrs. Chandlers, for the new variety of *Camellia*.

The following Presents were announced;

Comptes rendus, Nos. 5, 6, 7, 8 and 9, of the first half year, 1839, from the Academy of Sciences at Paris.

Catalogue of Loddiges' Orchideæ, from Messrs. Loddiges and Sons.

Proceedings of the Committee of the Royal Asiatic Society, from the Society.

Pinetum Woburnense, or a Catalogue of Coniferous plants in the Collection of the Duke of Bedford at Woburn Abbey, from His Grace the Duke of Bedford.

Transactions of the Society of Arts, Part 1, Volume 52, from the Society.

April 2, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society;

Andrew Mortimer Drummond, Esq., 49, Charing Cross,
and The Tile House, Denham, Bucks.

Mr. Thomas Ansell, Camden Nursery, Camden Town.

The following objects were exhibited;

From Mr. Jackson, of Kingston, a collection of *Heaths*, and a plant of *Chorizema cordifolium*.

From Mr. George Glenny, seven varieties of hybrid *Amaryllis*, and a miscellaneous collection of *Greenhouse plants*.

From Mr. Gaines, of Battersea, two seedling *Azaleas*, and 30 varieties of *Heartsease*.

From Mr. William Smith, of Norbiton Common, a collection of *Rhododendrons* and *Camellias*, among which was a fine specimen of *Camellia reticulata*.

From Mr. George Steel, of Richmond, a basket of cut *Camellia* flowers.

From Mr. Errington, Gardener to Sir P. de Malpas Grey Egerton, Bart., some very fine plants of *Keen's seedling Strawberry*, forced.

From Mr. Robert Buck, of Blackheath, a specimen of the curious *Mantisia saltatoria*, or "Opera Girls," a stove plant with singularly formed flowers resembling a female figure swinging at the end of an elastic rod.

From Mr. Bartholomew Hepple, Gardener to Sir Charles Monck, Bart., fine fruit of *Oranges and Lemons*, ripened in a greenhouse at Belsay, in Northumberland.

From Mr. John Green, Gardener to Sir E. Antrobus, Bart., a small collection of *Sinningias*, eight varieties of *Erica*, and some other beautiful Greenhouse plants.

From Mr. Falconer, Gardener to Archdale Palmer, Esq., two noble plants of *Phaius grandifolius*, an *Azalea indica alba*, *Euphorbia splendens* and other Greenhouse plants.

From Mr. Croucher, Gardener to the Duke of Sutherland, at West Hill, near Wandsworth, a large plant of *Cytisus racemosus*.

From Mr. Conway, Gardener to Lawrence Sullivan, Esq., of Fulham, an *Azalea indica Smithii*.

From James Bateman, Esq., a collection of *Orchidaceous plants*, consisting of a fine specimen of *Epidendrum selligerum*, a spike of *Calanthe discolor*, one of the prettiest of its race and easily cultivated in a greenhouse, and a new species of *Epidendrum* from Mexico.

From John Allnutt, Esq., three varieties of *Camellia*.

From Messrs. Ross and Co., 33, Regent Street, London, specimens of *India rubber bags* to preserve cut flowers. These bags are fitted with a self acting spring, which keeps the end closed up, and in consequence of their sides not allowing the water evaporated from the flowers to escape, they will for a long time protect their fading and withering.

From Messrs. Lane and Co., of Great Berkhamstead, a very extensive and beautiful collection of *Roses*.

From Mr. Butcher, Gardener to Mrs. Lawrence, a collection of *Stove and Greenhouse plants*, among which were eight species of *Orchidaceæ*, and the rare *Adamia cyanea*, a Nepalese shrub, whose fruit is a cluster of light blue berries.

From the Garden of the Society, several greenhouse and other plants, among which were *Oncidium stramineum*, a very rare Mexican *Orchidaceous plant*, received from Mr. Hartweg; *Chorizema Dicksoni*, a new and handsome Swan River papilionaceous shrub, with deep red flowers; and *Trymalium odoratissimum*, a sweet scented shrub with loose panicles of small white flowers, also from the Swan River.

The following Medals were awarded;

The *Silver Knightian* to Mrs. Lawrence, for *Orchidaceous plants*; to Messrs. Lane and Co., for *Roses*; and to Mr. Falconer, for *Azalea indica alba*, *Euphorbia splendens*, and *Phaius grandifolius*.

The *Silver Banksian* to Mr. William Smith, for *Camellia reticulata*; to Mr. Errington, for *Strawberries*; to Mr. B. Hepple, for *Oranges and Lemons*; to Mr. John Green, for *Sinningias*; to Mrs. Lawrence, for *Adamia cyanea*.

April 16, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Dowager Lady Cooper, Isleworth.

Robert Harrison, Esq., Benningholm House, Hull.

The following paper was read, in explanation of the manner in which the forced Strawberries, for which a Silver Banksian Medal was awarded, at the Meeting on the second inst., were obtained ; by Mr. Robert Errington, Gardener to Sir P. de M. Grey Egerton, Bart., M.P., at Oulton Park, in Cheshire.

“ The runners I use, are obtained from the forced plants of the previous season. For this purpose I reserve all the best pots when they are taken out of the house after gathering the crop, and by sheltering them in frames for a few weeks, so as to preserve and ripen their foliage, they produce both fruit and runners in abundance in September.

“ After a few weeks protection they are turned out of their pots into rich soil in the course of the month of May, by which time the growing principle is stopped ; and it may be observed, that the circumstance of taking them out of their feeders, or pans which had become full of their fibres, combined with the drop of temperature they sustain in their removal from the houses to the cold frame, is sufficient to put them instantly to rest, and bring on an artificial winter ; as far as the maturation and rest of the newly organised bud is concerned. The runners are taken from the plants in the autumn, and planted in a reserve bed as thick as they can stand together for the winter. I must here digress to observe that the advantage which the runners of forced plants possess over the common garden runners is twofold. In the first place, the runners of the forced plants being produced later are smaller, and much less disposed to blossom ; consequently have more of the growing principle in them, and are in my opinion more analogous to a seedling ; and secondly, in point of size, for the plant cannot be too small if it have a leaf and a root. In the beginning of April I prepare ground for their reception and cultivation. I choose my ground in the lightest and most exposed situation which the kitchen garden affords, in fact there must be no shade of any kind near them, the ground must also be solid, that is to say ground which has not been stirred for months ; my object being to produce early growth, early rest, and a fibrous surface-root. The ground is dressed with the rottenest dung the place affords, well mixed in with a fork about four inches deep (by no means more). I place the runners in lines twenty inches apart, and allow

eighteen inches between plant and plant in the row. Nothing now is requisite but to keep them clean through the summer, well-watered for a month or so, and to cut away all runners and blossoms as they appear. In the middle of August, by which time they are strong plants, I commence a series of checks, intended to drive the plant into an early and decided rest. A labourer with a spade cuts within a foot of the plants all along the row on both sides. If this does not cause them to flag in a hot sun the cutting is repeated in a week, and perhaps a third time, cutting nearer the plant each time until finally within six inches. However, be it understood the extent of this checking process depends entirely on the character of the summer, and the state of the plant. If a hot dry summer, perchance they may not require it; but for early forcing the plant must be got to rest early in the autumn, and by rest I mean the entire ceasing of the production of young leaves in the heart of the plant, and the browning or spotting of all the larger leaves.

“ In the early part of September, I pot them in what is called about London the No. 24. I reduce the ball of earth very liberally, and trim the roots in with a knife. The pots are drained with a mixture of old tan quite rough, half rotten dung and coarsé sand. The soil I use is composed of three parts of yellow loam sod, almost as adhesive as clay, but mellowed with age, and one part of rich rotten dung, adding a good sprinkling of fine bone dust. As soon as potted they are placed behind a north wall and sprinkled occasionally with water, they remain here about a week or ten days, in fact until I can ascertain that they are making new roots; they are then removed to a hot gravel walk before a south border, where they remain till the last week in October. While in this situation they are watered occasionally, but not too freely, just enough to keep them from flagging. In the end of October they are plunged behind a north wall completely in the shade, and from this moment I date the commencement of their winter, their large strong leaves are now of a coppery and mottled brown and begin to drop down on the pots. In fact every thing indicates the most perfect maturity of the bud. When I want to commence forcing, I move a portion of them into a slow moist frame heat of from 40° to 50°, and I may here observe that the more gradually they are started the better, but by all means in a moist warmth. When I perceive the flower-stem I introduce them to the back shelves in the houses, placing roomy feeders or pans under them half filled with the following compost: viz. three parts rotten horse dung, one part sandy loam, one part old tan in little nobs or lumps, two parts coarse sand; the pots being placed particularly firm and level on this, little now is wanted but regular watering; the thermometer, however, is by no means allowed to rise above 65° in the day and 55° at night, until the first bloom opens,

except in sunshine, and the floors are kept saturated with moisture, with, at all possible opportunities, abundance of air. As to setting the blossoms, I endeavour to get the house up to 70° artificial heat from daylight until near noon, by which time I have a perfectly dry atmosphere, and the farina in a most subtle state. I then open the sashes front and back, and obtain a lively circulation of air for an hour or so. I then take all the air away, and towards three or four o'clock syringe them over head, and water the floors and flues for the night. The next part of the process is thinning out the berries when they begin to swell off; my crops set so abundantly by the above method that I am compelled to thin away at least one-half with the scissors. I leave from 14 to 20 berries on each pot, and immediately this thinning is completed, I increase my heat to 70° by day and 60° by night, shutting up the house on sunny days as high as 90°, with heavy syringing and floors saturated with wet. I use liquid manure from the time the first flower opens until the fruit turns colour, diluting it with one-half clean water in a tepid state, observing to use clean water alternately with dung water, as I find by experience that this is absolutely necessary at all times, or stagnation ensues; and I may here observe, that this is the reason why as I think many are deceived in their expectations with regard to liquid manure. When my strawberries are ripening I withhold water almost entirely, more especially for many hours previous to each gathering, observing to give abundance of air by day, and if possible a little at night, as on this their flavour most materially depends. When they begin to colour I lower the temperature of the houses, as the slower they ripen the finer the fruit will be, and the richer the flavour, taking care however not to starve them.

"Those who have not been accustomed to this mode may probably be prejudiced at the appearance of so much care and trouble. I can assure them, however, that it is not so troublesome as it appears at first sight, it is only observing the proper times of conducting the different processes, which, if attended to, will infallibly produce abundant crops of unusually large strawberries. Of course no red spider or aphides are allowed to rest a day on the plants, one complete fumigating and a day's sulphuring, when the blossoms of the earliest crop are rising, is all the care I take in this respect; and this carries me through the strawberry season. I send herewith a dozen specimens gathered from my second crop.

"I have two houses in which I grow them, each 30 feet long, they are placed on a back shelf close to the roof; each house holds 32 pots, heated by hot water, and the roof is metallic.

"One fire heats three 30 feet long houses, whose bases respectively are 18 feet, 16 feet, and 14 feet in width; they were built and heated by Mr. J. Jones of Birmingham.

"The following is a statement of the produce of the two shelves. Each pot averaged 14 strawberries; Each shelf contained 32 pots. From three to four strawberries averaged an ounce, the largest strawberry weighed an ounce. Thus $32 \times 14 = 448 \div 4 = 112$ oz. the produce of each shelf.

"Which at 2s. per ounce gives £11. 4s. or the two shelves £22. 8s.

"I may here add that the first crop is now gathered, the plants turned out, and another set of strong plants introduced, which are now in bloom."

The following objects were exhibited;

From the Rev. Thomas Garnier, Cones of *Abies Webbiana*, ripened in his garden at Bishopstoke near Winchester.

From Mr. Errington, Gardener to Sir P. de M. Grey Egerton, Bart., a dish of *Strawberries* forced in the manner detailed in the foregoing paper.

From Mr. Pratt, Gardener to Wm. Harrison, Esq., a plant of the rare *Arctostaphylos myrtifolia*, together with *Euphorbia splendens* and *Peristeria pendula*.

From Mr. Conway, Gardener to Lawrence Sullivan, Esq., a fine young plant of *Azalea indica variegata*.

From Mr. Redding, Gardener to Mrs. Marryat, a noble specimen of *Clematis azurea grandiflora*, with *Arbutus procera*, *Protea longiflora* and other plants.

From Mr. D. Beaton, Gardener to Thomas Harris, Esq., a specimen of *Clerodendron phlomoides*, a rare stove plant, with fragrant white flowers.

From Mr. George Glenny, a collection of plants.

From Mr. Gaines, of Battersea, a collection of *Heartsease*.

From John Allnutt, Esq., specimens of *Camellia japonica candidissima* and a seedling variety.

From Mr. P. N. Don, Gardener to James Bateman, Esq., a fine specimen of the beautiful *Lælia cinnabarina*, a rare Brazilian epiphyte.

From Mr. C. Young, of Epsom, a blue-flowered climbing species of *Comesperma*, *Asarum japonicum*, and four varieties of *Berberis aquifolium*.

The following Medals were awarded;

The *Silver Knightian* to Mr. P. N. Don, for *Lælia cinnabarina*.

The *Silver Banksian* to Mr. W. Redding for *Clematis azurea*; to Mr. P. Conway for *Azalea indica variegata*; to Mr. Pratt for *Arctostaphylos myrtifolia*, and to Mr. Young for his *Comesperma*.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1839.

No. VII.

May 1, 1839.

ANNIVERSARY MEETING.

ON this occasion the following Officers were elected for the ensuing year :

His Grace the Duke of Devonshire, President.

Thomas Edgar, Esq., Treasurer.

George Bentham, Esq., Secretary.

The following Fellows of the Society were elected into the Council for the ensuing year :

E. W. Pendarves, Esq., M.P.

J. R. Gowen, Esq.

R. H. Solly, Esq.

in the room of

The Hon. W. F. Strangways.

L. Holland, Esq.

Mr. J. A. Henderson.

who went out by rotation.

The Report upon the state of the Society's finances for the year ending 31st March, 1839, was read by one of the Auditors :

REPORT OF THE AUDITORS.

THE Auditors have to report to this the thirtieth Annual General Meeting of THE HORTICULTURAL SOCIETY OF LONDON, that they have examined the Accounts for the past year, which, they have

the satisfaction to state, exhibit a favourable view of the financial affairs of the Society, inasmuch as the Income exceeds the Expenditure, by £1364..16..6: as shown in the subjoined abstract.

Although this sum is nearly £200 under that of 1837-8, the extra expenditure during the period under review, for adding to the Library the concluding parts of a valuable work, for the publication of the proceedings of the meetings, for the completion of new Buildings at the Garden and repairs to others, and for the foundation to the new Conservatory, considerably exceeds that deficiency.

The regulation of the Society being, that all monies received and paid shall be passed through the Banker's hands, the Cash Account for the year ending 31 March last is as follows :

D ^r .	To Balance at Bankers, 1st April, 1838,	£313	2	2
	To ditto in hands of Vice Secretary, ditto,	5	0	1
	To amount of various Receipts,	5721	10	4
		<hr/>		
		£6039	12	7
C ^r .	By Bond paid off,	£500	0	0
	By various payments by Checks, 2667	1	9	
	By ditto through Vice Secretary, 2497	10	9	
		<hr/>		
		5664	12	6
		<hr/>		
	Leaving a balance of	£375	0	1
	Being with Sir W. P. Call & Co. £367	10	9*	
	Vice Secretary per P. C. Book, 7	9	4	
		<hr/>		
		£375	0	1

In addition to the Bond for £500. above stated to have been cancelled, the Auditors find that the Council, some time since, directed notice to be given for the discharge of two others for £200. and £100. which have not yet been presented; but the interest upon the latter has ceased. The Bonded Debt therefore now appears as £9850; and that on open account as £2556..14..11; making together £12406..14..11 (which does not include about £430. due for Medals awarded;) against this amount is to be placed £7101..11..8† due to the Society, including the Cash Balance of £551..16..8, but exclusive of the Annual Subscriptions falling due on the 1st of May next.

The other assets of the Society comprise the House, Furniture, and Library in Regent Street, and the Garden at Chiswick, with the various property therein,—of which assets, the Au-

* This amount, together with £176..16..7. to the credit of "Garden Exhibitions, 1839," forms the Cash Balance per Banker's Book, £544..7..4.

† Of this sum £804..11..0 have been received since the 1st of April last.—
Note by the Secretary, September 1, 1839.

ditors, fully coinciding in opinion with their predecessors in office, that their intrinsic value considerably exceeds the liabilities of the Society, have not thought it necessary to call for any specific valuation.

The Auditors have also the continued satisfaction of bearing testimony to the clearness and correct manner in which the Accounts of the Society are kept.

21, REGENT STREET,
23rd April, 1839.

R. W. EYLES.
ROBERT GIBSON.
WM. HASLEDINE PEPYS.
A. PEYTON PHELPS.
GEORGE ROLLISSON.
ROBERT WRENCH.

ABSTRACT OF INCOME AND EXPENDITURE, between the 1st of April, 1838, and 31st of March, 1839.

Dr.		£.	s.	d.	Cr.		£.	s.	d.
To admission fees from Fellows		207	18	0	By rents, rates, taxes, &c. Regent Street, and Chiswick		595	12	11
To compositions for life from ditto		210	0	0	By repairs of house and furniture in Regent Street . .		32	4	9
To annual subscriptions, due 1st May, 1838 . .		3962	3	6	By housekeeping expenses, Regent Street		35	3	9
To amount of Transactions sold		105	3	6	By salaries		791	6	0
To rent of apartments let off in Regent Street .		110	0	0	By interest on bonded debt		515	0	0
To garden produce sold £72 5 5					By cost of publishing Transactions, and Proceedings of Meetings		384	5	5
Pine Apple plants, do. 101 17 6					By library charges		122	18	2
To balance transferred from "Garden Exhibition" Account		174	2	11	By printing, stationery, and stamps		66	14	1
To Donation to the Garden by a Fellow of the Society		1712	5	7	By medals and rewards at Ordinary Meetings		91	2	6
To cash received for a Knightian Medal		10	0	0	By cost and charges on foreign importations, &c. . . .		104	11	9
To amount charged to Fellows for packages, &c. (see contra)		1	10	0	By foreign missions—Collector in Mexico		324	19	8
		45	11	8	By expense of meetings, postage, &c.		149	18	10
					By miscellaneous expenses in Regent Street		28	15	6
					By ditto at Chiswick, for seeds, plants, carriage, &c. .		111	6	7
					By garden charges for implements, mats, &c. . . .		95	0	10
					By Do. tan, dung, mould, &c.		70	6	10
					By Do. baskets, &c. for packing plants, seeds, &c. for Members		153	3	4
					By garden current labour		989	7	7
					By Do. extra works, buildings, and repairs to houses, &c.		264	5	8
					By Do. foundation to New Conservatory		107	16	0
					By Do. coals and coke		139	18	6
							5173	18	8
					By balance, being surplus of Income over Expenditure		1364	16	6
							£. 6538	15	2

May 7, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Rev. Richard Warner Kendall Wood, M.A., Little Bowden, Harborough, Northamptonshire.

Newell Connop, Esq., 7, Whitehall, and Honeylands, Essex.

The Rev. Edward Rodd, D.D., Trebartha Hall, Five Lanes, Cornwall.

The Hon. Wm. Bingham Baring, Great Stanhope Street.

The following objects were exhibited ;

From John Allnutt, Esq., F.H.S., three species of *Erica*.

From Mr. Mountjoy, of Ealing, a collection of *Heartsease*.

From Mr. Jackson, Nurseryman, Kingston, Surrey, *Cytisus racemosus*, and a fine specimen of *Erica Hartnelli*.

From Mr. Weeks, Gardener to John Sheepshanks, Esq., F.H.S., a fine specimen of *Abutilon striatum*, a new greenhouse plant, with drooping bell-shaped flowers, beautifully veined with brown.

From Mr. Conway, Gardener to Lawrence Sullivan, Esq., F.H.S., a *Fuchsia fulgens*.

From Mr. P. N. Don, Gardener to James Bateman, Esq., F.H.S., Flowers of *Dendrobium fimbriatum*, and *Grammatophyllum multiflorum*.

From Mr. John Hally, Nurseryman, Blackheath, a specimen of *Chorozema varium*, a new greenhouse shrub, imported from Swan River, with beautiful yellow and purple papilionaceous flowers.

From Mr. G. M. Elliott, Gardener at Ripley Castle, ripe fruit of *Bromelia Karatas*, and specimens of the *Papaw* fruit.

From Mr. George Glenney, F.H.S., a collection of *Greenhouse Plants*.

From Mr. Myatt, of Deptford, a bunch of the large *Rhubarb* called "Victoria."

From Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., a plant of *Clematis azurea*.

From Mr. W. Redding, Gardener to Mrs. Marryat, F.H.S., a sweet-scented *Verbena*, said to have been raised from seeds collected in California.

From Messrs. Lucombe, Pince, and Co., of Exeter, a plant of *Fabiana imbricata*, a beautiful greenhouse shrub, with small heath-like leaves, and a profusion of pure white bell-shaped flowers.

From Mr. Wm. McCulloch, Gardener to James Dupré, Esq., of Wilton Park, Bucks, F.H.S., a dish of *Keen's Seedling Strawberries*.

From Messrs. Brown, of Slough, plants of *Gesnera Suttoni* and *Kennedyia coccinea*.

From Mr. John Green, Gardener to Sir Edmund Antrobus,

Bart., F.H.S., some fine *Seedling Calceolarias* and *Kennedyia coccinea*.

From Mr. John Skerratt, Gardener to Col. Long, F.H.S., a *Seedling Rhododendron* and *Tropæolum tricolor*.

From Mr. Steel, Nurseryman, Richmond, a collection of flowers of *Camellias*.

From Mr. Chapman, of Vauxhall, *Keen's Seedling Strawberries*, and two dishes of *Grapes*.

From Mr. George Charlwood, F.H.S., a collection of flowers of *Hyacinths* received from Haarlem, among which were several new varieties; they were not however finer than specimens produced in England under good management.

From J. B. Daubuz, Esq., F.H.S., of Offington House, near Worthing, flowers of *Ismene Amancaes*.

From the Garden of the Society, a collection of plants, among which were specimens of *Calochortus barbatus* from Mr. Hartweg's Mexican expedition.

The following Medals were awarded;

The *Large Silver* to Mr. John Hally for *Chorozema varium*.

The *Silver Knightian* to Mr. Jackson for *Erica Hartnelli*, to Messrs. Brown for *Kennedyia coccinea*, and Mr. Lumsden for *Clematis azurea grandiflora*.

The *Silver Banksian* to Mr. Weeks for *Abutilon striatum*, Mr. Green for *Kennedyia coccinea*, Mr. Skerratt for *Tropæolum tricolor*, Mr. Chapman for *Grapes*, Mr. Daubuz for *Ismene Amancaes*, and Messrs. Lucombe and Co. for *Fabiana imbricata*.

The following Presents were announced;

The Naturalist, various parts, from Neville Wood, Esq.

The Journal of the Royal Geographical Society, Part 1, Vol. 9, from the Society.

Glendinning on the Culture of the Pine Apple, London, 1839, from the Author.

The Journal of the English Agricultural Society, Part 1. Vol. 1. 8vo. London, 1839, from the Society.

Proceedings of the American Philosophical Society, No. 5, Vol. 1. from the Society.

Comptes rendus, &c. Nos. 10, 11, 12, 13, 14, first half year, 1839, from the Academy of Sciences.

Flora Batava, No. 117, from His Majesty the King of Holland.

Proceedings of the Geological Society of London, No. 60 and 61, and List of the Members, from the Society.

Proceedings of the Botanical Society of London, Part I. Vol. 1. from the Society.

A Review of the references to the Hortus Malabaricus of Henry Van Rheedee Van Drakeenstein, from L. W. Dillwyn, Esq.

The Athenæum for March and April, from the Editor.

The Ladies Flower Garden, by Mrs. Loudon, (No. 4 and 5), from the Authoress.

A Treatise on Artificial Incubation, from the Author, Mr. Bucknell.

Annual Report of the Agricultural and Horticultural Society of India for the year 1836.

Transactions of the Agricultural and Horticultural Society of India, vols. 3, 4, 5, from the Society.

Harrison's Floricultural Cabinet, for May, from the Editor.

Baxter's British Flowering Plants, No. 82, from the Editor.

The Botanical Register, for May, from the Publishers.

May, 18, 1839.

EXHIBITION AT THE GARDEN.

Upon this occasion the number of Visitors was 3044 exclusive of exhibitors. There were about 800 specimens of plants, 13 boxes of cut flowers, and 35 dishes of fruit.

The award of the Judges was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a large collection of Stove and Greenhouse plants.

2. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun. F.H.S., for a collection of Orchidaceous plants.

3. To Messrs. Rollisson, for a collection of Orchidaceous plants.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Cock, of Chiswick, for Pelargoniums.

2. To Mr. Gaines, of Battersea, for Pelargoniums.

3. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for a large collection of Stove and Greenhouse plants.

4. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a large collection of Stove and Greenhouse plants.

5. To Mr. Bannon, Gardener to Samuel Jones Loyd, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.

6. To Mr. Barnes, Gardener to G. W. Norman, Esq., F.H.S., for Cape Heaths.

7. To Mr. Pamplin, of Hornsey Road, Islington, for Cape Heaths.

8. To Mr. William Smith, of Norbiton, for Greenhouse Azaleas.

THE LARGE SILVER MEDAL.

1. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for Pelargoniums.
2. To Messrs. Colley and Hill, of Hammersmith, for Pelargoniums.
3. To Edmund Foster, Esq. of Clewer, for Herbaceous Calceolarias.
4. To Mr. John Green, for Shrubby Calceolarias.
5. To Mr. Jackson, of Kingston, for a large collection of Stove and Greenhouse plants.
6. To Mr. Pratt, Gardener to William Harrison, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.
7. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for Cape Heaths.
8. To Mr. Pratt, for Cape Heaths.
9. To Mr. Jackson, for Cape Heaths.
10. To Mr. Davis, Gardener to Sir Simon Clarke, Bart., F.H.S., for Grapes.
11. To Mr. Falconer, Gardener to Archdale Palmer, Esq. for Greenhouse Azaleas.
12. To Mr. John Green, for Tall Cacti.
13. To Messrs. Lane, of Great Berkhamstead, for Roses.
14. To Mr. J. Bruce, Gardener to Boyd Miller, Esq. for a single specimen of an Orchidaceous plant (*Oncidium pumilum*.)
15. To Messrs. Lucombe and Pince, of Exeter, for *Oncidium pictum*.
16. To Messrs. Lucombe and Pince, of Exeter, for a single specimen not in flower (*Cephalotus follicularis*.)
17. To Messrs. Lucombe and Pince, of Exeter, for a single specimen in flower (*Erica elegans*.)
18. To Messrs. Veitch, of Killerton Nursery, Exeter, for *Chorizema varium*.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. Pratt, for Pelargoniums.
2. To Mr. Catleugh, of Hans Street, Chelsea, for Herbaceous Calceolarias.
3. To Mr. Upright, Gardener to G. C. Ridge, Esq. for a small collection of Stove and Greenhouse plants.
4. To Mr. Dowson, Gardener to William Leaf, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.
5. To Messrs. Rollisson, for Cape Heaths.
6. To Messrs. Fairbairns, of Clapham, for Cape Heaths.
7. To Mr. Davis, for Pine Apples.
8. To Richard Brook, Esq. F.H.S., for Apples and Pears.
9. To Mr. Pratt, for Melon shaped Cacti.
10. To Mr. Falconer, for Tall Cacti.

11. To Messrs. Rollisson, for a single Orchidaceous plant (*Oncidium divaricatum*.)
12. To Mr. Dunsford, Gardener to the Baron Dimsdale, for a single specimen not in flower (*Doryanthes excelsa*.)
13. To Mr. Lane, for a single specimen in flower (*Azalea indica variegata*.)
14. To Mr. Douglas, Gardener to Earl de Grey, F.H.S., for a single specimen in flower (*Telopea speciosissima*.)
15. To Mr. J. Lane, for a seedling *Amaryllis*.
16. To Mr. George Mills, F.H.S., for *Hydrangeas*.
17. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Thunbergia Hawtayneana*.
18. To Messrs. Veitch, for *Azalea indica rubra plena*.

THE SILVER BANKSIAN MEDAL.

1. To Mr. John Green, for Herbaceous *Calceolarias*.
2. To Mr. Barnes, Gardener to Sir Herbert Jenner, for Cucumbers.
3. To Mr. Chapman, of Vauxhall, for Grapes.
4. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for Cherries.
5. To Messrs. Rollisson, for a single Orchidaceous plant, (*Cattleya Forbesii*.)
6. To Mr. Pratt, for a single specimen not in flower (*Rhododendron campanulatum*.)
7. To Mr. George Mills, for a single specimen in flower (*Clematis Sieboldi*.)
8. To Mr. George Mills, for a single specimen in flower (*Clematis azurea grandiflora*.)
9. To Mr. George Mills, for a single specimen in flower (*Fuchsia fulgens*.)
10. To Mr. Redding, for a single specimen in flower (*Tropeolum tricolor*.)
11. To Mr. J. A. Henderson, F.H.S., for a single specimen in flower (*Cineraria*.)
12. To Mr. Lane, for *Azalea indica lateritia*.
13. To Mr. Hally, of Blackheath, for *Pæonia arborea Victoria*.
14. To Messrs. Lucombe and Pince, of Exeter, for *Rhododendron Victoria*.

The Judges congratulated the Society upon the improvement that had taken place in the cultivation of Cape Heaths within the last few years.

The result of this award, as compared with the objects exhibited, is shewn by the following table.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Greenhouse Azaleas - - -	3	—	1	1	—	—
Melon-shaped Cacti - - -	1	—	—	—	1	—
Cape Heaths - - - -	7	—	2	3	1	—
Collections of Orchidaceous Plants	2	2	—	—	—	—
Single Orchidaceous Plants - -	4	—	—	2	1	1
Pelargoniums - - - -	5	—	2	2	1	—
Roses - - - -	1	—	—	1	—	—
Large collections of Stove and Green- house Plants - - - - }	4	1	2	1	—	—
Small collections of Stove and Green- house Plants - - - - }	5	—	1	1	2	—
Herbaceous Calceolarias - - -	6	—	—	1	1	1
Shrubby Calceolarias - - - -	1	—	—	1	—	—
Cucumbers - - - -	13	—	—	—	—	1
Tall Cacti - - - -	2	—	—	1	1	—
Figs - - - -	1	—	—	—	—	—
Grapes - - - -	4	—	—	1	—	1
Pine Apples - - - -	1	—	—	—	1	—
Single specimens not in flower -	5	—	—	1	1	1
Single specimens in flower - -	45	—	—	1	5	8
New Plants - - - -	16	—	—	1	—	—
Miscellaneous - - - -	35	—	—	—	2	1
Total -	161	3	8	18	17	14

May 21, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Mr. Robert Taylor Pince, Nurseryman, Exeter.

Mr. Charles Young, Nurseryman, Epsom.

The following objects were exhibited ;

From the Hon. W. F. Strangways, a collection of natural varieties of *Tulipa scabriscapa*, from Florence, and of *Tulipa celsiana*, from Piedmont, *Allium neapolitanum*, the Nepal *Clematis montana*, and two varieties of *Chinese Azalea*, from the open border at Abbotsbury, in Dorsetshire.

From Messrs. Chandler and Son, Nurserymen, Vauxhall, a beautiful specimen of *Rhododendron fragrans*, a variety of *Azalea calendulacea* from Ghent, and a species of *Aloe*.

From Wm. Bromley, Esq., F.H.S., a large specimen of *Littæa geminiflora*, (the *Bonapartea juncea* of gardens) and a very fine Chinese *Azalea*.

From the Hon. and Rev. W. Herbert, a specimen of the *Zephyranthes sessilis*, var. *verecunda*, a new bulbous plant, accompanied by the following note :—"These bulbs were set out of doors last year, in May, in a bed of very sandy compost, (say two-thirds sand) taken up in October, and kept, with many others, in a pot of dry sand through the winter. They were taken from thence and planted in this pot eight days ago. A bed of them is very showy, when they expand in the sunshine."

From Mr. P. N. Don, Gardener to James Bateman, Esq., F.H.S., flowers of the rare *Chysis aurea*, and of *Aerides odoratum*.

From Mr. Myatt, of Deptford, specimens of his *Victoria Rhu-barb*, a very large variety.

From Robert Mangles, Esq., of Sunning Hill, two new Swan River plants : *Gompholobium versicolor*, and *Isotropis striata* ; the latter a curious papilionaceous plant, with a yellow vexillum, striped with brown.

From the Society's Garden, a collection of plants of various kinds, among which were *Theophrasta Jussæi* in full flower, and the pretty *Hoteia japonica*.

The following Medals were awarded ;

The *Silver Knightian* to Mr. Don, for his Orchidaceous epiphytes.

The *Silver Banksian* to Wm. Bromley, Esq., for his Chinese *Azalea*, and to Messrs. Chandler and Co., for *Rhododendron fragrans*.

The following Presents were announced ;

Comptes rendus hebdomadaires, &c., Nos. 15 and 16, from the Academy of Sciences at Paris.

The Proceedings of the Geological Society, No. 62, from the Society.

The Proceedings of the American Philosophical Society, No. 6, Vol. 1. from the Society.

June 4, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Everard Augustus Brande, Esq., 5, Eaton Square.

Miss Elizabeth Champion, Wandsworth Common, Surrey.

Charles Porcher Lang, Esq., 52, Eaton Place.

Henry Sich, Esq., Chiswick.

The Rev. Sir Edward Smyth, Bt., Grosvenor Square, and Hill Hall, Essex.

Herbert Williams, Esq., Stinsford, near Dorchester.

The following objects were exhibited ;

From Mr. J. A. Henderson, F.H.S., a collection of plants from the Swan River, and *Hemerocallis rutilans*.

From Mrs. Lawrence, F.H.S., a fine collection of *Heaths* and *Store* and *Greenhouse* plants, among which were *Chorozema oratum* in great beauty, and striking specimens of *Tweedia cœrulea*, *Stephanotis floribunda* and *Eriostemon cuspidatum*.

From Earl Brownlow, F.H.S., a painting of *Brownea grandiceps*, which had flowered at Belton House.

From Mr. P. N. Don, Gardener to James Bateman, Esq., F.H.S., a dried specimen of the *Manita* or *hand-flower* of Mexico ; a fine spike of *Stanhopea oculata* ; a solitary flower of *Stanhopea saccata*, a most singular species ; *Vanda teres*, the handsomest of Indian Orchidaceæ ; *Stelis macrostachya*, a new species from Guatemala, and a small spike of *Epidendrum alatum*, a very valuable species in consequence of the length of time its flowers last in perfection, its noble habit, the leaves being two feet long, its delicious fragrance, and the facility with which it submits to cultivation.

From Mrs. Withers, a drawing of *Stanhopea venusta*, a very noble species of recent introduction.

From Mr. Catlough, Nurseryman, Chelsea, specimens of seedling *Pelargoniums* of extraordinary beauty.

From Augustus Foster, Esq., F.H.S., some seedling *Calceolarias*, very remarkable for their fine colours.

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., an *Azalea indica lateritia*, a seedling *Gloxinia*, and a variety of *Oncidium luridum*.

From Mr. Chapman, of Vauxhall, some *Strawberries* and *Grapes*.

From Mrs. Lane, Totnes, Devonshire, some very fine *Citrons* and *Lemons*, which had been grown in a common green-house, in which there is only a small flue, never used, except to dry the damp of the house, which is not in a favourable situation, being surrounded by buildings and entirely deprived of the western sun.

From Alexander Rowland, Esq., F.H.S., a collection of *Hearts-ease*.

From Mr. Brown, F.H.S., Nurseryman, Slough, a very fine plant of *Lilium longiflorum*.

From the Society's Garden, a collection of *Pæonies*, and a considerable variety of other plants ; on this occasion the *Zebra mallow*, obtained by the French from Algiers, was first exhibited ; it is a handsome hardy annual, with the habit and foliage of the

larger wild mallow, but with pale violet flowers striped with deep purple. There were also cut flowers of *Calochortus barbatus*, obtained from bulbs sent home to the Society from Mexico by Mr. Hartweg.

The following Medals were awarded ;

The *Silver Knightian* to Mrs. Lawrence for her collection of Heaths, and to Mr. P. Don for his Orchidaceous Epiphytes.

The *Silver Banksian* to Mrs. Lawrence for *Chorozema ovatum*, to Mrs. Lane for her Citrons and Lemons, to Augustus Foster, Esq., for his Calceolarias, to Mr. Catleugh for his seedling *Pelargoniums*, and to Mr. Brown for *Lilium longiflorum*.

The following Presents were announced ;

The Athenæum, for the month of May, from the Editor.

The Botanical Register for June, from the Publishers.

British flowering plants, No. 83, from the Author, Mr. Wm. Baxter.

Plantæ Hartwegianæ, from the Author, G. Bentham, Esq.

Trattato degli Alberi della Toscana di Gaetano Savi, presented by James Webster, Esq., F.H.S.

June 15, 1839.

EXHIBITION AT THE GARDEN.

Exclusive of exhibitors the number of visitors on this occasion was 8789. The single specimens of plants amounted to 730 ; besides which there were 23 boxes of cut flowers, and 41 dishes of fruit.

The award of the Judges was as follows ;

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for a large collection of Stove and Greenhouse plants.

2. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun., F.H.S., for a collection of Orchidaceous plants.

3. To Messrs. Rollisson and Son, of Tooting, for a collection of Orchidaceous plants.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Cock, of Chiswick, for *Pelargoniums*.

2. To Mr. Catleugh, of Hans Street, Chelsea, for *Pelargoniums*.

3. To Mr. Barnes, Gardener to G. W. Norman, Esq., F.H.S., for a large collection of Stove and Greenhouse plants.

4. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a large collection of Stove and Greenhouse plants.

5. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for a small collection of Stove and Greenhouse plants.

6. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for Cape Heaths.

7. To Mr. Pamplin, of Hornsey Road, Islington, for Cape Heaths.

8. To Mrs. Fleming, of Binstead, Isle of Wight, for a collection of Roses.

9. To Mr. Cobbett, of Horsell, near Woking, Surrey, for a collection of Roses.

THE LARGE SILVER MEDAL.

1. To Mr. Davis, Gardener to Sir Simon Haughton Clarke, Bart., F.H.S., for Grapes.

2. To Mr. Mc Onach, Gardener to Edmund Foster, Esq., of Clewer, near Windsor, for Pine Apples.

3. To Mr. Gaines, of Surrey Lane, Battersea, for Pelargoniums.

4. To Mr. Barnes, Gardener to G. W. Norman, Esq., F.H.S., for Herbaceous Calceolarias.

5. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Shrubby Calceolarias.

6. To Edmund Foster, Esq., of Clewer, near Windsor, for Seedling Pelargoniums.

7. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a large collection of Stove and Greenhouse plants.

8. To Mr. Jackson, of Kingston, Surrey, for a large collection of Stove and Greenhouse plants.

9. To Mr. Barnes, Gardener to G. W. Norman, Esq., F.H.S., for Cape Heaths.

10. To Mr. Jackson, of Kingston, Surrey, for Cape Heaths.

11. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Tall Cacti.

12. To Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.

13. To Messrs. Dennis and Co., for a collection of Roses.

14. To Mr. Dunsford, Gardener to Baron Dimsdale, for a collection of Orchidaceous plants.

15. To Mr. Smith, of Norbiton, for Azalea Danielsiana.

16. To Messrs. Colley and Hill, for Fuchsia fulgens.

17. To Mr. Coady, for Burchellia Capensis.

18. To Mr. Mills, for Fuchsia fulgens.

19. To Mr. Butcher, for Heliconia pulverulenta.

20. To John Allnutt, Esq., F.H.S., for Erica depressa.

21. To Mr. Butcher, for Stephanotus follicularis.

THE SILVER KNIGHTIAN MEDAL.

1. To Messrs. Roe and Bell, of Norwich, for Grapes.
2. To Mr. Weedon, Gardener to Richard Henry Cox, Esq., F.H.S., for Melons.
3. To Mr. Davis, Gardener to Sir Simon Haughton Clarke, Bart., F.H.S., for Pine Apples.
4. To William Wells, Esq., F.H.S., for Citrons.
5. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for Pelargoniums.
6. To Mr. Hamilton of Beaver Lane, Hammersmith, for Pelargoniums.
7. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Herbaceous Calceolarias.
8. To Mr. Conway, Gardener to Lawrence Sullivan, Esq., F.H.S., for Smith's Scarlet Pelargonium.
9. To Mr. Alston, Winson Hill, Birmingham, for a Seedling Calceolaria.
10. To the Rev. Mr. Garth of Farnham, Surrey, for Seedling Pelargoniums.
11. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for a small collection of Stove and Greenhouse plants.
12. To Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., for Cape Heaths.
13. To Mr. Smith, of Norbiton, Surrey, for Hardy Azaleas.
14. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for *Alströmerias*.
15. To Messrs. Lane, of Berkhamstead, for a collection of Roses.
16. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for *Oncidium flexuosum*.
17. To Messrs. Rollisson and Sons, of Tooting, for *Stanhopea oculata*.
18. To Mr. Barnes, for *Clematis Sieboldi*.
19. To Mr. Wylie, for *Sedum Aizoon*.
20. To Mr. Low, F.H.S., for *Diplacus puniceus*.
21. To Mr. George Turner, for British Orchidaceæ.
22. To Mrs. Randolph, 2, Bridge Street, Westminster, for Feather flowers.
23. To Mr. Wylie, for Cockscombs.
24. To Mr. Burton, for the Plan of a Flower Garden.
25. To Mr. Page, for Anatomized plants.

THE SILVER BANKSIAN MEDAL.

1. To Mr. Herrod, Gardener to J. B. Daubuz, Esq., F.H.S., for Grapes.
2. To Mr. Halley, of Blackheath, for Strawberries.

3. To Messrs. Colley and Hill, of Hammersmith, for Pelargoniums.

4. To Mr. Bridges, of Hampton, for Heartsease.

5. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for Alströmerias.

6. To Mr. Herrod, Gardener to J. B. Daubuz, Esq., F.H.S., for Roses.

7. To Mr. Pratt, for an Oleaceous plant, called Ilex speciosa.

8. To Mr Abbott, for Agnostis sinuata.

9. To Mr. Mountjoy, for Stylidium graminifolium.

10. To Mr. Fielder, for a Seedling Cactus.

11. To Mr. Saunders, of Jersey, for Pandotheca capitata.

12. To Mr. Piper, of Chiswick, for Flowers of the White Rocket.

13. To Mr. Leslie, for Gardenia coronaria.

14. To Mr. Muntjoy, for Gloxinia hybrida.

15. To Mr. Jackson, for Pimelea decussata.

The following table shews the result of this award as compared with the objects exhibited.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Hardy Azaleas - - - -	1	—	—	—	1	—
Cape Heaths - - - -	5	—	2	2	1	—
Collections of Orchidaceous Plants	3	2	—	1	—	—
Single Orchidaceous Plants -	6	—	—	—	2	—
Pelargoniums - - - -	6	—	2	2	4	1
Roses - - - -	6	—	2	1	1	1
Large collections of Stove and Green-house Plants - - - - }	5	1	2	2	—	—
Small collections of Stove and Green-house Plants - - - - }	3	—	1	1	1	—
Alströmerias - - - -	2	—	—	—	1	1
Herbaceous Calceolarias - -	3	—	—	1	2	—
Shrubby ditto. - - - -	1	—	—	1	—	—
Tall Cacti - - - -	1	—	—	1	—	—
Grapes - - - -	6	—	—	1	1	1
Melons - - - -	5	—	—	—	1	—
Pine Apples - - - -	4	—	—	1	1	—
Single specimens not in flower -	4	—	—	—	—	2
Single specimens in flower - -	31	—	—	6	3	6
New Ornamental Plants - -	7	—	—	1	—	1
Miscellaneous Articles - -	23	—	—	—	6	2
Total -	122	3	9	21	25	15

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1839.

No. VIII.

June 18, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society :

William Farlow, Esq., 8, St. Peter's Square, Hammersmith.

Mr. Benjamin Fowler, Claremont Lodge, Brixton Road.

John Gaskell, Esq., St. Nicholas, Isle of Thanet.

George Grierson, Esq., Dublin.

William Charles Harland, Esq., M.P., 3, Chesterfield Street,
May Fair, and Sutton Hall, York.

Henry Harman, Esq., Croydon.

Sir William Molesworth, Bt., M.P., 79, Eaton Square, and
Pencarrow, Cornwall.

Peter Pole, Esq., Drayton Hall, Uxbridge.

John Forbes Royle, M.D., 20, Berners Street.

The Cavalier Torrigiani, Florence.

Sir Francis Waskett Myers, K.C.S., 7, Chester Street, Gros-
venor Place, and Pentlow Hall, Sudbury.

Mrs. Wescomb, Langford Grove, Maldon, Essex.

The following objects were exhibited :

From the Hon. W. H. Dawnay, F.H.S., nine species of *Orchidaceous plants* found wild in England.

From A. B. Lambert, Esq., F.H.S., a model of *Opuntia maxima*, taken from a plant growing in his Stove at Boyton, in Wiltshire.

From Messrs. Chandler and Sons, of Vauxhall, a plant of the pretty greenhouse shrub called *Liparia sphaerica*.

From the Hon. W. F. Strangways, F.H.S., a collection of *cut flowers*, from the open garden at Abbotsbury, in Dorsetshire, among which were *Mathiola tricuspidata* and another species from Madeira, *Veronica decussata*, and *Melaleuca thymifolia*, an Australian shrub which proves to be nearly hardy.

From Mr. C. Marshall, a plant of his *New Early Dwarf Prolific Bean*, concerning which the following memorandum was made at the Garden of the Society.

This was grown along with the other varieties of Beans in the Society's Garden at Chiswick, and proves to be of very excellent quality. It is dwarf, branching close to the bottom of the stem, very prolific, producing in clusters, and nearly a fortnight earlier than the Early Mazagan, which it also surpasses in producing a much larger bean. It is consequently highly deserving of cultivation, and may be safely recommended as the best early variety hitherto known.

From the Society's Garden, a collection of plants of various kinds, among which were flowers of *Hesperoscordum lacteum*, a pretty bulbous hardy plant imported by the Society from North West America, *Erysimum Perofskianum*, a new annual from the kingdom of Cabul, resembling a wallflower in smell, but with flowers more apricot-coloured, and *Habranthus concolor*, a new bulbous plant from Mexico (see p. 8. of these Proceedings.)

The following Presents were announced ;

The Ladies' Flower Garden of Ornamental Plants, No. 6., from Mrs. London.

Journal d'Agriculture et d'Horticulture de la Côte d'Or, Vol. 1. from M. Fleurat.

Comptes rendus, &c. Nos. 17 to 21 inclusive, from the Academy of Sciences of Paris.

Archives du Muséum d'Histoire Naturelle, Vol. 1. livr. 1. from the Museum of Natural History of Paris.

Eloge historique d'Antoine Laurent de Jussieu, from the Author, M. Fleurens.

July 2, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

John Howell, Esq., 5, Serpentine Terrace, Knightsbridge, and West Wickham, Kent.

Robert Hanbury, Esq., Brick Lane, Spitalfields.

John Powell, Esq., Clarence Club, and Brecon, S. Wales.

The following was elected, upon the recommendation of the Council, as a Practical Gardener, with the privileges of a Fellow ;

Mr. George Phillips, Gardener to the Misses Trevor, Tingrith, near Woburn.

The following objects were exhibited ;

From James Bateman, Esq., F.H.S., specimens of an *Oncidium* from Guatemala, very nearly related to *O. Baueri*, and which it was Mr. Bateman's intention to name *O. Wentworthianum*, *Stanhopea quadricornis*, and *Calanthe bifurca*, three rare Orchidaceous epiphytes.

From Alexander Rowland, Esq., F.H.S., a collection of flowers of *Roses*.

From Miss Rose, 92, Goswell Road, Islington, a group of flowers of *epiphytes* and other plants, beautifully modelled in wax.

From Mr. Ansell, F.H.S., Nurseryman, Camden Town, *Fuchsia magnifica* and *Robinsonii*, with other plants.

From the Society's Garden, a collection of flowering plants and of *Roses*.

The following medals were awarded ;

The *Silver Banksian* to Mr. P. N. Don, Gardener to James Bateman, Esq., for *Stanhopea quadricornis*, and to Mr. Ansell for *Fuchsias*.

The following Presents were announced ;

Repton's Landscape Gardening, &c. No. 1. from the Author, J. C. Loudon, Esq.

The Botanical Register, for July, from the Publishers.

Baxter's British Flowering Plants, No. 84, from the Author.

The Ladies' Flower Garden of Ornamental Annuals, No. 7. from Mrs. Loudon.

Transactions of the Linnean Society, Vol. 18. Part 2. *A List of the Members for 1839*, and *Proceedings of the Society to April 16*, from the Society.

The Athenæum for the month of June, from the Editor.

Tracts on Docks and Commerce, from the Author, William Vaughan, Esq.

Comptes rendus, &c. Nos. 22 and 23, from the Academy of Sciences of Paris.

Transactions of the American Philosophical Society, Vol. 6. Part 2. from the Society.

July 6, 1839.

EXHIBITION AT THE GARDEN.

Exclusive of Exhibitors, the number of Visitors amounted to 5781. There were 515 single specimens of plants, together with 87 boxes of cut flowers, and 51 dishes of fruit.

The award of the Judges was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for a large collection of Stove and Greenhouse plants.
2. To Mr. Mylam, Gardener to Sigismund Rucker, Esq., Jun., F.H.S., for a collection of Orchidaceous plants.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Milne, Gardener to C. S. Chauncey, Esq., F.H.S., for Roses.
2. To Mr. Richardson, Gardener to Rowland Alston, Esq., M.P., F.H.S., for Roses.
3. To Mr. Rivers, of Sawbridgeworth, for Roses.
4. To Mr. Cock, of Chiswick, for Pelargoniums.
5. To Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, for Pelargoniums.
6. To Mr. Dunsford, Gardener to Baron Dimsdale, for a large collection of Stove and Greenhouse plants.
7. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.
8. To Mr. Barnes, for Cape Heaths.

THE LARGE SILVER MEDAL.

1. To Mr. Scott, Gardener to Charles Barclay, Esq., F.H.S., for Alströmerias.
2. To Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., for Roses.
3. To Mr. Stephen Hooker, F.H.S., for Roses.
4. To Messrs. Lane, of Great Berkhamstead, for Roses.
5. To Mr. Gaines, of Battersea, for Pelargoniums.
6. To Messrs. Roe and Bell, of Norwich, for Grapes.
7. To Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., for Pine Apples.
8. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a large collection of Stove and Greenhouse plants.

9. To Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.

10. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for Cape Heaths.

11. To Mr. Pamplin, of Hornsey Road, Islington, for Cape Heaths.

12. To Mr. Jackson, of Kingston, Surrey, for a large collection of Stove and Greenhouse plants.

13. To Messrs. Rollisson and Sons, of Tooting, for a collection of Orchidaceous plants.

14. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., Jun., F.H.S., for *Aerides odoratum*.

15. To Mr. Pamplin, for *Erica metulæflora bicolor*.

16. To Mr. Butcher, for *Erica Shannoni*.

17. To Mr. Davis, Gardener to the Lord Boston, F.H.S., for *Lisianthus Russellianus*.

18. To Mr. Butcher, for *Æschynanthus parasiticus*.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. Cobbett, of Horsell Nursery, near Woking, Surrey, for Roses.

2. To Messrs. Paul and Sons, of Cheshunt, for Roses.

3. To Mr. Wilmer, of Sunbury, for Pinks.

4. To Mr. Wilmer, of Sunbury, for Piccotees.

5. To the Rev. Mr. Garth, of Farnham, Surrey, for a Seedling *Pelargonium*.

9. To Mr. Solomon Hale, of Uxbridge, for Pinks.

7. To Mr. Chapman, of Vauxhall, for Grapes.

8. To Mr. Richard Ayres, Gardener to Sir John Osborne, Bt., of Chicksands Priory, for Melons.

9. To Mr. Davis, Gardener to the Lord Boston, F.H.S., for Pine Apples.

10. To Mr. John Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for Peaches.

11. To Mr. John Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for Nectarines.

12. To Mr. Ingram, Royal Gardens, Windsor, for Green Gage Plums.

13. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a small collection of Stove and Greenhouse plants.

14. To Mr. Barnes, for *Calanthe veratrifolia*.

15. To Mr. Barnes, for *Rondeletia odorata*.

16. To Mr. Cock, for a *Pelargonium* (Lady Murray.)

17. To Mr. Scott, Gardener to Charles Barclay, Esq., F.H.S., for *Diplacus puniceus*.

18. To Mr. Green, for *Amphicome arguta*.

19. To Mr. Paul, of Cheshunt, for double *Rosa clinophylla*.

20. To Mr. Coe, of Chevening, Kent, for Yellow Roses.
21. To Mr. Toward, Gardener to H.R.H. the Duchess of Gloucester, for a plan of a Flower Garden.
22. To Mrs. Lockhart, of Cheapside, for English Irises.
23. To Mr. H. Meyers, of Brentford, for Cherries.

THE SILVER BANKSIAN MEDAL.

1. To Alexander Rowland, Esq., F.H.S., for Roses.
2. To Messrs. Wood and Sons, of Maresfield Nursery, near Uckfield, for Roses.
3. To Mr. Wilmer, of Sunbury, Middlesex, for Roses.
4. To Mr. Wilmer, of Sunbury, Middlesex, for Carnations.
5. To Mr. Humber, of Southall, for Pinks.
6. To Mr. Bridges, of Carshalton, Surrey, for Pinks.
7. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Herbaceous Calceolarias.
8. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Shrubby Calceolarias.
9. To Mr. King, Gardener to Miss Fuller, of Hillingdon, for Heartsease.
10. To Mr. Gaines, of Battersea, for Heartsease.
11. To Mr. Bridges, of Hampton, for Heartsease.
12. To Mr. Atwell, of Uxbridge, for Pinks.
13. To Mr. Henbrey, of Croydon, for Pinks.
14. To Mr. Wheeler, Gardener to David Bevan, Esq., of East Barnet, for Peaches.
15. To Mr. Scott, Gardener to Charles Barclay, Esq., F.H.S., for Grapes.
16. To Mr. M'Culloch, Gardener to George Dupré, Esq., of Wilton Park, Bucks, for Nectarines.
17. To Mr. Wilmot, of Isleworth, for Victoria Strawberries.
18. To Mr. Barnes, for *Aerides odoratum*.
19. To Mr. Green, for *Gesnera splendens*.
20. To Mr. Toward, for *Campanula fragilis*.
21. To Mr. Thomas Brown, of Slough, for *Philibertia gracilis*.
22. To Mr. Conway, Gardener to Lawrence Sullivan, Esq., F.H.S., for *Fuchsia fulgens*.
23. To Mr. Ingram, for *Fuchsia fulgens*.
24. To Mr. Mills, F.H.S., for *Fuchsia fulgens*.
25. To Mr. Thomas Brown, F.H.S., for *Fuchsia fulgens*.
26. To Mr. Thomas Brown, F.H.S., for *Lilium Japonicum*.
27. To Mr. Jackson, for *Campanula garganica*.
28. To Mr. Thomas Brown, F.H.S., for *Salvia patens*.
29. To Mr. Jackson, for *Thysanotus elatior*.
30. To Mr. Burton, of Hampstead, for the plan of a Flower Garden.
31. To Mr. Mills, F.H.S., for Hydrangeas.

32. To Mr. Curtis, Gardener to T. A. Curtis, Esq., of South gate, Middlesex, for Cockscombs.

The following would also have received a Silver Banksian Medal had the exhibitor not obtained the first Medal in the same class, viz.

Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Statice foliosa*.

The following table shews the result of this award as compared with the objects exhibited.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Carnations	1	—	—	—	—	1
Pinks	6	—	—	—	2	4
Piccotees	1	—	—	—	1	—
Cape Heaths	3	—	1	2	—	—
Collections of Orchidaceous Plants	2	1	—	1	—	—
Single Orchidaceous Plants	3	—	—	1	—	—
Pelargoniums	3	—	2	1	2	—
Roses	15	—	3	3	4	3
Large collections of Stove and Green-house Plants	4	1	1	2	—	—
Small collections of Stove and Green-house Plants	3	—	1	1	1	—
Alströmerias	1	—	—	1	—	—
Herbaceous Calceolarias	1	—	—	—	—	1
Shrubby ditto.	1	—	—	—	—	1
Grapes	10	—	—	1	1	1
Melons	14	—	—	—	1	—
Pine Apples	3	—	—	1	1	—
Peaches	8	—	—	—	1	1
Nectarines	3	—	—	—	1	1
Single specimens not in flower	1	—	—	—	—	—
Single specimens in flower	39	—	—	4	2	9
New Ornamental Plants	13	—	—	—	2	3
Miscellaneous Articles	41	—	—	—	4	7
Total	172	2	8	18	23	32

July 16, 1839.

ORDINARY MEETING.

The following gentleman was elected a Fellow of the Society ;

The Rev. William Smyth, 25, Eaton Place.

The following objects were exhibited ;

From Mrs. Lawrence, F.H.S., a collection of stove and greenhouse plants, among which were *Manettia cordifolia* in great beauty, the variety of *Statice puberula* called *S. foliosa*, *Stephanotus follicularis*, a beautiful white flowered climber, and several species of *Erica*.

From Mr. C. Judd, Gardener to G. Knott, Esq., F.H.S., plants of *Hippeastrum calyptratum*, a very singular Brazilian bulb, and *Gesneria aggregata*.

From Mr. Dunsford, Gardener to Baron Dimsdale, a fine specimen of *Oncidium leucochilum*.

From Mr. Errington, Gardener to Sir P. G. Egerton, Bart., F.H.S., some very fine specimens of forced Peaches.

From Mr. Upright, Gardener to G. C. Ridge, Esq., a plant of *Cereus speciosus*, and some forced Peaches.

From Mr. Hogg, of Paddington, a beautiful collection of Pinks and Piccotees.

From the Hon. W. F. Strangways, a collection of cut flowers, among which was *Dianthus marsicus*, a rare and beautiful herbaceous plant.

From Mr. S. Hooker, F.H.S., Nurseryman, Brenchley, near Lamberhurst, in Kent, a very fine collection of Roses, of which "the Queen of Denmark" was particularly striking.

From the Society's Garden, a variety of Roses, cut flowers, and greenhouse plants.

The following Medals were awarded ; viz.

The *Silver Knightian* to Mr. Errington for Peaches, and to Mrs. Lawrence for *Manettia cordifolia*.

The *Silver Banksian* to Mr. Upright for *Cereus speciosus*, Mr. Hogg for Pinks, Mr. Hooker for Roses, Mr. Dunsford for *Oncidium leucochilum*, and Mrs. Lawrence for *Statice puberula*.

The following Presents were laid before the Meeting ;

Pomona Italiana, Part 40, from the Marquess of Bristol.

Transactions of the Zoological Society of London, Vol. 2. Part 3., and Nos. 68 to 71, inclusive of the *Proceedings of the Society*, from the Society.

Notice was given that in consequence of the Meeting Room requiring a thorough repair, the Meetings of the Society would be unavoidably suspended during the months of August, September, and October.

Nov. 5, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

George Lane Fox, Esq., Bramham Park, near Wetherby, and Eaton Place.

Miss Harriet Archer Houblon, Coopersale House, near Epping.

Sir Edward Thomason, K.R.E., K.F.M., K.W., and K.G.E., Ludlow.

Henry Dillon Trant, Esq., 61, Lower Grosvenor Street, and Dublin.

The following letter was read from Mr. W. Masters, F.H.S., upon the subject of a *new variety of the Peach* ;

“ Notwithstanding the great variety of Peaches at present in cultivation, it has always appeared to me, that if a new kind could be produced that was both hardy and productive, very late in ripening, and yet perfectly melting, and added to these qualifications should be highly flavoured, such variety would be greatly estimated by all extensive cultivators.

“ The fruits accompanying this combine in no ordinary degree all these desiderata, and are the produce of a seedling raised by an excellent Pomologist and indeed I may say Horticulturist of this county, John Friend, Esq., of Birchington, in the Isle of Thanet.

“ By a communication from this gentleman, I learn that this kind originated from a kernel of the Catherine that had been impregnated by the Violette Hâtive Peach.

“ It is now three years since I knew of its existence, but owing to an alteration in the garden, this tree was removed, and loss of time was the necessary consequence.

“ During the present season this tree was the most productive in the garden, and this may account for the size of the fruit being less than it attained, before the tree was removed, and when a smaller number was produced.

“ It may be regarded as of middle size, in shape nearly circular, with a deep furrow whose edges are more produced than usual, and which gives a slight irregularity to the figure. The skin is

very downy and certainly thicker than some of the earlier kinds, but it peels off freely from the flesh.

"When fully exposed to the sun it acquires a dark tint, which melts almost imperceptibly into a rich yellowish green. The flesh is of a pale color, and is tinted very slightly even where it unites with the stone. It is very juicy, perfectly melting, and of a delicious flavor. It ripens somewhat irregularly during October, and has even remained good till November.

"Possessing as it does so many good qualifications, it is my intention through the liberality of Mr. Friend, to cultivate it extensively, so that I may best follow out the wishes of its originator, by lengthening the period during which fruit of the finest quality may be produced upon the open wall."

With reference to this variety, the following memorandum was laid before the meeting by Mr. Robert Thompson, Under Gardener in the Society's Orchard and Kitchen Garden.

"The description given by Mr. Masters is correct, excepting, that with regard to flavour, considerable allowance must be made on account of the present unfavourable season, owing to which the acidity of the juice is not so far changed as to constitute the degree of richness, which the variety seems capable of attaining in a more congenial season. If, under similar circumstances, it be found to ripen later than the Late Admirable, and if it equal or even approach that sort in quality, it certainly deserves cultivation. Most very late peaches are apt to become mealy in such seasons as the present; but the above seedling is very juicy."

The following extract was also read from a letter addressed to the Vice-Secretary by the Hon. Baron Foster, dated Rathescar, near Dunleer, Ireland, August 5, 1839, upon the cultivation of *Myatt's Pine Strawberry*.

"I recollect your expressing an opinion to me that Myatt's Pine Strawberry was obstinately sterile, and therefore not worth cultivating. I find it so in many a compost; but having lately tried it in very rotten cowdung, turned and decomposed through four or five successive years, without the mixture of any other substance, and having planted the strawberry in this, under the shelter of a south wall, I have obtained as large a crop both of fruit and runners as from any other kind I know.

"As it possesses such an admirable flavour, I thought you must wish to be apprized of this circumstance. I intend now to try the same experiment on the Downton, which when in perfection (which it scarcely ever is) deserves great commendation."

The following objects were exhibited;

From H. Daveney, Esq., Catton, Norwich, a collection of *nine sorts of apples* peculiar to the county of Norfolk. These shewed

the Doctor Harvey of the Norwich market to be the same as the Waltham Abbey seedling.

From A. Henley Payne, Esq., Lyne Grove, near Chertsey, a specimen of the *second crop of Pears*, produced by a tree in his garden at that place. They appeared to be the variety called the Styrian.

From R. Brook, Esq., F.H.S., specimens of Muscat of Alexandria grapes, and of Gansels Bergamot, and Duchesse d'Angoulême Pears.

From Mr. Jackson, Nurseryman, Kingston, fine specimens of six species of *Erica*.

From Mr. Dunsford, Gardener to Baron Dimsdale, flowers of *Cattleya labiata*.

From Messrs. Low and Co., of Clapton, flowers of *Cattleya Mossiæ*, a very beautiful plant, supposed to be distinct from the last mentioned, but resembling it very much, except in the rich purple of the labellum being broken up into spots, and mixed with a slight yellow tinge.

From Messrs. Lane and Co., of Berkhamstead, a considerable collection of *Roses*.

From the Society's Garden, a large collection of *Cactaceous* plants sent from Mexico by Mr. Theodor Hartweg, the Society's collector; various flowers, among which were many kinds of seedling *Chrysanthemums*, a creeping rooted *Dahlia* of very dwarf habit, lately imported from Mexico, *Lupinus Barkeri* and *leptocarpus*, two new species recently obtained from the same country; and a considerable collection of *Apples* and *Pears*. Among the latter were especially worthy of notice the Brougham pear, so abundant a bearer that the trees are apt to exhaust themselves; the Figue de Naples Pear, which requires to be gathered before it parts freely from the tree, otherwise it does not become melting; and the Deptford New Apple, a variety resembling the Golden Pippin, and an abundant bearer. It was stated that in the present season late fruit was not much increased in size at Midsummer, and consequently not only its maturation, but most of its growth was made under a great decrease in the length of the days, and in unusually wet and cloudy weather.

The following Medals were awarded;

The *Silver Knightian* to Mr. Jackson, of Kingston, for *Ericas*.

The *Silver Banksian* to Mr. Dunsford, for *Cattleya labiata*, and Messrs. Lane for *Roses*.

The following Presents were announced;

The *Athenæum* for July, August, and September, from the Editor.

The *Botanical Register* for August, September, October, and November, from the Publishers.

Harrison's Floricultural Cabinet for August, September, October, and November, from the Editor.

On the Effects of the severe Winter of 1837 and 1838 on some Shrubberies and Gardens in Glamorganshire, by L. W. Dillwyn, Esq., F.R.S., F.H.S., from the Author, Svo. Swansea, 1839.

Proceedings of the Geological Society, Nos. 63 and 64, from the Society.

Flora de Filipinas, por el Padre Manuel Blanco, Manilla, 1837, from the Hon. W. F. Strangways.

The Ladies' Flower Garden of Ornamental Annuals, Nos. 8, 9, 10, 11, from Mrs. Loudon.

The Floral Calendar, Monthly and Daily, from the Author, Captain James Mangles.

The Stranger's Intellectual Guide to London, for 1839-40, from the Author, Mr. A. Booth, F.S.A., F.S.S.

Rapport sur le Mémoire de M. Auguste Trinchiratti, intitulé "de Odoribus Florum," &c. from the Author, M. Ch. Morren, Svo. Bruxelles, 1839.

Observations sur la Circulation dans les poils corolones du Marica carulea, from the Author, M. Ch. Morren.

Observations sur la formation des Huiles dans les Plantes, Par M. Ch. Morren.

Second Annual Report of the Botanical Society of Edinburgh, from the Society.

Baxter's British Flowering Plants, for August, September, October, and November, from the Society.

Journal of the Royal Asiatic Society, No. 10. and *Proceedings of the Committee of Commerce*, from the Society.

Comptes rendus de l'Académie des Sciences, Nos. 24 and 25. prem. semestr. and Nos. 1 to 16. deux. semestr. from the Academy of Sciences.

Transactions of the Horticultural Society of Berlin, Vol. 14. Part. 2. from the Society.

Dec. 3, 1839.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

James Annesley, Esq., 6 H, Albany.

Peter Mac Evoy, Esq., 9, Great Cumberland Place, and Wimbledon.

The Hon. Francis George Spencer, Cornbury Park, near Witney.

A paper was read from Mr. George Gordon, Under Gardener in

the Hardy Department of the Society's Garden, explaining in what manner he had succeeded in raising the seeds of Coniferous plants, and of preserving them with certainty till past their seedling state. It appeared that the principal points to be attended to are to sow the seeds in pure loam, without any mixture of peat, and with as little sand as possible; to take care that the loam is nearly dry, until the seeds have vegetated, and then to administer water only in very small quantities; to stimulate germination by the application of bottom heat, which is however to be abstracted as soon as the plants make their appearance above ground.

The following objects were exhibited;

From Mr. Newson, Gardener to Countess de Salis, fruit of the Hillingdon Pippin, *a seedling apple* raised by the Rev. W. Dry, of Hillingdon Rectory; it appeared to be a very good keeping kind, fit to gather at Old Michaelmas, and was stated to be very late in blossoming, and healthy and free from canker, although planted in a bad stony soil.

From R. Perceval, Esq., fruit of a *melon* from Corfu.

From Mr. B. Saunders, of Jersey, *a seedling apple* called Saunders's Jersey Pippin; it was very like a Reinette grise.

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., specimens of two very fine *cucumbers* called the "Sion House, and Weedons."

From Mr. Thomas Lindsay, Gardener to Sir William Middleton, Bart., *fruit of a pear*, sent to the Rev. W. Kirby, Rector of Barham, near Ipswich, as the true Beurré Spence, by Mr. Spence himself. It proved to be the Beurré Diel; and this shows that as the name of B. Spence has already been assigned by different persons to the Beurré de Capiaumont, to the Beurré de Mons, and to the Urbaniste, it is probable that no such pear as the Beurré Spence really exists as a distinct variety.

From Mr. Fielder, Gardener to William Linwood, Esq., a collection of *Orchidaceous and other flowers*, among which was a very fine specimen of *Cattleya labiata*.

From Mr. W. Dunsford, Gardener to Baron Dimsdale, a specimen of *Cattleya guttata*, with ten flowers on one spike. The plant from which the flowers were taken had been kept in a very low temperature, sometimes as low as 55°, and never higher than 65° Fahr.

From John Allnutt, Esq., F.H.S., a specimen of *Donckelaer's Camellia*.

From James Bateman, Esq., flowers of *Oncidium Cavendishii* and a species of *Oberonia*.

From Messrs. Chandler and Co., a collection of flowers of *Jersey Chrysanthemums*.

From George Barker, Esq., a fine specimen of *Oncidium In-*

insleyi, a new Orchidaceous epiphyte, imported by him from the neighbourhood of Valladolid, in Mexico. This was a most beautiful species, with large flowers coloured like those of the Trinidad butterfly plant (*Oncidium Papilio*), but growing in four-flowered racemes, not singly.

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., a collection of greenhouse plants, containing, among other things, a beautiful specimen of the fragrant *Luculia gratissima*.

From Mrs. Lawrence, a large collection of stove and greenhouse plants, the principal novelty among which was a new species of *Solanum*, with pretty white flowers and a climbing habit.

From the Society's Garden, a variety of flowers, and a collection of fruit of the best varieties of *Apples* and *Pears*.

The following Medals were awarded ;

The *Silver Knightian* to George Barker, Esq., for *Oncidium insleyi*, and to Mr. John Green for *Luculia gratissima*.

The *Silver Banksian* to Mrs. Lawrence for the new *Solanum*, Mr. Fielder for *Cattleya labiata*, to Mr. P. N. Don for the *Oncidium Cavendishii* from Mr. Bateman's garden, and to Mr. Green for Cucumbers.

The following Presents were announced ;

The Athenæum for October and November, from the Editor.

Transactions of the Agricultural and Horticultural Society of India, Vol. VI. from the Society.

Supplement to Vol. V. of the Transactions of the Agricultural and Horticultural Society of India, from the Author, W. Griffith, Esq.

A Catalogue of the Fellows, Candidates, and Licentiates of the Royal College of Physicians, from the College.

Philosophical Transactions, Part 2. for 1838, and Part 1. for 1839, and Nos. 34 to 39 inclusive, of the *Proceedings of the Royal Society*, from the Society.

Florula Caprariæ, from the Author, Dr. Moris.

Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, T. 8. P. 2. from the Society.

Proceedings of the American Philosophical Society, No. 7. Vol. 1. from the Society.

British Flowering Plants, No. 89. from the Author, Mr. W. Baxter.

Harrison's Floricultural Cabinet for December, from the Editor.

De l'existence des infusoires dans les Plantes ;—*Notice sur l'Histoire de l'Agaricus Epixylon* ;—*Observations sur l'Anatomie des Musa* ;—*Observations sur l'Anatomie des Hedychium* ;—*Notice sur une nouvelle espèce de Malaxis* ;—*Recherches sur le Mouvement et l'Anatomie du style du Goldfussia anisophylla* ;—*Mémoire sur la*

formation de l'Indigo dans les feuilles du Polygonum tinctorium ou Renouée tinctoriale; from the Author, Professor Ch. Morren.

Comptes rendus hebdomadaires des séances, &c. Nos. 17, 19, 20. from the Academy of Sciences.

The Ladies' Flower Garden, No. 12. from Mrs. Loudon.

The Botanical Register for December, from the Publisher.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1840.

No. IX.

January 21, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society :

James Du Pré, Esq., Wilton Park, near Beaconsfield, and
40, Portland Place.

George Glas Sandeman, Esq., 13, Highbury Place.

Miss Dugald Stewart, 8, Brighton Crescent, Portobello, N.B.

Rev. Edward Wickham, Brook Green, Hammersmith.

The following was also elected a Foreign Corresponding Member upon the recommendation of the Council :

Mr. C. F. Frey, Inspector of Gardens to his Serene Highness
Ferdinand, Duke of Saxe Coburg Gotha.

A paper was read from Mr. Robert Errington, Gardener to Sir P. Egerton, Bart., M.P., upon his method of forcing peaches. On former occasions very remarkable specimens of this fruit had been received from Mr. Errington, and four medals had been awarded him for them in four successive years. The object of the paper was to describe a very fine tree of the Noblesse Peach, by which the fruit in question had been produced, and to explain his method of forcing it. The author stated, that the house which covers the tree is metallic, and has an angle of fifty degrees, with an upright front sash three feet from the ground level. It is thirty feet long by twelve feet wide, and is furnished

with one trellis only, which runs parallel with the roof at the distance of fourteen inches, excepting the base of the trellis, which meets the ground at thirty-six inches from the front lights; the front wall is on arches, and the tree planted inside, consequently it has roots both inside and outside. The house is heated with hot water, and the roof is curvilinear, the laps being leaded with a hole in the centre for the escape of condensed steam. The border for the peach tree was excavated to the depth of forty-two inches and the width of twenty-one feet; completely drained and covered one foot in depth with old bricks and stones, on which was laid three inches of lime rubbish, out of which all small particles had been carefully sifted. The latter was covered with thin turfs of heath soil; and finally a sprinkling of small gravel stones was swept into all the crevices. The whole was then covered to the depth of twenty-four inches with a compost consisting of good maiden loam, leaves in a fresh state, horse dung, sharp sand, and bone waste.

The best tree on the open walls was selected in the end of January for placing in the house, and its roots were cut the year previous, to check luxuriance. The pruning knife had been severely applied to the young wood previous to removal, more especially as regards thinning, but the old wood was not interfered with, as the author has a strong objection to cutting large or old wood from peach trees, unless in cases of strong necessity.

The tree once placed in its situation every fibre of the root was as carefully trained as the shoots, care being taken to carry a large portion of the superior roots through the front arches into the outside border. In the first week of February the tree was dressed all over with a mixture of soft soap, sulphur, and tobacco water, rubbed carefully into every crevice, and when perfectly dry the wounds caused by pruning were coated over with thick paint.

Forcing begins in the middle of February, but the heat for the first fortnight did not exceed 50° by day, and 36° by night. The house is steamed profusely morning and night all the season, with the exception of the flowering time, and during the ripening of the fruit. After the blossoms were set the heat was increased slowly, and for some weeks was about 60° by day, and was allowed to sink generally as low as 38° at night.

The tree ripened about eight dozen peaches in the same summer in which it was planted, and during that, with the succeeding seven years, it has produced at least two thousand four hundred large and fine fruit; the largest peach ever gathered weighed $12\frac{1}{2}$ oz.; hundreds more were gathered from 9 to 11 oz. in weight. The tree in December, 1839, was exposed to the weather and full of excellent wood, covering completely a surface of four hundred and eighty feet.

The author next proceeded to detail the general management

of the peach tree as practised at Oulton Park. He regards draining of the greatest importance, and also that the soil should not be too rich. A loam about half way between stiff and sandy, he finds the best; and in his opinion, the less manure the better, providing the loam be what is termed "Maiden Soil," from old rest land. If any manure be considered necessary, it should be chiefly Bone Manure. If peach trees show signs of weakness after bearing a few years in soil of this description, the author has recourse to top dressing, laying it on heavily in the winter and removing a portion in the spring. If unnecessary luxuriance takes place, he cuts the points of the roots without hesitation, taking care to reduce them in proportion to the degree of superfluous luxuriance. This root-cutting system he has pursued for seven years at least, and finds it every thing that can be desired.

In winter pruning, he thins his young wood to a great extent. This plan, with a continual thinning and disbudding in summer, so as to lose no sunshine on the leaves of the shoots intended for the next year's crop, renders the buds plump and well ripened.

After the winter pruning, he immediately stops every wound, whether from pruning or from accident, with a coat of thick white paint; this is repeated on all the larger wounds. The wounds being dressed, he immediately stoves the house with sulphur blended with sawdust, and burnt in shallow pans, and he afterwards dresses the tree two or three times with soft soap, sulphur, and tobacco water, brushing it carefully into every bud and crevice with a painting brush; this mixture is not made so strong as recommended by some gardening authors, as Mr. Errington depends much on the careful brushing and flooding every part of the tree.

The author next took occasion to advert to the injurious effects in pruning if the gardener preserves a high temperature at night; he had had his thermometer as low as 34° at night, when the fruit was as large as peas without any injury whatever; this was originally through necessity, for in his anxiety to get fruit early, he would probably have kept it to nearly 50° could he have obtained that heat; but he is convinced that it would have been worse for the tree. From the period that the fruit begin to swell off until they commence ripening, the trees have most copious syringings and steamings, excepting that in the months of February or March, in cold dull weather, he is a little more niggardly of water, taking care especially that if he syringes in the afternoon, it is done early, so as to have the leaves dry by the evening; for a temperature of 34° to 40° by night and *a wet leaf would by no means agree*. The house is of course fumigated on the first appearance of green fly. As for the red spider, he seldom by this management sees one.

The young wood receives the utmost attention through all the

growing period; every robber is stopped with the finger and thumb as soon as it is about four eyes long; every superfluous shoot that is not wanted for the next year's bearing, is taken away, and all the inferior shoots, which are much below the proper strength, are trained with the growing points as nearly perpendicular as possible, in order to decoy the sap into them.

As soon as the author perceives the least change towards ripening in the fruit, he stops the points of all the young wood, with the exception of a few of the weakest shoots at the lower part of the tree, and these he keeps growing until the end of the season, in order to get as much sap in them as possible. In the course of ripening, abundance of air is given both night and day, and every leaf which shades the fruit is entirely removed. He is of opinion that peaches cannot ripen too slowly; the slower they ripen, if not absolutely starved, the better. Syringing is at this time withheld altogether, as well as steaming, but as soon as the last fruit is gathered the tree is completely battered with water morning and evening, and the house shut up early in the afternoon with a thermometer of 90° to 95° of sunheat when it can be obtained, and this course is persisted in until the leaves turn colour, when the heat by sunshine is allowed to range even higher still; the author has had it as high as 100° at three to four o'clock in the afternoon. By these means the wood is most completely ripened, and in pruning cuts more like oak than peach wood. During all the ripening process the border inside the house is allowed to become very dry; in fact water is entirely withheld from the moment the least appearance of change in a single peach is perceived towards ripening.

The author concludes by adverting to an opinion which once prevailed very generally, that peaches would not answer long under glass, unless the lights were removed during the rest season; this he finds quite erroneous, for the lights of his peach tree have never been taken off since it was planted.

The following were the principal objects of exhibition:

From Mr. W. Watson, Gardener to J. J. Wells, Esq., Southborough, near Bromley in Kent, a noble plant of *Euphorbia jacquiniiflora*. (SILVER BANKSIAN MEDAL awarded.)

From Mrs. Lawrence, a collection of fourteen Stove and Greenhouse plants, among which *Euphorbia punicea*, *Brassia maculata*, *Dendrobium Pierardi* and *Phaius grandifolius* were conspicuous for their beautiful cultivation. (LARGE SILVER MEDAL awarded.)

From Mr. Thomas Jackson, Nurseryman, Kingston, a collection of *Heaths*, and a very fine plant of *Epacris impressa*. (SILVER BANKSIAN MEDAL awarded.)

From Mr. John Green, Gardener to Sir E. Antrobus, Bart., specimens of *Euphorbia jacquiniiflora*, and two species of *Epacris*. (SILVER KNIGHTIAN MEDAL awarded.)

From J. C. Loudon, Esq., one of the *Brick Tallies* employed by him in marking the Trees and Shrubs planted under his directions in the Arboretum formed at Derby for Mr. Strutt. In this contrivance the name of the plant, previously printed on paper, is introduced into a recess in the upper sloping end of the brick, and is then covered by a plate of glass, the edges of which are puttied down, so as to exclude damp.

From Mrs. Bateman of Litchurch Villa, near Derby, two *wreaths of flowers*, dried without injury to their colours, and disposed so as to resemble water colour drawings.

From Mr. George Leslie, Gardener to John Fleming, Esq., M.P., a fine specimen of *Stenorhynchus speciosus*. (SILVER BANKSIAN MEDAL awarded.)

From the Society's Garden, a variety of *flowers*, a curious collection of *Cactaceous plants* sent from Mexico by the Society's Collector, Mr Hartweg, and several specimens of *Apples*.

The following Presents were announced ;

The Theory of Horticulture, or an attempt to explain the principal operations of Gardening, on Physiological principles, by John Lindley, Ph.D., from the Author.

Transactions of the Medico-Botanical Society of London, Part IV., Vol. 1, from the Society.

The Cotton Trade of India, its Past and Present Condition, by Major-General Briggs, F.R.S., from the Royal Asiatic Society.

Vol. XX. Part 2, of the *Asiatic Researches*, from the Asiatic Society of Bengal.

Flora Batava, No. 118, from His Majesty the King of Holland.

The Athenæum for December, from the Editor.

The Address of the President of the Royal Society, read at the Anniversary Meeting on Saturday, Nov. 30, 1859, from the Society.

The Horticultural Cabinet, No. 83, from the Editor.

Synopsis Pittosporarum, by Aloysius Putterlick, M.D., from the Author.

The Ladies' Flower Garden, of Ornamental Annuals, No. 13. from Mrs. Loudon.

Baxter's British Flowering Plants, No. 90, from the Editor.

The Botanical Register, for January, from the Publishers.

Note sur les fruits aromatiques du Leptotes bicolor ;—*Observations sur l'épaississement de la membrane végétale dans plusieurs organes de l'appareil pileux* ;—*Expériences et observations sur la gomme des Cycadées* ;—*Notes sur l'excitabilité et le mouvement des feuilles chez les Oxalis*, by Ch. Morren, M D., from the Author.

February 4, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Viscount Berhaven, Bantry House, Bantry, County of Cork.

James Brownell Boothby, Esq., Twyford Abbey.

Charles Hambro, Esq., Arlington House, Turnham Green.

George de Hocheplid Larpent, Esq., Roehampton, Surrey.

Capt. W. Prowse, R.N., 19. Berkeley Square.

The following were the principal objects exhibited ;

From the Rev. Charles Annesley, a drawing of a plant of *Musa Paradisiaca*, or *Plantain*, which had flowered at Eydon Hall. It was accompanied by a note, stating that this very fine specimen of that beautiful exotic was in a high state of perfection in the stove, with the fruit and flowers fully developed. The height of the stem was fifteen feet three inches ; the circumference at one foot from the ground, two feet, four inches ; and the largest diameter of the space occupied by the foliage, fifteen feet. Mr. Annesley had obtained the plant from Mr. Knight, King's Road, Chelsea, and placed it in its present position, when about three feet high, in the year 1835.

From Mr. Edmunds, Gardener to His Grace the Duke of Devonshire, at Chiswick, a fine specimen of the rare epiphyte, *Miltonia Russelliana*. (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Paxton, Gardener to His Grace the Duke of Devonshire, at Chatsworth, a dish of fruit of *Musa Cavendishii*.

From Mr. James Baldwin, of Turnham Green, the following *Apples*, all in perfectly good condition, and excellent samples of the best winter varieties ; viz. 1 Pentecôte, 2 Kerry Pippin, 3 Ribston pippin, 4 Robinson's pippin, 5 Rhode Island Greening, 6 Royal russet, 7 Alfriston, 8 Blenheim pippin, 9 Holland pippin, 10 King of the pippins, 11 Wellington, 12 Warwickshire, 13 Hoary Morning, 14 Emperor Alexander, 15 Veiny pippin, 16 Pomme de Nieve, 17 Petworth, 18 Red everlasting, 19 Fearn's pippin, 20 Devonshire pippin, 21 Golden noble, 22 New mignonne. (SILVER BANKSIAN MEDAL awarded.)

From the Society's Garden, a collection of *flowers* and winter *apples*. Among the former were *Manglesia glabrata*, a new and pretty shrub from the Swan River, and *Echeveria gibbiflora*, a handsome greenhouse succulent plant of the easiest cultivation, which continues to produce a succession of flowers during all the winter.

The following Presents were announced ;

Harrison's Floricultural Cabinet for February, from the Editor.

Barter's British Flowering Plants for February, from the Author.

Proceedings of the Linnean Society, Parts 4 and 5, from the Society.

The Botanical Register for February, from the Publishers.

The Ladies' Flower Garden of Ornamental Annuals, No. 14, from Mrs. Loudon.

The Athenæum for January, from the Editor.

February 18, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Sir Arthur Chichester, (of Raleigh), Bart., Youlston, near Barnstaple.

Chas. Dorrien, Esq., Lavant House, Chichester.

The following were the principal objects exhibited ;

From Mrs. Lawrence, a collection of *Heaths*, and other plants. (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Henry Newson, Gardener to Countess de Salis, a large plant of *Azalea indica alba*, covered with flowers. (SILVER BANKSIAN MEDAL awarded.)

From Mr. Thomas Smith, Gardener to Charles Mills, Esq., Hillingdon, a *Phaius grandifolius* of large size. (SILVER BANKSIAN MEDAL awarded.)

From C. M. Tearne, Esq., of Hallow, in Worcestershire, a drawing of an *Evergreen Lucombe oak* grafted on a deciduous Turkey oak in such a way as to exhibit the winter foliage of both at the same time.

From Mr. Redding, Gardener to Mrs. Marryat, specimens of *Kennedyia Marryattæ*, and other plants. (SILVER BANKSIAN MEDAL awarded.)

From Mr. George Mills, Gardener to Baroness de Rothschild, a brace of *Cucumbers*. (SILVER BANKSIAN MEDAL awarded.)

From Mr. J. B. Whiting, fruit of an *Apple*, called the Cornwall pippin, a variety of great excellence. It was raised from seed in the garden of Sir George Cornwall, Bart., at Moccas Court, in Herefordshire, and is said to be a cross between the Golden pippin and the Golden Harvey.

From Messrs. Chandler and Sons, a plant of *Acacia Oxycedrus*, a handsome New Holland greenhouse shrub.

From Mr. George Steel, Richmond, flowers of *Camellias*.

From John Alhnutt, Esq., some fine specimens of *Epacris*, and other flowers. (SILVER BANKSIAN MEDAL awarded.)

From Mr. Jackson, of Kingston, a few select *Heaths*. (SILVER BANKSIAN MEDAL awarded.)

From the Rev. Glyd White, of Ewelme, near Bensington, specimens of an *Apple* called Hall's Watlington Seedling. They were accompanied by the following note from Mr. White:—

“Hall's Watlington Seedling was raised about thirty years ago by Mr. Hall, a cooper, at the market-town of Watlington, from the pip of a Nonpareil. Like its congeners of the nonpareil tribe, it is of rather a delicate habit, but forms a beautiful dwarf standard of upright growth, when grafted on the creeper, and may be pronounced to be a good bearer. One which I have planted against a low wall of a N.W. aspect, bears fruit of superior size and flavour. In short, if I am not much mistaken, it is a sort very deserving of being brought into notice, and ‘Honus erit huic quoque Pomo.’

“Haggerstone Pippin.—As I saw in one of the late Gardener's Magazines that specimens of this excellent late keeping apple have been exhibited on the Society's table, and as I am in possession of some particulars relating to its origin, which may not be generally known, I think it right to send them. It was raised by a Mr. Haggerstone, at Cambridge, about the year 1805, from the pip of an apple received in a barrel from America by Dr. Raine, of the Charter House, by whom it was presented to Mr. H. I have found it to be very hardy, and an excellent bearer. From its late period of blossoming it often bears a good crop of fruit when earlier sorts are cut off.”

From the Society's Garden, a collection of greenhouse plants, among which were *Lissanthus verticillata*, a graceful and singular Swan River shrub, and *Chorozema varium*, a beautiful novelty from the same country.

Cuttings of the following fruit trees were distributed;

The *Late Duke Cherry*; not so sweet as the May Duke, but much larger, and very abundant, ripening as late as the month of August. *Bigarreau Napoléon Cherry* a sort well deserving of cultivation; it is a more abundant bearer than the Common Bigarreau, and the fruit is larger and darker coloured. *Royal Hâtive* and *Reine Claude Violette Plums*; these rival the Green Gage in point of flavour, and are the best purple plums of their respective seasons. The *Royal Hâtive* is almost new in this country; it ripens nearly a fortnight earlier than the *Reine Claude Violette*.

The following Presents were announced ;

Journal of the Royal Geographical Society, Vol. 9. Part 3. from the Society.

Comptes Rendus, &c., Parts 1. 2. 3. 4. prem. Semestr, 1840, from the Academy of Sciences of Paris.

Proceedings of the American Philosophical Society, No. 8. Vol. 1., and *Transactions of the Society*, Part 3. Vol. 6. New Series, from the Society at Philadelphia.

Prodromus Systematis Naturalis regni Vegetabilis, Par. 7. Sectio posterior, from the author, M. De Candolle.

March 3, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Lord Walsingham, Merton Hall, Norfolk, and 7, Upper Portland Place.

Mr. Wm. Gregory, Cirencester.

Horatio Kemble, Esq., Piccadilly.

Rev. W. L. Rham, Winkfield Rectory, Berks.

A Paper was read from M. Vilmorin, F.C.M.H.S., on the possibility of improving the races of wild plants by cultivation.

The author commenced by adverting to the well known fact, that the greatest part of our kitchen garden plants, and especially those which have been brought to the most perfection, are evidently deviations from wild kinds, modified by the skill and labour of man. We are however unacquainted with the means by which this has been effected.

We cannot tell how the thready tap-roots of some wild plants have been transformed into our bulky kitchen-garden roots ; or how the head of the cabbage has been created ; or by what process the tapering leaves upon the stalk of the wild cabbage have been agglomerated and compressed into a compact and fleshy mass. We have no modern instances of such changes, but they seem all to have occurred beyond the period of historical records. A few new vegetables indeed have been introduced during the last century ; but they have remained such, or nearly such, as they were originally. *Sea-Kale*, for instance, the culture of which during the last forty or fifty years has become general.

in England, has hitherto experienced no sensible changes. It is the same with *Tetragonia expansa*, which is now what it was at its first appearance, and with other kitchen-garden kinds of more recent introduction.

As for our old vegetables, they have been transmitted to us ready formed by the generations which have preceded us. The origin of most of them is traceable to unknown times ; there are even some of which the wild sorts exist no longer, or which have not been found by botanists, and which we possess only in the domestic or cultivated state. It is very true that these plants are still in the course of improvement by us, and that we daily obtain new varieties of them ; but amongst such variations of species already changed and the first amelioration of a wild plant, a fundamental difference exists of which it is important to give some account.

The author then adverts to the well known fact that, when by any means, a species has been made to deviate from its primitive condition, the races which have resulted from it are essentially variable also.

This he thinks explains how we obtain, so easily, varieties of kitchen-garden plants ; notwithstanding, that if we bring into culture a wild species we do not see it sensibly improve. That improvements are however possible is certain ; for they have formerly been effected by man, although neither the means, nor the practice itself, have been handed down to us.

It might be supposed that in order to create improved alimentary varieties, nothing more is requisite than abundant nourishment and great care in garden culture ; but M. Vilmorin does not adopt this opinion except in a very restricted sense. "Give," he says, "to the wild cabbage very abundant nourishment and treat it with a gardener's care ; you will then procure for it larger dimensions ; its leaves will become more ample, its stems higher ; you will convert it into some of the coarser kinds of winter greens ; but by these means alone you will never make of it a headed cabbage." Of this he has positive proof : for two years he has been trying thus to improve *Brassica sylvestris*, but in vain ; for the most vigorous individuals are precisely those which are the least disposed to form a head.

M. Vilmorin added that repeated attempts, during many years, to improve the perennial lettuce, *Tetragonia*, *Solanum stoloniferum*, and *Brassica orientalis* had not enabled him to obtain any sensible modifications of those species. But he has found the wild carrot on the contrary, improved in the most decided manner ; in the space of three generations he has obtained roots of it as fleshy and as large as those of the garden carrot.

The history of the experiment, was thus related :

"In March, 1832, I made, at Verrière near Paris, in a soft and

deep earth, my first sowing of wild carrot. All came up ; I obtained no root better than those of the fields.

" In 1833, the 26th April, I tried at Barres, Loiret, where the earth is stronger, a new sowing. It sprung up very clean, the plants became very strong, but all still ran to flower. The roots were larger than those of the fields, but I should say, worse on account of their toughness and strong forks. Two other sowings, made at Verrière the 15 May and 22 June following, also ran to flower to a great extent, but not entirely. Some seeds however continued to germinate during all the summer, and amongst those late plants, several did not run to flower, and five or six made tolerably fleshy roots, about half an inch in diameter, and resembling very ordinary garden carrots.

" These roots replanted the following spring produced seeds which were sown in 1835. A considerable portion of this crop still ran to seed, but the proportion was much less than it had previously been. The plant had already experienced a remarkable change ; at the time of drawing the carrots, about a fifth part was found to consist of pretty good roots, small and middle sized, but little fibrous, and some even quite well made. This second generation presented a good choice of stock plants, which were replanted and produced seed in 1836.

" In 1837 I obtained from these seeds, a third generation very considerably improved ; many were very large and fleshy, some exceeded the weight of a kilogramme. The largest were in general coarse and ill-shaped ; but others were found perfectly good in every respect, equalling the best garden carrots. The refuse of this crop amounted to about a third part, consisting of forked branched roots ; but most even of these were fleshy and eatable. Few plants ran to seed, at most not above a tenth part. In 1838 I made with the same seed a pretty considerable sowing in the fields ; the majority of which has likewise yielded me very good produce.

" Last year, 1839, I raised the fourth generation. The roots have been in general smaller than those of 1837, because they have suffered much from drought ; but the quality of the whole has been better, the proportion of bad much less, and that of runaways almost nothing."

In these experiments the author found the carrot disposed immediately to change colour. White and yellow, made their appearance simultaneously, so early as the small crop of 1833, and constantly formed part of all the other crops, the first being always in the larger proportion.

Two roots of a dull violet, or the colour of wine lees, were found in the crop of 1835 ; the red colour appeared for the first time in the third generation in 1837, but in very trifling proportion, perhaps one in three or four hundred.

With regard to the disposition to run, which is so cha-

racteristic of the wild carrot, M. Vilmorin stated, that this disposition became weaker in each generation in a very sensible degree, and in an almost exact relation with the enlargement of the root. Already the wild carrot has, in this respect, arrived at the same point as the old varieties; it no longer runs, or at least not more so than the latter. It is thus become truly biennial from being annual, which it was at starting.

In conclusion, the author adverted to one of the unsuccessful means that he had employed during his experiments. He wished to ascertain if shortening the stems would produce any favourable influence on the root; consequently a certain number of plants were submitted to a rigorous and successive pinching as they grew up; they were pinched off just above the neck, taking care to preserve entire the radical leaves. These plants could therefore neither form stems nor flower branches, but the roots gained nothing by this suppression; they were not less hard than those of the individuals which had run up freely; they even appeared to be more forked.

M. Vilmorin's paper was illustrated by specimens of various roots of the carrots derived immediately from the wild stock, in the way above described. They were rather coarse, but as large and fine as field carrots usually are.

The following objects were exhibited;

From Mrs. Lawrence, a large collection of beautiful *Stove* and *Greenhouse* plants, the most striking of which were *Erica melanthera* and *scabriuscula*, and *Æschynanthus grandiflorus*.—(SILVER KNIGHTIAN MEDAL awarded.)

From Edward Baker, Esq., M.P., flowers of *Cattleya Mossiæ*, a beautiful variety of *Cattleya labiata*.

From Mr. W. Smith, of Norbiton Nursery, a *Hybrid Rhododendron* with pure white flowers spotted with pink.

From Mr. John Green, Gardener to Sir E. Antrobus, Bart., a large plant of *Hardenbergia* (formerly *Kennedy*) *Comptoniana*, and two species of *Epacris*. (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. A Toward, Gardener to H.R.H. the Duchess of Gloucester, *Zichya* (formerly *Kennedy*) *tricolor*, a handsome new trailing plant from Swan River. (SILVER BANKSIAN MEDAL awarded.)

From John Allnutt, Esq., various *Camellias*, especially the *C. Sasanqua rosea*. (SILVER BANKSIAN MEDAL awarded.)

From Sigismond Rucker, Esq., Jun., a spike of flowers of *Dendrobium speciosum*. Common as this plant is it rarely blossoms, and when that happens it is generally after the plant has been exposed to a low temperature for some time. Mr. Rucker's plant flowered under these circumstances. It stood in the open air all the previous summer and then, upon being removed into

the Stove, threw up thirteen spikes of flowers, four only of which however came to perfection.

From Sir George Mackenzie, Bart., fruit of a most valuable new apple called "the Betsy." It had been so named in Guernsey, where it was raised from seed. The flavour is peculiar, and it has an unusually melting flesh.

From Mr. Scott, Gardener to Charles Barclay, Esq., of Bury Hill, the stem of an *Alströmeria acutifolia*, bearing ripe seed-vessels. It was accompanied by the following note:—

"The seeds are now just ripe and fit for distribution, and may be acceptable to some of the Members. They should be sown immediately in sandy loam and rotten dung, and kept in a Greenhouse, as they will not require heat; when the plants are about an inch high they may be potted singly into very small pots, and kept in a growing state till they have formed their tubers—if suffered to die down before that period, they will never shoot again, which is the cause of many persons losing them after they have got them up from seeds. A hirtella requires the same treatment.

"The present specimen is one of five shoots from the same plant of nearly equal length, and is I believe, the first of the species introduced into this country. It is planted in a narrow border at the back of a conservatory, and when the shoots come up in the spring they are trained up the trellis about eight or nine feet, and then twine themselves round some sash lines, which are stretched in a horizontal direction from the back to the front of the house. When in flower it has a very showy appearance."

The seeds were distributed to the Members present.

From Mr. Gaines at Battersea, a seedling *Cineraria*, named by him "*Gaines's Victoria Regina*."

From Mr. R. Buck, of Blackheath, fruit of the *Charlesworth Tokay Grape*, in great perfection, and a small collection of *Pears*. (SILVER BANKSIAN MEDAL awarded)

From the Society's Garden, among many other plants, *Dendrobium nobile*, a very fine Orchidaceous epiphyte, *Lopezia lineata*, a pretty new Greenhouse herbaceous plant from Mexico, with pale red flowers, and *Pentlandia miniata*, a new bulbous plant, with handsome scarlet nodding flowers, from Cusco.

Cuttings of the following fruit trees were distributed; viz:

Coe's Fine Late Red Plum the same as the St. Martin Rouge of the French; it is considered the very best late plum. *Winter Crassane Pear*; this is not so gritty as the Old Crassane, and it often happens that the latter bears but sparingly on a wall; the Winter Crassane however bears most abundantly on a standard, the fruit being of good size and flavour. *Monsieur le Cure Pear*; this is the same as the "Vicar of Winkfield" Pear, as was

proved by means of fruit and grafts sent to the Society by the Rev. R. H. Rham, of Winkfield; it is very large, even from a standard; and in a warm season from a wall it has the appearance of a Uvedale's St. Germain, but is melting and buttery; Season, December, and January. *Downton Nonpareil*; larger than the Old Nonpareil, of a brisk flavour and keeps late in the season. It is believed to be the best of all the apples raised by Mr. Knight.

The following Presents were announced;

Nos. 1 to 5, *Of the Proceedings of the Scientific Society of London*, from the Society.

British Flowering Plants, No. 92. from the Author, Mr. W. Baxter.

Proceedings of the Agricultural and Horticultural Society of India, from the Society at Calcutta.

The Athenæum for February, from the Editor.

The Botanical Register for March, from the Publishers.

Acta Academiæ naturæ Curiosorum, Vol. 19. Part 7, from the Academy at Bonn.

March 17, 1840.

ORDINARY MEETING.

HIS ROYAL HIGHNESS PRINCE ALBERT, of Saxe Coburg and Gotha, having, on the application of His Grace the President, and of the Council, consented to become a Member of the Society, it was unanimously resolved that the name of HIS ROYAL HIGHNESS be placed at the head of the list next after that of HER MAJESTY.

The following were elected Fellows of the Society;

Benj. E. Lindo, Esq., 31, Queen Anne Street.

Andrew Macleaw, Esq., Waterloo Place, and Poulett Lodge, Twickenham.

George Rushout, Esq., Burford House, Tenbury.

Mrs. Wray, Oakfield, Cheltenham.

The following were the principal subjects of exhibition;

From Mrs. Lawrence, a large collection of *Stove* and *Greenhouse plants*, among which were the *Hoveas purpurea*, *pungens*, and *linearis*, in great beauty, *Acacia Cunninghamii*, and *Cytisus rhodopnæa*. (SILVER KNIGHTIAN MEDAL awarded.)

From Sigismund Rucker, Esq., Jun., the rare and curious Malay epiphyte called, *Phalænopsis amabilis*, (*the white butterfly plant*), *Oncidium bifolium*, and *Dendrobium nobile*. (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. David Coe, Gardener to Earl Stanhope, two brace of *Cucumbers*.

From Mr. Lumsden, Gardener to Henry Bevan, Esq., a collection of *Camellia* flowers.

From James Bateman, Esq., two varieties of *Dendrobium aggregatum*, with darker and paler flowers, a new Indian Epiphyte *Cælogyne flaccida*, and *Billbergia fasciata*.

From Mr. John Spencer, Gardener to the Marquis of Lansdowne, at Bowood, a fine specimen of *Hippeastrum reticulatum*, one of the handsomest of Amaryllidaceous plants. (SILVER BANKSIAN MEDAL awarded).

From the Garden of the Society, a variety of *Stove and Greenhouse plants*.

Cuttings of the following fruit trees were distributed ;

Delices d'Hardenpont Pear ; season, November, resembles Passe Colmar. *Beurré Bosc Pear* ; higher flavoured than the Marie Louise. *Summer Golden Pippin Apple* ; an excellent early variety. *Adams's Pearmain* ; a handsome dessert winter apple.

The following letter was then read ;

“ Royal Society of Northern Antiquaries,
“ SIR, Copenhagen, November 19, 1839.

“ With a view to the promotion of science, the Royal Society of Northern Antiquaries is desirous that the sphere of its exertions may be extended.

“ With this view I take the liberty of transmitting you Reports of the Annual Meetings in 1838 and 1839, which I beg you will lay before your distinguished Society, with which it is our wish to maintain a permanent connexion.

“ I avail myself of this opportunity to direct your attention to our Society's Library, and that it is of importance for us to exert a beneficial influence in this direction also. Through the kind interest evinced by many of our well wishers, we have from time to time seen our collection enriched with many interesting publications in all branches of science, which otherwise would with difficulty have reached our country.

“ Of the Reports I add several copies, which I request you will distribute to such of your Society's Members as may take an interest in the same, and especially to such as are themselves either Authors or Publishers of important and interesting works.

“ By letting such Members know that Messrs. Black and Armstrong, (8 Wellington Street, North,) will receive and forward any donations intended for the Society, you will doubtless in no small degree promote our interest.

“ I remain, Sir, very respectfully,

“ Your obedient Servant,

“ CHAS. C. RAFFN, Sec.”

The following Presents were announced ;

Reports of the General Anniversary Meetings of the Royal Society of Northern Antiquaries, in 1838 and 1839, from the Society.

Harrison's Floricultural Cabinet, for March, from the Editor.

Osservazioni sull'articolo Botanica del terzo fascicolo della Rivista Napolitana, from the Author il Cav. Michele Tenore.

Memoria sulle diverse specie e varietà di Cotone coltivate nel regno di Napoli, &c., from the Author, Cav. M. Tenore.

Paxton's Magazine of Botany for January, February, and March, 1840, from the Editor.

Comptes rendus, &c., Nos. 5, 6, 7, 1st. half year, 1840, from the Academy of Sciences.

The Ladies' Flower Garden of Ornamental Annuals, No. 15, from Mrs. Loudon.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1840.

No. X.

April 7, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Earl of Egremont, Orchard Wyndham, Somersetshire.
Miss Burdett Coutts, Stratton Street, Piccadilly.
Walter Ewer, Esq., Dover.
William Jardine, Esq., Brunswick Hotel, Hanover Square.

The following were, upon the recommendation of the Council,
elected Foreign Members of the Society.

Réné Joachim Henri Dutrochet, M.D., Chateau Réné,
Department d'Indre et Loire.
Stephen Endlicher, M.D., Professor of Botany, and Director
of the Botanic Garden of the University of Vienna.
Philip Frederick de Siebold, M.D., Leyden.
Pierre Philippe André Vilmorin-Andrieux, Paris.

A paper was read from Mr. Thomas Rivers, Jun., Nurseryman, Sawbridgeworth, upon the advantage of pruning the roots of Pear Trees.

The Author stated that in consequence of being inconvenienced by the confusion in the names of pears, he felt himself called upon to plant specimen trees of all the varieties he then possessed ; but fearing that much ground would be wasted in the experiment, he endeavoured to discover some means of arresting superabundant growth, and inducing early fruitfulness. After

trying the effects of planting the trees in small square brick pits, and plunging them in large pots, both which methods were found too expensive, he took advantage of a piece of shallow loamy soil resting on a substratum of very hard white clay, through which he calculated that the roots of the trees would not penetrate, and he expected that the soil on the surface might be made rich enough to support the trees without vigorous and unruly growth. However he found that the roots of trees are not so easily kept within bounds, and that those of the pears not being able to enter the hard clay, were wandering far and wide; the branches also keeping pace with the roots, and growing much too rapidly for his calculations as to the space each tree ought to have occupied. Having previously remarked for many years that Apple Trees growing in a firm loamy soil in his nursery, if removed one or two years consecutively, which in nursery culture often occurs, acquired a stunted and prolific habit, making abundance of bloom buds and bearing profusely, it occurred to him that if he could keep the roots of his Pear Trees in the same state by frequent removals, he should make them also acquire the habit he had so long observed in Apples.

But in attempting to remove his Pear Trees, it occurred to the author that it would be less trouble to dig a trench round them, and cut all their roots at a certain distance from the stem; and in this respect his anticipations were completely fulfilled. Specimens of various kinds of Pear trees thus treated, were exhibited in support of the author's views.



In the Vallée franche (Fig. A.) the maximum of last year's shoots was four inches ; this tree was arrested by root-pruning in December 1838, and is now covered with blossom buds.

The Passe Madeleine (fig. B.) whose roots were pruned in December 1838, made no shoots, but was covered with blossom buds.



In the Winter Nelis (fig. D.) the last season's growth was stated to be three inches ; and the specimens exhibited were covered with blossom buds.

Mr. Rivers next proceeded to give some hints and directions as to the mode of operation. The best description of trees for the purpose of forming, what he calls, Garden Orchards, are half standards with round well formed heads, or plants trained *en quenouille*, or dwarfs in the usual bush fashion. For immediate effect these should be prepared by annual root-pruning for one, two, or three years in the nursery, but if not so prepared, trees of the usual size and quality may be planted and suffered to remain two years undisturbed, unless the soil is rich and they make vigorous shoots the first season after planting ; thus, supposing a tree to be planted in November or December, it may remain untouched two years from that period, and then, early in November, if possible, a circumferential trench ten inches from the stem of the tree and eighteen inches deep should be dug, and every root cut with a sharp spade, which should be introduced quite under the stem at about fifteen inches in depth, so as com-

pletely to intercept every perpendicular root. The treddle spade used in Hertfordshire is a very eligible implement for this purpose, as the edge is steeled and very sharp. The following year, the third from planting, a trench may again be opened at fourteen inches from the stem, so as not to injure the fibrous roots of the preceding summer's growth, and the spade again used to cut all the circumferential and perpendicular roots that are getting out of bounds; the fourth year the same operation may be repeated at eighteen inches from the stem; and in all subsequent root pruning this distance from the stem must be observed. In the course of years a perfect ball of fibrous roots will be formed, which will only require the occasional operation of a trench being dug and the ball being pared down, to ascertain whether large feeders are making their escape from it. But as this circular mass of soil will in a few years be exhausted, there is left round each tree a slight depression in the soil, or in other words, the trench is not quite filled in, and this circular furrow is filled with fresh night soil, which has an excellent effect. As it did not come in contact with the roots, no injury resulted from the use of such a powerful manure; but the Author was of opinion that there is no absolute necessity for liquid manure, as common dung may be laid round each tree in the autumn, and suffered to be washed in by the rains of winter, or drawn in by the worms. With regard to pruning the branches of pear trees thus brought into early fruitfulness, the author added, that all that is necessary is the occasional removal of a crowded branch, the fact being that root-pruning almost does away with the necessity of branch-pruning. Sometimes, however, a root will escape the spade, and then in the following summer a vigorous shoot or two will make their appearance; these should be shortened in August to within four buds of their base, and the following autumn the feeding root must be diligently searched for. Mr. Rivers exhibited a specimen (fig. C.) of shoots of this kind, the result of a root being left unpruned.

In conclusion he stated that he had also practised root-pruning on apple trees for two years, and has reason to hope for perfect success; as also as with plums and cherries.

The following were the principal subjects of exhibition;

From Mr. George Steell, of Richmond, Surrey, a collection of *Camellias*.

From Mr. John Lumsden, Gardener to Henry Bevan, Esq., F.H.S., a plant of *Saxifraga ciliata*.

From Mrs. Lawrence, F.H.S., a collection of Stove and Green-house plants, the most conspicuous of which were *Cymbidium aloifolium*, *Eriostemon buxifolium*, *Epacris onosmaeflora* and *Ardisia paniculata*. (SILVER KNIGHTIAN MEDAL awarded).

From Messrs. Brown, of Slough, a beautiful specimen of *Telopea speciosissima*. (SILVER BANKSIAN MEDAL awarded).

From Sir John Trevelyan, Bart., F.H.S., some fine Lemons grown in the open air in Somersetshire, being merely covered with mats in winter.

From Mr. John Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., some magnificent specimens of *Black Hamburgh* and *Dutch Sweetwater Grapes*. (SILVER KNIGHTIAN MEDAL awarded).

From Messrs. Whitley and Osborn, of Fulham, a fine plant of *Azalea Indica*, var. *rosea*. (SILVER BANKSIAN MEDAL awarded).

From George Barker, Esq., F.H.S., of Birmingham, a fine specimen of a new species of *Chysis*, an Orchidaceous plant from Mexico. (SILVER BANKSIAN MEDAL awarded).

From Mr. Jackson, Nurseryman, of Kingston, Surrey, a handsome collection of twelve choice species of *Erica*. (SILVER BANKSIAN MEDAL awarded).

From Mr. Richard Clark, Gardener to Sir James Limond, of Drayton Green, Ealing, a very fine specimen of the *Prostanthera violacea*, a New Holland Greenhouse shrub with purple flowers. (SILVER BANKSIAN MEDAL awarded).

From Messrs. Lane and Son, of Great Berkhamstead, a large collection of *Roses*. (LARGE SILVER MEDAL awarded).

From Mr. Ansell, F.H.S., of the Camden Nursery, two seedling *Azaleas*.

From Messrs. Rollisson and Sons, of Tooting, specimens of various Orchidaceous Epiphytes, especially *Brassia verrucosa*, a new species from Mexico, and *Grammatophyllum multiflorum*, a stately plant from the Phillipines, with three spikes of flowers. (SILVER KNIGHTIAN MEDAL awarded for the two last).

From Joseph Marryat, Esq., F.H.S., flowers of *Cerinthe aspera*, a new and pretty annual, the seed of which had been gathered on the ruins of the Villa of Lucullus.

From the Garden of the Society, a collection of *Stove* and *Greenhouse* plants.

The following Presents were announced ;

Paxton's Magazine of Botany, for April, from the Editor.

The Botanical Register, for April, from the Publishers.

Harrison's Floricultural Cabinet, for April, from the Editor.

The Journal of the Royal Geographical Society, Vol. X. Part 1, from the Society.

Speech delivered at a Public Meeting in the Town Hall of Ryde, Isle of Wight, on Monday, February 17th, 1840 ; on the occasion of her Majesty's marriage, by William Hughes Hughes, Esq., from the Author.

Comptes Rendus, &c., Nos. 8, 9, 10, 11, from the Academy.

British Flowering Plants, No. 93, from the Author, Mr. William Baxter.

April 21, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Marquess of Thomond, K.P., 41, Belgrave Square.

The Lord Stavordale, 31, Old Burlington Street.

George Henry Matyear, Esq., Turnham Green.

The reading was commenced of a paper from John Rogers, Esq. Jun., upon heating with hot water.

The following were the principal subjects of exhibition ;

From Mrs. Lawrence, a fine collection of *Stove* and *Greenhouse Plants*, comprehending noble specimens of *Hovea Celsi*, *Acacia prostrata*, *Zichya* (formerly *Kennedy*) *inophylla* and *Cytisus microphyllus*. (LARGE SILVER MEDAL awarded).

From Messrs. Lucombe, Pince and Co., Nurserymen, Exeter, a plant of the rare and beautiful *Acrophyllum venosum*, a hardy Greenhouse plant from New Holland. It was stated, that Messrs. Lucombe and Co., had purchased the only plant that had been raised of this fine species, and had specimens for sale, at from 3*l.* 3*s.* to 5*l.* 5*s.* each. (This being a new and very ornamental plant now for the first time exhibited, the LARGE SILVER MEDAL was awarded for it, in compliance with the standing regulations of the Society).

From Mr. Beaton, Gardener to Thomas Harris, Esq., F.H.S., some fine plants of the *White Azalea Indica*, *Azalea Indica Smithii*, and two seedlings ; together with *Euphorbia splendens* and *Boronia serrulata*, (not exhibited for a prize).

From John Penn, Esq., of Lewisham, Kent, a specimen of a Queen Pine Apple, together with a printed account of his mode of constructing Forcing Houses.

From Mr. John Hally, of Blackheath, a plant of *Chorozema varium*, the beautiful shrub from Swan River.

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart. F.H.S., a collection of *Greenhouse plants* of great beauty, among which were three seedling Cinerarias, and a finely grown plant of *Boronia serrulata*. (SILVER KNIGHTIAN MEDAL awarded).

From Mr. John Clarke, Gardener to Valentine Morris, Esq., Retreat, Battersea, a plant of the rare *Epidendrum bicornutum*. (SILVER KNIGHTIAN MEDAL awarded).

From Mr. George Steell, of Richmond, Surrey, a collection of flowers of *Camellias*.

From Mr. George Mills, F.H.S., Gardener to Baroness Rothschild, six plants of *Hydrangeas*.

From the Garden of the Society, various plants, among which were *Chorozema Henchmanni*, *Lissochilus parviflorus*, a rare Cape

Orchidaceous plant, and *Andromeda tetragona*, a rare and beautiful Hardy Evergreen shrub from North America.

The following Presents were announced ;

Labiatarum Genera et Species, by George Bentham, Esq., from the Author.

Kew and its Gardens, by Frederick Scheer, Esq., from the Author.

The Journal of the English Agricultural Society, Parts 2, and 3, Vol. I., from the Society.

The Athenæum for March, from the Editor.

The Ladies' Flower Garden of Ornamental Bulbous Plants, from Mrs. Loudon.

Comptes Rendus, No. 12, from the Academy of Sciences.

A Treatise on the Natural and Chemical Properties of Water, and on various British Mineral Waters, by Abraham Booth, from the Author.

May 1, 1840.

ANNIVERSARY MEETING.

UPON this occasion the Office bearers of the Society were re-elected, viz :

His Grace the Duke of Devonshire, President.

Thomas Edgar, Esq., Treasurer.

George Bentham, Esq., Secretary.

The following Fellows of the Society were also elected into the Council for the ensuing year, viz :

Edward Forster, Esq.

John Rogers, Esq., Jun.

William Henry Fox Talbot, Esq.

in the room of

Edward Barnard, Esq.

Henry Bevan, Esq.

Sir Oswald Mosley, Bart.

who went out by rotation.

The Report upon the state of the Society's accounts for the year ending 31 March, 1840, was then read by Wm. Hasledine Pepys, Esq., one of the Auditors :

REPORT OF THE AUDITORS.

THE Auditors, in presenting the thirty-first Report to the Annual General Meeting of THE HORTICULTURAL SOCIETY OF LONDON, are able to announce a satisfactory result of their investigation, both as to the state of the Society's finances, and the

form in which they are enabled to lay the Accounts before the meeting, the Cash receipts being now substituted for the *open* Income of former reports, as suggested at the last Anniversary Meeting, from which it appears, that the actual receipts have exceeded the expenditure of the year (exclusive of that for the new Conservatory) by £1561. 7. 0, and if allowance be made for the arrears of £430 due April 1839 for Medals unclaimed, and estimated as debt in the Auditor's Report to that time, but not charged in the expenditure of previous years, the excess would have been £1991..7..0.

The Auditors also observe, with much pleasure, that the Cash receipts of the past year exceed those of the previous year by £839..7..6.

The Cash Account for the year ending 31 March last, is as follows :

D ^r .	To Balance at Bankers, 1st April, 1839,	.	£367	10	9
	To ditto in hands of Vice Secretary, ditto,	.	7	9	4
	To amount of various Receipts,	.	6560	17	10
			<hr/>		
			£6935	17	11
C ^r .	By Bonds paid off,	.	£700	0	0
	By payments on account of new				
	Conservatory,	.	2236	2	2
	By various Payments by Checks, 1189	19	9		
	By ditto through Vice Secretary, 2611	16	0		
			<hr/>		
			6737	17	11
			<hr/>		
	Leaving a Balance of	.	£198	0	0
	Being with Sir W. P. Call, & Co. £172	6	8*		
	Vice Secretary per P. C. Book,	25	13	4	
			<hr/>		
			£198	0	0
			<hr/>		

In addition to the Bonds for £700, cancelled as above stated, it will be observed that £2236..2..2. has been paid during the year on account of the new Conservatory. The Bonded Debt of the Society is now £9150, and that on open accounts £3754..10..0 making together £12,904..10..0, and there is due to the Society £6509..9..10, exclusive of the Annual Subscriptions due on the 1st of May next. At the same time the property of the Society is much increased in value by the erection of the splendid Conservatory at the Garden.

21, REGENT STREET,
25th April, 1840.

R. W. EYLES.
H. GROOM.
WM. HASLEDINE PEPYS.
A. PEYTON PHELPS.
ROBERT WRENCH.

* This amount, together with £318..3..6. to the credit of "*Garden Exhibitions*, 1840," forms the Cash Balance per Banker's Book, £490..10..2.

ABSTRACTS OF RECEIPTS AND EXPENDITURE, between the 1st of April, 1839, and 31st of March, 1840.

Dr.		Cr.	
To admission fees from Fellows	328 13 0	By rents, rates, taxes, &c. Regent Street, and Chiswick	602 1 6
To compositions for life from ditto	336 0 0	By repairs of house &c. in Regent Street*	36 19 10
To subscriptions received from ditto	3266 11 0	By housekeeping expenses, Regent Street	804 16 0
To amount of Transactions sold	119 5 0	By Salaries	201 13 4
To rent of apartments let off in Regent Street	158 6 8	By collector's poundage to March 31, 1839,	55 0 0
To garden produce sold	66 8 5	By ditto, ditto, 1 year, to March 31, 1840,	471 9 8
To charges to Fellows for packing plants, &c.	28 5 4	By interest on bonded debt	160 6 5
To miscellaneous receipts	36 10 8	By cost of publishing Transactions, and Proceedings of Meetings	30 11 3
To balance of Garden Exhibition Account	£2523 9 3	By library charges	71 16 0
Deduct due April 1, 1839,	302 11 6†	By printing, stationery, and stamps	£128 17 6†
for medals unclaimed	2220 17 9	By medals & rewards at Ordinary Meetings in Regent Street	235 4 0
		Due April 1, 1839, for Medals unclaimed,	107 6 7
		Medals awarded from April 1, 1839, to April 1, 1840,	427 7 1
		By cost and charges on foreign importations, &c.	132 15 1
		By foreign missions—Collector in Mexico	6 5 0
		By expenses of meetings, postage, &c.	112 9 11
		By ditto at Chiswick, for seeds, plants, carriage, &c.	57 15 5
		By garden charges for implements, mats, &c.	33 2 8
		By Do. tan, dung, mould, &c.	168 8 4
		By Do. baskets, &c. for packing plants, seeds, &c.	1013 5 0
		By garden current labour	144 12 3
		By Do. repairs to houses, &c.	126 5 6
		By Do. coals and coke	
		Total ordinary Expenditure	4999 10 10
		By balance being surplus of receipts over Expenditure, exclusive of new Conservatory	1561 7 0
			£. 6560 17 10

* The Account for alterations and repairs to Meeting Room not having been received in time to be examined and passed by the Council previous to the closing of the Accounts for the past year, will have to be charged to the expenditure of the current year.

† These two amounts for Medals unclaimed, were estimated at £430. and charged as debt in the last Report of Auditors, the actual sum being £431. 9s. 1d.

May 5, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Lady Grenville, Dropmore, Bucks.

Thomas Clarke, Esq., F.S.A., 43, Craven Street, Strand, and Highgate.

Mr. George Cunningham, Nurseryman, Wavertree, Liverpool.

W. S. Gillett, Esq., M.A., 25 Guildford Street, Russell Square.

Mr. Thomas Jackson, Nurseryman, Kingston.

John Russell Reeves, Esq., Clapham Rise.

William Scholey, Esq., Clapham.

The reading of Mr. Rogers' paper on Heating with Hot Water, was concluded.

The author commenced by observing, that on the whole there appears no doubt that the circulation of hot water in iron pipes is the best means hitherto devised for heating Horticultural buildings. Its peculiar advantages are the uniformity and durability of the heat so communicated, and its perfect and equable distribution to all parts of the building. But whether it is capable of effecting any considerable economy of fuel, will depend much upon the construction of the apparatus. Where this is well-constructed and *well-managed*, the saving of fuel may amount to 25 per cent, over well-constructed and well-managed flues ; but in the opinion of the author, in a large proportion of the apparatus now in use, it will be found that the consumption of fuel greatly exceeds that of common furnaces.

The author next proceeded to comment upon the general desire of gardeners, to possess an apparatus that will *get up heat* in a short time, and upon the value of the ordinary test of excellence in a hot water apparatus, by inquiring how speedily water can be made to boil. Upon this Mr. Rogers observed, that where an apparatus is properly constructed this can seldom be effected without a most extravagant waste of fuel. The water in a hot water apparatus, constructed on the most perfect principles, will take as many hours to heat to the boiling point as the pipes which contain it are inches in diameter, and it will also cool in the same ratio. Four inch pipes will accordingly take four hours to reach the temperature of 200° ; and they can be heated to the boiling point in one hour, only by the consumption of four times as much fuel as would suffice if properly applied, or in fact, allowing for the waste of heat by the chimney, which increases under such cir-

cumstances very rapidly, five or six times as much fuel as is really necessary will be consumed by a gardener zealous of the honour of his apparatus.

In the opinion of the author, if a house is to be heated rapidly, the pipes should be of the smallest diameter which is consistent with a free circulation, but it must be borne in mind that such pipes will also cool with equal rapidity; and, if the heat is to be maintained through the night, the furnace must be so constructed as to contain a large quantity of fuel, and only to allow of a very slow consumption, much after the manner of Dr. Arnott's Stove. But there are several objections to small pipes, one of the most material of which is this, that the motion of water within them being retarded by *friction* in a much greater degree than in large pipes, they can never be brought to so high a mean temperature.

But it is very doubtful whether a rapid communication of heat be really essential to the efficiency of a heating apparatus. In hot-houses, where permanent heat is required, it is evidently unnecessary; the only place where it may be desirable is in buildings where occasional heat only is employed. But if any one will take the trouble to note hourly the variations of the thermometer by night, in weather in which frost is so severe as to be dangerous, they will find that, instead of a sudden jump of 10° or 20° , the thermometer begins to fall slowly an hour before sunset, somewhat more rapidly afterwards, and continues falling steadily till about 11 P.M. After that time it falls still more slowly till 3 or 4 A.M., by which time it will have almost reached its minimum. Its variation will be something like three or four degrees per hour for the first four hours, after that about one degree per hour for the next two or three, and then from $\frac{1}{2}$ to $\frac{1}{3}$ of a degree till it has reached its minimum. Now it is evident that to meet this variation, supposing the temperature of the house to range exactly with outer air, an apparatus which occupies three or four hours in reaching its maximum, would be much more accurately adapted to the emergency than one which could be heated in an hour. But in fact, except in iron-roofed houses, the temperature within the house does not keep pace with that of outer air, but falls much more slowly, owing to the specific heat contained in the objects within the building, which is gradually transmitted by the roof, so that in fact the necessity for rapid heating, even in greenhouses, is really less than at first sight appears.

Mr. Rogers considers that the real desideratum is a furnace so constructed that it shall contain fuel enough to supply the pipes with as much heat as they can radiate during the night, and which may be depended upon for burning steadily and perfectly whatever fuel is put into it.

The author next proceeded to consider the best capacity for pipes employed in heating hot-houses and greenhouses. He

considers that there can be on the whole no doubt that three inch or four inch pipes are exceedingly preferable to smaller ones, where economy of fuel and uniform adjustment of the temperature for several hours, are the primary objects.

In determining the proportion that should be borne by the surface of pipe to the surface of glass, the author referred in terms of great praise to Mr. Charles Hood's most valuable treatise on hot water apparatus. Formerly, he observed, the most preposterous blunders were committed on this point,—almost all the earlier apparatus were incompetent to the work required of them, the quantity of pipe being insufficient to produce the heat desired, while the boiler being large and of very defective construction, a vast quantity of fuel was burnt to waste; the gardener finding his heat deficient, naturally stoked up his fire and threw on fuel in the hope of increasing it, but the only result of his labour was the more rapid destruction of the boiler itself. But the publication of Mr. Hood's work caused the principle of circulation in hot water apparatus, to be better understood. If however the earlier apparatus were mostly deficient in the quantity of pipe employed, many of those more recently erected err in the opposite extreme. The error arising not from any defect in the data or in the calculations, but from assuming, as the minimum of external air, a temperature which very rarely occurs in this country, and which lasts for so very short a time that no building has time to cool down to a corresponding temperature; a power of 30° for green-houses and of 45° for hot-houses, is in Mr. Rogers's opinion ample under any circumstances. It may be urged that it is always easy to work an apparatus below its power, and that such an arrangement is economical of fuel, which within certain limits is true; but if the quantity of pipe materially exceeds what is necessary, the only means of keeping the house at a moderate temperature is by leaving the furnace door open, and a great waste, instead of any economy of fuel, necessarily results.

The author then proceeded to consider the expediency of heating several houses from the same boiler. To this arrangement he saw no objection, provided the same number or extent of houses are always to be heated at the same time; but serious inconvenience will be found to arise from an attempt to heat with the same boiler two buildings, in one of which occasional, and in the other permanent heat is required, and this inconvenience will be great in proportion to the size of the buildings, especially, if as is generally the case, the hothouse is small, and the greenhouses or pits more extensive. The same inconvenience will also be felt if two vineries, one to be forced at a later period than the other, be heated from one boiler.

The only scientific method of obtaining a different temperature in stoves heated from the same boiler, is by allotting to each

house, quantities of pipe bearing a different proportion to their respective surfaces of glass; the difference thus established will be maintained for all temperatures, unless accidental circumstances of exposure to wind, or imperfect glazing, should cause a variation, and the general heat of all may be regulated by attention to one fire.

In conclusion Mr. Rogers adverted to the great importance of regulating with precision the amount of moisture in the atmosphere of a house for plants; it is upon this above every thing else, that the perfection or imperfection of an artificial climate consists, and it is by no means one of the least advantages of hot water pipes, that they do not, like brick flues, dry the atmosphere by absorbing its moisture. The air of all buildings artificially heated, is dried by condensation upon the glass, and by the continued escape, through open laps or crevices, of saturated or moist air, whose place is supplied by cold and dry air. Sprinkling the floor is a very imperfect and inefficient means of replacing the moisture thus lost, the greater part of the water so bestowed sinks into the earth, and very little finds its way to the atmosphere of the house, for the air in contact with the floor of a house, is generally nearly saturated, having lost its capacity for moisture by losing its heat, and it is only when it has reached the pipes, and been again heated, that it becomes capable of taking up moisture.

The most effectual mode of producing a moist atmosphere is by considerable surfaces of water above the level of the pipes, which surfaces ought always to exceed by a few degrees the mean temperature of the house. The troughs commonly employed are objectionable, only in as far as they are much too small, and becoming quickly empty, afford a very temporary supply. To be really efficient such troughs ought to be at least one foot in width by 5 or 6 inches in depth, and they should extend the whole length of the house, affording something like one square foot of water surface for every 15 square feet of glass in the roof. In Orchidaceous houses, and those destined to the cultivation of tropical plants, a still greater surface of water is desirable, and for this purpose slate cisterns, fixed immediately over the heating pipes, as broad as the front shelves, and from one foot to 15 inches deep, may be advantageously employed. Their temperature will always exceed that of the house by a few degrees, and the great surface affords an abundant though gradual supply of moisture—they act also as partial reservoirs of heat, and afford the only efficient means of cultivating the beautiful, but much neglected tribe of stove-aquatics. The culture of these plants has become almost extinct, solely on account of an almost universal failure in managing them, and this failure has entirely resulted from the improper construction and position of the cisterns in which they are grown. In the few houses

where cisterns are introduced, they are generally provided more for use than ornament, the position in which they are placed, and the materials of which they are constructed, forbid their being warmed, and in fact, the temperature of the water contained in them is always some degrees below that of the house. Under these circumstances no tender aquatics will flourish: but if the cisterns be placed above the pipes, as here recommended, and formed of slate, their temperature will always by a few degrees exceed the mean temperature of the house, and if their situation be light enough, stove-aquatics will flourish in them in great perfection.

The following were the principal subjects of exhibition;

From Messrs. Chandler and Sons, a collection of greenhouse plants, among which was *Fabiana imbricata*, a very pretty heath-like Chilian shrub.

From Mr. D. Beaton, Gardener to Thomas Harris, Esq., F.H.S., some fine specimens of *Cytisus rhodopnæa*, and *Webbianus*, with *Mormodes buccinator* (the Trumpet orchis), a rare kind of epiphyte from Mexico. (Not exhibited for a prize.)

From Mr. Thomas Smith, Gardener to Charles Mills, Esq., of Hillingdon, a large plant of *Echium candicans*, an old but very handsome Cape shrub. (SILVER BANKSIAN MEDAL awarded.)

From Mr. Smith, of Norbiton, Surrey, 2 distinct varieties of *Hybrid rhododendrons*, with yellow flowers, and of extraordinary beauty. They had been obtained between the yellow azalea sinensis, and some rhododendron, unknown. (LARGE SILVER MEDAL awarded.)

From Mr. C. Russell, Nurseryman, Bridge Road, Battersea, 2 seedling *rhododendrons*.

From Mr. James Baldwin, of Turnham Green, a collection of Apples.

From Mr. Hugh Low, of Clapton Nursery, a small plant of *Conospermum taxifolium*, a pretty and very curious Swan River plant, and *Dillwynia rudis*, a New Holland shrub.

From Mr. Croucher, Gardener to the Duke of Sutherland, F.H.S., at Wandsworth, a handsome plant of *Chorozema Henchmanni*. (SILVER BANKSIAN MEDAL awarded.)

From Sir Philip Egerton, Bart., F.H.S., flowers of a new seedling cactus, and of the handsome *Cattleya Mossiæ*.

From Mr. George Steell, of Richmond, Surrey, cut flowers of *Camellias*.

From William Wells, Esq., F.H.S., a very large specimen of the *Orchis foliosa*, a terrestrial species from Madeira, and the double red *Azalea indica*. (SILVER BANKSIAN MEDAL awarded for the former.)

From John Allnutt, Esq., F.H.S., a collection of Greenhouse plants, consisting of species of *Epacris*, *Erica*, *Hardenbergia*, and *Azaleas*. (SILVER KNIGHTIAN MEDAL awarded.)

From Sir Thomas Dyke Acland, Bart., F.H.S., a basket of flowers of *Camellias*, gathered from a plant which has been planted out at Killerton, in Devonshire, for 18 years. It was stated that upwards of 200 blossoms had been produced by one tree.

From Mr. Dean, Gardener to James Bateman, Esq., F.H.S., flowers of *Dendrobium densiflorum*, *D. calceolaria*, and *Brassia maculata*.

From Mrs. Randolph, of Bridge street, Westminster, *Twenty sorts of artificial flowers*, prepared from the natural feathers of birds, without the assistance of dye.

From Mr. Malyon, Gardener to John Penn, Esq., of Lewisham, Kent, a collection of *Orchidaceous and other plants*, and a *Queen Pine Apple*.

From the Rev. Glyd White, of Ewelme, near Bensington, *Hall's Watlington seedling apple*.

From Mrs. Lawrence, F.H.S., a large collection of *stove and greenhouse plants*, containing among others, *Dillwynia clavata*, in great beauty, and *Lalage ornata*. (SILVER BANKSIAN MEDAL awarded for the first.)

From Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., of Bodorgan, in Anglesey, a dish of fine *May duke cherries*. (SILVER BANKSIAN MEDAL awarded.)

From the Garden of the Society, a collection of plants in flower; among them the true *Maxillaria tenuifolia*, with its gay tiger-spotted flowers, *Clematis florida bicolor*, and a new sweet scented Columbine from the Himalayan mountains, (*Aquilegia fragrans*) were the most remarkable.

The following Presents were announced;

The *Botanical Register* for May, from the Publishers.

A Catalogue of the Plants growing in Bombay and its Vicinity, by John Graham, from the Agri-horticultural Society of Western India.

The Floricultural Cabinet and Florist's Magazine, for May, from the Editor, Mr. Jos. Harrison.

Baxter's British Flowering Plants, for May, from the Author.

Paxton's Magazine of Botany, for May, from the Editor.

Comptes Rendus, No. 13, and 14. from the Academy of Sciences.

De Kamptzid, Novo Myrtacearum Genere, disserit C. G. Nees ab Esenbeck, from the Author.

The Ladies' Flower Garden of Ornamental Bulbous Plants, from Mrs. Loudon.

The Athenæum, for April, from the Editor.

Flora Batava, No. 119, from H. M. the King of Holland.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON.
1840.

No. XI.

May 16, 1840.

EXHIBITION AT THE GARDEN.

This was undoubtedly the most beautiful display that had hitherto been made in this Garden, both of flowers and fruit. It was impossible not to perceive the great improvement which had taken place in the appearance of the specimens of all descriptions. The number of visitors, exclusive of exhibitors amounted to 2471.

There were about 810 specimens of plants, 29 boxes of cut flowers and 47 dishes of fruit.

The award of the Judges was as follows ;

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun., F.H.S., for a Collection of Orchidaceous plants.

2. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart. F.H.S., for a large collection of Stove and Greenhouse plants.

3. To Mr. Davis, Gardener to Sir Simon H. Clarke, Bart. F.H.S., for a collection of Miscellaneous Fruit.

4. To Messrs. Rollisson of Tooting, for a collection of Orchidaceous plants.

5. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Cape Heaths.

6. To Mr. Pamplin of Hornsey Road, Islington, for Cape Heaths.

7. To Mr. Jackson, of Kingston, F.H.S., for Cape Heaths.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Dunsford, Gardener to the Baron Dimsdale, for Orchidaceous plants.

2. To Mr. Cock of Chiswick, for Pelargoniums.

3. To Mr. Gaines of Battersea, for Pelargoniums.

4. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for a large collection of Stove and Greenhouse plants.

5. To Mr. William Barnes, Gardener to George Ward Norman, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.

6. To Messrs. Lucombe and Pince of Exeter, for Cape Heaths.

7. To Mr. Falconer, Gardener to Archdale Palmer, Esq. for Greenhouse Azaleas.

8. To Mr. Smith of Norbiton, near Kingston, for a new yellow Rhododendron.

THE LARGE SILVER MEDAL.

1. To Mr. James Lane, Gardener to J. H. Palmer. Esq. F.H.S. for a plant of *Azalea indica* variegata.

2. To Mr. William Barnes, Gardener to George Ward Norman, Esq. F.H.S., for a small collection of Orchidaceous plants.

3. To Mr. Dunsford, Gardener to the Baron Dimsdale, for a single specimen of an Orchidaceous plant, (*Brassia Henchmann.*)

4. To Mr. Standish of Bagshot, for a new species of *Fuchsia* from Peru.

5. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a large collection of Stove and Greenhouse plants.

6. To Mr. Jackson of Kingston, for a large collection of Stove and Greenhouse plants.

7. To Mr. Bruce, Gardener to Boyd Miller, Esq. for a small collection of Stove and Greenhouse plants.

8. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for Cape Heaths.

9. To Mr. Hunt, Gardener to Miss Traill, for Pelargoniums.

10. To Mr. Catleugh of Hans Street, Chelsea, for Pelargoniums.

11. To Mr. John Green, Gardener to Sir Edmund Antrobus, Bart., for Herbaceous *Calceolarias*.

12. To Mr. Lane, Gardener to J. H. Palmer, Esq. F. H. S. for Seedling Calceolarias.
13. To Mr. John Green, for Shrubby Calceolarias.
14. To Mr. Catleugh, for Herbaceous Calceolarias.
15. To Mr. Catleugh, for Shrubby Calceolarias.
16. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for Greenhouse Azaleas.
17. To Mr. Smith of Norbiton, Surrey, for Greenhouse Azaleas
18. To Mr. John Green, for Tall Cacti in flower.
19. To Messrs. Lane, and Co., of Berkhamstead, for a collection of Roses.
20. To Mr. Dunsford, Gardener to Baron Dimsdale, for a single specimen of an Orchidaceous plant (*Oncidium divaricatum*.)
21. To Mr. Bruce, Gardener to Boyd Miller, Esq. for *Ixora coccinea*.
22. To Mr. George Leslie, Gardener to John Fleming, Esq. F.H.S. for Pine Apples.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun., for a single specimen of an Orchidaceous plant.
2. To Mr. Mountjoy, of Ealing, for a plant of *Berberis tenuifolia*.
3. To Mr. Bromley, Gardener to Miss Anderdon, of Upper Mall, Hammersmith, for *Pelargoniums*.
4. To Mr. Gaines, of Battersea, for Shrubby Calceolarias.
5. To Edward Foster, Esq., of Clewer, near Windsor, for Seedling *Pelargoniums*.
6. To Messrs. Colley and Hill, of Hammersmith, for *Pelargoniums*.
7. To Mr. Davis, Gardener to Sir Simon H. Clarke, Bart., for a large collection of Stove and Greenhouse plants.
8. To Mr. Falconer, Gardener to Archdale Palmer, Esq. for a small collection of Stove and Greenhouse plants.
9. To Mr. Pratt, Gardener to William Harrison, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.
10. To Mr. Pratt, for Cape Heaths.
11. To John Allnutt, Esq. F.H.S., for Cape Heaths.
12. To Mr. Wright, Gardener to the Hon. Mrs. Rushout, F.H.S., for Grapes.
13. To Mr. William Tillery, Gardener to His Grace the Duke of Portland, F.H.S., for Peaches and Nectarines.
14. To Richard Brook, Esq. F.H.S., for Apples and Pears.
15. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq. F.H.S., for Cherries.
16. To Mr. John Stewart, Gardener to Lord Ashburton, F.H.S., for Strawberries.

17. To Mr. Myatt, of Deptford, for Victoria Rhubarb.
18. To Mr. Pratt, Gardener to William Harrison, Esq. F.H.S., for Melon shaped Cacti.
19. To Mr. James Barnes, Gardener to Sir Herbert Jenner, F.H.S., for *Zichya inophylla*.
20. To Mr. William Barnes, for Herbaceous Calceolarias.

THE SILVER BANKESIAN MEDAL.

1. To Mrs. Fleming, of Binstead, Isle of Wight, for a collection of Roses.
2. To Mr. H. Cobbett, of Horsell, near Woking, for a collection of Roses.
3. To Mr. William Barnes, Gardener to George Ward Norman, Esq. F.H.S., for a single specimen of an Orchidaceous plant (*Calanthe veratrifolia*.)
4. To Mr. Jackson, of Kingston, for *Brachyglottis repanda*.
5. To the Rev. Mr. Garth, of Farnham, for Seedling Pelargoniums.
6. To Mr. J. Wilmer, of Sunbury, for Tulips.
7. To Mr. James Barnes, for a small collection of Stove and Greenhouse plants.
8. To Mr. Kyle, Gardener to R. Barclay, Esq., for a small collection of Stove and Greenhouse plants.
9. To Mr. Chapman, of Vauxhall, for Grapes.
10. To Mr. George Cockburn, Gardener to the Earl of Mansfield, for a Melon.
11. To Mr. Barnes, for "Man of Kent" Cucumber.
12. To Mr. James Barnes,* for *Clematis azurea*.
13. To Mr. Holland, Gardener to Miss Tunno of Taplow Lodge, for *Azalea indica variegata*.
14. To Mr. Wm. Barnes, for *Leschenaultia formosa*.
15. To W. C. Alston, Esq., of Winson Hill, Birmingham, for *Erica sulphurea*.
16. To Mr. Jackson of Kingston, for *Epacris grandiflora*.

* Disqualified in consequence of having gained a Silver Knightian Medal in this class.

The result of this award, as compared with the objects exhibited, is shewn by the following table.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Green-house Azaleas - - -	3	—	1	2	—	—
Melon shaped Cacti - - -	2	—	—	1	1	—
Cape Heaths - - - - -	7	3	1	1	2	—
Orchidaceæ - - - - -	10	2	1	3	1	1
Pelargoniums - - - - -	7	—	2	2	3	1
Roses - - - - -	3	—	—	1	—	2
Stove and Greenhouse Plants -	11	1	2	3	3	2
Herbaceous Calceolarias - -	3	—	—	2	1	—
Shrubby ditto. - - - -	3	—	—	2	1	—
Tall Cacti - - - - -	1	—	—	1	—	—
Fruit - - - - -	24	1	—	1	5	3
Single Plants not in flower -	4	—	—	1	1	—
Fine Single specimens - - -	26	—	—	2	1	6
New Ornamental Plants - -	5	—	1	—	—	—
Miscellaneous - - - - -	14	—	—	1	1	1
Total -	119	7	8	22	20	16

May 19, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Earl of Lucan, Laleham, Middlesex.

Robert Wildman Barchard, Esq., Wandsworth.

James Heywood, Esq., Acresfield, Manchester.

Thomas James Lenox, Esq., Plaistow, Essex.

John Lenox, Esq., Plaistow, Essex.

Charles Smith, Esq., Church Lane, Queen's Elms.

John Claremont Whiteman, Esq., 24 A, Bryanstone Square,
and Thoyden Garnon, Epping.

A paper was read from Mr. D. Beaton, on the cultivation of plants of the Cactus tribe. After some preliminary observations upon the history of the more remarkable collections in this

country, and the beauty or singularity of most of the species as objects of ornament or interest, the author proceeded to point out their geographical distribution, as the first fact to be considered with reference to their proper treatment.

The grand emporium for Cacti is Mexico, but vast numbers are found in all latitudes of South America, from the north of Mexico to the southern plains of Chili. Some have been met with beyond both these limits, and even in the old world; but they are not sufficiently numerous to affect the general truth of the above view of their natural distribution. A few species inhabit the sea coast on both shores of the new continent; especially from the mouth of the great La Plata to the Mexican gulph. *Melocactus communis*, *M. amœnus*, *M. meonacanthus*, *Mammillaria glomerata*, and some fine *Cereuses* and *Opuntias*, were found growing down to the water's edge in the hottest part of the globe; which, according to HUMBOLDT, is from Cumana to La Guayra, and the Gulf of Maracaybo. Along the same coast such species occur abundantly in open arid places; and the plants seem to enjoy the reflection of the sun's rays from a naked soil, in addition to the scorching heat of the atmosphere. From this region of excessive and perpetual heat, up to the limits of perpetual snow, or nearly so, some species of *Cactus* or *Opuntia* are to be met with, at every degree of elevation. In the latitudes of the periodical rains, the Cacti are deluged for three, four, or five months at a time, while they are completely dry for the rest of the year. They may be said to enjoy a perpetual spring in some localities, such as, for example, in the vallies of the "tierra templada" in Mexico, or in the higher vallies of New Granada, and in the neighbourhood of Quito, and other places of similar temperature; and a few *Cereuses* are said to be found in that part of the Peruvian coast where rain is unknown. Mr. HERBERT raised seedlings from seeds gathered on the Andes of Cusco 13° S. lat. at an elevation of nearly 15,000 feet, where the mean temperature is 46° , on the Andes of Bolivia, at an altitude of 14,600 feet and still further south in lat. 19° where there reigns a mean temperature of 45° .

The author then proceeded to state that the Alpine species should receive the treatment of the heath house; and the *Melocacti*, which inhabit the intratropical shores, a higher temperature than the rest of the family; for the latter the mean temperature of 55° is necessary even in winter; but if they are kept perfectly dry from October to March they will live in a much lower degree. The great mass of the species do perfectly well in a temperature from 45° to 50° if they are kept near the glass. The only attention they require in winter is to receive plenty of air. If they are kept warmer in winter their growth is not quite suspended, and they will require to be occasionally watered.

Mr. Beaton next adverted to the management of newly imported

Cacti. If received after the first of September they should not be excited into growth until March. Many *Mammillariæ* with short thick succulent roots, most *Echinocacti* and all *Melocacti*, are slow in making roots after their first arrival, and, therefore, should be assisted with a gentle bottom heat. Indeed all the Cacti are much benefited by this on their first arrival, and at all times when in a growing state. No plants seem to enjoy bottom heat more than Cacti: even the species from the limits of perpetual snow like it, although the heat of a close house or frame would soon injure them, by exhausting their vital energies.

That bottom heat is highly advantageous to these plants, even in the midst of summer, the author considered proved by an experiment instituted in the garden of Mr Harris. A glass-case, in which *Auriculas* are wintered, was placed over a bed of hot dung; on the dung was put a layer of rough stones and gravel; and three or four inches deep of light compost was placed over the whole. In this were planted upwards of 100 Cacti. The case had moveable sashes at the sides and both ends, with a span roof of glass; and by removing the side and end lights, the plants were as much exposed to currents of air, as if they had been planted out in the open border. The plants selected for experiment were for the most part newly imported; for the first month the case was kept close; afterwards the side and end lights were opened, and a constant draught of air was admitted day and night, the plants being syringed every evening in hot weather. After four months' treatment the result was completely successful. Some Mexican *Mammillariæ* had made roots ten inches long; and contrary to their natural habits in some cases, their roots crept along close to the surface of the soil. The roots of most Cacti penetrate far into the soil and insinuate themselves between the crevices of stones and rocks in quest of moisture, but in this instance they kept near the surface where the moisture was supplied; a curious instance of the capability of plants to accommodate themselves to particular circumstances.

Mr Beaton next proceeded to give an account of a method of applying bottom heat to Cacti at all seasons. This has been effected by the following simple contrivance. Let a shelf of thin Welch slate run along the whole front of the Cactus house, and let hot-water pipes run under this shelf and keep the slate constantly hot. An inch of rough cinders is then strewed on the shelf, and a row of inverted pots (small sixties) is placed along the cinders, at about five or six feet apart. About three inches of light compost is placed over the cinders with a sprinkling of sand on the top to preserve a neat appearance. A deal board is fixed along the side of the bed to keep in the soil; and when the whole is planted and finished, the bottoms of the inverted pots are on a level with the surface of the bed. Water is oc-

casionally poured down through these inverted pots to irrigate the soil, and to prevent the heat from drying it too much. The shelf being uniformly level, the water runs equally under the soil among the cinders; and in the midst of the growing season the whole bed is saturated by this simple means, in imitation of the natural condition of the plants during the rainy season.

Mr. Beaton thinks that by a proper system of bottom heat,* Cacti might be grown in frames in this country to great advantage, so as to equal, if not excel our continental neighbours. To those fond of green, healthy and symmetrical Cacti, seedlings and offsets are far preferable to imported plants, as we seldom receive the latter without some of their bottom spines being dead or otherwise discoloured by time or circumstances. This is more particularly the case with *Mammillariæ* and *Melocacti*.

With regard to the soil in which Cacti grow, the author stated it to be as various as the climates they inhabit. Some grow in stiff yellow clay mixed with rough gravel, and some in fine strong loam of different textures and colours: others are found in all the kinds of light soil, in peat, and among chalk and limestone, and even on the sterile lava of volcanic districts. In the opinion of the author the general health of a collection of Cacti depends more on a proper system of drainage than on the kind of compost used. Rough pointed crocks are found to be too porous for drainage, and would soon destroy the delicate roots in winter. In a general way rough coal cinders will do well; but for particular favourites, equal quantities of pounded oyster-shells and coal clinkers, is by far the best drainage that can be used, keeping the finer parts towards the top. A layer of moss placed on the drainage, as is done for other plants with advantage, would soon kill the finer sorts of Cacti, and must never be used for them. When fresh potted, water is withheld for several days, in order to let any roots, which may have been broken, have time to dry; otherwise, if moisture is applied to the wounds when fresh, death will soon be the consequence.

The author then proceeded to describe the apparatus by means of which a Cactus absorbs its food. If you let a young soft seedling Cactus get so dry that it begins to shrivel, and then cut off the point of the tap root and place it in a coloured liquid, it will soon imbibe the liquid; and if you afterwards cut it lengthways through the centre, you will see the beautiful system by which it receives its nourishment, forcibly displayed by the coloured veins or vessels in the fleshy pulp; some of these vessels are so small that you could hardly touch them with the point of a needle. Such being the extreme delicacy of their internal structure, the necessity of handling them with care must be obvious; yet a collector, although instructed not to twist or

* The best, most simple, and most practical mode of supplying bottom-heat by means of hot-water, is that detailed by J. ROGERS, Esq., F.H.S., of Seven Oaks, Kent in the *Gardener's Magazine*, Vol. XVI. p. 139.

pull such plants out of the earth by mere force, and though he may dig them up with care, will take hold of the long wiry roots to carry them by; if, in such a case the specimen be at all heavy, its whole weight is suspended on a series of the most delicate vessels, which can scarcely escape being torn asunder, and if this happens, the dissolution of the plant will inevitably follow, though it may appear to live for some time after.

There is, says Mr. Beaton, a direct communication from the roots up through the centre of all Cacti by means of a series of perpendicular woody fibres, which are soft in young plants and very succulent kinds, but which generally in mature plants assume a firm woody character, and in many species of *Cereus* and *Opuntia* become quite ligneous, with a pulpy centre analogous to the pith of trees and shrubs. These woody fibres may be traced up to the last two years wood, where they merge into the general succulency of the plant. The moisture imbibed by the roots rises through these woody channels, and thence is distributed through the succulent mass, from the whole surface of the central axis, by means of the system of reticulated fibres or veins already alluded to. It thus becomes obvious how easy it is to injure such plants by handling them roughly.

With regard to growing Cacti from seeds, Mr. Beaton fills the pots with cinders to within two inches of the top; and makes them up with very sandy peat, and a little clean sand on the top. The pots are then watered and the seeds sown; after which as much dry sand is sprinkled over them as will just fill up the spaces between them. The whole is then pressed down gently, and the pots are put by in any warm place, where they are kept moist. The seeds will vegetate in ten or twelve days and must then be very gently watered for fear of displacing them till they make their little roots, and get firm hold of the soil, after which, they may be freely and regularly watered. Although he has transplanted such seedling Cacti at all ages, yet he lost so many by transplanting while very young, that he recommends the seeds to be sown quite thin in the first instance, and not to transplant the seedlings till they begin to get crowded in the pots, in a year or two.

It is well known that the large columnar species of the tropics cannot be brought in this country to the size at which they will flower. To remedy this inconvenience Mr. Beaton recommends cutting off three or four feet from the top of their immense pillars in their native country, as the only way by which we can ever expect to flower them in England. Let the collector fix on the oldest plant of each kind, cut it down and preserve the head or top piece, and after drying the wound, let him send it home in saw dust, or any dry hard grass, but by no means in moss, which is of all others the worst substance to transmit plants in, as it imbibes and retains moisture. We should then have every chance of seeing the flowers soon after their arrival, and thus be in pos-

session of a great acquisition to our collections, which we can never expect by the present mode of procuring young plants.

In conclusion the author adverted to the advantages that may be expected from hybridizing Cacti, Upon this subject he remarked that the Cerei, of which the Epiphylla are a subsection, are the great laboratory for improving the fine flowering Cacti. To say nothing of mixing new species with the older ones for the sake of brilliant colours, we might easily get a new race of free flowering kinds in the way of *Cereus grandiflorus*, by a judicious mixture of such species as *Cereus nycticallis*, *C. triangularis*, and its near relative *C. Napoleonis*, with that splendid new *Cereus* which is sold in the London nurseries under the erroneous name of *setaceus*. This noble *Cereus* is the finest of the genus, and by it a new race of splendid Cacti may be obtained; its flowers are as large as those of *C. grandiflorus*, and of a brilliant yellow colour, of the African marygold tint.

The following subjects were exhibited;

From Mr. R. Richardson, Garden Net Depôt, 21 Tonbridge Place, New Road, *specimens of a net* to protect fruit from flies and wasps, and a kind of *green binding* for tying up flowers with.

From Sir Thomas Trayton Fuller Elliott Drake, Bart., a small specimen of the fruit of *Carica papaya*, "the Papaw" tree.

From Mr. Arthur Henderson, specimens of the curious *Aristolochia ciliaris*, whose flowers are surrounded with long fringes; and a new species of *Pronaya*, a climber from Swan River. (The SILVER BANKSIAN MEDAL awarded.)

From Mr. George Shiells, Gardener to Lord Blantyre, Erskine House, near Glasgow, a branch of very fine *Cherries* forced on flued walls without glass. Mr. Shiell's object was to show the manner in which the fruit ripens in succession, when cherries are treated in this manner. In the specimen exhibited some cherries were quite ripe, others half ripe, and others green. (The SILVER BANKSIAN MEDAL awarded.)

From Mr. William Ely Allen, Farmer, Whitton, Suffolk, some very fine *Cucumbers*. (A SILVER BANKSIAN MEDAL awarded.)

From James Bateman, Esq., cut flowers of *Dendrobium moschatum*.

From Mr. William Gregory, F.H.S., 3 seedling *Fuchsias*, and a seedling *Gloxinia*.

From John Rogers, Esq., Jun., a pretty new *Bromeliaceous plant*, from Mexico, with pink flowers, and leaves of two sorts, the outer spiny, the inner destitute of spines. It has since been published in the Botanical Register for 1840, under the name of *Puya heterophylla*.

From the Garden of the Society, a collection of *Stove and greenhouse plants*, among which was a very fine new bulb from Mexico, sent by Mr. Hartweg. It belonged to the genus *Sprekelia*, and was nearly allied to the old *Jacobæa* lily, (*Sprekelia*

formosissima) but the flowers were smaller and rather differently formed.

There were also flowers of a *double yellow Persian rose*, sent to the Society by Sir Henry Willock, while Her Majesty's minister to the Court of Persia. It was received at the Garden in May 1836, and is a decidedly finer variety than the Old double Yellow Rose.

Many fine Orchidaceous epiphytes accompanied this collection.

The following presents were announced ;

Transactions of the Society of Arts, Part 2, Vol. 52, from the Society.

The Journal of the Royal Asiatic Society of Great Britain and Ireland, No. 11, from the Society.

Comptes Rendus, &c., Nos. 15 and 16, from the Academy of Sciences.

Asiatic Researches, Vol. 19, Part 2, from the Asiatic Society of Bengal.

June 2, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Hon. Sir George Rose, F.R.S., 4, Hyde Park Gardens.

Peter Dickson Esq., 5, Chester Terrace, Regent's Park.

Capt. John Hine, E.I.C.S., 27, Somerset Street, Portman Square.

John Penn, Esq., Lewisham.

The following were the principal subjects of exhibition ;

From Mrs Lawrence, F.H.S., a collection of *Heaths*, *Diplolana Dampieri*, a rare New Holland shrub of the Rutaceous order, and a new species of *Stylidium*, from the Swan River. (The SILVER KNIGHTIAN MEDAL for the two latter.)

From Messrs. Lucombe and Pince, of Exeter, a specimen of *Oncidium pallidum*, from Brazil.

From George Barker, Esq., F.H.S., a plant of *Epidendrum vitellinum*, a most beautiful Mexican Orchidaceous epiphyte with flowers of a deep orange colour. (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Thomas Sellers, Gardener to L. V. Watkins, Esq., of Pennoyre, three bunches of very fine *Black Hamburgh Grapes*. (SILVER BANKSIAN MEDAL awarded.)

From Mr. John A. Henderson, F.H.S., a plant of *Verbena Hendersonii*, a new variety recently sent from Philadelphia by Mr. Buist. It is different from others, in having darker and richer flowers than any of the purple varieties previously in the gardens.

From Mr. Andrews, Gardener to R. Patterson, Esq., of Blackheath, a brace of *Cucumbers*.

From Mr. Errington, Gardener to Sir Philip Egerton, Bart., flowers of *Oncidium flexuosum*, and *Cattleya Mossia*, which had been introduced by Sir R. K. Porter, from La Guayra.

From John Allnutt, Esq., F.H.S., a collection of *Heaths*. (The SILVER BANKSIAN MEDAL awarded.)

From Alexander Rowland, Esq., Sen., F.H.S., a box of *Heartsease*.

From Mr. Dean, Gardener to James Bateman, Esq., F.H.S., flowers of the following Orchidaceous epiphytes; viz. *Saccolabium guttatum*, *Oncidium leucochilum*, and *Maxillaria tetragona*. (SILVER KNIGHTIAN MEDAL awarded.)

The following Presents were announced;

The Botanical Register, for June, from the Publishers.

Baxter's British Flowering Plants, from the Author.

Paxton's Magazine of Botany, for June, from the Editor.

The Ladies Flower Garden of Ornamental Bulbous Plants, No. 3, from Mrs. Loudon.

Harrison's Floricultural Cabinet, for June, from the Editor.

The Athenæum, for May, from the Editor.

Comptes rendus, (17, 18, 19,) from the Academy of Sciences.

June 13, 1840.

EXHIBITION AT THE GARDEN.

The beauty of the weather, and the magnificence of the plants at the previous exhibition, caused the number of visitors upon this occasion to amount to the unprecedented number of 11,594, exclusive of exhibitors. The number of specimen plants was 642, of dishes of fruit 111, and of stands of flowers 77.

Previously to the Exhibition H. R. H. PRINCE ALBERT honoured the Society with an inspection of the Garden.

The following Award of Medals took place;

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun., F.H.S., for a Collection of Orchidaceous plants.

2. To Messrs. Rollisson and Sons of Tooting, for a Collection of Orchidaceous plants.

3. To Mr. J. Davis, Gardener to Sir Simon Clarke, Bart. F.H.S., for a miscellaneous collection of Fruit.

4. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for a large collection of Stove and Greenhouse plants.

5. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., for a large collection of Stove and Greenhouse plants.

6. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for thirty species of Cape Heaths.

7. To Mr. Pamplin of Hornsey Road, Islington, for thirty species of Cape Heaths.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., Jun. F.H.S., for three species of Orchidaceous plants.

2. To Mr. Cock of Chiswick, for a Collection of Pelargoniums.

3. To Mr. Catleugh of Hans Street, Chelsea, for a Collection of Pelargoniums.

4. To Mr. E. Davis, Gardener to Lord Boston, F.H.S., for a miscellaneous collection of Fruits.

5. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S. for a miscellaneous collection of Fruit.

6. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a large collection of Stove and Greenhouse plants.

7. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a small collection of Stove and Greenhouse plants.

8. To Mr. Bruce, Gardener to Boyd Miller, Esq. of Mitcham, Surrey, for a small collection of Stove and Greenhouse plants.

9. To Mr. R. May, Gardener to Emanuel Goodheart, Esq., of Langley Park, Beckenham, Kent, for six species of Cape Heaths.

10. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq., F.H.S., for a Collection of Roses.

11. To Messrs. Lane and Sons of Great Berkhamstead, for a collection of Roses.

THE LARGE SILVER MEDAL.

1. To Mr. Clarke, Gardener to Valentine Morris, Esq., of the Retreat, Battersea, for a Collection of Orchidaceous plants.

2. To Mr. Dunsford, Gardener to the Baron Dunsdale, for three species of Orchidaceous plants.

3. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., Jun., F.H.S., for *Aerides affine*.

4. To the Right Hon. Lady Rolle, for *Oncidium lanceanum*.

5. To Mr. James Barnes, Gardener to Sir Herbert Jenner, F.H.S., for *Grevillea robusta*

6 To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Stephanotus follicularis*.

7. To Mr. Butcher, for a Collection of *Pelargoniums*.

8. To Mr. Gaines of Battersea, for a Collection of *Pelargoniums*.

9. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Herbaceous *Calceolarias*.

10. To Mr. Catleugh of Hans Street, Chelsea, for Herbaceous *Calceolarias*.

11. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Shrubby *Calceolarias*.

12. To Mr. Thomas Sellers, Gardener to L. V. Watkins, Esq. F.H.S., for Black Hamburg Grapes.

13. To Mr. John Floud, Gardener to Sir John Guest, Bart., F.H.S., for Pine Apples.

14. To Mr. Mann, Gardener to James Bishopp, Esq., of Westburton, for Pine Apples.

15. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., for Pine Apples.

16. To Mr. Mc. Onach, Gardener to Edmund Foster, Esq., of Clewer, near Windsor, for Pine Apples.

17. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for Pine Apples.

18. To Mr. James Barnes, Gardener to Sir Herbert Jenner, F.H.S., for a small collection of Stove and Greenhouse plants.

19. To Mr. Falconer, Gardener to Archdale Palmer, Esq., F.H.S. for a small collection of Stove and Greenhouse plants.

20. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.

21. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S. for thirty species of Cape Heaths.

22. To Mr. Jackson of Kingston, for thirty species of Cape Heaths.

23. To John Allnutt, Esq., F.H.S. for six species of Cape Heaths.

24. To Mr. Pratt, Gardener to William Harrison, Esq. F.H.S., for six species of Cape Heaths.

25. To Mr. Falconer, for Tall Cacti in flower.

26. To Mr. Palmer of Norfolk Place, Shacklewell, Middlesex, for Melon shaped Cacti.

27. To Rowland Alston, Esq. Jun. F.H.S., for a Collection of Roses.

28. To Messrs. Wood and Son of Maresfield, Sussex, for a Collection of Roses.

29. To Mr. Cobbett of Horsell, near Woking, Surrey, for a Collection of Roses.

30. To Mr. Stephen Hooker, of Brenchley, Kent, F.H.S., for a Collection of Roses.

31. To Messrs. Paul and Son of Cheshunt, Herts, for a Collection of Roses.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for three species of Orchidaceous plants.

2. To Mr. Clarke, Gardener to Valentine Morris, Esq., of the Retreat, Battersea, for *Coryanthes* sp. nov.

3. To Mr. Dunsford, Gardener to the Baron Dimsdale for *Oncidium lanceanum*.

4. To Mr. Dunsford, for *Doryanthes excelsa*.

5. To Mr. Cock of Chiswick, for a *Pelargonium*.

6. To Mr. Scott, Gardener to Charles Barclay, Esq., F.H.S. for *Alstromeria Ehreboltdti*.

7. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Herbaceous *Calceolarias*.

8. To Mr. Gaines of Battersea, for a collection of Shrubby *Calceolarias*.

9. To Mr. Mc Onach, Gardener to Edmund Foster, Esq., of Clewer near Windsor, for Seedling *Pelargoniums*.

10. To Mr. Chapman of Vauxhall, for Black Hamburg and Dutch Sweetwater Grapes.

11. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for Peaches and Nectarines.

12. To Richard Brook, Esq., F.H.S., for Apples.

13. To Mr. Leslie, Gardener to John Fleming, Esq., F.H.S., for May Duke Cherries.

14. To Mr. Myatt of Manor Farm, Deptford, for a new seedling Strawberry.

15. To Mr. Pratt, Gardener to William Harrison, Esq., F.H.S. for Melons.

16. To Mr. Pratt, for a small collection of Stove and Greenhouse plants.

17. To Mr. Watson, Gardener to John Wells, Esq., Jun., of Bromley, Kent, for a small collection of Stove and Greenhouse plants.

18. To Mr. Smith of Norbiton, Surrey, for *Rhododendrons* in pots.

19. To Mrs. Fleming of Binstead, Isle of Wight, for a collection of Roses.

20. To Mr. Dennis of Chelsea, for a collection of Roses.

THE SILVER BANKSIAN MEDAL.

1. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for *Oncidium luridum*.

2. To Mr. R. May, Gardener to Emanuel Goodheart, Esq., of Beckenham, Kent, for *Erica globosa*.

3. To Mr. Clark, Gardener to Sir James Limond, of Drayton Green, for an *Hydrangea*.

4. To Mr. Mountjoy of Ealing, for *Stylidium fascicularis*.

5. To Mr. Smith of Norbiton, Surrey, for *Azalea Danielsiana*.

6. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for *Leschenaultia formosa*.

7. To Mr. James Gunner, Gardener to Joseph Wilson, Esq., for *Elichrysium humile*.

8. To Mr. Standish of Bagshot, for *Fuchsia sanguinea*.

9. To Mr. James Barnes, Gardener to Sir Herbert Jenner, F.H.S., for Cockscombs.

10. To the Rev. R. Garth of Farnham, Surrey, for seedling *Pelargoniums*.

11. To Mr. Alexander Pontey, Nurseryman, Plymouth, for seedling *Pelargoniums*.

12. To Alexander Rowland, Esq., F.H.S., of Rosenthal, Lewisham, Kent, for a Collection of *Roses*.

The result of this award, as compared with the objects exhibited, is shewn by the following table.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Melon shaped Cacti - - -	1	—	—	1	—	—
Heaths - - - - -	7	2	1	4	—	—
Orchidaceæ - - - - -	12	2	1	4	3	1
Pelargoniums - - - - -	5	—	2	2	—	—
Rhododendrons - - - - -	1	—	—	—	1	—
Roses - - - - -	12	—	2	5	2	1
Stove and Green-house plants - -	10	2	3	3	2	—
Herbaceous Calceolarias - - -	3	—	—	2	1	—
Shrubby Calceolarias - - - - -	2	—	—	1	1	—
Tall Cacti - - - - -	1	—	—	1	—	—
Fruit - - - - -	25	1	2	6	6	—
Single plants not in flower - - -	5	—	—	1	1	—
Fine Single Specimens - - - - -	18	—	—	1	1	6
New ornamental plants - - - - -	5	—	—	—	1	1
Miscellaneous - - - - -	34	—	—	—	1	3
Total.	141	7	11	31	20	12

PROCEEDINGS

OF THE

HORTICULTURAL SOCIETY OF LONDON.

1840.

No. XII.

June 16, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society :

Edward Fyffe, Esq., Jun., Hanover Park, Peckham.

Robert Frederick Gower, Esq.

Extracts were read from a Meteorological Journal, for the year 1839, kept at Nassau, New Providence, Bahamas, by the Hon. John Campbell Lees. The following is an abstract of the Temperature and fall of rain.

1839.	Maxim. Tempera- ture.	Minim. Tempera- ture.	Mean Tempera- ture.	Amount of rain, in inches.
January	79°	58°	68½°	0.99
February	80°	58°	70°	1.26
March	82°	63°	71°	0.57
April	81	63°	72½°	2.40
May	—	—	—	—
June	89°	75°	82°	5.
July	89°	76°	82½°	5.89
August	88	77°	83°	4.55
September	88°	75°	81½°	8.45
October	84°	71°	77½°	11.57
November	83°	69°	77½°	1.50
December	78°	58	68°	1.51

The following objects were exhibited ;

From James Bateman, Esq., F. H. S., a collection of *Orchidaceous* Plants ; viz. *Saccolabium guttatum*, 2 vars., *Aerides odoratum*, *Maxillaria atropurpurea*, *Epidendrum alatum*, “ the sweetest of the sweet,” (The SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Lumisden, Gardener to Henry Bevan, Esq., F. H. S., 12 sorts of Shrubby *Calceolarias*, a collection of *Ericas* and *Clematis Sieboldi*, (The SILVER KNIGHTIAN MEDAL awarded.)

From Messrs. Forrest and Black, Kensington, specimens in pots of a new *Strawberry*, raised at Swainston, Isle of Wight, and called *the Swainston*. Messrs. Forrest and Co. stated that in the open ground it bears as freely as Keen’s Seedling and continues to yield a succession of fruit up to the edge of winter.

From Mr. Marshall of Kingston, Surrey, specimens of Marshall’s Early Dwarf Prolific *Bean*.

From Mr. Sellers, Gardener to L. V. Watkins, Esq., F. H. S., a dish of *Black Hamburg Grapes*.

From Mr. Henry Groom, F. H. S., flowers of *Pæonia festiva* ; it was stated that this variety when in perfection has flowers seven inches in diameter.

From the Garden of the Society a collection of *Orchidaceous* and other plants, among which were *Patersonia sapphirina*, a beautiful *Greenhouse herbaceous* plant, *Milla biflora*, a Mexican bulb with large snow white flowers ; and a collection of *Fuchsias*.

The following presents were announced ;

A Description of British Guiana, 8vo. London, 1840. from the author R. H. Schomburgk, Esq.

Observations on the climate, soil, and productions of British Guiana, &c., by John Hancock, M. D., from R. H. Schomburgk, Esq.

Verhandlungen des Vereins zu beförderung des Gartenbaues in den Königlich Preussischen Staaten. Vol. XV. Part 1. 4to. Berlin, 1840. from the Society.

Theoretisch-Praktische Anleitung für Ökonomen und Gärtner, 8vo. Hanau, 1840. from the author A. F. Lenz, Chief Gardener to H. R. H. The Elector of Hesse.

July 4th, 1840.

EXHIBITION AT THE GARDEN.

Upon this occasion the display of flowers and fruit was of the most striking character. The number of Visitors was 5072. The number of specimen plants was 403, of dishes of fruit 92, and of stands of flowers 98.

The following award of Medals took place ;

THE GOLD KNIGHTIAN MEDAL.

1 To Mr. Butcher, Gardener to Mrs. Lawrence, F. H. S, for a large collection of Stove and Greenhouse plants.

2. To Mr. William Barnes, Gardener to George Ward Norman, Esq. F. H. S., for thirty species of Cape Heaths.

3. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun. F. H. S., for a collection of Orchidaceous plants.

4. To Messrs. Rollisson and Son of Tooting, for a collection of Orchidaceous plants.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Cock of Chiswick, for Pelargoniums.

2. To Mr. Catleugh of Hans Street, Sloane Street, Chelsea, for Pelargoniums.

3. To Mr. William Barnes, Gardener to George Ward Norman Esq. F.H.S., for a small collection of Stove and Greenhouse plants.

4. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Collier's Wood, Mitcham, Surrey, for a small collection of Stove and Greenhouse plants.

5. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart. F. H. S., for a small collection of Stove and Greenhouse plants.

6. To Mr. Jackson of Kingston, Surrey, for thirty species of Cape Heaths.

7. To Mr. Redding, Gardener to Mrs. Marryat, F. H. S., for a large collection of Stove and Greenhouse plants.

8. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart. F. H. S., for a collection of miscellaneous Fruit.

9. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq. F. H. S., for a collection of Roses.

10. To Messrs. Lane and Son of Great Berkhamstead, for a collection of Roses.

THE LARGE SILVER MEDAL.

1. To Mr. Gaines of Battersea, for Pelargoniums.
2. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart. F.H.S., for a small collection of Stove and Greenhouse plants.
3. To Mr. Pratt, Gardener to William Harrison, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.
4. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for thirty species of Cape Heaths.
5. To Mr. H. Pratt, Gardener to William Harrison, Esq. F.H.S., for six species of Cape Heaths.
6. To Mr. Pamplin of Hornsey Road, Islington, for six species of Cape Heaths.
7. To Mr. Lumsden, Gardener to Henry Bevan, Esq. F.H.S., for a Miscellaneous collection of Fruit.
8. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq. F.H.S., for a Miscellaneous collection of Fruit.
9. To Messrs. Roe and Bell of Norwich, for Black Ham-burgh Grapes.
10. To Mr. William Brown, Gardener to C. W. Packe, Esq. M.P., F.H.S., for a White Providence Pine Apple.
11. To Mr. James Barnes, Gardener to Sir Herbert Jenner. F.H.S., for *Alströmerias*.
12. To Mr. George Phillips, Gardener to the Misses Trevor of Tingrith, near Woburn, Bedfordshire, for a collection of Roses.
13. To Mr. Sellett, Gardener to R. G. Alston, Esq. F.H.S., for a collection of Roses.
14. To Messrs. Paul and Son of Cheshunt, for a collection of Roses.
15. To Messrs. Wood and Son of Maresfield Nursery, near Uckfield, Sussex, for a collection of Roses.
16. To Mr. Rivers of Sawbridgeworth, for a collection of Roses.
17. To Mr. Cobbett of Horsell Nursery, near Woking, Surrey, for a collection of Roses.
18. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a collection of Orchidaceous plants.
19. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Peristeria* sp. n.
20. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun. F.H.S., for *Cirrheæ* sp.
21. To Mr. Veitch of Killerton Nursery, Exeter, for *Oncidium leucochilum*.
22. To Mr. Mylam, Gardener to Sigismond Rucker, Esq. F.H.S., for *Nepenthes distillatoria*.
23. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for *Clerodendron paniculatum*.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. Wilmer of Sunbury, for Carnations.
2. To Mr. Bridges of Carshalton, Surrey, for Pinks.
3. To Mr. Wilmer of Sunbury, for Pinks.
4. To Thomas Barnard, Esq. of Brixton, for Piccotees.
5. To Mr. Wilmer of Sunbury, for Piccotees.
6. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Seedling Calceolarias.
7. To Mr. James Barnes, Gardener to Sir Herbert Jenner, F.H.S., for a small collection of Stove and Greenhouse plants.
8. To Mr. Chapman of Vauxhall, for Black Hamburg Grapes.
9. To Mr. Chapman of Vauxhall, for a Seedling Grape (Victoria.)
10. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for a Providence Pine Apple.
11. To Mr. Errington, Gardener to Sir Philip Egerton, Bart., F.H.S., for Peaches.
12. To Mr. Foggo, Gardener to the Marquess of Abercorn at Stanmore Priory, for Nectarines.
13. To Mr. Henry Meyers of Brentford, for Cherries.
14. To Mr. George Hall, Gardener to W. B. Harcourt, Esq. of St. Leonard's Hill, Windsor, for a Green fleshed Melon.
15. To Alexander Rowland, Esq., F.H.S., for a collection of Roses.
16. To Mr. Pratt, Gardener to William Harrison, Esq. F.H.S., for a collection of Roses.
17. To Mr. Hooker, F.H.S., for a collection of Roses.
18. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for three species of Orchidaceous plants.
19. To Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., for Seedling Rhododendrons.
20. To Messrs. Brown and Co. of Slough, for *Lilium venustum*.
21. To Messrs. Brown and Co. of Slough, for *Lilium japonicum*.
22. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., F.H.S., for *Lilium lancifolium*.

THE SILVER BANKSIAN MEDAL.

1. To Mr. Hogg of Paddington, for Carnations.
2. To Mr. Weedon, Jun., Gardener to R. H. Cox, Esq. of Hillingdon, Middlesex, for Pinks.
3. To Mr. Alleway of Sunning, Reading, Berks, for Pinks.
4. To Mr. George King of Iver Nursery, Bucks, for Pinks.
5. To Mr. Hogg of Paddington, for Piccotees.

6. To Mr. Wright, Gardener to the Hon. Mrs. Rushot, F. H. S. of Wanstead Grove, Essex, for Black Hamburg Grapes.

7. To Mr. George Shiells, Gardener to the Lord Blantyre of Erskine House, near Glasgow, for Peaches.

8. To Mr. William Tillery, Gardener to His Grace the Duke of Portland, for Nectarines.

9. To Mr. Wheeler, Gardener to David Bevan, Esq. of Belmont, East Barnet, for Nectarines.

10. To Mr. Lumsden, Gardener to Henry Bevan, Esq., F. H. S., for Nectarines.

11. To Mr. Toward, Gardener to Her Royal Highness the Duchess of Gloucester, for Nectarines.

12. To Mr. Falconer, Gardener to Archdale Palmer, Esq. of Cheam, Surrey, for a Green fleshed Melon.

13. To Mr. Butcher, Gardener to W. F. G. Farmer, Esq. of Nonsuch Park, for Apples.

14. To Mr. Pedrick, Gardener to Henry Pownall, Esq. F. H. S., for Cherries.

15. To Mr. Wilmer of Sunbury, Middlesex, for a collection of Roses.

16. To Mr. Redding, Gardener to Mrs. Marryat, F. H. S., for a collection of Roses.

17. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart. F. H. S., for *Erica ventricosa hirsuta*.

18. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart. F. H. S., for *Erica virida*.

19. To Mr. E. Davis, Gardener to the Lord Boston, F. H. S., for *Lisianthus Russellianus*.

20. To Messrs. Brown and Co. of Slough, for *Lilium canadense*.

21. To Mr. Cock of Chiswick, for a *Pelargonium* (Lady Murray).

22. To Mr. Jackson, of Kingston, for *Pentstemon Murryanus*.

23. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart. F. H. S., for Seedling *Calceolarias*.

(OMISSION IN THE LAST AWARD.)

THE LARGE SILVER MEDAL.

To Mr. Mylam, Gardener to Sigismond Rucker, Esq. Jun. F. H. S., for a specimen of *Aerides odoratum*.

The result of this award, as compared with the objects exhibited, is shewn by the following table.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Carnations	3	—	—	—	1	1
Pinks -	7	—	—	—	2	3
Piccootees	3	—	—	—	2	1
Heaths	5	1	1	3	—	—
Orchidaceæ	8	2	—	5	2	—
Pelargoniums	3	—	2	1	—	—
Roses	14	—	2	6	3	2
Stove and Green-house plants	8	1	4	2	1	—
Alströmerias	1	—	—	1	—	—
Fruit -	50	—	1	4	7	9
Fine Single Specimens in flower	27	—	—	1	3	5
New ornamental plants	6	—	—	—	—	1
Miscellaneous	31	—	—	—	1	1
Total.	166	4	10	23	22	23

July 6, 1840.

GARDEN COMMITTEE.*

It was reported by Mr. Thompson that *Madia sativa* a new oil plant, had been sown in the month of September, 1839, as directed in the instructions received with it from Germany, but that all the plants had perished during the following winter ; those plants however which had been raised from a sowing in the middle of March, 1840, withstood slight spring frosts and were in flower in the beginning of June.

Read a report by Mr. Gordon upon *acclimatizing plants*. From the numerous experiments upon this subject in the garden it appears ; 1. that plants which it is intended to acclimatize should never be subjected to artificial heat during the winter that precedes their being planted out ; that if obtained from seeds as little heat as possible should be employed in raising them ;

* The Council have directed that the reports on experiments monthly presented to the Garden Committee by the Under Gardeners, should be henceforward published in these Proceedings if they appear sufficiently interesting.

and that starved, or stunted plants are more likely to succeed than such as have been forced into a rapid and luxuriant growth. 2. that the plants should not be committed to the open ground earlier than the end of May ; that the soil should be poor, dry, and thoroughly drained ; that if against a wall the border should be protected through the entire winter by a roof of hurdles thatched with straw, and projecting about three feet. A thermometer placed under such a covering did not, during the three months of February, March, and April, stand more than two or three degrees higher than one freely exposed ; from which it appears that it is the dryness of the situation and not its greater warmth that renders a border protected by a roof of thatched hurdles so useful to tender plants.

Read the result of experiments by Mr. G. Gordon *upon raising plants from seed*. He states that all seeds from North America and California, should be sown in the autumn as soon as ripe ; to defer the sowing them till the spring may in all cases be disadvantageous excepting the case of annuals ;— that Mexican and Chilian seeds succeed best if sown in spring ; that with regard to Europe, and the north of India, trees and shrubs should be sown in the autumn, and annuals or perennials in the spring ; that all seeds, of whatever kind, should be sown in dry soil and not watered till they begin to vegetate ; in the case of old or sickly seeds to water them at the time of sowing is to ensure their destruction by rotting ; that shading is to be preferred to watering ; and that one of the best constructions for the purpose is a pit glazed with double sashes like one in the Society's Garden ; finally that all seedlings should be potted or transplanted as soon possible, except bulbs.

Mr. Gordon also reported that the great beauty of the Rhododendrons this year, notwithstanding the wet and gloomy summer of 1839, was, in his opinion, attributable to their fruit having been all destroyed in 1839, immediately after flowering.

July 7, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

The Marquess of Ormonde, Kilkenny Castle, and 1, Weymouth Street.

The Earl of Enniskillen.

Mrs. Cockburn, Brixton Hill.

Mr. Edward Denyer, Loughborough Road Nursery, Brixton.
Joseph Fielden, Esq., Witton Hall, Lancashire.

A. L. Gower, Esq., Finsbury Square.

William Ogilby, Esq., Sec. Zool. Soc., 19, Gower Street,
Bedford Square.

A model was exhibited of a self-adjusting ventilator for Greenhouses, by Messrs. T. and P. Irvine, 11, Charles Street, Hatton Garden.

The following objects were exhibited ;

From Mr. John Smith, Nurseryman, Dalston, eight *Hybrid Fuchsias* and a flower of *Smith's Scarlet Emperor Pelargonium*.

From Messrs. Chandler and Sons, of Vauxhall, a plant of *Fuchsia Chandleri*, a pretty variety with pale flesh-coloured flowers.

From James Bateman, Esq., F. H. S., specimens of *Mormodes pardina*, a new Epiphyte, *Brassia Lanceana*, *Orchis foliosa*, *Dendrobium chrysanthum*, and *Maxillaria Colleyi*, (A SILVER KNIGHTIAN MEDAL awarded for the two first.)

From Messrs. Colley and Hill, of Hammersmith, *Hill's Prince Albert Geranium*.

From Mr. Thomas Hogg, of Paddington, a collection of *Carnations* and *Piccotees*.

From the Garden of the Society a collection of *Greenhouse and other plants*, among which were *Mandevilla suaveolens*, a fragrant new greenhouse climber with large white flowers, and *Bravoa geminiflora*, a pretty new bulbous plant from Mexico.

The following Presents were announced ;

Transactions of the Zoological Society of London, Vol. II. Part 4, and *Proceedings of the Society* Nos. 73 to 84 inclusive, from the Society.

Philosophical Transactions of the Royal Society of London, Part 4, 1839, and Part 1, 1840. *List of the Fellows*, Nov. 30, 1839, and *Proceedings of the Society*, Nos. 40, 41 and 42, from the Society.

Proceedings of the Scientific Society of London, from November 1839, to June 1840, from the Society.

The Floricultural Cabinet, No. 89, from Mr. Jos. Harrison.

Baxter's British Flowering Plants, No. 96, from the Editor.

Paxton's Magazine of Botany, for July, from the Editor.

The Botanical Register, for July, from the Publishers.

The Ladies Flower Garden of Ornamental Bulbous Plants, No. 4, from Mrs. Loudon.

The Athenæum, for June, from the Editor.

July 21, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Stephen Flockton, Esq., 2, Westbourne Street, Hyde Park Gardens.

Mrs. John Abel Smith, 47, Belgrave Square.

John Lyon Wynder, Esq., Veynor Park, Montgomeryshire.

The following objects were exhibited ;

From Mrs. Morris, Retreat, Battersea, a beautiful plant of *Oncidium Lanceanum*, (A SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Embleton, Gardener to Thomas Barnard, Esq. 2, Park Terrace, North Brixton, a collection of *Piccotees*, (A SILVER BANKSIAN MEDAL awarded.)

From Mr. Moore, Gardener to Miss Garnier of Wickham, Hampshire, a *Seedling Fuchsia*, a plant of *Oncidium pubes*, and *Spiræa lobata*, (A SILVER BANKSIAN MEDAL awarded to the second.)

From James Bateman, Esq., F.H.S., specimens of *Phaius albus*, and *Epidendrum floribundum*, two fine Epiphytes.

From Mr. Dunsford, Gardener to the Baron Dimsdale, a plant of *Curcuma Roscoeana*, a stove plant with rich scarlet floral leaves.

From Mr. Appleby, Gardener to T. Brocklehurst, Esq., Fence, Macclesfield, a collection of *Epiphytes*, (SILVER BANKSIAN MEDAL awarded.)

From Mr. Hogg, of Paddington, a collection of beautiful *Carnations* and *Piccotees*, (SILVER BANKSIAN MEDAL awarded.)

From Mrs Lawrence, F.H.S., a fine set of *Stove* and *Greenhouse plants*, among which were two beautiful specimens of *Crassula Coccinea*, and some plants of two varieties of *Peristeria cerea*, (The SILVER BANKSIAN MEDAL awarded for the former, and the KNIGHTIAN for the latter.)

From the Garden of the Society, a collection of *Greenhouse plants*, among which was the beautiful *Dyckia variflora*.

August 3, 1840.

GARDEN COMMITTEE.

Mr. Thompson presented a report unfavourable to the effect of *Poitevin's disinfected manure* upon esculent Vegetables and Cucumbers, unless in a liquid state, much diluted with water. (See p. 186 and 187.)

Mr. Fortune presented a report unfavourable to the employment of *Kyanized wood* in horticultural buildings. This was ordered to be read before the Society.

August 4, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Joseph Bailey, Esq., M.P., 26, Belgrave Square, and Glamisk Park, Crickhowel.

Mrs. Thomas Bell, Hornsey.

Edward Gill Flight, Esq., 1, Adam Street, Adelphi, and Bridport.

Septimus Holmes Godson, Esq., Tenbury, Worcester.

John Chrisp Gooday, Esq., No. 16, Claremont Place, Pentonville, and Sudbury, Suffolk.

John Morley, Esq., 3, Upper George Street, Portman Square.

William Robinson, Esq., 34, Montague Place, Bedford Square.

Mrs. M. A. Skaife, Lawn House, Hanwell.

The following communication was read from the Honourable and Rev. Wm. Herbert.

I wish to take this opportunity of communicating to the Society a plan I have adopted for cultivating Orchidaceous plants, which I think will be found deserving of notice. I took a strong post, or stem of a young tree barked, of a suitable height, and I had pieces of barked wood, such as are used for making rustic benches, cut into various lengths and nailed on, crossing each other in different directions with the knees or elbows pointing outwards, so that the whole had something the appearance of a Roman trophy; moss was then tied on where it was thought requisite, and bits of peat inserted in some of the supports, and the plants nailed or tied on with wire, or simply placed in the angles formed by the pieces of transverse wood. The plants in front thrived exceedingly well, but those with their back to the wall were found to grow weak and perish. I then devised with my gardener, Mr. Seymour, who has great merit in carrying the plan into execution, to fix two iron pegs or pivots into the two ends of the posts, of which the lower one is let into a hole drilled in a stone, and the upper is inserted into a ring of strong wire fastened either under a rafter or secured between two. The result is that the whole of each trophy with its plants turns round at the slightest touch. The Gardener moves them a little every time he comes into the house, so that no plant is either constantly exposed to the full light or totally obscured, and the most agreeable facility is given to examine the plants

and to clean them. Each of these machines bears a marvellous number of species with ease, and the greater part of my collection is now spinning upon them much to my satisfaction.

The following were the principal subjects of exhibition ;

From Mr. Redding, Gardener to Mrs. Marryat, F.H.S., a small collection of *Greenhouse and other Plants*, among which was *Crinum giganteum*.

From Mrs. Lawrence, F.H.S., a large collection of *Orchidaceous epiphytes and other plants*, consisting of three varieties of *Peristeria*, *Maxillaria Rollissonii*, *Statice foliosa*, *Ixora coccinea*, *Melostoma malabathrica* and others, (LARGE SILVER MEDAL awarded.)

From Mr. Chapman, of Vauxhall, a dish of *Dutch Sweetwater Grapes*.

From Mr. Gundry, Gardener to Samuel Paynter, Esq., of Richmond, Surrey, five *Queen Pine Apples*, weighing 39 ounces.

From Mr. Thomas Moffatt, Gardener to his Grace the Duke of Newcastle, a collection of *Grapes*, viz., *Sir A. Pytches' St. Peters*, *Black Hamburgh*, *White Frontignan*, *Black Frontignan*, and *Alicant*.

From Mr. Mylam, Gardener to Sigismond Rucker, Esq., F.H.S., a beautiful plant of *Miltonia Spectabilis*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Dean, Gardener to James Bateman, Esq., F.H.S., two very fine spikes of *Stanhopea Wardii* and *Acropera Loddigesii*.

From Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., *Erica Ewerana*, *ampullacea* and *ampullaceoides*, *Pimelea hispida* and *Gesnera splendens*, (SILVER BANKSIAN MEDAL awarded.)

From Mr. Pamplin, of Hornsey Road Nursery, Islington, a beautiful collection of *Heaths*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Charles Young, of Epsom, *Gloxinia rubra*, a deep rose coloured very beautiful variety of *Gloxinia speciosa*, (SILVER KNIGHTIAN MEDAL awarded.)

From the Garden of the Society, a collection of plants, comprehending among others, *Cobæa stipularis*, a new half hardy climber with green and purple flowers, from Mexico.

The following Presents were announced ;

Journal of the Royal Geographical Society, Vol. X. Part 2, from the Society.

Botanical Register, for August, from the Publishers.

The Floricultural Cabinet, No. 90, from Mr. Joseph Harrison.

The Ladies Flower Garden of Ornamental Bulbous Plants, No. 5, from Mrs. Loudon.

Baxter's British Flowering Plants, No. 97, from Mr. William Baxter.

The Athenæum, for July, from the Editor.

Pomona Italiana, Dispensa 41, and *Gli Agrumi dei Giardini Botanico-Agrarii di Firenze*, by il Conte Gallesio, Fol. 1839, Firenze, from the Marquess of Bristol.

August 18, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Charles Wentworth Dilke, Esq., 118, Sloane Street.

Edward Boucher Hartopp, Esq., 67, Grosvenor Street, and
Melton Mowbray.

Rev. Thomas Thurlow, Baynard's Park near Guildford.

A paper on producing Sea Kail during the season without the aid of dung or pots, was read, from Mr. William Miller, Gardener to the Rt. Hon. William Sturges Bourne, F.H.S. The author stated that he employed a subterranean pit, easily accessible in all weathers, and requiring no attention in regulating its temperature, because the natural average warmth of the subterranean air is considerably higher than that of our variable climate in winter. A pit 24 feet long by 8 feet wide and 6 high, would be large enough for a large family. Planting may be commenced in the beginning of November and continued until March. No water is ever given to the plants.

The following were the principal subjects of exhibition ;

From Mr. Robert Buck, F.H.S., *Jargonelle Pears*, *Green Gage Plums*, *Blithfield Seedling Gooseberries*, *Oldacre's St. Peters Grapes*, and some specimens of a *Grape* imported from the *Deccan* by Col. Sykes, (A SILVER BANKSIAN MEDAL awarded for the last.)

From Mr. Jackson, of Kingston, a collection of *Heaths* ; a fine specimen of the hairy variety of the beautiful *Campanula fragilis*, and *Bouvardia splendens*.

From Mr. Dunsford, Gardener to Baron Dimsdale, *Gloriosa superba*, a new species of *Catasetum* called *proboscideum*, and *Brassia Lanceana*.

From Mr. Edward Denyer, of Loughborough Road, North Brixton, *Denyer's new Victoria Plum*.

From Mrs. Lawrence, *Catasetum citrinum* and *longifolium*, *Stanhopea insignis*, *Cattleya Mossiæ* and many other beautiful plants, (A SILVER KNIGHTIAN MEDAL awarded.)

From Messrs. Brown, of Slough, a plant of the noble *Lilium lancifolium* (A SILVER BANKSIAN MEDAL awarded.)

From Mr. William Greenshields, Gardener to Richard Benyon de Beauvoir, Esq., F.H.S., a fruit of the scarlet *Brazilian Pine Apple*.

From Mr. Joseph Springall, Gardener to the Marquess of Thomond, Taplow, near Maidenhead, two *Seedling Fuchsias*.

From Mr. Dittrich of Gotha a collection of *Wax Models of Fruit* consisting of 48 varieties of Cherries, 36 of plums, 12 of Apples, 12 of Pears.

From the Garden of the Society, a large collection of *plants in pots*, among which were 13 species of *Statice*.

The following presents were announced ;

Paxton's Botanical Dictionary, from the Author.

Systematisches Handbuch der Obstkunde, by Johann Georg Dittrich,
2 vols. 8vo. Jena. 1837, from the Author.

PROCEEDINGS

OF THE

HORTICULTURAL SOCIETY OF LONDON,

1840.

No. XIII.

September 1, 1840.

ORDINARY MEETING.

The following Fellow was elected ;

The Right Hon. Algernon Lord Prudhoe, 37, Albemarle Street, and Stanwick Park, Darlington.

The following letter to the Vice Secretary was read, from Robert Atherton Hornby, Esq., F.H.S.

Lausanne, August, 17, 1840.

Dear Sir,—I know not whether you may be aware of a practice which has only come under my observation of late ; if not, its apparent utility is such that I make no apology for communicating it to the Society at once ; and I will do so by copying the note which I made upon the spot, as the most satisfactory means of avoiding any false inductions of my own. “ Pears, grafted on the stock of the Mountain-Ash, (Fogel-Beer, *Pyrus Aucuparia*,) by Herr Weimar, Försthaus, Ems. The practice derived from Herr Roth, Ober-förster, now resident in Altenkirchen, not far from Limburg, Duchy of Nassau. He lived formerly at Ober Ems, Amt Idstein, Nassau ; in his garden there, he had in 1812 trees of full growth thus worked. The crops were there abundant and sure ; in a climate and site, on the high plateau of the Taunus Mountain where neither pear

nor apple would previously fruit. The soil poor and shallow, upon rock. The effect is to retard the blossom and give vigour to the constitution. Flesh and flavour said not to be affected. Budding or grafting alike successful, on old stocks or on young, by the usual process; care must however be taken to remove none of the young shoots which the stock may make during the first season after working. In the succeeding spring, before vegetation commences, all such redundant growth to be cut out closely, and the graft alone permitted to push in freedom. Its growth will be luxuriant." Some other practices of the German Gardens came to my knowledge at the same time relative to a kind of intermediate process between budding and grafting, which at a future period I shall have much pleasure in communicating, if it should be thought in any respect valuable; as also the composition with which the scions are surrounded in preference to our grafting clay. The note which I have given at length may, if the facts are not already familiar to you, appear worth attention at an early period: and it may be needful to prepare the stocks. I have already desired my own gardener to make the experiment; and will communicate the result in due time. The only doubt is as regards the effect upon the quality of the fruit; the other particulars I have established to my satisfaction.

R. A. HORNSBY.

With reference to this letter, the following observation was made by the Vice Secretary;

We have long ago tried some experiments upon the Mountain-Ash as a stock for Pear trees, it having been one amongst the various kinds of stocks on which the pear was grafted in the Garden of the Society. The trees grew very well but scarcely so vigorously as those on the Pear stock, or even on the Quince. The fruit was produced at an earlier age, of good size, and *there was no perceptible difference in the flavour*, when compared with those produced under similar circumstances, but on Pear stocks. We did not observe the blossoms retarded. The trees however did not seem as if they would be long-lived owing to the unequal swelling of the respective species. The Pear increased in diameter more rapidly than the Mountain-Ash. But as the latter species is more hardy than the Quince, and will thrive in almost any soil, it might be used advantageously in some situations.

The following were the principal subjects of exhibition;

From Mr. Parsons, Gardener to Augustin George, Esq., of

Enfield, five very fine Ripley Queen *Pine apples*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. Robert Buck, F.H.S., of Blackheath, a variety of *Deccan Grape*, (a SILVER BANKSIAN MEDAL awarded.)

From Mr. William Buck, Gardener to the Hon. Fulke Greville Howard, F.H.S., Elford, Staffordshire, specimens of Finger or Horn Grape, Grange's seedling, and the Tokay *Grape*.

From Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., Muscat of Alexandria *Grapes*, a Providence *Pine apple* weighing 9 lbs. 10 oz. three sorts of Peaches, and a noble plant of *Russellia juncea*. (A SILVER KNIGHTIAN MEDAL was awarded for the Pine and a BANKSIAN for the Russellia.)

From Mr. Chapman, of Vauxhall, a dish of Black Hamburgh *Grapes*.

From Mrs. Lawrence, a collection of beautiful plants among which was especially conspicuous, a specimen of *Curcuma Roscoeana*, (for which the SILVER BANKSIAN MEDAL was awarded.)

From Mr. David Brewster, Gardener to Col. Lindsay of Balcarras, Fifeshire, a jar of jam and another of jelly made from unripe *Grapes*. It proved of excellent quality.

From Mr. James Rigby, of Stanhope Nursery, Old Brompton, a new species of *Catasetum*, called *trulliferum*.

From Mr. George Phillips, F.H.S., Gardener to the Misses Trevor, of Tingrith, near Woburn, *Combretum purpureum*, *Mandevilla suaveolens*, and four *Pine apples*.

From the Garden of the Society, various plants in pots, and several kinds of fruits, especially of *pears*. The Franc real d'été, Yutte and Hessel were described as abundant bearers; the Chair à Dames, a perfumed sort, Ambrette d'été, which possesses a honey sweetness, but soon decays, and St. Pierre a handsome small kind, of tolerably good flavour, but rather deficient of juice, were also exhibited. Of *Apples*, the Gravenstein was a sugary excellent variety; the Summer golden Pippin, a very handsome summer dessert apple, with much of the golden pippin character; and Mason's White, which has a bloom on the fruit like that seen on all Russian apples. Of *Plums*, the Virgin, was a good sort but not equal to the Reine Claude Violette; Damas blanc, small but with a green gage flavour; Pond's Seedling, and Diaprée rouge, only fit for kitchen use; the Wine sour, so much esteemed as a preserve at Rotherham, where it is said to grow on limestone—when very ripe the flesh becomes red; and the Reine Claude Violette, or purple Gage, unquestionably one of the very finest dessert plums; its juice, whilst it possesses the richness of the Green Gage, is even more abundant. The Royale Hâtive, a new variety, the season of which was now past, had much the appearance of the Reine Claude Violette and was almost equal to it in flavour. The two are however perfectly

distinct by their wood and leaves, independent of their periods of ripening.

The following Presents were announced

The Botanical Register for September, from the Publishers.

Monographiæ Generis Polygoni Prodromus, by Charles Frederick Meisner, M.D., from the Author.

The Athenæum, for August, from the Editor.

September 7, 1840.

GARDEN COMMITTEE.

Mr Thompson reported from the *Orchard and Kitchen Garden* as follows ;

Denyer's Victoria plum has fruited on a west wall ; it bears much resemblance to Sharp's Emperor and when a comparison can be made under more similar circumstances it may probably be found synonymous—it is rather large and handsome, of tolerably good flavour, but by no means equal to many others that have been in fruit this season ; as for example the Reine Claude Violette, Royale Hâtive, Perdrigon Hâtive to which the Moyen de Bourgogne has proved synonymous, Brignolle Violette, Royale de Tours, Damas Blanche hâtive, Fotheringham, Knight's Large Green drying, Ickworth Imperatrice. The above may all be depended on as possessing a high degree of excellence—Amongst the trees received as the Green Gage or Reine Claude, some have been found of less excellence than others and are marked to be destroyed—Gonne's Green Gage has proved to be the Yellow Gage and is also inferior to the Green Gage.

The Pine Apple Melon, distributed two years ago, has been fruited and proved very good ; such however was not the case with several varieties received from the Bermudas, some of which were of very inferior quality.

Poittevin's Disinfected Manure has been applied for the growth of Turnips at the rate of 64 bushels per acre. There has been abundance of rain to dilute it, yet between the rows so manured and others contiguous which had no manure, the difference in growth, as may be now seen, is not such as is likely to balance the expence ; nor does it seem probable that a beneficial result will be obtained. It seems to answer best in the form of manure water ; but in this way it is not equal to that obtained from farm yard manure.

Mr. Fortune reported from the *Hothouse department* that Poittevin's Manure had been tried with Pelargoniums and Calceolarias in pots, and also in the open ground with various other plants; its effects in all cases have not proved it of more striking utility than common night-soil or any other good manure. In the open ground where it was tried upon 9 square yards the 9 adjoining yards were planted with the same kinds, and scarcely any difference of growth could be detected.

Strong bottom heat for Cacti, and plenty of light, have been found very beneficial in the growth of these plants, but the experiments are discontinued for the present season, as frame moisture without bright light would prove injurious to them.

Mr Gordon reported from the *Hardy Department* that experiments with Poittevin's patent disinfected Manure had been tried for some time, and he considered fairly so far as regards its effects on the growth of plants in pots. The following results have been obtained. For annuals the manure was mixed with the soil in which they were potted in the following proportions $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, and it was used without mixture. The kinds selected were, *Nemophila insignis*, *Impatiens glandulifera* and other sorts of Balsams, and sweet Peas. The Plants of *Nemophila* and sweet Peas all became sickly for the first ten days, but began to recover in proportion to the weakness of the mixture, those recovering first which were in soil with the smallest portion of manure; some of those planted in manure alone after becoming very sickly, upon being several times watered, recovered and finally became more vigorous than any of the others and of a much darker green. The pots were found to be free from worms for a long time. *Impatiens glandulifera* and others were potted in the proportions of $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$, and in manure alone. The plants (there were two of each) potted in $\frac{1}{16}$ became perceptibly languid, those in $\frac{1}{4}$ very sickly and were evidently much affected by the overdose, but they began to recover in about ten days and finally grew vigorously. Those in disinfected manure alone after lingering for about two months eventually died, or rather rotted off above the pot. The following perennials were also tried as above stated, viz., *Verbena sororia*, *Verbena teucrioides*, Hybrid *Petunia* and *Statice tatarica*. The manure had as nearly as possible the same effects as on the annuals, with this difference, that its action was much slower and not so likely to kill the plants. With respect to Shrubs hardly any effect on their growth was observed, except when they were planted in manure alone, when in most cases they were killed, particularly species of the *Pinus*; probably trees and hard wooded shrubs require one or even two years before the effects of the manure are conspicuous. *Nemophila insignis*, *Impatiens glandulifera* and Sweet Peas were also potted in the same soil as before, but they were top dressed with $\frac{1}{2}$ an inch

of disinfected manure. They were also potted with $\frac{1}{2}$ an inch of manure at the bottom of the pots, in all cases the growth was in favour of those with the manure on the surface. The Perennials, *Verbena sororia*, *Verbena teucrioides*, and Hybrid *Petunia*, with $\frac{1}{2}$ an inch of disinfected manure at the top of the pot grew remarkably well, without any symptoms of injury; with $\frac{1}{2}$ an inch of the manure at the bottom of the pot, they also grew very well, but it was evident that those top dressed were more vigorous and robust than either those with the manure at the bottom, or those in the soil without any disinfected manure. The following were tried with the manure in a liquid state, viz., *Impatiens tricornis*, *glandulifera* and *candida*, all very strong growing plants, and well adapted for trying the strength of the substance. Various other plants have also been watered with the liquid, and in all cases with much benefit, more particularly those kinds which naturally grow with great vigour. After various trials it was found that only 1 part in 60 or about one pint of disinfected manure to eight gallons of water, should be employed, and then the plants should only be watered with it once a week, or, if very slow growing sorts, once in two weeks. The manure is very powerful, and taking the small portion required and the price (about 1s. 8d. per bushel) into consideration, it has merit and deserves trying in the open ground on a much larger scale. The principal objection to its general introduction is, that it may be used too strong and so destroy vegetation for the first season, or make plants sickly. If used in a dry state it seems in any quantity almost sudden death to some plants, acting in the same way as dry salt; it therefore should only be used in a liquid state. It may be mixed with the water and used in ten minutes afterwards just as well as if it had been mixed ten hours; it then seems to lose the deleterious effects so destructive to vegetation.

September 15, 1840.

ORDINARY MEETING.

The following were the principal subjects of exhibition ;

From Mr. Robert Buck, F.H.S., of Blackheath, a dish of fruit of *Coe's Golden Drop Plum*, and two varieties of *Deccan Grapes*.

From Mr. Benjamin Fielder, Gardener to William Linwood, Esq., F.H.S., a beautiful *Moscow Queen Pine apple*, weighing 4 lb. 9 oz., (a SILVER KNIGHTIAN MEDAL awarded.)

From Messrs. Lee and Co., of Hammersmith, a Hybrid *Ipomæa* from *I. Scabra*, impregnated with *I. Horsfalliæ*.

From Messrs. Low and Co., of the Clapton Nursery, a species of *Boronia*, from Swan River, and *Stylidium saxifragoides*, a pretty little herbaceous plant from the same colony.

From Mr. J. A. Henderson, F.H.S., of Pine Apple Place, a fine plant of *Æschynanthus grandiflorus*, raised from a cutting a year before, and since kept upon a piece of wood in a damp Orchidaceous House, (the SILVER KNIGHTIAN MEDAL awarded.)

From the Garden of the Society, a collection of various plants, and many kinds of fruits, among which were the Poire Figure a good early pear, but it soon gives way at the core, and the Dunmore, an excellent juicy variety raised by Mr. Knight; the present specimens were the first that had been fruited in the Garden and were the produce of a graft on a standard. There were also Wormsley pippin apples, excellent for Kitchen use and by some esteemed for dessert; Transparent de Christ, more ornamental than useful; Reinette de Laak, a handsome dessert apple, and Baleborodova, a tender-fleshed Russian apple. Of Plums, there were the Downton Imperatrice, (See Hort. Trans. V. 381.) raised from the white Magnum Bonum and Blue Imperatrice, a delicious variety with the skin very thin, and the Quetsche, from which the German prunes are prepared.

Bigarreau tardif de Hildesheim, the latest of all known firm-fleshed sweet cherries, was also exhibited.

The following Presents were announced ;

Annales des Sciences Physiques et Naturelles d'Agriculture et d'Industrie, Tomes 1, 2, et Livr. 3, Tome 3, from the Société Royale d'Agriculture &c., de Lyons.

Exposition de Fleurs et autres produits, &c., Séance publique du 1er Juin, 1840, from the Soc. Roy. d'Agriculture de Lyons.

Barter's British Flowering Plants, No. 98, from the Author.

The Floricultural Cabinet, No. 91, from Mr. Joseph Harrison.

The Ladies' Flower Garden of Ornamental bulbous plants, No. 6, from Mrs. Loudon.

October 5, 1840.

GARDEN COMMITTEE.

Mr. Thompson reported from the *Fruit department* that a fruit of the new pear Van Mons Leon le Clerc, had been obtained from a graft on a wall-tree, from which it may be inferred that it is suited to this climate. A seedling raised by Mr. Knight and called the Dunmore Pear, proved very large from a Standard, and from its size and period of ripening was considered excellent. The Suffolk Thorn Pear had also fruited for the first time in the Garden; it was raised by Andrew Arcedeckne Esq. from the Gansel's Bergamot, bears as a Standard, and is of excellent quality.

October 6, 1840.

ORDINARY MEETING.

The following were the principal subjects of exhibition ;

From Messrs. Paul and Son, of Cheshunt, Herts, a collection of *Roses*.

From Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., a *Queen Pine apple* weighing 5 lb. 4 oz., (the SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Davis, Gardener to Sir Simon H. Clarke, Bart., F.H.S., a dish of *Gansel's Bergamot Pears*, and of *Muscat of Alexandria grapes*.

From Mr. William Craggs, Gardener to Sir Thomas Dyke Acland, Bart., F.H.S., a new species of *Oncidium* imported from Mexico in the spring of 1839.

From the Rev. Frederick Beadon, F.H.S., *Nanny apples*.

From James Bateman, Esq., F.H.S., specimens of *Pholidota conchoidea*, a new epiphyte and the handsome *Lælia Perrinii*.

From Mr. Fielder, Gardener to William Linwood, Esq., F.H.S., a *Pine apple* weighing 4 lb. 8 oz., (SILVER BANKSIAN MEDAL awarded.)

From Mrs. Lawrence, F.H.S., a collection of *Stove plants* among which was a fine plant of *Griffinia hyacinthina*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Field, Gardener to S. W. Silver, Esq., F.H.S., *Emperor Alexander apples*.

From Mr. Parsons, Gardener to Augustin George, Esq., of Enfield, three *Ripley Queen Pine apples*, each weighing 3 lb. 12 oz., (SILVER BANKSIAN MEDAL awarded.)

From the Garden of the Society, a collection of plants and fruits, of the latter of which the following are memoranda. *Apples*; Tower of Glammis, a heavy, excellent kitchen apple; Blenheim Pippin a vigorous sort which bears little when young, but afterwards becomes very productive. *Pears*; Flemish beauty, this must be gathered earlier than when it will part easily from the spur; in this respect it forms an exception to the general rule; if suffered to remain the usual period the flesh becomes, not melting, but dry and perfumed. Suffolk Thorn, raised by Mr. Arcedeckne from the Gansel's Bergamot; these specimens are the first produced in the garden, it appears to be an excellent bearer, and deserving of extended cultivation. Duc de Berri, of moderate quality. Mansuette an old French Pear, this year fruited as a standard, and proved very good. Beurré Bosc and Louise Bonne of Jersey, proved to be varieties of established excellence.

The following presents were announced;

Paxton's Magazine of Botany, for October, from Mr. Paxton.

The Botanical Register, No. 10, from the Publishers.

The Floricultural Cabinet and Florists' Magazine, No. 92, from Mr. Joseph Harrison.

Baxter's British Flowering Plants, No. 99, from the Author.

The Ladies' Flower Garden of Ornamental bulbous plants, No. 7. from Mrs. Loudon.

The Athenæum, for September, from the Editor.

October 20, 1840.

ORDINARY MEETING.

The following paper was read by Mr. A. Scott, Gardener to Sir George T. Staunton, Bart., of Leigh Park, Havant, *on the cultivation of the Nelumbium speciosum*.

"This season our plants have been treated as follows: They were kept dry during the winter in a cool part of the plant stove at about 50° Fahr. In February the roots were divided and potted separately in turfy loam; the pots were set in pans of water, the temperature of the house being 65° to 80°. As they began to grow they were set in the water just deep enough to

allow their leaves to float. In April they were removed to a small stove devoted to the cultivation of Orchidaceæ and other select stove plants, where the temperature varied from 65° to 90°, temperature of the water in the cisterns, being about 75°. In May the strongest specimen was planted out in a water-tight box, 3½ feet long, 1½ foot wide, and 16 inches deep, filled with loamy soil, having a little gravel on the top to give it solidity, and allowing room for about two inches of water over the surface of the soil. The box was plunged into the bark bed, which raised the temperature of the soil and water in the box to 80°. This bottom heat was maintained during the summer, the temperature of the house varying from 65° to 95°.

“The plant continued to grow rapidly, sending up leaves three feet out of the water; the largest of them being 16 inches in diameter; and on the return of fine clear weather in August the first flower bud appeared. The plant proved to be the red variety; its flowers when fully expanded increased 10¼ inches in diameter and remained several days in perfection. It is much larger and more beautiful than the flower of *Nelumbium luteum*, the only other variety I have seen in flower. Another season I intend trying the effects of a higher temperature at the roots. The plant which flowered now occupies a space of more than twelve feet in circumference.”

The following were the principal subjects of exhibition.

From Mr. Robert Wilson, Gardener to His Grace the Duke of Norfolk, Arundel, Sussex, a fine collection of *pears*, of the following varieties; viz. Gansel's Bergamot, Marie Louise, Brown Beurré, Duchesse d'Angoulême, Beurré de Capiaumont, Seckle, Beurré Diel, St. Germain, Flemish Beauty, Crassane, Beurré d'Aremberg, Broom Park, Passe Colmar, Winter Nelis, Glout Morceau, Easter Beurré, Beurré Rance, (a SILVER BANKSIAN MEDAL awarded.)

From Mr. Pratt, Gardener to William Harrison, Esq., F.H.S., a magnificent *Queen Pine Apple*, weighing 5½ lbs., (the SILVER BANKSIAN MEDAL awarded.)

From John Allnutt, Esq., F.H.S., Flowers of *Camellias*.

From Mr. Henry Crace, 3, Lennard Place, St. John's Wood, a hundred varieties of *apples*, (the SILVER BANKSIAN MEDAL awarded.)

From John George Fuller, Esq., F.H.S., 12 sorts of *Pears*.

From Henry Pownall, Esq., F.H.S., a small collection of *Apples* and *Pears*.

From Messrs. Lane and Son, of Great Berkhamstead, a collection of *Roses*, from the open ground, and a Seedling Heartsease.

From Richard Brook, Esq. F.H.S., a collection of *fruit*; consisting of Muscat of Alexandria Grapes; the Gansel's Berga-

mot, Marie Louise and Duchesse d'Angoulême Pears ; the Golden Harvey, Downton Pippin and Brook's Seedling Apples.

From Mr. Jackson of Kingston, a collection of 12 Species of *Cape Heaths*, (the SILVER BANKSIAN MEDAL awarded.)

From Messrs. Wood and Son of Woodland Nursery, Maresfield, a collection of *Roses*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. Charles Lee, Vineyard, Hammersmith, specimens of two species of *Echinocactus*.

From Mr. Field, Gardener to S. W. Silver, Esq. F.H.S., specimens of the *Moon flower*, of Ceylon, (*Calonyction speciosum*) and some other plants.

From the Garden of the Society various Stove and Greenhouse plants, including *Catasetum laminatum* and *Hibiscus Wrayæ*, and an extensive assortment of Pears and Apples.

The following presents were announced :

Monographia generum Aloes et Mesembryanthemi, Fasc. 3, from the Author, His Serene Highness the Prince of Salm Dyck.

Flora Batava, No. 120, from His Majesty the King of Holland.

November 2, 1840.

GARDEN COMMITTEE.

Mr. Thompson reported from the *Fruit Department* that the Van Mons Leon le Clerc Pear was found to be quite as melting as the Marie Louise, and was considered as rich as that sort would have been in a similar situation.

November 3, 1840.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Thomas Brocklehurst, Esq. of the Fence, near Macclesfield.

Henry Garrett Key, Esq. Tulse Hill.

The following were the principal Subjects of Exhibition ;

From Mr. Henry Kenny, Gardener to Viscount Maynard, Easton Lodge, Dunmow, Essex, a large collection of *Apples*.

From Mr. John Wilmot, of Isleworth, a *Pear* from the parent tree of the new variety called Van Mons Leon Le Clere.

From Mr. Robert Wilson, Gardener to His Grace the Duke of Norfolk, Arundel, a Collection of *Pears*.

From Mrs. Lawrence, of Ealing Park, F. H. S., a small collection of Plants, among which were beautiful specimens of *Calanthe densiflora* and *Cattleya labiata*, (the SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Dean, Gardener to James Bateman, Esq. F. H. S. *Oncidium pelicanum*, *Cattleya labiata*, and *Odontoglossum grande*, (the SILVER KNIGHTIAN MEDAL awarded.)

From the Garden of the Society, an extensive Collection of Stove and Greenhouse plants, among which were flowers of the *Salvia Regia*, a new greenhouse shrub of great beauty, just imported by the Society from Mexico. Also a large collection of *Apples* and *Pears*; and specimens of the *Esperione grape*, from the open wall, freely exposed, and guarded by a narrow glass coping; the latter were tolerably ripe, the former were quite green.

The following Presents were announced;

The Floricultural Cabinet for November, from the Editor.

Baxter's British Flowering Plants, No. 100, from the Author.

The Botanical Register for November, from the Publishers.

Paxton's Magazine of Botany, for November, from the Editor.

Flora Græca, Vol. 10, Fasc. 2. from the Executors of the late Dr. Sibthorp. It was stated that this valuable present, which completes this costly work, had been made by the Executors John Hawkins, Esq. and Thomas Platt, Esq. in consequence of the previous parts having been subscribed for by the Society.

December 1, 1840.

ORDINARY MEETING.

The Following were elected Fellows of the Society;

George Bain, Esq., 18, Parliament Street.

Sir Frederick Pollock, Bart. M. P., Queen Square, Bloomsbury.

The following were the principal subjects of Exhibition;

From Henry Pownall, Esq., F. H. S., West's St. Peter *Grape*; 14 sorts of *Apples*, and 3 sorts of *Pears*.

From Mr. Donald Robertson, Gardener to Isaac Currie, Esq., of Bush Hill, Edmonton, a Root of a Common Laurel, that had penetrated a well which had not been opened for 13 years,

on Mr. Currie's premises. This was a very remarkable specimen, about three yards long, and resembling an immense mass of human hair, its divisions being as fine as that substance and coal black.

From Aylmer Bourke Lambert, Esq., F. H. S., an enormous specimen of *Echinocactus edulis*.

From Messrs. Chandler and Sons, a Collection of *Chrysanthemums*.

From Mr. Gaines, of Battersea, a Collection of *Heartsease*.

From Hasler Hollist, Esq., F. H. S., a Collection of eight sorts of *Potatoes*, and three sorts of *Apples*.

From Mrs. Laurence, F. H. S., the following *Orchidaceous* plants, viz. *Zygopetalum Mackaianum*, *Zygopetalum intermedium*, and *Epidendrum nutans*, (the SILVER KNIGHTIAN MEDAL awarded).

From Mr. Jackson, of Kingston, a Collection of *Cape Heaths*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. John Green, Gardener to Sir Edmund Antrobus, Bart., F. H. S., a collection of *Stove and Greenhouse Plants*, a Seedling *Shrubby Cineraria*, and six *Sion House Cucumbers*, grown in pots, (the SILVER BANKSIAN MEDAL awarded for the last.)

From Mr. Charles Edmonds, Gardener to His Grace the Duke of Devonshire, a collection of *Chrysanthemums*, and *Beaufortia decussata*.

From Mr. John Moore, Gardener to R. Hanbury, Esq., Stamford Hill, a plant of *Phaius grandifolius*.

From Mr. Henry Crace, of Lennard Place, St. John's Wood, fine specimens of the *Marie Louise Pears*, from standards, with the following note.

St. John's Wood, Nov. 30, 1840.

"I beg to offer to the Horticultural Society, a few Marie Louise Pears, which I have been enabled to keep to this late period by a system of treatment, a short account of which I here annex. I selected a tree trained downwards in the Balloon style, and in the winter, as is my usual custom, I cut round the roots, about three feet from the stem, extending each year the length of cutting, (in consequence of having only nine inches of natural earth above a rank gravelly clay). About June I covered the ground round the tree, with rotten manure and occasionally watered it through the manure until the month of October. In August I cut off the whole of the upright strong shoots of this year's growth, by which plan, it appears to me that I throw the whole strength of the tree into the fruit. At the same time being much annoyed by the birds, I netted the tree, with some very fine fruit on it. About the first of October I matted up the south and west side of the tree, leaving it open to the north-

east. The tree was then in full foliage, and continued so nearly three weeks later than the other trees of the same kind. The fruit continued on it until the 20th of November, when from the continued hurricanes which prevailed, I was compelled to gather them, as they were more than half destroyed by being whipped by the branches, in defiance of my training, netting, and matting. Had it not been for this tempestuous weather I have no doubt some specimens would have been on the tree until this present time. Some of the Pears were as fine as any I have ever seen grown on walls, and the smaller ones I have no doubt will enable me to have Marie Louise Pears on my table on Christmas Day. To some it may appear strange that on a clay soil I should water my trees, but having in the making of my garden, (the refuse corner of a brick-field when I took it) placed brick-drains within twenty-feet of each other, directly across the garden, I have no stagnant water, but am perfectly dry, and in the summer months I invariably cover with manure the roots of all trees which have a full crop, and water through it, for which trouble I am abundantly repaid, both in the size and quality of my fruit."

From the Garden of the Society, a collection of *Chrysanthemums* and various other flowers, together with many kinds of *Pears* and *Apples*. Among the former was the sort called Monsieur le Curé and also Vicar of Winkfield; this kind grows to an enormous size against a wall, but is much better flavoured from a standard, especially when the branches are well thinned.

The following presents were announced ;

The Botanical Register, for December, from the Publishers.

The Third Annual Report and Proceedings of the Botanical Society of Edinburgh, 1838-9, from the Society.

The Athenæum, for November, from the Editor.

Proceedings of the Geological Society of London, No. 69, 70, 71, from the Society.

The Genera and Species of Orchidaceous Plants, No. 7, from the Author, Dr. Lindley.

Transactions of the American Philosophical Society, held at Philadelphia, Vol. VII. N. S. Part I. from the Society.

December 7, 1840.

GARDEN COMMITTEE.

Mr. Thompson reported from the *Fruit department* that the Packing of Fruit in baskets lined with kiln-dried straw had been found to answer well with such varieties as had kept up to the present period. The straw so dried that it will scarcely bend without breaking, does not communicate that musty flavor which is perceived when hay or straw retaining their natural juices are employed.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON,
1841.

No. XIV.

January 4, 1841.

GARDEN COMMITTEE.

Mr. Fortune reported from the *Hothouse Department* that "Whittaker's Composition," a substance advertised for the destruction of the insects called scale and green fly, had been tried; but that the results had not been satisfactory. It appears to destroy the plants without affecting the insects which infest them. He did not find that it injures the roots of plants, when used in the proportion which is necessary for the destruction of worms, and therefore it may be employed for that purpose in the same way as lime-water, or any acid.

January 19, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Miss Mary Elizabeth Remnant, 41, Tavistock Square.

William Tinkler, Esq., Chilworth House, Guildford.

The following were also, upon the recommendation of the Council, elected Foreign Corresponding Members ;

Nathaniel Lucas, Esq., H. M. Packet Agent, Rio Janeiro.

M. l'Abbé Berlèze, Secretary of the Royal Horticultural Society of Paris.

The following were the principal subjects of exhibition ;

From Mr. William Tillery, Gardener to His Grace the Duke of Portland, Worksop, very fine specimens of *Citrons*, *Oranges*, and *Lemons* ; with fruit of Cattley's Guava and cut flowers of the crimson and white varieties of *Poinsettia pulcherrima*, (SILVER KNIGHTIAN MEDAL awarded for the former) ; these were accompanied by a note, from which the following is an extract.

"The oblong fruit is the Madras citron, or Pummelow ; the round, the shaddock grafted on the citron. The plant that produced them is trained at the back of a large conservatory here, and has been planted about eight years ; it has ripened ten of its noble fruit this year, the two I send being the average size. I find it likes plenty of bottom heat, as the tub it is planted in is behind the hot-water apparatus that heats the house.

"The specimens of oranges and lemons are from trees planted out in the borders of the same house. Two lemon trees here have produced more than 400 fruit and are preferred to the foreign at table. The Guava, trained on the back of the same house, has ripened two or three dishes weekly all through the winter, and is preferred here for the desert to any fruit. When well ripened, the berries become as black as sloes and are really delicious, resembling a strawberry in flavour ; we find no difficulty in their setting, as we have always to thin them out to get them fine."

From Mr. James Duncan, Gardener to Joseph Martineau, Esq., F.H.S., fruit of the (*Passiflora edulis*) eatable Passion flower. They were stated to be the produce of a plant from which an incredible number of fruit had been gathered in succession, from the latter end of June up to the present period. The plant was a seedling, which was turned out into a corner of a bark-bed in early spring ; so soon as its shoots had grown a few feet, a square of glass was extracted from the end of the house and a portion of the shoots was introduced into an adjoining greenhouse, where they were trained on the rafters, in festoons, in conjunction with the beautiful *Passiflora kermesina*, with an exceedingly good effect ; the shoots that were trained in the stove began to ripen their fruit about the latter end of June, and those in the greenhouse have continued the succession up to this time.

From John Reeves, Esq., F.H.S., a basket of imported Fruit of the *Stoneless Litchi*.

From James Bateman, Esq., F.H.S., flowers of *Dendrobium moniliforme* and *Oncidium Cavendishianum*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mrs. Lawrence, F.H.S., among many other fine plants, a noble specimen of *Brassia maculata*, (the SILVER KNIGHTIAN MEDAL awarded.)

From Mr. John Halliday, Gardener to Lord Sondes, F.H.S., *Black Hamburgh Grapes*, with the following memorandum. "These were cut from vines planted April, 1839; and the fruit has been fit to send to table since September. The depth of the border in which the vines are planted is not more than two feet three inches, with about a foot of drainage underneath. There has been no fire put to the house for a month past so that the grapes have had to take their chance during the late hard weather, during which the temperature was as low as 6° Fahr. The grapes will not keep any thing like so long in the other houses here, where the borders average about six feet in depth."

From the Garden of the Society, a collection of Stove and Greenhouse plants, including *Lopezia lineata*, a new greenhouse shrub from Mexico, with lively brick-red flowers; and many varieties of Pears and Apples. Among the latter the more remarkable were the Boston Russet and the Beachamwell seedling, both admirable kinds.

The following presents were announced;

Paxton's Magazine of Botany, for December and January, from the Publishers.

Journal of the Royal Agricultural Society of England, Vol. 2. Part 1, from the Society.

The Athenæum, for December, from the Editor.

Baxter's British Flowering Plants, No. 102, from the Author.

The Ladies' Flower Garden of Ornamental Bulbous Plants, No. 10. from Mrs. Loudon.

Proceedings of the American Philosophical Society, No. 13. from the Society.

The Floricultural Cabinet, No. 95. from Mr. Jos. Harrison.

Description d'une nouvelle espèce de Figuier, (*Ficus Saussureana*) and *8me notice sur les plantes rares cultivées dans le Jardin de Genève*, from the Authors, M. M. Aug. Pyr. et Alph. de Candolle.

Flora Batava, No. 121, from H. M. the King of Holland.

Constitution, Bye Laws, Proceedings &c. of the Pensylvanian Hort. Soc., from the Society.

February 1, 1841.

GARDEN COMMITTEE.

Mr. Thompson reported from the *Fruit Department*, that keeping fruit in kiln-dried straw had been found to answer very well. It does not acquire the dampness, nor the mustiness, which straw does when not deprived of its natural moisture.

February 2, 1841.

ORDINARY MEETING.

The following was elected a Fellow of the Society :

John Wells, Esq. Jun., Southampton Lodge, Bromley.

The following were the principal subjects of exhibition :

From Mr. John Green, Gardener to Sir E. Antrobus, Bart. F.H.S., a collection of *Greenhouse Plants*, including a magnificent specimen of *Epiphyllum truncatum* grafted on *Cereus speciosissimus*, (a SILVER BANKSIAN MEDAL awarded.) By this process it becomes a hardy Greenhouse Plant, flowers from three to four months later than usual, and is capable of growing to a fine and lasting specimen. With these plants was the *Pelargonium* called *album multiflorum*, an excellent variety for early forcing.

From Mr. George Mills, F.H.S., Gardener at Gunnersbury Park, a brace of *Cucumbers* grown in his improved pit with fermenting material only, (the SILVER BANKSIAN MEDAL awarded.)

From James Bateman, Esq. F.H.S., specimens of *Mormodes lineatum* and *Odontoglossum pulchellum*, a beautiful new Orchidaceous plant from Guatemala.

From Mrs. Marryat, F. H. S., a specimen in flower of the Cape Plant called *Protea melaleuca*.

From the Garden of the Society, the rare and beautiful *Epidendrum Stamfordianum*, *Pentlandia miniata*, and several other exotics ; together with a collection of *Apples* and *Pears*.

The following presents were announced :

Baxter's British Flowering Plants, for February, from the Author.

Paxton's Magazine of Botany, for February, from the Editor.

The Botanical Register, for February, from the Publisher.

February 16, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Thomas Langford Brooke, Esq., Knutsford.

Mr. Clement Hoare, Shirley, Southampton.

Miss Kean, Rowley Hall, Stafford.

and as a Practical Gardener with the Privileges of a Fellow,

Mr. D. Beaton, Gardener to Sir William Middleton, Bart., F.H.S., Shrubland, near Claydon, Suffolk.

A paper was read by Mr. Fortune, the Superintendent of the hothouse department in the Society's Garden, upon the effect of Mercurial vapour on vegetation. The author stated that in consequence of reports that wood prepared with corrosive sublimate, under Kyan's patent, was injurious to vegetation, a series of experiments had been tried in the Garden for the purpose of ascertaining how far these opinions were well founded. In one experiment a small portable greenhouse was prepared with Kyanized wood, and, thus pickled, was introduced into the atmosphere of plants under handglasses; but without injurious effects in such cases. But when Kyanized wood, or shavings moistened with corrosive sublimate, or crude mercury, or salts of that metal, were introduced into vessels containing plants exposed to the dampness and high temperature of a hothouse, in every such case the plants became sickly, recovered when removed from the influence of the mercurial vapour, and sickened again when again exposed to it.

The following communication, on a means of producing flowers of *Rhododendron arboreum* soon after Christmas, was also read from Sir Charles Lemon, Bart. V. P.

"The circumstance which I am about to relate is of trifling importance; but may, nevertheless, interest those who, like me, cultivate the *Rhododendron arboreum*, and have seldom an opportunity of seeing its beautiful blossoms. I have for some years been in the habit of pruning the several varieties or subspecies of this plant, as trees; and I find that they bear the knife well, and readily assume the character which I wish to give them. Last November, while engaged in this operation, it occurred to me that I might make some use of the branches which I had cut off; either by ripening the seed-vessels left from the flowers of last year, or by forcing into early blossom the buds already formed. With a view of accomplishing the first object, I placed some of the branches bearing seed-vessels in the dry stove; but they soon withered and came to nothing. Others were placed in the mud of a tank in the damp stove, in which were growing *Limnocharis Humboldtii* and other aquatics. This was done about the end of November. The leaves however drooped, and the cuttings remained unchanged for above a month; when to my surprise I found that the capsules were becoming turgid and full of sap, and that a strong shoot was coming from each cutting; which shoot, when I left the country, had attained nearly the length of five inches. Whether or not roots had been formed, I have not ascertained; for I was unwilling to disturb the cuttings so soon after their apparent vegetation; but it is

difficult to suppose that such strong shoots should be pushed forward and sustained by nourishment derived only from absorption by the bark and wood. A cutting bearing a flower-bud was at the same time placed in the above-mentioned tank. In about a month, it began to swell; and at the end of a fortnight afterwards, it expanded most beautifully. Thus I had an opportunity of seeing the blossoms of my own *Rhododendron arboreum*, at a season of the year when I am usually at a home, and when flowers for decoration are much in request. As the plants of *Rhododendron arboreum* are greatly improved by such pruning, I intend to repeat the experiment on a larger scale next season; and shall be happy if what I now write will enable others to partake of the pleasure of seeing the June flowers of *Rhododendron arboreum* in abundance soon after Christmas."

The following were the principal subjects of exhibition;

From Mrs. Lawrence, F.H.S., of Ealing Park, a specimen of *Erica Linnaeoides*, and of *Phaius Tankervillea*, having fourteen spikes, each of which carried thirteen flowers, (the SILVER KNIGHTIAN MEDAL awarded.)

From George Barker, Esq. F.H.S., a plant of *Cælogyne cristata*, (the SILVER BANKSIAN MEDAL awarded.)

From the Rev. G. C. Rashleigh of Hyde Lodge, Winchester, a species of *Kennedya*.

From Mr. George Mills, F. H. S., of Gunnersbury, a brace of *Cucumbers*, obtained by the method recommended in his treatise upon the subject.

From John Rogers, Esq. F. H. S., flowers of *Columnnea Schiediana*, a curious new species from Mexico.

From the Garden of the Society, flowers of two varieties of *Chimonanthus*, with fruit of the Easter Beurré and Beurré Rance Pears.

The following presents were announced;

The Floricultural Cabinet, for February, from Mr. Joseph Harrison.

Ueber das Chrysanthemum indicum, von J. B. Rupprecht, 8vo. Vienna, 1833, from the Author.

Eisgrub und Feldsberg, besucht von einer abtheilung der vierten Versammlung Deutscher Land-und Forstwirthe, and *Eisenstadt in Ungarn*, Vienna, 1841, from the Author, J. B. Rupprecht.

On a rich dye extracted from the petals of the Dahlia, by J. B. Rupprecht, from the Author.

March 1, 1841.

GARDEN COMMITTEE.

Mr. Fortune presented, from the *Hothouse Department*, the following "Results of some comparative experiments with Coke and Anthracite, consumed in the conical hot water boilers, invented by J. Rogers, Esq."

The experiments are now ended which have been in progress throughout the winter to test the efficiency of the improved conical boiler, and to ascertain whether Coke, or Anthracite, is the cheapest and best fuel to burn in it. So far as the boiler is concerned, the results have been perfectly satisfactory. When the apparatus connected with it is strongly constructed and well built in, as it has been in this case, it is easily managed, and as economical as any boiler with which I am acquainted. I think however, its chief recommendation is, the kind of fuel which it will burn—Coke or common cinders—and the certainty with which it may be left without any attention for ten or twelve hours to keep a stove to 60 degrees in the midst of winter with the external atmosphere so low as 6°, or even zero of Fahrenheit. This is owing to the manner in which the fuel falls down into the fire, to the great quantity of air which is continually rushing in through the bars, and to the complete power of regulating the supply of this, when the apparatus is as it ought to be. The fuel was tried in the following manner. In the months of October and December we burned coke, in November and January anthracite, and in February coke and anthracite every alternate night. The results, together with the mean temperature of the different months are now laid before the committee. The stove was kept between 60 and 65 degrees.

	Nature of the fuel.	Quantity of fuel consumed.	Mean temperature of the months.		
			Max.	Min.	Sun.
October	Coke	43 bushels	56.32	36.96	74.39
November	Anthracite	1 ton 5 cwt.	49.96	36.46	54.66
December	Coke	92½ bushels	37.55	26.45	38.03
January	Anthracite	1 ton 16 cwt. 3½ lb.	39.90	28.61	41.11

February	Coke.	Anthracite.	Quantity of ashes left from each.	Temperature.	
	stone	stone.	lbs.	Max.	Min.
1	8½			31	23.
2		13		31	18
3	9			28	14
4		14		30	22
5	9½			30	26
6		14		28	24
7	10½			27	24
8		14		29	26
9	6½			30	27
10		9½		32	27
11	6			41	37
12		7		51	38
13	5½			51	44
14		7		52	41
15	4½			49	42
16		7		51	39
17	5½			46	36
18		7	17½	53	38
19	4		4½	50	35
20		7	17	56	40
21	5		6	56	29
22		7	19	42	38
23	5		4	44	32
24		7	21	40	36
25	5		6	42	35
26		7		48	35
27	5			45	32
28		7		47	32
	89½ = 28¾ bush.	127½ = 15 cwt. 7½ st.			

In judging of the difference in quantity of the two kinds of fuel, the temperature is not the only thing to be considered. When the weather is calm less fire is required than when it is windy, the temperature of the external air in both cases being the same; and even the mean sun heat given above will not enable a person to form a correct idea unless he knows at the same time how long the sun has shone. The sun may shine for one hour in a day in which the registering thermometer may indicate 70°, or it may shine the whole day and the thermometer only rise to 70°, yet every one knows that much less fire-heat would be required in the latter case than in the first. Taking these things into consideration, we cannot compare December with January and get a correct result. We are more likely to come nearer the truth if we compare October with November, and the alternate days of February with each other. By referring to the quantity burned, and taking coke at an

average price of 20s. a chaldron, and anthracite at 32s. per ton, we will find that the expense of heating the Orchidaceous house in October last with coke was about £1. 3s. 10d., and the expense of heating it in November with anthracite was £2.; or if we take the alternate days of February, 14 against 14,; we find the expense of heating with 28 bushel of coke 15s. 6d., and 16 cwt. of anthracite £1. 5s. 7d. If we take the two months in which coke was burned, against the two in which anthracite was burned, which will not be fair owing to the nature of the weather, the following are the results—Coke 3 chaldron 27 bushels, £3. 15s.; Anthracite 3 ton, 1 cwt. 2 st. £4. 18s.

These results speak for themselves so far as economy is concerned, and therefore the only thing to be considered beyond this is, which is most preferable with regard to management. A measure of anthracite will last much longer than one of coke, but the quantity of heat given out by each will be nearly the same. In the month of December last when the weather was very cold, it was not possible to keep the Orchidaceous house to 60° with one boiler filled with the best anthracite, but this could be done when coke broken into small pieces was used instead. When both boilers were filled with anthracite this temperature could easily be maintained, and they would last twice as long as one filled with coke. So that it comes to this, equal bulk produces an equal quantity of heat, or at least, a chaldron of coke will give out as much as a ton of anthracite, the one being 20s. the other 32s. But as anthracite does not burn so fiercely as coke, it lasts longer and gives a very steady heat. This property may make it desirable for Greenhouses where the expense is not considered; but in a stove with a well regulated conical boiler, for every thing depends upon this, coke is not only the cheapest of the two, but is much the easiest to manage, requires less stoking, and burns clearer, as may be seen by referring to the quantity of ashes left by each. A mixture of the two kinds in equal proportions answers very well, with of course intermediate results.

The Orchidaceous house in which these experiments were carried on was last year heated by a flue, when we ascertained the following to be the quantity of fuel consumed, in the month of February, viz.

February.	Thermom. at 8 A. M.	Thermom. at 8 P. M.	Lowest deg. during night.	Coal consumed in 24 hours.
				bush.
19	65	64	61	2½*
20	65	65	64	2½
21	65	65	65	2
22	65	65	64	2
23	66	65	65	2
24	66	67	65	2
25	66	67	63	1½

* The weight of the bushel used is 64 lbs.

The aggregate amount of fuel consumed on the above seven days and nights was 8 cwt. 2 stone, 4 lbs. This, however, cannot be considered as the maximum quantity, for although the thermometer out of doors was so low as 24° at night, yet the days were generally clear and the house was much heated by the sun. In mild weather about one bushel of coals was sufficient to keep the house at 65° for 24 hours.

March 2, 1841.

ORDINARY MEETING.

The following was elected a Fellow of the Society ;

Charles B. Warner, Esq., 9, Crescent, Jewin Street, Cripplegate, and Hoddesden, Herts.

The following were the principal subjects of exhibition ;

From George Loddiges, Esq., V.P., F.H.S., Specimens of *Boronia ledifolia*, and *Mirbelia floribunda*, two new and very ornamental Greenhouse plants from New Holland, (LARGE SILVER MEDAL awarded.)

From Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., a Collection of *Camellias*.

From Mrs. Lawrence, F.H.S., of Ealing Park, plants of *Epacris impressa*, *Erica carinata*, and *Oncidium altissimum*, (the SILVER KNIGHTIAN MEDAL awarded.)

From Mrs. William Harwood, Hill Ridware, near Rugeley, Staffordshire, two very handsome *Lemons* ; the stem of the tree which bore them, although only one inch in diameter, was said to have borne upwards of twenty fruits ; nearly as large as the two exhibited.

From Mrs. George Dowdeswell, 45, Wimpole Street, fruits of *Physalis edulis*, the Cape Gooseberry, raised in the open air against a south-west-wall in her garden in Worcestershire. The Indian name of this fruit is "Tessaree," it is much esteemed in that country, and is made into tarts and preserves. Raised without difficulty in this country.

From Messrs. Veitch and Son, of Exeter, a plant of *Leche-naulia biloba*, a Swan River Shrub of much beauty, with blue flowers, now first exhibited, (the LARGE SILVER MEDAL awarded.)

From Sir Thomas Dyke Acland, Bart., F.H.S., fruit of the *Cornish Gilliflower* apples.

From Mr. Edmonds, Gardener to His Grace the Duke of De-

vonshire, President, plants of *Polystachya reflexa*, *Hakea pugioniformis*, and *Trichopilia tortilis*.

From the Garden of the Society, a collection of *Stove* and *Greenhouse Plants*, the rare *Erica dichroma*, *Cypripedium pubescens*, and flowers of three varieties of *Chimonanthus*. There were also specimens of Hyacinths which had been watered during their growth with solutions of the muriates of ammonia and soda, ammoniacal liquor, and the nitrates of soda and potassa. The principal conclusion to which these specimens led, was that the muriate of ammonia (sal ammoniac) exercised an unfavourable influence upon vegetation, impeding or altogether obstructing the growth of the Hyacinth, if used in the same quantity as the other saline solutions, which had produced no perceptible influence. The ammoniacal liquor of the gas-works had increased the vigour of the plants, but had not improved the appearance of the flowers.

The following Presents were announced ;

The Botanical Register, for March, from the Publisher.

The Athenæum, for January, from the Editor.

March 16, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Mrs. Coles, Long Parish, Hants ; and 86, Piccadilly.

Mrs. George Dowdeswell, 45, Wimpole Street ; and the Down House, Redmarley.

Mrs. Hamilton Nesbitt Ferguson, Biel, and Archfield, Scotland ; and 18, Portman Square.

Joshua Field, Esq., 13, Park Crescent, Portland Place.

Richard Hodgson, Esq., M.P., 13, Upper Brook Street.

The following were the principal subjects of exhibition ;

From Thomas Downes, Esq., Marwood Hill, near Barnstaple, a drawing of a remarkable specimen of *Clianthus puniceus*, with the following letter.

“ The plant was raised by my Gardener from a small cutting in the spring of 1837, and when well rooted was placed in the greenhouse till the following spring, when it was planted in the open border under a south wall. Its growth was so rapid by the ensuing autumn, that the portion allotted for it became too confined, and I had it removed to a more open space against my

house, having a full south aspect, where it blossomed freely in May, 1839. Towards autumn it put forth vigorous shoots producing young racemes at nearly every joint, many of which expanded into flower and so continued during the months of November, December and January, till checked by the cold winds and frosty nights, when it was protected by mats and carpets. About the end of March, 1840, the buds began to swell. And towards the end of April the plant exhibited the splendid appearance portrayed in the drawing, which affords but a faint idea of its magnificence: it continued in bloom till the end of the month of May, it then measured ten feet by ten each way, and has since increased to the width of sixteen feet by thirteen in height. Considering its size and the regularity of its growth with the brilliancy and profusion of the flowers it bore, it would I think be difficult to find its equal. There can be no doubt that this valuable appendage to the garden may with due care be cultivated with advantage in the southern and western districts of the island. My gardener informs me that it was planted in soil composed of the following mixture; viz. six barrows of meadow earth or the top spit from a pasture field, one of rotten dung from an old hot-bed and one of sea sand well mixed together; and that it was copiously watered every day while in flower and shaded occasionally from the more powerful rays of the sun."

From Messrs. Lane and Sons, of Great Berkhamstead, a *Collection of Roses*.

From Messrs. Lucombe and Pince, of Exeter, a fine plant of the rare Greenhouse shrub, *Chorizema angustifolium*, usually called Dillwynia glycinifolia, and of a *Bossia* and *Labichea* from Swan River, (the SILVER KNIGHTIAN MEDAL awarded for the first.)

From Messrs. Veitch and Sons, of Exeter, a species of *Phy-solobium* and specimens of a new blue flowered climber, from Swan River, the *Marianthus cæruleo-punctatus*.

From Mrs. Lawrence, F.H.S., a collection of *Camellias*.

From Mr. Edmonds, Gardener to His Grace the Duke of Devonshire, Chiswick, a plant of *Acacia vestita*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., a collection of *Camellias*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. George Steell, of Richmond, a *Camellia* called Louis Philippe.

From Mr. John A. Henderson, F.H.S., *Azalea indica splendens*, a very fine flowering hybrid, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. Jackson, of Kingston, a large specimen of *Erica aristata*, (the SILVER BANKSIAN MEDAL awarded.)

From Edward Jesse, Esq., of Hampton Court, *Orchis foliosa* and *Ophrys lutea*.

From Mr. Jones, Gardener to the Baron Dimsdale, a large specimen of the magnificent *Doryanthes excelsa*, (the SILVER KNIGHTIAN MEDAL awarded.)

From the Garden of the Society many rare Stove and Green-house plants, including *Oncidium stramineum*, *longifolium*, and *ascendens*.

The following Presents were announced ;

The Floricultural Cabinet, No. 97, from Mr. Joseph Harrison.

Paxton's Magazine of Botany, for March, from the Editor.

List of the Members, &c. of the British Association for the Advancement of Science, from the Secretaries.

April 6, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Charles Johnson, Esq., Tanner's End, Edmonton.

Mr. Thos. Rivers, Jun., Sawbridgeworth, Herts.

The following were the principal subjects of exhibition ;

From J. Priaulx, Esq., a new seedling *Camellia* of very large size and great beauty, called the Marchioness of Exeter, (the LARGE SILVER MEDAL awarded.)

From Mrs. Morris, the Retreat, Battersea, the rare *Epidendrum aloefolium*.

From Mrs. Lawrence, F.H.S., a large collection of plants, among which were a dark variety of *Oncidium guttatum*, *Oncidium dorsale* a new species resembling *O. Cebolleta*, *Dendrobium aggregatum*, and an exceedingly large plant of *Epidendrum ellipticum*, (the LARGE SILVER MEDAL awarded.)

From Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., a dish of *Keen's Seedling Strawberry*, and a collection of *Camellias*, (the SILVER BANKSIAN MEDAL awarded.)

From Messrs. Lucombe and Pince, of Exeter, a plant of *Azalea indica præcipua*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. Gaines of Battersea, a collection of *Heartsease*.

From Mr. Mountjoy of Ealing, a collection of *Heartsease*.

From Mr. J. Redding, Gardener to Sir John Delves Broughton, Bart., F.H.S., a box of varieties of *Camellia*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. William Ivery of Peckham, 6 seedling *Cinerarias*.

From John Allnutt, Esq., F.H.S., plants of *Camellia candidissima* and *Rausiana*, (the SILVER BANKSIAN MEDAL awarded.)

From Mr. Jackson of Kingston, a collection of *Cape Heaths*.

From Mr. Edmunds, Gardener to His Grace the Duke of Devonshire, at Chiswick, a large plant of *Acacia cordata*, (the SILVER BANKSIAN MEDAL awarded.)

From Messrs. Lane and Sons, of Berkhamstead, a collection of *Roses*, and a new Rose called *La Belle Allemande*, (a SILVER BANKSIAN MEDAL was awarded for the first.)

From Mr. Plumbley, Gardener to C. I. Dimsdale, Esq., of Essenden, Hatfield, a brace of *Cucumbers*.

From Messrs. Loddiges of Hackney, a magnificent specimen of *Dendrobium pulchellum*, (the SILVER KNIGHTIAN MEDAL awarded.)

From Henry Lucas, Esq., F.H.S., a seedling *Epiphyllum* raised from seeds of *E. Jenkinsoni*.

From Mr. Silver, Gardener to the Rev. H. Pole, White Waltham, near Maidenhead, a beautiful specimen of *Rhodanthe Manglesii*, (the SILVER BANKSIAN MEDAL awarded.)

From Edward Pyffe, Esq., Jun., F.H.S., a collection of *Heartsease*.

From Mr. Henry Groom, F.H.S., a specimen of *Chorizema ilicifolium*, (the SILVER BANKSIAN MEDAL awarded.)

From Messrs. Veitch and Sons, of Exeter, some *Swan River plants*, including *Stylidium Drummondii* and another, (the SILVER BANKSIAN MEDAL awarded.)

From the Garden of the Society, a collection of *Stove* and *Greenhouse plants*; the more remarkable of these were *Pimelea spectabilis*, and *Chorizema spectabile*, two most beautiful new greenhouse shrubs from *Swan River*, and cut flowers of *Camellia reticulata* from a plant in a brick pit unprotected by a fire.

The following Presents were announced ;

The Boston Journal of Natural History, Nos. 1. 2. 3., Vol. 3., from the Society.

The Botanical Register for April, from the Publishers.

Baxter's British flowering plants, for March and April, from the Author.

Harrison's Floricultural Cabinet, for March, from the Editor.

The Ladies' Flower Garden of Ornamental Bulbous Plants, No. 13, from Mrs. Loudon.

The Transactions of the Royal Society of Edinburgh, Part 2., Vol. 14, and *the Proceedings of the Society*, Nos. 17 and 18., from the Society.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON,
1841.

No. XV.

April 20, 1841.

ORDINARY MEETING.

The following gentleman was elected a Fellow of the Society

Richard Davis, Esq., St. Helen's Place, and Skeynes near Edenbridge, Kent.

It was announced that the Council had directed CERTIFICATES OF MERIT to be given to those exhibitors whose exhibitions are found deserving of some distinction, but not of importance enough to claim a Medal; and that such certificates should be taken in exchange at the rate of two Certificates for a Silver Banksian Medal.

The following were the principal subjects of exhibition :

From Mr. Appleby, Gardener to T. Brocklehurst, Esq., F.H.S., a collection of *Orchidaceous and other plants*, among which was *Oncidium pulchellum*, (CERTIFICATE awarded), and Fruit of the *Momordica Balsamina*.

From Mrs. Lawrence, F.H.S., a large collection of *Stove and Greenhouse Plants*, containing, among others, *Hovea Celsi* and *Anthocercis littorea*, (SILVER KNIGHTIAN MEDAL awarded for the last.)

From Mr. Edward Maxted, Gardener to John Fassett Burnett, Esq., F.H.S., a fine fruit of the *Wellington Cantaloup Melon*, (CERTIFICATE awarded.)

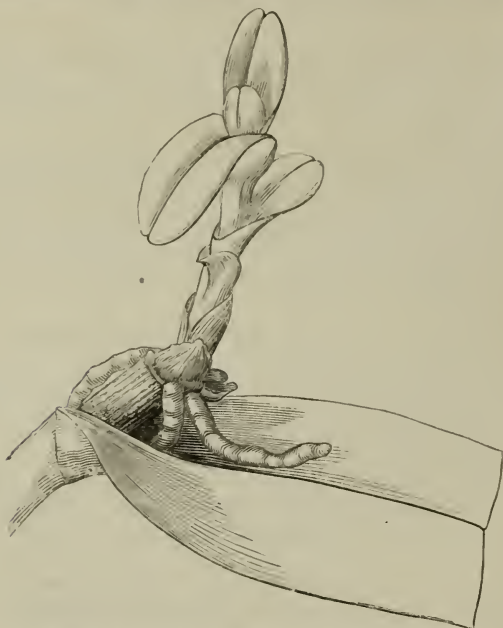
From Mr. Edmonds, Gardener to His Grace the Duke of Devonshire, President, plants of *Epacris grandiflora*, *Cytisus canariensis* and *Correa speciosa*.

From Messrs. Lucombe, Pince and Co. of Exeter, the following plants, viz. two species of *Stylidium* from Swan River; *Acrophyllum venosum*, a beautiful Greenhouse shrub; two seedling varieties of *Dillwynia clavata*, a seedling Camellia called *rhodopetala*, in allusion to its beautiful rose-like petals, and *Rhododendron Victoria*, a fine hybrid said to be quite hardy, (SILVER KNIGHTIAN MEDAL awarded for the *Acrophyllum* and *Rhododendron*.)

From Mrs. Wray, of Cheltenham, F.H.S., *Pimelea spectabilis* and seven other seedling plants, from Swan River.

From Sir Philip Grey Egerton, Bart., F.H.S., flowers of a fine new seedling *Cactus*, (CERTIFICATE awarded.)

From Mr. Henderson, Gardener to Viscount Milton, two very singular instances of unusual formation in plants. The first was an *Epidendrum Harrisonii*, whose stem had been cut across and produced a young plant from the surface of the wound, a curious instance of the development of adventitious buds.



The other was a cluster of bulbs formed at the end of the

long flowering stems of *Ornithogalum longibracteatum*, after it had flowered and ripened seeds.



In this instance it appeared that the last buds upon the flower stem, instead of being developed in the form of flowers, had assumed the condition of bulbs and had completely organized themselves as shewn in the annexed cut, notwithstanding the exhaustion of the flowerstem by the production of flowers and fruit below these intrusive bulbs.

From Mr. Groom, F.H.S., of Walworth, a collection of *Auriculas*, (SILVER BANKSIAN MEDAL awarded.)

From Mr. John Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., some fine forced *Cherries* and *Raspberries*, (for the former of which a SILVER BANKSIAN MEDAL was awarded.)

From Mr. Chapman of Vauxhall, a dish of *Black Hamburgh Grapes*, (a SILVER BANKSIAN MEDAL awarded.)

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart. F.H.S., plants of *Azalea indica alba*, *A. rubra plena*, *A. purpurea*

plena, and eight *Seedling Calceolarias*, (a SILVER KNIGHTIAN MEDAL awarded for *Azalea indica alba* and the *Calceolarias*.)

From Mr. Youell, Nurseryman, Woolwich, a *Seedling Azalea*.

From Mr. Lane, Gardener to John Horsley Palmer, Esq., F.H.S., a fine plant of *Prince's Royal Calceolaria*, (CERTIFICATE awarded.)

From Miss M. A. Nichols, of 7, Thornhill Street, Barnsbury Park, Islington, a *drawing of Dahlias*.

From Messrs. D. and E. Bailey, of 272, High Holborn, specimens of their *Galvanic Protectors*.

From Mr. Gaines, of Battersea, a collection of *Heartsease* and a plant of the *Victoria regina Cineraria*.

From James Bateman, Esq., F.H.S., a spike of *Epidendrum Stamfordianum*, with plants of *E. patens*, *Lælia cinnabarina*, *Cattleya Skinneri* and *Aspasia epidendroides*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. John A. Henderson, F. H. S., some *Seedling Cinerarias*, with plants of *Oncidium sanguineum*, and the new *Cineraria* named *grandis*. These were not exhibited for competition.

From Mr. Davis, Gardener to Sir Simon H. Clarke, Bart., F.H.S. a dish of *Dutch Sweetwater Grapes*, a *Blood Pine Apple* and some *Keen's Seedling Strawberries*.

From Messrs. T. and E. Brown, of Slough, a plant of *Kennedyia* or *Zichya glabrata*.

From Messrs. Veitch and Son, of Exeter, a species of *Leschenaultia*, with blue flowers, called *biloba*, *Marianthus cæruleo-punctatus*, a pretty climbing plant, and a *Stylidium*, from Swan River.

From Mr. Rivers of Sawbridgeworth, a *new Perpetual Rose* called *Prince Albert*.

From the Garden of the Society, a collection of *Orchidaceous* and *Greenhouse Plants*, among which were *Acanthophippium bicolor*, *Oncidium luridum guttatum*, a variety of *Oncidium ampliatum*, with brighter and larger flowers, *Stanhopea saccata*, *Chorozema varium* and *Pimelea spectabilis*; with cut flowers of *Sowerbæa laxiflora* and *Hardenbergia macrophylla*.

The following Presents were announced;

Mémoires de l'Institut de France, Tomes 14, 15, 16, 17, and

Mémoires présentés par divers Savans à l'Académie Royale des Sciences de l'Institut de France, t. v. from the Institute.

Journal of the Royal Geographical Society, vol. 10. part 3, from the Society.

Proceedings of the Geological Society, Nos. 74 and 75, from the Society.

The Athenæum for March, from the Editor.

May 1, 1841.

· ANNIVERSARY MEETING.

On this occasion the following Gentlemen were elected Officers for the ensuing year :

The Duke of Devonshire, President.
Thomas Edgar, Esq., Treasurer.
Alexander Henderson, M. D., Secretary.

The following Fellows of the Society were also elected into the Council for the ensuing year

Edward Barnard, Esq.
Sir Oswald Mosley, Bart.
W. H. Pepys, Esq.

in the room of

Sir Philip Egerton, Bart.
Thomas Harris, Esq. and
W. H. F. Talbot, Esq.

who went out by rotation.

The Report upon the state of the Society's accounts for the year ending May 1st, 1841, was then read :

REPORT OF THE AUDITORS.

The Auditors have examined the Accounts for the past year and investigated the general financial affairs of the Society, in which duty they have been assisted by the officers, by whom every information called for has been readily afforded.

The result of such enquiry into the income and expenditure will appear by the abstract subjoined, and the Auditors have the satisfaction to state that the receipts have exceeded the expenditure under the usual and ordinary heads, by the sum of £1578. 16s. 1d.; but £2910. 7s. 7d., having been expended in completing the Conservatory,—Hot-water Apparatus,—building new sheds, &c. at the Garden, and in repairs and improvements in Regent Street,—and a farther sum of £150. having been allowed as a compromise with the Commissioners of Woods and Forests for a claim for arrears of rent of the House in Regent Street previous to May 1826, such extraordinary expenditure of

£3060. 7s. 7d. has necessarily occasioned an increase in the open debt of £1417. 2s 10d.

The Auditors have also the satisfaction of reporting that they find the receipts for Annual Subscriptions have considerably exceeded, not only those for the year immediately preceding, but also the average receipts for the last five years.

The following is the state of the Cash Account on the 31st March, 1841.

D ^R .	To Balance at Bankers, 1st April, 1840	£172	6	8
	To ditto in hands of Vice Secretary, ditto, .	25	13	4
	To amount of various Receipts,	7252	13	11
		<hr/>		
		£7450	13	11
C ^R .	By Bond paid off,	£100	0	0
	By payments on account of new Conservatory	2212	14	8
	By various other payments	4979	2	2
		<hr/>		
		7291	16	10
		<hr/>		
	Leaving a Balance of	£158	17	1
	Being with Sir W. P. Call, & Co. £139	9	1*	
	Vice Secretary per P. C. Book	19	8	0
		<hr/>		
		£158	17	1
		<hr/>		

The Bonded debt of the Society is now £9050, and the further debt on open accounts £5271. 12s. 10d. making a total of £14,321. 12s. 10d., an increase beyond the debt as stated in the last Report of £1417. 2s. 10d., but this increase is sufficiently accounted for by the expenditure of a much larger sum (£3060. 7s. 7d.) on the New Conservatory, &c. as before stated.

There is due to the Society a sum of £5732. 17s. 11d. for arrears, besides the Annual Subscriptions which become payable on the 1st of May next.

21, REGENT STREET,
25th April, 1841.

R. W. BARCHARD.
E. BRANDE.
RICHARD CHANDLER.
C. WENTWORTH DILKE.
H. GROOM.
W^m. W. SALMON.

* This amount, together with £242. 0s. 0d. to the credit of "Garden Exhibitions, 1841," forms the Cash Balance per Banker's Book, £381. 9s. 1d.

It was resolved that thanks be returned to their Auditors for their report.

The following REPORT UPON THE AFFAIRS OF THE SOCIETY was then laid before the meeting on the part of the Council.

The Council of the Horticultural Society beg to submit to the Fellows, the following report in continuation of that of last year; and they trust that the Society will agree with them in finding in it satisfactory indications of progressive improvement in the state of the Society's affairs, and in the public utility of the institution.

Following the plan adopted last year for the arrangement of the Report, the Council have first to refer to the mission of their Collector Mr. Hartweg, whom the last statement left in the province of Guatemala. The following extracts from his correspondence will explain the further progress of this zealous naturalist.

Guatemala, February, 21st, 1840.—"Since writing my last I have made several excursions, and I am so far satisfied with the results. In a few days I shall pack up what I have collected since my arrival here. Of Pines I do as yet not see any prospect of new ones; the species met with are *P. oocarpa*, *Teocote* and *occidentalis*, the two former without any cones at present; of the latter I collected some very fine ones. Of one of the *Garryas* (*laurifolia*) I succeeded in obtaining a tolerable quantity of seeds, as also of *Cheirostemon platanifolium*. Of Epiphytes I have a few boxes, they being common even in the valley of Guatemala, and obtained without much loss of time."

Guatemala, March, 25th, 1840.—"During the last month my collections have made but very little progress, notwithstanding the many excursions I have made to the surrounding mountains, and, from the experience I bought, just now I have very little chance of finding plants that will stand the open air in England. The political state of the country is also such as to render my expeditions very precarious. A few days after my departure from Quezaltenango, that State was conquered by the troops from here, and now on the 18th instant the troops from San Salvador entered and took this town, but were driven out again on the following morning. They will be back again before long."

Immediately after the receipt of this letter, the Council took into consideration the propriety of maintaining Mr. Hartweg in Guatemala, where it appeared that the quantity of plants suited to the purposes of the Society was so much less than had been anticipated. It was eventually determined to withdraw him from this part of America, and to despatch him to the fertile uplands of Guayaquil. The views of the Council were embodied in the following letter.

Horticultural Society, 21, Regent Street, 14th July, 1840.—
SIR,—“ I am directed to acknowledge the receipt of your letter, No. 39, which the Council have taken into their serious consideration; and I have now to inform you that on account of the disturbed state of Guatemala, and the probability that you will not succeed in finding there plants suited to the open air in England, it has been resolved to remove you from your present station. It is the opinion of the Committee, nominated by the Council to determine in what direction you are next to proceed, that the most eligible country will be the equatorial part of South America, in the midst of the lofty mountains and high table land of the Andes of Popayan, Quito and Guayaquil. You will, therefore, take measures for reaching the Gulf of Guayaquil, or the nearest possible place, with as little delay as practicable, and it is supposed you will be able to do so by some opportunity from the coast of Guatemala. The Committee would be glad that you should, in the first instance, establish yourself if possible at Loxa, or some other station among the mountains near the coast, whence you can make excursions, until a collection shall have been formed of sufficient importance to be worth sending home by Cape Horn. Of seeds obtained at Loxa you will reserve duplicates to bring home with you. Having exhausted the resources of that station you will proceed northwards towards the city of Santa Fé de Bogota, carrying with you the collections made upon the road; or procuring a conveyance for them to that city. But as the way may be expected to be long and difficult, it will be desirable that you should not encumber yourself with bulky articles, but confine your collections at that time to seeds of very handsome plants, or to such objects as are most portable. It is however hoped that boxes can be sent to England from Quito, or from some port in Popayan, in which case you will also take those places as new centres of operation, previous to your proceeding direct to Santa Fé. These countries possess the richest vegetation in America, and the great height of the mountains together with the varied climate upon their flanks, promise a rich harvest of beautiful novelties. No horticulturist has ever visited as a collector the forests of Cinchonas, where the temperature is mild and equable, and where those beautiful and valuable plants, none of which have ever reached England alive, are associated with the most magnificent species of *Bejaria*, *Thiebaudia*, *Macleania*, and other vaccinnaceous genera. You will understand that it is the more hardy plants of these and other families that we expect you will be able to procure, and that, as heretofore, every object is to be subordinate to that of procuring species which will bear at least an English summer without protection. Absolutely hardy plants we do not expect, unless you can reach

the limits of snow, but the highest zones of the mountains will furnish beautiful Greenhouse shrubs and bulbs, annuals, or herbaceous plants, which will live in the open garden during our own summer weather. While, however, these are the great objects of your mission, Orchidaceous epiphytes and stove plants are to be gathered where opportunities occur, as must continually happen. Having arrived at Santa Fé you will be within reach of the Magdalena, and will consequently have a direct water communication with Santa Martha and Carthagena. It is desirable that you should well examine the country in the neighbourhood of this capital, and form extensive collections, because there will be no want of means of transport; and when you have gathered together what is most worthy of preservation, you will embark on the Magdalena with your collections, and return to England by way of Santa Martha or Carthagena. You are, however, to understand, that these instructions are merely intended to express the wishes of the Council in a general way, and that you are at liberty to exercise your own discretion in regard to the manner of carrying them into execution; the Society having a firm reliance upon your prudence and judgment; and feeling persuaded that no specific orders from England can be so framed as to provide against the contingencies of a journey through countries so little known to Europeans. You will, therefore, consult Mr. Skinner, and your other Guatemala friends, as to the most proper course for you to pursue; and we trust they will furnish you with letters to their correspondents and agents in the places to which you may proceed. The English government have instructed their agents to give you all possible assistance, and the Treasurer of the Society will make arrangements for the necessary supply of money for your journey. At Santa Fé you will find Mr. Turner, the British Envoy to that state, who is now in London, and who will be returned before you can reach that place. We shall endeavour to interest him warmly in your favour. With regard to packing your seeds I cannot too strongly recommend you to carry them in open canvas bags well and freely exposed to the air, and, in sending them to Europe by way of Cape Horn, a very great point would be gained, if you could induce the captain of any vessel that may bring them to sling your seeds in his cabin. We should be willing to make him any reasonable remuneration for his doing so. The last cases of Orchidaceæ from Belize have arrived in good order; but it is evident that they would have been in still better condition if the large masses of epiphytes had been nailed firmly to the sides of the boxes, so that the centre might remain free from pressure, for the plants which had suffered were those in the centre of the chests, where they had fermented a little."

Signed, JOHN LINDLEY, *Vice Secretary*.

Upon this occasion letters of introduction to her Majesty's Consuls in the Southern States of America, were obligingly furnished by Lord Palmerston; and to Mr. Arthur Cope, her Majesty's Consul in Guayaquil, and to Dr. Joaquim Mosquera, in Popayan, by James Henderson, Esq. At a later period the Council were enabled to open a credit in Guayaquil for 500*l.* in favour of Mr. Hartweg, by the kind assistance of William Gibbs, Esq., a Fellow of the Society. In the mean while Mr. Hartweg continued to occupy himself in Guatemala. The following are further extracts from his correspondence.

Guatemala, April 27th, 1840.—"I have now been about in all directions, but without finding plants that will be capable of enduring the open air in England, and I again say, that this country is not suited to produce plants of that description, five thousand feet of elevation being about equal to three thousand near the city of Mexico."

Guatemala, May 24th, 1840.—"An excursion which I made to Coban in the state of Vera Paz has not been attended with the success that I had anticipated: the country although very high produces very little variety, the highest points being occupied by Oaks, *Pinus oocarpa*, *Liquidambar styraciflua* and a *Viburnum*; the latter, the only kind of seed I collected. Of Epiphytes, I found six, all of which are pretty and new to me, but being just now in their growing state, I must defer sending them. The last consignment H. S. 56, 63, has arrived at Isabal, and has in all probability been shipped for London by this time, there having been several vessels loading in Belize.* The boxes H. S. 50, 55, have been shipped on board the "Redman," direct to London about the end of March."†

Guatemala, June 19th, 1840.—"I beg to inform you, that during the last month I have been doing little, owing to the rainy season having completely set in; and on one occasion getting wet to the skin, I and the servant were taken ill with the ague, but fortunately every other day, so that we could assist each other;

* They arrived on the 5th of August, and contained four sorts of seeds in good condition, of which three sorts have grown. One of these, *Pinus oocarpoides*, is now in course of distribution. Also thirty-three sorts of Orchidaceous plants, of which eight were dead or nearly so; one hundred and thirty-six plants were distributed; one only has flowered, viz: *Oncidium Cebolleta*.

† These arrived on the 30th of June, 1840, and contained thirteen sorts of seeds, of which three were dead, the others mostly in good condition, and thirty-six sorts of Orchidaceæ, all alive. Six sorts of seeds have grown, among which are *Cheirostemon platanifolium* and *Pinus filifolia*, and three hundred and sixty-four packets were distributed to the Fellows of the Society. Of the Orchidaceous plants, one hundred and ninety were distributed; only three have yet flowered, viz:—*Oncidium ampliata*, var. with broad pseudo-bulbs; *Oncidium ascendens*; *Epidenærum aurantiacum*.

and now I am happy to state, that with a timely application of some of the contents of the little medicine chest we have completely recovered. In a few days, I shall transmit to you part of the Epiphytes from Vera Paz with a quantity of cones, which I take to be a new species of Pine, resembling one sent from Anganguco, with cones a little larger than *P. leiophylla*, but distinct from either. One of the mules having returned sick from the excursion to Vera Paz, I sent to a stable to be cured, but it died at the beginning of this month."

Guatemala, July 26th, 1840.—"On the 3d instant I have sent to the care of Messrs. Nicholson and Wright of Belize two boxes, of the contents of which I enclose the list. They arrived at Isabal on the 10th instant, and have in all probability been shipped in Belize by this time.* I am now planting in boxes such plants, to take home with me on my return, as I know will not carry well in the ordinary way, or such as do not readily seed. Oaks I am raising in this way as fast as they come in, this being, in my opinion, the only means of obtaining these species in Europe. * I have just returned from a trip along the Cordillera, as far as Quezaltenango, and returned with a few but choice things, which I shall transmit to you as soon as the seeds are properly dried; what I prize most is what I take to be another species of the pendulous flowered plant like a *Tigridia* (*Rigidella flammea*) which has flowered with you last year; of this I have secured about 350 bulbs. In case some more cones of *Pinus oocarpa* and *occidentalis* are wished for, I beg to be informed, as I can get any quantity of them in the month of December; of the Ayacahuite pine there will be also a fine crop this year near Totonicapan; of this of course I shall send more in the proper time."

Guatemala, August 20th, 1840.—"I beg to inform you that the last two boxes H. S. 64 and 65, have been received by Messrs. Wright and Nicholson of Belize, previous to the 16th ultimo, but they did not inform me of their having been shipped since. In a Belize paper I see that the two boxes of plants have been shipped on board the "Renown," on the 31st of July, and two others by the "Ceres," on the 1st instant; the former I suppose to be mine, and the latter Mr. Skinner's, sent down by him at the end of May. Both vessels are bound direct to London. I am now about making up another box of bulbs and seeds I have now in my possession. Among the bulbs there is one from the Volcan de Agua (which I have ascended lately) and is another

* These are Nos. 64 and 65, which arrived on the 12th of October. They contained 3 sorts of seeds, of which one was dead, and 9 sorts of Orchidaceous plants, in healthy condition. One of these has flowered, viz. *Oncidium macrantherum*.

species of the Cebadilla from the Campanaria, near Anganguco, but less branched and with a yellowish flower. On my last excursion to Chimaltenango and Comalapan, I again found the Chumaque, or *Lælia superbiens*, in the wild state, but scarce, and not such fine plants as those sent from Malacatan and Rio hondo; however, in Tejar I succeeded in obtaining two beautiful plants, the one with seven and the other with eight flower stems on it, which are at present from three to four feet long; the pseudo-bulbs measure from 12 to 14 inches in length; they are two of the finest plants I ever saw; I took them off the trees with the greatest care, and had them brought here on the backs of two Indians. I shall transmit them to you in November, when they have done flowering and the bulbs in a better state to endure the voyage. I claim the honour of having first discovered and introduced this extraordinary plant."

Guatemala, September 25th, 1841.—"On the 24th ultimo I have despatched another box, H. S. 66, and enclosed I send a copy of its contents.* To day I have received your letter of 14th July last, informing me of the resolution of the Council to change my ground from hence to the equatorial part of South America, on account of the disturbed state of Guatemala, and of the difficulty of obtaining plants suited to the open air in England. Mr. Skinner, whom I have consulted about my new mission, speaks in the highest terms of the vegetation there, and told me that there will be no difficulty in procuring a passage in the ports of Sonsonate, or the Union, for Guayaquil in the month of January. At the present moment I have in my possession a fine collection of Orchidaceæ and other plants, which I shall go on increasing until I can proceed on my new mission; as some of the plants, particularly those planted in earth, and young oaks, are delicate, I shall perhaps be obliged to accompany them to Belize, to put them on board myself, and give the necessary instructions for attending them during the passage."

Guatemala, October 24th, 1840.—"I am now about packing up my collections, consisting chiefly of Orchidaceæ, roots of *Convolvuli*, *Treviranæ*, *Gesneræ*, *Sobralia macrantha* and other perennials, all of which are planted in pots. The acorns which I planted in small portable boxes are doing well, and most of them have come up; of the large kind which I sent last year packed in sand I have secured another supply, and they are now germinating. Seeds I have scarcely any. Towards the middle of November I must leave this place for the Union, the port of

* It arrived on the 1st February, 1841, and contained 14 sorts of seeds, mostly in good condition. Part of these are still in course of distribution. There were also 4 bulbs, with one exception in a healthy state.

San Miguel, 120 leagues south-east, to secure a passage for Guayaquil, this prevents me from accompanying the plants to Belize; but, however, I shall write some instructions to the captain of the vessel who is to take charge of them, and promise him a compensation for his trouble of attending to them during the passage."

Sonsonate, November 25th, 1841.—"Two days ago I arrived here from Guatemala, and learned that some vessels are expected in a few days in the port of Acajutla, five leagues distant, which will afterwards go to the south, so I determined to await a passage here to Guayaquil. On the 4th instant I sent my last collection to the care of Messrs. Wright and Nicholson, Belize; consisting of 21 boxes, marked H. S. 67-87, and enclosed I transmit you a list of the contents; the boxes will arrive on the 15th instant at Isabal, whence they will be forwarded immediately per steamer to Belize. The plants of Orchidaceæ are nailed to the sides of the chests, the roots are wrapped up in Tillandsia, leaving the centre free from packing. The experiment of packing a few cases with sawdust I could not try, not having been able to procure a sufficient quantity to fill even one box."

On the 24th of February the important collection mentioned in the last letter, reached the society in 21 boxes. It consisted of 5 sorts of seeds, one of which was dead, the others in good condition. Of these *Pinus oocarpoides* is now in course of distribution; also of 62 sorts of orchidaceæ in good condition, 321 plants of which have been distributed. Three of the boxes also contained soil in which eight sorts of acorns had been sown and had germinated, but on their arrival two of them had perished, and the remainder were in a very precarious state, with the exception of *Quercus Skinneri*, which is likely to recover. In addition, 18 sorts of bulbs and roots were found, but in bad condition.

In the GARDEN of the Society some indispensable improvements have been introduced; about 250*l.* have been expended in the erection of workshops, and other buildings, of which the Garden had urgent need, and some of the glass-houses have undergone thorough repair. In particular the Orchidaceous house, a low stove which had been heated with flues, and which was extremely ill suited to the cultivation of plants, has been very much improved; the roof has been raised higher, a new heating apparatus has been constructed with two of Mr. Rogers's boilers and hot water pipes, on which zinc evaporating pans have been placed; and the greatly improved condition of the plants attests the advantage of the change. The Great Conservatory which at the date of the last report had just been filled with plants has been in satisfactory operation, and is already beginning to present a beautiful appearance. The bushes in the bed of earth have esta-

blished themselves in the soil; climbing plants are rapidly extending themselves in festoons along the roof, and the general health of the collection enables the Council to congratulate the Society upon so important an addition to their property as this Conservatory proves to be. During the hottest days of last summer the temperature of the house did not exceed that of the external air, by more than 11° , and that on only one occasion; and during the past severe winter it was found, that, although it was designedly kept as low as 36° , yet there would have been little difficulty in maintaining a temperature of 45° , even in windy weather with the external temperature 10° , had it been desirable to do so. Some difficulties, doubtless, arose in managing a house of so novel a description, especially in counteracting the effect of the unimpeded rays of the sun upon newly planted trees, and specimens in pots unaccustomed to so bright a light. These, however, have been in the majority of cases overcome; only a small number of old ill-rooted plants having died. Some of the plants in pots, indeed, became sickly, or drooped beneath the influence of the noon-day sun; but it was found, that this was caused by the force with which the solar rays struck upon the sides of the pots, and the difficulty was therefore overcome by plunging the pots in a bed of damp moss. Among other things this house seems to have shewn that plants may be maintained in health without being shaded from the sun; and if it should hereafter prove necessary to add the awning, for which provision was made in the original construction of the building, or to intercept light by any other means, it will be more for the sake of the visitors than of the plants.

Many additions have been made to the Society's COLLECTIONS in the course of the year. Some remarkable fruit trees have been received from Syria, among which are the Apricot of Mount Cassius, and that of Damascus, both varieties with sweet kernels, the latter being that which is dried for exportation; they were however in bad condition. Many contributions of seeds of ornamental plants have also been made, among which may be in the first place mentioned a large number of packets from the Honourable Court of Directors of the East India Company, New Holland seeds from Capt. James Mangles, R.N., Sir George Murray Thomas Lloyd, Esq., and His Excellency Governor Grey; and Malacca seeds from Mr. Cuming.

The DISTRIBUTIONS have amounted to 8,355 plants, 45,405 packets of seeds, and 6,897 parcels of cuttings.

EXPERIMENTAL ENQUIRIES have been by no means neglected. The Council however do not advert to them in this place because they have ordered them to be reported to the Garden Committee monthly, and then to be incorporated in the printed "Proceed-

ings" for the information of the Fellows of the Society. A part of these have already been so published.

In no former year have the Society's Exhibitions been so numerously attended by visitors, and it is most gratifying to the Council to know that the skill evinced in the cultivation of the specimens brought forward for competition on these occasions becomes every year more conspicuous. This observation equally applies to the exhibitions in Regent Street where the beauty of many of the plants is a theme of universal admiration. The Council are of opinion that this great improvement in Horticultural skill must be chiefly ascribed to the measures for so many years persevered in by the Society with a view to stimulate Gardeners to exertion. The number of visitors to the three Garden exhibitions of 1840 was 19344, the number of Medals awarded during the year has been 327, of the money value of 834*l.* 3*s.* 0*d.*, and thus since May 1st 1830, the sum of 4153*l.* 15*s.*, has been expended by the Society for Medals alone.

The Council point with satisfaction to the state of the Society's FINANCIAL AFFAIRS, as reported by the auditors. The sum received for Annual Subscriptions from Fellows of the Society exceeds that of 1839-40, by the sum of £365. 8*s.*; for Admission Fees by that of £75. 12*s.*, and for balance of Garden Exhibitions by that of £287. 5*s.* 7*d.* It will, however, be remarked on the other hand, that no part of the Society's debt has been paid off during the year, an extraordinary expenditure of £3060. 7*s.* 7*d.* having been incurred; thereby increasing the open debt to the amount of £1417. 2*s.* 10*d.* This requires explanation. It will have been observed from the report made to the Society last year, p. 423, that in the year 1835 it was considered right, for the reasons therein given, to appropriate half the clear profits of the Garden Exhibitions to a fund by means of which the Garden might be gradually rendered more worthy of the Society and of the country. The profits thus derived were as follows:—

				£	s.	d.
1835	-	-	-	-	1476	7 1
1836	-	-	-	-	2416	13 4
1837	-	-	-	-	1519	6 4
1838	-	-	-	-	1712	5 7
				<hr/>		
				£7124 12 4		
				<hr/>		

which divided by two gives the sum of £3560, which, for financial reasons, had been applied to the discharge of debt instead of having been actually set apart for the purpose for which it was designed. The amount of debt at the last

audit had, therefore, been to this extent decreased beyond what the Council had considered it really necessary to effect. Consequently in incurring new debt to the extent of £1500, the Council have, in reality, avoided using the reserved fund at their disposal to the amount of more than £2000.* Or if the profits of the Garden Exhibitions for the years 1839 and 1840 are divided by two, then the sum at the disposal of the Council has been unappropriated to the extent of more than £1300.

Since the year 1838, independently of minor sums of a considerable aggregate amount, for additions to the Library, and substantial repairs at the Garden, the following expenses have been incurred in permanently increasing the efficiency of the Society, or in augmenting its wealth, viz.

	£	s.	d.
For the new Conservatory - - -	4556	13	7
For alterations and improvements in the roof of the Meeting-room in Regent-street - -	287	0	0
For Sheds and other Buildings erected in the Gar- den, and for New Hot Water Apparatus -	410	12	11
	<hr/>		
	£5254	6	6
	<hr/>		

IT WAS RESOLVED that thanks be returned to the Council for their Report and for the attention and skill with which they had conducted the affairs of the Society during the past year.

May 3, 1842.

GARDEN COMMITTEE.

Mr. Thompson reported from the *Orchard and Kitchen Garden Department*, that Nitrate of Soda, in a strong solution, had been applied to various plants with a view to ascertain its effects upon them and to what extent it might be safely applied. Four

* It will also be found in the Report from the Auditors, that the Society is this year charged with the sum of £150, in satisfaction of a claim of £300, for alleged old arrears of rent due to H. M. Commissioners of Woods Forests, etc. This claim was first made in the year 1831, and was then resisted by the Council, who were of opinion that it could not be maintained; and it has been at length settled by the Commissioners of Woods, etc. abandoning the claim, upon the payment by the Society of the £150 charged in the accounts of the present year.

ounces were dissolved in one gallon of water, and part of a row of Peas was soaked with it; the Peas were uninjured. The same solution applied to the same extent of a row of Garden Beans appeared to injure them. Strawberries in pots were killed with it in five days; Kidney-beans in pots were killed with it in a fortnight. On Vines, Cabbages, Seakale and Capsicums, the effects were not apparent. The Strawberry plants in pots did not appear affected for some days, the first symptoms were exhibited by the tips of the leaves, after which the whole plant was rapidly destroyed.

Mr. Gordon reported from the *Hardy Department*, that the following experiments had been tried on grass in the Arboretum with Nitrate of Soda, Poittevin's disinfected manure and Ammoniacal Liquor, each having one rod of ground allotted to it, but with a division of two feet between the allotments.

The Nitrate of Soda, used as a manure on the square rod of grass, was in the following proportion, viz. $\frac{3}{4}$ lb. of Nitrate of Soda, diluted with twenty gallons of water. This was poured on the ground through a rose, on the 3rd of December 1840; in about fourteen days (even at that dull season of the year) the grass was perceptibly greener and more healthy than any of that surrounding, which appearance it has retained up to the present time; it is also more vigorous than that which has not been experimented upon. The quantity of grass cut from this rod of ground, as well as that obtained from the others will shew the respective merits of each.

On the second square rod of grass, *Poittevin's* disinfected manure was used in the following proportion, viz. 7 lbs. to the rod or half a ton to the acre; allowing therefore each bushel of manure to weigh about 50 lbs., this would be at the rate of 20 bushels per acre, and the cost about 35s. independent of carriage. There was not the least perceptible difference between this square and the ordinary grass, either in appearance or weight. The disinfected manure when used, was diluted with the same quantity of water as the preceding.

On the third rod of grass, Ammoniacal liquor was used in the proportion of 12 quarts to 20 gallons of water, to the rod. For about 48 hours after its application the grass became quite burnt up and to all appearance dead; but in about six weeks it began to shoot and eventually became the most conspicuous of the three; growing very vigourously, of a beautiful dark green, and far surpassing all the others in quality. This mixture also destroyed the moss and other annual weeds, and even very much affected the daisy and dandelions.

The following shews the proportions of grass produced by each rod.

	On April 14th 1841.	On April 28th 1841.
Ammoniacal liquor	1st cutting 64 lbs.	2nd cutting 17 lbs.
Nitrate of Soda	do. 23 lbs.	do. 12 lbs.
Poittevin's manure	do. 13 lbs.	do. 6½ lbs.

The grass adjoining which had no manure produced the same quantity of grass as that on which Poittevin's manure was used.

May 4, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Charles Dashwood Bruce, Esq., 9, Carlton House Terrace.

James' Foot, Esq., M. A., F. Z. S., 4, Grove Road, St. John's Wood.

William Kaye, Esq., Wandsworth Common.

William Horton Lloyd, Esq., F. S. A., F. L. S., &c. 1, Park Square, Regent's Park.

Mrs. William Phillips, Streatham Common, Surry.

Samuel Solly, Esq., F. R. S., 48, Upper Gower Street.

The following were the principal subjects of exhibition :

From Mr. Upright, Gardener to G. C. Ridge, Esq., of Morden Park, Surrey, a collection of plants amongst which were beautiful specimens of *Kennedya coccinea major*, *Diosma uniflora* and *Eutaxia myrtifolia*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mrs. Lawrence, F. H. S., a large collection of *Orchidaceous* and *Greenhouse Plants*, containing remarkably fine specimens of *Dendrobium densiflorum*, *Daviesia ulicina*, *Cytisus Philippensis*, *C. macrophyllus* and *Hovea Celsi*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Baggs, Gardener to Robert Barchard, Esq. of Wandsworth, Surrey, five fine specimens of *Hydrangea*, and a plant of *Polygala oppositifolia*, (CERTIFICATE awarded.)

From Messrs. Lucombe, Pince, and Co. of Exeter, specimens of *Callistachys longifolia* and a new *Acacia* from Swan River, cut from plants grown in the border of a cool conservatory.

From Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F. H. S., a specimen of a new *Epidendrum* called *Schomburgkii* and a spike of the rare *Coryanthes speciosa alba*, (CERTIFICATE awarded.)

From Mr. Dean, Gardener to James Bateman, Esq., F. H. S., two spikes of a very large variety of *Brassia maculata*, and one of *Epidendrum macrochilum*.

From the Rev. George Rous, F. H. S., plants of the *Queen Dowager Cineraria* and *Cineraria Lavertonensis*.

From Richard Gibbs, Esq., a seedling *Heartsease*.

From Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F. H. S., some forced *May Duke Cherries* and *Figs*.

From Mr. Errington, Gardener to Sir Philip Grey Egerton, Bart., F. H. S., flowers of a seedling *Cactus*, the same variety as that exhibited at the last meeting; with one of a hybrid *Cactus* between *C. speciosissimus* and *C. Ackermanni* having a triangular stem, and a specimen of *Cattleya Mossiæ*, (CERTIFICATE awarded.)

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F. H. S., a plant of his hybrid *Cactus* between *C. Ackermanni grandiflorus* and *C. speciosissimus*; Mr. Green says "had it not been retarded by shading, &c. the scarlet petals and blue centre would have been much finer: this is the best hybrid *Cactus* yet raised;" with it were some cut flowers of a seedling *Gloxinia* raised from *G. caulescens*; it is a profuse bloomer and of very strong growth, (CERTIFICATE awarded.)

From William Harper, Esq., of 32, Kensington Crescent plants of *Azalea indica alba* and *Acacia verticillata* from a Conservatory heated by Joyce's Patent Stove.

From Mr. John Damper Parks, F. H. S., of Dartford, Kent, specimens of four *Seedling Cinerarias*.

From William Wells, Esq., F. H. S., a very fine specimen of the *Double Red Azalea indica*, (BANKSIAN MEDAL awarded.)

From the Garden of the Society, a large collection of *Orchidaceous* and *Greenhouse Plants*, amongst them were *Oncidium divaricatum*, *Catasetum laminatum*, *Brassia caudata*, *Cyrtorchilum maculatum*, *Euphorbia polygona*, and a new *Malva* named *Creeana*; with cut flowers of *Hardenbergia macrophylla*.

It was announced that the seeds of the long green *Cucumber* received from Messrs. Schertzer and Sons, Haarlem, and distributed by the Society, had proved to be nothing more than the short Russian *Cucumber*.

The following presents were announced,

The Athenæum for April, from the Editor.

The Floricultural Cabinet, for April and May, from Mr. Jos. Harrison.

The Botanical Register, for May, from the Publishers.

Barter's British Flowering Plants, for May, from the Editor.

May 15, 1841.

EXHIBITION AT THE GARDEN.

This was the first meeting held at the Society's Garden for the year 1841. The number of Visitors on the occasion was 5,600, exclusive of Exhibitors. As usual it was remarkable for the beautiful specimens exhibited, and for the great variety observable among them. The fruit also attracted great attention.

The award was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a large collection of Stove and Greenhouse plants.
2. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, Middlesex, for a large collection of Stove and Greenhouse plants.
3. To Mr. John Davis, Gardener to Sir Simon Haughton Clarke, Bart., F.H.S., for a Miscellaneous collection of Fruit.
4. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for 20 species of Cape Heaths.
5. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., F.H.S., for a collection of 6 species of Orchidaceous plants.
6. To Messrs. Rollisson and Sons of Tooting, for a collection of 6 species of Orchidaceous plants.

THE GOLD BANKSIAN MEDAL.

1. To Mr. William Barnes, Gardener to George Ward Norman, Esq. F.H.S., for a large collection of Stove and Greenhouse plants.
2. To Mr. Hunt, Gardener to Miss Traill, F.H.S., of Hayes Place, Bromley, Kent, for a small collection of Stove and Greenhouse plants.
3. To Mr. Charles Young of Epsom, Surrey, for a small collection of Stove and Greenhouse plants.

4. To Mr. E. Davis, Gardener to the Lord Boston, F.H.S., for a Miscellaneous collection of Fruit.
5. To Mr. James Falconer, Gardener to Archdale Palmer, Esq., for Greenhouse Azaleas.
6. To Mr. R. May, Gardener to E. Goodheart, Esq., of Langley Park, Beckenham, Kent, for 6 species of Cape Heaths.
7. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for 3 species of Orchidaceous plants.
8. To Mr. Cock, of Chiswick, for a large collection of Pelargoniums.
9. To Mr. Catleugh, of Hans Street, Chelsea, for a large collection of Pelargoniums.

THE LARGE SILVER MEDAL.

1. To Mr. Thomas Jackson, of Kingston, Surrey, for a large collection of Stove and Greenhouse plants.
2. To Mr. Venables, Gardener to William Harrison, Esq., F.H.S., of Cheshunt, Hertfordshire, for a small collection of Stove and Greenhouse plants.
3. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for a collection of 6 species of Stove and Greenhouse plants.
4. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for a collection of 6 species of Stove and Greenhouse plants,
5. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for Stove and Greenhouse Climbers.
6. To Mr. Chapman, of Vauxhall, for Grapes.
7. To Mr. C. Judd, Gardener to George Knott, Esq., of East Barnet, for Pine Apples.
8. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for 20 species of Cape Heaths.
9. To Mr. Thomas Jackson, of Kingston, Surrey, for 20 species of Cape Heaths.
10. To Mr. Bruce, Gardener to Boyd Miller, Esq., for 6 species of Cape Heaths.
11. To Mr. Hunt, Gardener, to Miss Traill, F.H.S., for a collection of 6 species of Orchidaceous plants.
12. To Mr. J. Pascoe, Gardener to the Earl of Falmouth, for *Cattleya Aclandiae*.
13. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., F.H.S., for *Saccolabium guttatum*.
14. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for *Leschenaultia formosa*.
15. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Helichrysum pumilum*.

16. To Mr. William Smith, Nurseryman, of Norbiton, Surrey, for a new *Rhododendron*.
17. To Mr. Charles Young, of Epsom, for *Gloxinia rubra*.
18. To Mr. Standish, of Bagshot, for *Fuchsia corymbiflora*.
19. To Mr. Slow, Gardener to William Robert Baker, Esq., F.H.S., for a large collection of *Pelargoniums*.
20. To Mr. Gaines, of Battersea, for a large collection of *Pelargoniums*.
21. To Mr. Cock, of Chiswick, for a small collection of *Pelargoniums*.
22. To Mr. Catleugh, of Hans Street, Chelsea, for a small collection of *Pelargoniums*.
23. To Messrs. Lane and Sons, of Great Berkhamstead, Hertfordshire, for a collection of *Roses*.
24. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Herbaceous *Calceolarias*.
25. To Mr. Catleugh, of Hans Street, Chelsea, for Herbaceous *Calceolarias*.
26. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Shrubby *Calceolarias*.
27. To Mr. Catleugh, of Hans Street, Chelsea, for Shrubby *Calceolarias*.
28. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., for Seedling *Calceolarias*.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. Venables, Gardener to William Harrison, Esq., F.H.S., for a collection of 6 species of Stove and Greenhouse plants.
2. To Mr. Upright, Gardener to G. C. Ridge, Esq., of Morden, Surrey, for a collection of 6 species of Stove and Greenhouse plants.
3. To Mr. William Dowson, Gardener to William Leaf, Esq., F.H.S., for *Hydrangeas*.
4. To Mr. Venables, Gardener to William Harrison, Esq., F.H.S., for Cut Flowers.
5. To Mr. Bruin, Gardener to Robert Gunter, Esq., F.H.S., for *Grapes*.
6. To Mr. Mann, Gardener to James Bishopp, Esq., of Westburton, Petworth, Sussex, for *Pine Apples*.
7. To Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., of the Fence, near Macclesfield, for *Pine Apples*.
8. To Mr. Mann, Gardener to James Bishopp, Esq., for *Cucumbers*.

9. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Melons.
10. To Richard Brook, Esq., F.H.S., for Apples.
11. To Mr. Upright, Gardener to G. C. Ridge, Esq., for Green-house Azaleas.
12. To Mr. Venables, Gardener to William Harrison, Esq., F.H.S., for 20 species of Cape Heaths.
13. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Tall Cacti in flower.
14. To Mr. William Barnes, Gardener to George Ward Norman, Esq., for a Collection of 6 species of Orchidaceous plants.
15. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Oncidium pumilum*.
16. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Erythrina laurifolia*.
17. To G. G. Alston, Esq., of Birmingham, for *Boronia pinnata*.
18. To G. G. Alston, Esq., for *Erica fastigiata*.
19. To Mr. Barnes, Gardener to George Ward Norman, Esq., for *Pimelea spectabilis*.
20. To Mr. Bromley, Gardener to Miss Anderdon, for a small collection of *Pelargoniums*.
21. To Mr. William Watson, Gardener to J. J. Wells, Esq., of Bromley, Kent, Herbaceous *Calceolarias*.
22. To Mr. Wilmer, of Sunbury, Middlesex, for Tulips.

THE SILVER BANKSIAN MEDAL.

1. To Mr. John Kyle, Gardener to Robert Barclay, Esq. for a seedling *Erica*.
2. To Mr. Sellers, Gardener to L. V. Watkins, Esq., F.H.S., for Grapes.
3. To Mr. G. Hall, Gardener to W. B. Harcourt, Esq., of St. Leonard's Hill, near Windsor, for Grapes.
4. To Mr. Mann, Gardener to James Bishopp, Esq., for Pine Apples.
5. To Mr. Bruin, Gardener to Robert Gunter, Esq., for Pine Apples.
6. To Mr. Baldwin, of Turnham Green, for Apples and Pears.
7. To Mr. Hardy, Gardener to John Jarrett, Esq., F.H.S. for Melons.
8. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for *Ixora coccinea*.
9. To Mr. Pawley, of the White Hart Inn, Bromley, Kent, for *Pimelea decussata*.

10. To Mr. Davis, Gardener to the Lord Boston, F. H. S., for *Azalea indica splendens*.
11. To Mr. Hunt, Gardener to Miss Traill, F. H. S., for a large collection of *Pelargoniums*.
12. To Mr. Gaines, of Battersea, for Seedling *Pelargoniums*.
13. To Mr. Catleugh, of Hans Street, Chelsea, for Seedling *Pelargoniums*.
14. To Mr. Mountjoy, of Ealing, Middlesex, for Heartsease.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitions.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Green-house Azaleas - - -	3	—	1	—	1	—
Cape Heaths - - - -	9	1	1	3	1	—
Exotic Orchidaceæ in sixes - -	4	2	—	1	1	—
Ditto in threes - - - -	1	—	1	—	—	—
Ditto, new and handsome species	2	—	—	1	—	—
Ditto, single specimens - -	2	—	—	1	1	—
<i>Pelargoniums</i> , in sixes, pots 12 to the cast - - - -	9	—	2	2	—	1
Ditto, in threes, pots of unlimited size	3	—	—	2	1	—
Roses, in collections - - -	1	—	—	1	—	—
Large collections of Stove or Green-house Plants - - -	4	2	1	1	—	—
Small collections of Stove and Green-house Plants - - -	3	—	2	1	—	—
Stove or Greenhouse Plants, in sixes	6	—	—	2	2	—
Herbaceous <i>Calceolarias</i> - -	4	—	—	2	1	—
Shrubby <i>Calceolarias</i> - - -	2	—	—	2	—	—
Stove or Greenhouse Climbers -	1	—	—	1	—	—
Tall Cacti - - - -	1	—	—	—	1	—
Miscellaneous Collection of Fruit	3	1	1	—	—	—
Grapes - - - -	5	—	—	1	1	2
Pine Apples - - - -	9	—	—	1	2	2
Peaches and Nectarines - - -	2	—	—	—	—	—
Fine single specimens of ornamental Plants in flower - - -	37	—	—	2	3	2
New and fine single specimens of ornamental Plants - - -	14	—	—	3	1	1
Miscellaneous - - - -	49	—	—	1	6	6
Total	174	6	9	28	22	14

May 18, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society ;

Henry James Brooke, Esq., Clapham Road, Surrey.

Major William Buckley, 27, Old Bond Street.

William Henry Story, Esq., Heddon House, Isleworth.

Charles Wilson, Esq., 157, Leadenhall Street.

The following were the principal subjects of exhibition;

From James Bateman, Esq., F. H. S., spikes of several Orchidaceous plants, amongst them were *Dendrobium moschatum*, *Brassia maculata*, *Maxillaria tetragona*, and a new *Epidendrum* from the Bahamas, named *E. aciculare*, (BANKSIAN MEDAL awarded.)

From Mr. W. E. Allen, of Whitton, near Ipswich, a brace of remarkably fine *Cucumbers*, (BANKSIAN MEDAL awarded.)

From Mr. Hewetson, of 55, Cannon Street, near London Bridge, specimens of his *Zinc Garden Labels* and various *Garden Utensils in Zinc*.

From Mr. Tillery, Gardener to His Grace the Duke of Portland, some forced *Nectarines* and *Peaches*.

From Mr. John Scholl of 19, Poland Street, Oxford Street, an *improved portable Garden Engine* capable of forcing water in a continuous stream to the height of fifty feet. It is so contrived that when using it, both hands are at liberty to pump and guide the mouthpiece.

From Mr. Joseph Knight, F. H. S., plants of *Physolobium carinatum*, *Podolobium trilobatum*, *P. berberifolium*, *Aotus villosa* and *A. lanigera*.

From the Garden of the Society, a large collection of Orchidaceous and Greenhouse plants, amongst them were *Oncidium divaricatum*, *Cattleya Forbesii*, *Epidendrum selligerum*, *Telopea speciosissima* and *Diplolena Dampieri*; with cut flowers of *Pentstemon crassifolius*, *Dendrobium moschatum*, and *Dolichos lignosus*.

The following presents were announced ;

Paxton's Magazine of Botany for May, from the Editor.

The Ladies' Flower Garden of Ornamental Bulbous Plants, No. 14, from Mrs. Loudon.

June 1, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society :

Lionel Ames, Esq., the Hyde, St. Albans, Herts.

Joseph Delafield, Esq., Bryanstone Square.

William F. Gamul Farmer, Esq., Nonsuch Park, Cheam, Surrey.

Robert Garnett, Esq., Oak Hill, Manchester, and Wyre Side, near Lancaster.

The Hon. and Rev. Robert Wilson, Ashwelthorpe, Wyndham, Norfolk.

The following were the principal subjects of exhibition ;

From Mrs. Lawrence, F. H. S., a large collection of Heaths and other plants ; amongst the latter were *Dendrobium cupreum*, *Boronia serrulata* and *Helichrysum superbum*. The Heaths were very beautiful, especially a fine plant of *Erica splendens*, (for which a BANKSIAN MEDAL was awarded.)

From Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, a pretty seedling *Cactus*, (CERTIFICATE awarded.)

From Messrs. Low of Clapton Nursery, a collection of Stove and Greenhouse plants, containing *Gloxinia rubra*, a new *Gesnera* called *lateritia*, *Boronia viminea*, *Brachycome iberidifolia* and *Marianthus cæruleo-punctatus*, (a CERTIFICATE was awarded for the former.)

From Messrs. Rivers and Son, of Sawbridgeworth, a handsome collection of *Roses*, (CERTIFICATE awarded.)

From Mr. Parsons, Gardener to Augustin George, Esq., of Enfield, some fine *Black Hamburgh Grapes*, (CERTIFICATE awarded.)

From Messrs. Pope and Sons, of Handsworth Nursery, near Birmingham, a specimen of *Ceanothus collinus*.

From Mr. Edmonds, Gardener to His Grace the Duke of Devonshire at Chiswick, a plant of *Bolbophyllum barbigerum*.

From Messrs. Lucombe, Pince and Co., of Exeter, specimens of their new seedling *Rosa Devoniensis* ; it proves to be perfectly hardy, and one of the best varieties yet raised, (BANKSIAN MEDAL awarded.)

From Mr. Upright, Gardener to G. C. Ridge, Esq., of Morden,

Surrey, a splendid plant of *Epiphyllum speciosum*, (BANKSIAN MEDAL awarded.)

From Messrs. Dennis and Son, of Chelsea, a collection of *Roses*.

From Mr. Catleugh, of Hans Place, Sloane Street, some seedling *Pelargoniums* raised by the Rev. R. Garth and five other seedling *Pelargoniums*, (BANKSIAN MEDAL awarded.)

From W. H. Blaauw, Esq., F. H. S., some monstrous *Calceolarias*.

From Mr. J. A. Henderson, F. H. S., a very fine plant of *Cycnoches chlorochilou*, (BANKSIAN MEDAL awarded.)

From Mr. Walker, Gardener to Thomas Harris, Esq., F. H. S., the following Orchidaceous plants, *Epidendrum aromaticum*, *E. macrochilum* (white), and *Cyrtorchilum filipes*.

From George Barker, Esq., F. H. S., a very fine plant of a new and sweet scented *Oncidium* from Mexico, named *On. Barkeri*, (BANKSIAN MEDAL awarded.)

From Mr. Myatt, of Deptford, fruit of a new *Strawberry* raised by himself and called the *British Queen*, (CERTIFICATE awarded.)

From the Gardens, a very large collection of Succulent and other plants, containing a new variety of *Maxillaria aromatica*, *Gongora maculata*, *Epidendrum aromaticum*, several varieties of *Fuchsia*, *Pimelea rosea*, and a variety of *Mammillarias*.

The following presents were announced ;

The Botanical Register for June, from the Publishers.

Memoires de la Société de Physique et d'Histoire Naturelle de Genève, T. 9, P. 1, from the Society.

June 7, 1841.

GARDEN COMMITTEE.

Mr. Thompson reported as follows from the *Orchard and Kitchen Garden Department*, upon the effect of nitrate of Soda upon cabbages. Some Vanack Cabbages were manured with dung and with Nitrate of Soda ; the portion which had the dung manure is the best ; the produce where the Nitrate of Soda was applied is also very good. The soil in the latter case, it may be remarked was more consolidated than where the dung was

buried. Thus the dung affords a mechanical advantage that cannot be obtained from liquid or other concentrated manures. It having been mentioned in a former report that some plants had been killed by a solution of Nitrate of Soda, further experiments were instituted, from which it appeared that Peas and Beans are not easily affected by this salt, unless made very strong, but solutions frequently applied tend to check their growth. A pound of undissolved Nitrate was scattered over the leaves of one plant of Sea-Kale; a slight rain at night nearly dissolved the salt; and the Sea-Kale, although since exposed to bright sun, does not seem to be in the least injured.

An experiment made in order to try whether the bark of trees will heal over the heartwood of an amputated branch, has not given a favourable result. The bark was raised and turned back and then brought over the end of the stump; where the lips of the bark came in contact, the union was perfect, but no farther. The section of heartwood became brown, as also did the inside of the bark that was made to cover it.

Mr. Fortune reported from the *Hothouse Department*, that he had been trying some experiments as to the effect of coloured light on germination. On the 25th of March some seeds of *Nemophila insignis* were sown in two patches; one was covered with a common hand-glass the other with a blue one. The seeds were above ground on the 3rd of April under the coloured glass, and on the 5th under the common one. The slight difference in the time of germination seemed to be caused by the moisture in the soil which did not evaporate so quickly under the coloured glass as under the other. The plants under the blue glass soon presented a drawn sickly appearance, such as is commonly observed when they are grown in dark shaded situations.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON,
1841.

No. XVI.

June 12, 1841.

EXHIBITION AT THE GARDEN.

The number of Visitors on this occasion was 8975, exclusive of Exhibitors.

The award was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a large collection of Stove and Greenhouse plants.
2. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, Middlesex, for a large collection of Stove and Greenhouse plants.
3. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F. H. S., for 20 species of Cape Heaths.
4. To Mr. Mylam, Gardener to Sigismund Rucker, Esq., F.H.S., for a collection of Six Species of Orchidaceous plants.
5. To Messrs. Rollisson and Sons of Tooting, Surrey, for a collection of Six Species of Orchidaceous plants.

No. XVI.

A

THE GOLD BANKSIAN MEDAL.

1. To Mr. Cock of Chiswick, for a large collection of Pelargoniums.
2. To Mr. Catleugh, of Hans Street, Chelsea, for a large collection of Pelargoniums.
3. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq. F.H.S., for a collection of Roses.
4. To Messrs. Wood and Sons of Maresfield, Sussex, for a collection of Roses.
5. To Mr. Thomas Rivers, Junr. of Sawbridgeworth, for a collection of Roses.
6. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for a large collection of Stove and Greenhouse plants.
7. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.
8. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart. F.H.S., for a collection of Miscellaneous Fruit.
9. To Mr. R. May, Gardener to E. Goodheart, Esq., of Langley Park, Beckenham, Kent, for Six Species of Cape Heaths.
10. To Mr. Mylam, Gardener to Sigismund Rucker, Esq., F.H.S., for Three Species of Orchidaceous plants.

THE LARGE SILVER MEDAL.

1. To Mr. Gaines of Battersea, for a large collection of Pelargoniums.
2. To Mr. Catleugh, of Chelsea, for a small collection of Pelargoniums.
3. To Mr. Cock of Chiswick, for a small collection of Pelargoniums.
4. To Mrs. Fleming of Binstead, Isle of Wight, for a collection of Roses.
5. To Messrs. Paul and Son of Cheshunt, Herts, for a collection of Roses.
6. To Mr. Henry Cobbett of Horsell, near Woking, Surrey, for a collection of Roses.
7. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Herbaceous Calceolarias.
8. To Mr. Catleugh, of Chelsea, for Herbaceous Calceolarias.
9. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Shrubby Calceolarias.
10. To Mr. Gaines of Battersea, for Shrubby Calceolarias.
11. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Seedling Calceolarias.

12. To Mr. Jackson of Kingston, Surrey, for a small collection of Stove and Greenhouse plants.
13. To Mr. Young of Epsom, Surrey, for a small collection of Stove and Greenhouse plants.
14. To Mr. Falconer, Gardener to Archdale Palmer, Esq., of Cheam, Surrey, for a small collection of Stove and Greenhouse plants.
15. To Mr. Bruin, Gardener to Robert Gunter, Esq., F.H.S., for a Miscellaneous collection of Fruit.
16. To Mr. Davis, Gardener to the Lord Boston, F.H.S., for a Miscellaneous collection of Fruit.
17. To Mr. John Wilmot of Isleworth, for Grapes.
18. To Mr. C. Judd, Gardener to George Knott, Esq., of East Barnet, for Pine Apples.
19. To Mr. Butcher, Gardener to Mrs. Lawrence, for 20 Species of Cape Heaths.
20. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for Six Species of Cape Heaths.
21. To Mr. Insleay, Gardener to George Barker, Esq., F.H.S., for a collection of Six Species of Orchidaceous plants.
22. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, for Three Species of Orchidaceous plants.
23. To Mr. Insleay, Gardener to George Barker, Esq., F.H.S., for *Cattleya Aclandiae*.
24. To Mr. Craggs, Gardener to Sir Thomas Dyke Acland Bart., F.H.S., for *Schomburgkia tibicinis*.
25. To Mr. Mylam, Gardener to Sigismund Rucker, Esq., F.H.S., for *Aerides odoratum*.
26. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for *Polygala oppositifolia*.
27. To Mrs. Wray of Cheltenham, for *Brachycome iberidifolia*.

THE SILVER KNIGHTIAN MEDAL.

1. To Charles Knight, Esq., of Kentish Town, for Pinks.
2. To Mr. Norman of Woolwich, for Pinks.
3. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, for a large collection of Pelargoniums.
4. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for a small collection of Pelargoniums.
5. To Mr. Gaines of Battersea, for a small collection of Pelargoniums.
6. To Alexander Rowland, Esq., F.H.S., for a collection of Roses.
7. To Messrs. Lane and Son of Great Berkampstead, Herts, for a collection of Roses.

8. To Mr. William Watson, Gardener to John Wells, Esq., of Bromley, Kent, for Herbaceous Calceolarias.
9. To Mr. Gaines of Battersea, for Herbaceous Calceolarias.
10. To Mr. William Watson, Gardener to John Wells, Esq., for Shrubby Calceolarias.
11. To Mr. Catleugh of Chelsea, for Shrubby Calceolarias.
12. To Edmund Forster, Esq., of Clewer Lodge, Windsor, for Seedling Pelargoniums.
13. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for a small collection of Stove and Greenhouse plants.
14. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F. H. S., for a small collection of Stove and Greenhouse plants.
15. To Mr. Mylam, Gardener to Sigismund Rucker, Esq., F. H. S., for *Nepenthes distillatoria*.
16. To Mr. Chapman of Vauxhall, for Grapes.
17. To Mr. William Dowson, Gardener to William Leaf, Esq., F. H. S., for Grapes.
18. To Mr. Floud, Gardener to Sir John Guest, Bart., F. H. S., for Pine Apples.
19. To Mr. Foggo, Gardener to the Marquess of Abercorn, Stanmore Priory, Middlesex, for Nectarines.
20. To Mr. Chapman of Vauxhall, for the "Prince Albert" Seedling Grape.
21. To Mr. Leslie, Gardener to John Fleming, Esq., F. H. S., for an Egyptian Green Fleshed Melon.
22. To Mr. Jackson of Kingston, Surrey, for 20 species of Cape Heaths.
23. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F. H. S., for Six species of Cape Heaths.
24. To Mr. Upright, Gardener to G. C. Ridge, Esq., of Morden, Surrey, for Tall Cacti in flower.
25. To Mr. Barnes, Gardener to George Ward Norman, Esq., F. H. S., for a collection of Six species of Orchidaceous plants.
26. To Mr. William Masters, F. H. S., of Canterbury, for Three species of Orchidaceous plants.
27. To Mr. Dickson of Acre Lane, Brixton, Surrey, for *Erica depressa*.
28. To Mr. Veitch of Exeter, for *Leschenaultia biloba*.
29. To John Jarrett, Esq., F. H. S., for *Aerides odoratum*.

THE SILVER BANKSIAN MEDAL.

1. To H. Bridges, Esq., of Carshalton, for Pinks.
2. To Mr. Wilmer of Sunbury, for Pinks.
3. To Mr. Keir, Gardener to W. M. Coulthurst, Esq., F.H.S., for a collection of Roses.
4. To Mr. Hooker, of Brenchley near Lamberhurst, Kent, for a collection of Roses.
5. To Mr. Wilmer of Sunbury, Middlesex, for a collection of Roses.
6. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Shrubby Calceolarias.
7. To Mr. Mitchell, Gardener to E. Lawford, Esq., of Eden Park, Beckenham, Kent, for Balsams.
8. To Mr. William Watson, Gardener to John Wells, Esq., of Bromley, Kent, for Ranunculuses.
9. To H. Bridges, Esq., of Carshalton, Surrey, for Heartease.
10. To Mr. Norman of Woolwich, for Seedling Pinks.
11. To Mr. Catleugh of Hans Street, Chelsea, for Seedling Pelargoniums.
12. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a Seedling Cactus.
13. To Mr. Thomas Rivers, Jun., of Sawbridgeworth, for Cut Pæonies.
14. To Mr. William Dowson, Gardener to William Leaf, Esq., F.H.S., for Pine Apples.
15. To Mr. Tillery, Gardener to His Grace the Duke of Portland, of Welbeck, for Peaches and Nectarines.
16. To Mr. Foggo, Gardener to the Marquess of Abercorn, of Stanmore Priory, Middlesex, for Figs.
17. To Mr. Myatt of Manor Farm, Deptford, for "Eliza" Seedling Strawberry.
18. To Mr. Snow, Gardener to Earl De Grey, for Cucumbers (Snow's Horticultural prize.)
19. To Richard Brook, Esq., F.H.S., for Apples and Pears.
20. To Mr. Bruce, Gardener to Eoyd Miller, Esq., of Mitcham, Surrey, for a Green fleshed Melon.
21. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for Tall Cacti in flower.
22. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for *Oncidium flexuosum*.
23. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Ixora coccinea*.
24. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Elichrysium humile*.

25. To Mr. Bruce, Gardener to Boyd Miller, Esq., for Cactus Mallesoni.

26. To Mr. Mountjoy, of Ealing, for Gloxinia violacea.

27. To Mr. Young of Epsom, Surrey, for Gesnera discolor.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitors.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian.	Silver Banksian.
Pinks - - - - -	7	—	—	—	2	2
Large collection of Cape Heaths	3	1	—	1	1	—
Small collection of Ditto - -	3	—	1	1	1	—
Exotic Orchidaceæ in sixes - -	4	2	—	1	1	—
Ditto in threes - - - - -	3	—	1	1	1	—
Ditto, new and handsome species	1	—	—	1	—	—
Ditto, single specimens - - -	7	—	—	2	1	1
Pelargoniums, in sixes, 12 pots to a cast	7	—	2	1	1	—
Ditto, in threes, pots of unlimited size	5	—	—	2	2	—
Roses, in collections - - - -	12	—	3	3	2	3
Large collections of Stove and Greenhouse Plants - - - -	3	2	1	—	—	—
Small collections of Stove and Greenhouse Plants - - - -	3	—	1	2	—	—
Stove and Greenhouse Plants, in sixes	3	—	—	1	2	—
Herbaceous Calceolarias - - -	5	—	—	2	2	—
Shrubby Calceolarias - - - -	5	—	—	2	2	1
Tall Cacti - - - - -	2	—	—	—	1	1
Collections of Fruit - - - - -	5	—	1	2	—	—
Grapes - - - - -	5	—	—	1	2	—
Pine Apples - - - - -	4	—	—	1	1	1
Peaches - - - - -	2	—	—	—	1	1
Fine single specimens of ornamental Plants - - - - -	23	—	—	1	1	4
New and fine single specimens of ornamental Plants - - - -	5	—	—	1	1	1
Miscellaneous Fruit - - - - -	15	—	—	—	2	5
Miscellaneous, Florists' Flowers -	75	—	—	1	1	5
Miscellaneous, not Florists' Flowers	4	—	—	—	1	2
Total	201	5	10	27	29	27

June 15, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society.

Colonel Lewis St. Pierre, Chepstow.

Mrs. Mason, Copt Hewick, Ripon, Yorkshire.

Harry Buckland Lott, Esq., Tracey House, near Honiton.

Col. William Edward Powell, M. P., Nantros, Cardiganshire ;
and 7, Hyde Park Terrace.

Edward Vines, Esq., Caversham Rectory, Oxfordshire.

The following were the principal subjects of exhibition :

From Mr. Parsons, Gardener to Augustin George, Esq., of Enfield, some fine *Black Hamburgh Grapes* and specimens of a Seedling *Strawberry*, a hybrid between the *Old Pine* and *Myatt's Pine*, (CERTIFICATE awarded.)

From James Bateman, Esq., F.H.S., spikes of several Orchidaceous plants, amongst which was a new species of *Epidendrum* from Guatemala.

From Mr. Thomas Moffatt, Gardener to His Grace the Duke of Newcastle, F.H.S., some very fine bunches of *Sir A. Pychies St. Peter's* and *White Frontignac Grapes*, (KNIGHTIAN MEDAL awarded for the latter.)

From the Hon. and Rev. R. Wilson, F.H.S., blooms of the *Ranunculus*.

From the Lord Stuart de Rothsay, a plant of *Gesnera Douglasii*.

From R. W. Barchard, Esq., F.H.S., a remarkable specimen of the roots of a common *Laurel*, which had penetrated the cavity of a Well, and had developed themselves in a most extraordinary manner, forming an entangled mass of black fibres like horse hair several yards long.

From Mr. Walker, Gardener to Thomas Harris, Esq., F.H.S., very fine plants of *Stanhopea tigrina* and *Beaumontia grandiflora*, (KNIGHTIAN MEDAL awarded.)

From Mr. Thomas Ansell, F.H.S., Six grafted *Pelargoniums* and *Philibertia grandiflora*.

From the Garden of the Society, a large collection of Orchidaceous and other plants ; containing amongst others, *Oncidium byoltum*, *Epidendrum aromaticum*, *Cyrtorchilum maculatum*, *Fuchsia cylindrica*, *F. Standishii*, *Mirbelia dilatata*, several *Ericas* and *Euthales macrophylla*. There were also cut flowers of *Fuchsia cordifolia* and *Abutilon striatum*.

The following presents were announced :

The Athenæum for May, from the Editor.

The Floricultural Cabinet, for June, from Mr. Jos. Harrison.

Baxter's British Flowering Plants, No. 107, from Mr. Wm. Baxter.

No. 15, of the *Lady's Flower Garden of Ornamental Bulbous Plants*, from Mrs. Loudon.

Transactions of the Royal Society of Edinburgh, Vol. 15, Part I. from the Society.

Transactions of the Horticultural Society of Berlin, Vol. 15, Part II., from the Society.

Paxton's Magazine of Botany, for June, from the Editor.

The First Additional Supplement to Loudon's Encyclopædia of Plants, from the Editor.

Notice sur le Cyprès. Examen de cette question : Convient il de cultiver les pins dans le midi ? Observations sur le remplacement des arbres des promenades publiques de Montpellier. Observations agronomiques. Notice sur l'Arachide. Quel nom faut il donner au Platane que nous cultivons ? Note sur la taille des arbres destinés à fournir du bois de chauffage pour les Ménageries. Observations sur les semis et les plantations des chênes verts. Fragments d'Agronomie. Notice sur le Platane. From the Author, Mons. D. Bouchet, C. M. H. S.

July 5, 1841.

GARDEN COMMITTEE.

Mr. Thompson reported from the *Orchard and Kitchen Garden Department*, that a plant of Sea kale, mentioned in the last report as having had a pound of undissolved nitrate of Soda strewed over its foliage has since proved uninjured. Thus whilst some species of plants are destroyed by a small quantity of this salt, the Sea kale, and the Cabbage tribe generally, appear to be proof against its destructive effects.

Chloride of Lime has been tried unsuccessfully against the American blight on trees ; the glaucous, woolly covering of the Aphid proving a complete protection. The same tree was syringed with a solution of half a pound of Potash, with very little effect on the insects beyond the mechanical removal of such of them as were not well secured in crevices of the bark.

July 6, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society :

Philip Zachary Cox, Esq., Harwood Hall, Upminster, Essex.

Edward Davis, Esq., Entry Hill, Bath.

Edward Edwards, Esq., Champion Hill.

J. W. Hartshorne, Esq., Blackheath.

Viscountess Hawarden.

Henry Christopher Wise, Esq., Woodcote, Warwick.

The following were the principal subjects of exhibition :

From Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., a large collection of Orchidaceous and other plants ; amongst them were a handsome species of *Marillaria*, from Demerara ; *Oncidium unicolor*, *Cattleya Mossiæ superba* ; and cut flowers of *Aristolochia hyperborea*.

From Messrs. Fairbairn of Clapham, a small collection of beautiful *Ericas*, (SILVER BANKSIAN MEDAL awarded.)

From the Hon. and Rev. Robert Wilson, F.H.S., a collection of *Pinks*.

From Mr. John Smith, Nurseryman of Dalston, some *Seedling Fuchsias*.

From Messrs. Lucombe, Pince and Co., of Exeter, a new and handsome species of *Quisqualis*, raised from Indian seeds ; it has the good properties of flowering freely and being very dwarf, (SILVER BANKSIAN MEDAL awarded.)

From Mr. Myatt of Deptford, a dish of his new Strawberry, called the *British Queen*.

From Mr. Jackson of Kingston, Five SEEDLING PELARGONIUMS

From Mr. Cuthill of Love Walk, Camberwell, a plant of *Lisianthus Russellianus* and specimens of *Snow's Prize Cucumber*, (CERTIFICATE awarded for the latter.)

From Mr. Chapman of Vauxhall, a *Seedling Pelargonium* and a dish of his *Seedling Grape* called *Prince Albert*.

From A. V. Salamé, Esq., of Alexandria Cottage, Old Kent Road, some *Cucumbers* raised from seed, sent from Constantinople and from the Island of Chio, which were grown in a frame without any lining of dung on the outside. They were the sort known by the name of the Turkey.

From Mr. Wilson, Gardener to W. Daubuz, Esq., of Layton, Essex, a collection of *Seedling Pelargoniums*.

From Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., some remarkably fine *Noblesse Peaches* and *Etruge Nectarines*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Thomas Barrett of Hampstead, a *Fuchsia*.

From Mr. Gaines of Battersea, Four Seedling *Pelargoniums*.

From Mr. Hooker, F.H.S., a collection of *Roses*.

From Mrs. Marryatt, F.H.S., a dish of *Myatt's Pine Strawberry*.

From the Garden of the Society, a collection of succulent and other plants, containing among others *Aloe saponaria*, *A. flarispina*, *Zygopetalum maxillare*, and *Rondeletia speciosa*; also cut flowers of *Anigozanthos Manglesii*, *Alstramaria pulchella*, *A. tricolor*, *A. flava*, and *Mandevilla suaveolens*.

The following Presents were announced ;

Baxter's British Flowering Plants, No. 108, from the Editor.

Harrison's Floricultural Cabinet, for July, from the Editor, and the *Botanical Register*, for July, from the Publishers.

The business of the Ordinary Meeting having closed, a special General Meeting which had been convened for the purpose of electing a new Member of the Council, in the room of the late Henry Moreton Dyer, Esq. was then held. It was announced that the Council proposed the Rt. Hon. the Earl of Dartmouth to fill the vacancy occasioned by the decease of Mr. Dyer. A ballot having taken place the Vice President named as scrutineers J. R. Gowen, Esq., Major Smith, and C. Wentworth Dilke, Esq. who reported that the Earl of Dartmouth had been unanimously elected.

July 10, 1841.

EXHIBITION AT THE GARDEN.

The number of Visitors on this occasion was 7194, exclusive of Exhibitors.

The award was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, Middlesex, for a large collection of Stove and Greenhouse plants.
2. To Mr. John Wilmot, F.H.S., of Isleworth, for a miscellaneous collection of Fruit.

3. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for twenty species of Cape Heaths.
4. To Mr. John Mylam, Gardener to Sigismond Rucker, Esq., Jun., F.H.S., for a collection of six species of Orchidaceous plants.
5. To Messrs. Rollisson and Sons of Tooting, Surrey, for a collection of six species of Orchidaceous plants.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq., F.H.S., for a collection of Roses.
2. To Messrs. Lane and Son, of Great Berkhamstead, Herts, for a collection of Roses.
3. To Mr. Cock of Chiswick, for a large collection of Pelargoniums.
4. To Mr. Gaines of Battersea, for a large collection of Pelargoniums.
5. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a small collection of Stove and Greenhouse plants.
6. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., for a miscellaneous collection of Fruit.
7. To Mr. May, Gardener to Emanuel Goodheart, Esq., of Langley Park, Beckenham, Kent, for six species of Cape Heaths.
8. To Mr. Insleay, Gardener to George Barker, Esq., F.H.S., for a collection of three species of Orchidaceous plants.

THE LARGE SILVER MEDAL.

1. To Alexander Rowland, Esq., F.H.S., for a collection of Roses.
2. To Messrs. Paul and Son of Cheshunt, Hertfordshire, for a collection of Roses.
3. To Mr. Henry Cobbett of Horsell, near Woking, Surrey, for a collection of Roses.
4. To Mr. Catleugh of Hans Street, Chelsea, for a large collection of Pelargoniums.
5. To Mr. Cock of Chiswick, for a small collection of Pelargoniums.
6. To Mr. Gaines of Battersea, for a small collection of Pelargoniums.
7. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.
8. To Mr. Venables, Gardener to William Harrison, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.

9. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for a miscellaneous collection of Fruit.
10. To Mr. William Henderson, Gardener to Sir George Beaumont, Bart., for a miscellaneous collection of Fruit.
11. To Mr. Dick, Gardener to — Smith, Esq., of Dale Park, Sussex, for Black Prince Grapes.
12. To Mr. John Bell, Nurseryman, Norwich, for Black Ham-burgh Grapes.
13. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., for Grapes.
14. To Mr. John Mann, Gardener to J. Bisshopp, Esq., of West-burton, Sussex, for Pine Apples.
15. To Mr. Anderson, Gardener to the Hon. P. J. Locke King, Woburn Park, Chertsey, Surrey, for Pine Apples.
16. To Mr. Dick, Gardener to — Smith, Esq., of Dale Park, Sussex, for Melons.
17. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for twenty species of Cape Heaths.
18. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for six species of Cape Heaths.
19. To Mr. Thomas Jackson of Kingston, for six species of Cape Heaths.
20. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S. of Ealing Park, Middlesex, for a collection of six species of Orchidaceous plants.
21. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for a collection of three species of Orchidaceous plants.
22. To Mr. John Mylam, Gardener to Sigismund Rucker, Esq., Jun., F.H.S., for a specimen of *Miltonia spectabilis*.
23. To Messrs. Lucombe Pince and Co. of Exeter, for a specimen of *Erica ampullacea*.
24. To Mr. Mountjoy of Ealing, for a specimen of *Berberis trifoliata*.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. R. H. Betteridge of Milton Hill near Abingdon, Berks, for a collection of Roses.
2. To Mr. Willmer of Sunbury, Middlesex, for Carnations.
3. To Mr. G. Edmunds of Wandsworth Road, Clapham, Surrey, for Piccotees.
4. To Mr. Willmer of Sunbury, for Piccotees.
5. To Mr. Nathaniel Norman of Bull Fields, Woolwich, for Piccotees.
6. To Mr. Upright, Gardener to G. C. Ridge, Esq., of Morden Park, Surrey, for a large collection of Pelargoniums.

7. To Mr. Catleugh of Hans Street, Chelsea, for a small collection of Pelargoniums.
8. To Mr. William Barnes, Gardener to George Ward Norman, Esq., F.H.S., for a small collection of Stove and Greenhouse Plants.
9. To Mr. Edward Tinsley, Gardener to Mrs. Sharp of Clade Hall, near Barnet, Herts, for a small collection of Stove and Greenhouse Plants.
10. To Mr. James Bruce, Gardener to Boyd Miller, Esq., of Collier's Wood, Lower Tooting, for a small collection of Stove and Greenhouse plants.
11. To Mr. Edward Tinsley, Gardener to Mrs. Sharp of Clade Hall, for Cockscombs.
12. To Mr. R. Wilson, Gardener to His Grace the Duke of Norfolk, for a miscellaneous collection of Fruit.
13. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a miscellaneous collection of Fruit.
14. To Mr. Balmar, Gardener to the Earl of Sefton, at Croxteth Hall, for Grapes.
15. To Mr. Davis of Chelsea, for Grapes.
16. To Mr. William Dodds, Gardener to Col. Baker, F.H.S., for Pine Apples.
17. To Mr. Collinson, Gardener to the Marquess of Westminster, F.H.S., for Pine Apples.
18. To Mr. Bruin, Gardener to Robert Gunter, Esq., F.H.S., for Pine Apples.
19. To Mr. Charles Judd, Gardener to G. Knott, Esq., of East Barnet, for Pine Apples.
20. To Mr. Errington, Gardener to Sir Philip de Malpas Grey Egerton, Bart., F.H.S., for Peaches and Nectarines.
21. To Mr. William Henderson, Gardener to Sir George Beaumont, Bart., for Peaches and Nectarines.
22. To Mr. J. Halliday, Gardener to the Lord Sondes, F.H.S., for Melons.
23. To Mr. Ingram, Gardener to Her Majesty, at Windsor, for forced Plums.
24. To Mr. A. Reed, Gardener to Sir Giffin Wilson, of Woburn House, Beaconsfield, Bucks, for Melons.
25. To Mr. Thomas Jackson of Kingston, for twenty species of Cape Heaths.
26. To Mr. Young, Nurseryman, Epsom, Surrey, for six species of Cape Heaths.
27. To Mr. S. Venables, Gardener to William Harrison, Esq., F.H.S., for six species of Cape Heaths.
28. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a specimen of *Stanhopea oculata*.

29. To Messrs. Lucombe, Pince and Co., of Exeter, for a specimen of *Erica eximia*.
30. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a specimen of *Leschenaultia speciosa*.
31. To Mr. Richard May, Gardener to Emanuel Goodheart, Esq., of Langley Park, Beckenham, Kent, for a specimen of *Roëlla ciliata*.
32. To Mr. John Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., for a specimen of *Elichrysium proliferum*.

THE SILVER BANKSIAN MEDAL.

1. To Mr. Sillett, Gardener to R. G. Alston, Esq., F.H.S., for a collection of Roses.
2. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a collection of Roses.
3. To Mr. Hooker, F.H.S., for a collection of Roses.
4. To Mr. James Whome, Gardener to Edward Foster, Esq., of Clewer Lodge, near Windsor, for a Seedling Pelargonium.
5. To Mr. James Pamplin of Walthamstow, Essex, for Seedling Pelargoniums.
6. To the Rev. R. Garth of Farnham, Surrey, for Seedling Pelargoniums.
7. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Seedling Calceolarias.
8. To Mr. James Whome, Gardener to Edmund Foster, Esq., for a Seedling Pelargonium.
9. To Mr. C. Embleton, Gardener to Thomas Barnard, Esq., of Park Terrace, Brixton, for Carnations.
10. To Mr. Nathaniel Norman of Bull Fields, Woolwich, for Carnations.
11. To Mr. Henry Bridges of Carshalton, Surrey, for Pinks.
12. To Mr. C. Embleton, Gardener to Thomas Barnard, Esq., for Piccotees.
13. To Mr. John Dickson, Nurseryman, of Acre Lane, Brixton, Surrey, for Piccotees.
14. To Mr. William Dowson, Gardener to William Leaf, Esq., F.H.S., for a small collection of Stove and Greenhouse Plants.
15. To Mr. Mountjoy, F.H.S., of Ealing, for *Lilium eximium*.
16. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for cut flowers.
17. To Mr. Robert Baird, Gardener to Henry Perkins, Esq., of Hanworth Park, Middlesex, F.H.S., for Cockscombs.
18. To Mr. Pedrick, Gardener to Henry Pownall, Esq., F.H.S., for a miscellaneous collection of Fruit.
19. To Mr. Tillery, Gardener to His Grace the Duke of Portland, for a miscellaneous collection of Fruit.

20. To Mr. Chapman of Vauxhall, for Grapes.
21. To Mr. Scott, Gardener to Charles Barclay, Esq., F.H.S., for Grapes.
22. To Mr. Taylor, Gardener to J. Coster, Esq., of Streatham Common, for Grapes.
23. To Mr. R. Wilson, Gardener to His Grace the Duke of Norfolk, F.H.S., for Grapes.
24. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for Pine Apples.
25. To Mr. Collinson, Gardener to the Marquess of Westminster, F.H.S., for Peaches and Nectarines.
26. To Mr. John Nicholson, Gardener to the Earl of Orkney, F.H.S., for Peaches and Nectarines.
27. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., for Peaches and Nectarines.
28. To S. Price, Esq., of Browston Hall, Suffolk, for Cucumbers.
29. To Mr. R. Clark, Gardener to Lady Limond, of Drayton Green, for Melons.
30. To Mr. James Bruce, Gardener to Boyd Miller, Esq., of Collier's Wood, Lower Tooting, Surrey, for Melons.
31. To Mr. Busby, Gardener to the Marquess of Downshire, Easthampstead Park, Berks, for Melons.
32. To Mr. Wheeler, Gardener to David Bevan, Esq., of Belmont, East Barnet, for Melons.
33. To Mr. Venables, Gardener to William Harrison, Esq., F.H.S., for Melons.
34. To Mr. Vare, Gardener to Owen Fuller Meyrick, Esq., F.H.S., for Figs.
35. To Mr. Mountjoy of Ealing, F.H.S., for *Gloxinia rubra*.
36. To Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Cuphea Melvilla*.
37. To Mr. Morris Todd, Gardener to Thomas Gybbon Money-penny, Esq., F.H.S., for a Seedling *Fuchsia*.
38. To William Henry Story, Esq., F.H.S., of Isleworth, for *Fuchsia formosa*.
39. To Mr. Philip Frost, Gardener to Lady Grenville, Dropmore, Beaconsfield, Bucks, for *Triptilion spinosum*.
40. Mr. Butcher, Gardener to Mrs. Lawrence, F.H.S., for *Lemonia spectabilis*.
41. To Mr. Hendrey of Croydon, for Pinks.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitors.	MEDALS AWARDED.				
		Gold Knightian.	Gold Banksian.	Large Silver.	Silver Knightian	Silver Banksian.
Carnations - - - -	5	—	—	—	1	2
Pinks - - - - -	4	—	—	—	—	2
Picotees - - - - -	9	—	—	—	3	2
Large collections of Cape Heaths -	3	1	—	1	1	—
Small collections of Cape Heaths -	6	—	1	2	2	—
Exotic Orchidaceæ, in sixes -	3	2	—	1	—	—
Ditto, in threes - - -	2	—	1	1	—	—
Ditto, new and handsome species -	1	—	—	—	—	—
Ditto, single specimens -	2	—	—	1	1	—
Pelargoniums, in sixes, pots 12 to a cast - - -	7	—	2	1	1	—
Ditto, in threes, pots of unlimited size	4	—	—	2	1	—
Miscellaneous Roses - - -	11	—	2	3	1	3
Large collections of Stove and Greenhouse Plants - - -	1	1	—	—	—	—
Small collections of Stove and Greenhouse Plants - - -	3	1	—	2	—	—
Stove and Greenhouse Plants, in sixes	5	—	—	—	3	1
Collections of Fruit - - -	11	1	1	2	2	2
Grapes - - - - -	16	—	—	3	2	4
Pine Apples - - - - -	8	—	—	2	4	1
Peaches or Nectarines - - -	16	—	—	—	2	3
Fine single specimens of ornamental Plants - - - -	34	—	—	1	4	4
New and fine single specimens of ornamental Plants - - -	10	—	—	1	—	1
Miscellaneous, Fruit - - -	24	—	—	1	3	7
Miscellaneous, Florists' flowers -	93	—	—	—	—	6
Miscellaneous, not Florists' flowers -	8	—	—	—	1	3
Total.	296	5	8	24	32	41

July 20, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society :

John Ames, Esq., 33, Green Street, Grosvenor Square.

Thomas Barwick Lloyd Baker, Esq., Hardwicke Court, Gloucestershire.

Francis Joseph Delafosse, Esq., 32, Oxford Terrace, Hyde Park.

The Right Hon. the Earl Somers, Eastnor Castle, Herefordshire.

George Clutterbuck Tugwell, Esq., Crowe Hall, near Bath.

The following were the principal subjects of exhibition :

From Mrs. Lawrence, F.H.S., a large collection of *Heaths*, *Orchidaceous* and other plants. The *Ericas* were exceedingly fine, for which a SILVER BANKSIAN MEDAL was awarded.

From Mr. Jackson, F.H.S., of Kingston, a very fine collection of *Ericas*, amongst which was a seedling between *E. retorta* and *Irbyana*, called *E. Jacksoniana*; and Four Seedling *Pelargoniums*, (SILVER BANKSIAN MEDAL was awarded for the *Heaths*.)

From Mr. James Hogg of Paddington, a very good collection of *Piccotees* and another of *Carnations*, (SILVER BANKSIAN MEDAL awarded.)

From Mr. John Henchman of Edmonton Nursery, a plant of *Ipomœa tyrianthina* and specimens of a new *Echeveria*, from Mexico.

From Mr. Davis, Market Gardener, Chelsea, *Muscat of Alexandria Grapes*.

From Mr. Sellers, Gardener to L. V. Watkins, Esq., *Black Hamburgh Grapes* and a very fine *Ripley Queen Pine Apple*, weight 3 lb. 7 oz., (BANKSIAN MEDAL awarded for the latter.)

From Mr. George Mills, F.H.S., of Gunnersbury Park, Middlesex, a lease of *Cucumbers* growing from succeeding joints upon the same vine; cultivated under a hand-glass with bottom heat.

From Mrs. Goldsmid of St. Heliers, Jersey, Three Seedling *Pelargoniums*.

From Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., two very fine *Ripley Queen Pine Apples*, weighing 3 lb. 6 oz. and 3 lb. 10 oz., (BANKSIAN MEDAL awarded.)

From Mr. Insleay, Gardener to George Barker, Esq., F.H.S., a beautiful specimen of *Cattleya superba*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Francis Williamson of Sheffield Gardens, a *Newly Invented Watering Pot*.

From Messrs. Lucombe, Pince and Co., a noble plant of *Mirbelia dilatata* and a specimen of *Pyrola rotundifolia*, (SILVER BANKSIAN MEDAL awarded for the former.)

From Mr. J. A. Henderson, F.H.S., fine plants of *Ipomæa Learii*, *Æschynanthus grandiflorus* and double white *Chinese Primrose*, the latter having been kept in a moderate heat and shaded from the sun; with cut flowers of *Allamanda cathartica* and *Perularia odoratissima*, (SILVER BANKSIAN MEDAL awarded for the three former.)

From Mr. Robert Errington, Gardener to Sir Philip de Malpas Grey Egerton, Bart., F.H.S., a dish of *Murray Nectarines* and one *Royal George Peach*.

From the Garden of the Society, a collection of *Orchidaceous* and *other Plants*; amongst them were *Miltonia spectabilis*, *Cattleya intermedia*, *Rodriguezia planifolia*, and *Rondeletia speciosa*; with cut flowers of *Fuchsia corymbiflora*, *F. cordifolia*, *Mandevilla suaveolens* and *Salvia Regla*.

The following Presents were announced :

Paxton's Magazine of Botany for July, from the Editor.

The Athenæum for June, from the Editor.

August 2, 1841.

GARDEN COMMITTEE.

The following reports were laid before the Committee.

Orchard and Kitchen Garden Department.—Ammoniacal Liquor from the Gas-works had been employed against the American Blight on Apple Trees, diluted with about two parts of water; but it had not in that state proved effectual.

Robert Thompson.

Stove and Hothouse Department.—Some experiments have been in progress since the beginning of February, to ascertain what effects would be produced upon Pelargoniums by watering them with small quantities of different salts dissolved in rain-water. At the commencement of the experiment the roots of

the plants were washed clean, to remove all the soil in which they had been growing, and were then potted in silver sand. By this means they would depend chiefly for nourishment upon the substances dissolved in the water, and it would then be seen whether these of themselves were sufficient for their support.

The salts were carbonate of ammonia, subcarbonate of ammonia, sal ammoniac, common salt, saltpetre, nitrate of soda, and carbonate of ammonia mixed with wood ashes. About two tea-spoons full of salt to each gallon of rain-water was the strength of each solution. The plants were then divided into sets of three each, which were watered with the different salts whenever the sand was dry.

Other two sets of *Pelargoniums* planted in sand in the same manner as the others, were watered with rain-water mixed with the ammoniacal liquor of the gas-works in the proportion of about half a pint to a gallon. In one of the sets the liquor was used fresh from the cask, in the other it had been exposed for some time to the action of the air.

The result of these trials seems to be, that none of these substances of themselves will support plants of this kind in a healthy condition. Carbonate of ammonia with wood-ashes was the most beneficial, and the subcarbonate, the carbonate, and common salt did not seem to produce any bad effects, as the plants here grew as well as some which were watered with pure rain water. The remainder of the salts and the two kinds of ammoniacal liquor were certainly injurious.

Three plants of the same kind were potted in burnt clay, three in pounded bricks and three in charcoal, and all were watered with pure rain-water. In these circumstances they grew better than any of the others, except those in the carbonate of ammonia and wood ashes; the two first, however, succeeding better than the last which was in charcoal; but none of them did so well as some others which were in common garden soil. These results were evidently for want of sufficient nourishment, in so far as the burnt clay and powdered bricks were concerned; the charcoal might produce other effects, but other experiments are still going on with this substance.

I have also been trying what effects would be produced upon *Pelargoniums* growing in common soil by watering them with carbonate of ammonia, nitrate of soda, and Glauber's salts dissolved in rain-water. The proportions of the salts were rather greater than in the first instance. Each plant which was watered with the salt, was placed by the side of another of the same variety which was watered with pure rain-water. The difference between the plants watered with the salt in solution and the others was very apparent, the former being shorter jointed,

having their leaves of a deeper green and having more of the brown colouring matter in the stems. It is necessary, however, to use the nitrate of soda with great caution, as in proportions a little greater than here used it will destroy the plants. All the three salts produced the same effects, at least I could discern no difference.

Robert Fortune.

August 3, 1841.

ORDINARY MEETING.

The following were elected Fellows of the Society :

John Thomas Wasey, Esq., Prior's Court, Berks.

Joseph Wildy, Esq., Atherstone, Warwickshire.

The following were the principal subjects of exhibition :

From Mr. Upright, Gardener to G. C. Ridge, Esq., of Morden Park, Surrey, a *New Sweet scented Passiflora*, (CERTIFICATE awarded.) This plant had been raised by Mr. John Swabey, Gardener to Mrs. Beckford, late of Fir Grove, near Mitcham.

From Richard Harrison, Esq., F.H.S., a new species of *Stanhopea*, from Mexico, (SILVER BANKSIAN MEDAL awarded.)

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., a splendid collection of *Heaths* and various other plants, (SILVER KNIGHTIAN MEDAL awarded.)

From Mrs. Lawrence, F.H.S., plants of *Cynoches Loddigesii*, *Erica jasminiflora rubra*, *Stanhopea insignis*, and a fine specimen of *Gesnera bulbosa*, (SILVER BANKSIAN MEDAL awarded for the latter.)

From Mr. Chapman of Vauxhall, *Black Hamburgh* and *Dutch Sweetwater Grapes*.

From Messrs. Beck and Henderson of 67, Strand, a very fine collection of *German Stocks*, *Marigolds* and *Poppies*, (SILVER BANKSIAN MEDAL awarded.)

From Mr. Venables, Gardener to William Harrison, Esq., F. H. S., a fine plant of *Fuchsia corymbiflora* and two *Queen Pine Apples*, one of which weighed 3 lb. 5½ oz.; the other 4 lbs. (for which a SILVER BANKSIAN MEDAL was given, with a CERTIFICATE for the *Fuchsia*.)

From Mr. D. Mc Ewen of Petworth, Sussex, a *Seedling Plum*.

From Mr. J. Roberts, Plumber, &c. 59, King Street, Westminster, *Models of Greenhouses*.

From Mr. Lumsden, Gardener to Henry Bevan, Esq., F.H.S., a splendid plant of *Erica Ewerana*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. John Wilmot of Isleworth, F.H.S., a dish of his fine *New Black Hamburgh Grapes*, with six *Moscow Queen Pine Apples* of the respective weights of 3 lb., 3 lb. 6 oz., 2 lb. 11 oz., 2 lb. 10 oz., 2 lb. 13 oz. and 2 lb. 11 oz., (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Thomas Jackson of Kingston, an exceedingly fine collection of *Heaths*, amongst them were *Erica Shannoniana*, *E. retorta major*, *E. tricolor speciosa*, and two varieties of *E. ampullacea*, (SILVER KNIGHTIAN MEDAL awarded.)

From Mr. Insleay, Gardener to George Barker, Esq., F. H. S., spikes of *Oncidium pulvinatum* and a new species of *Brassia* from Bolivia.

From Mr. Dean, Gardener to James Bateman, Esq., F. H. S., specimens of *Cattleya Harrisoniæ*, *Cynoches Loddigesii* and other plants, (for which a CERTIFICATE was awarded.)

From the Garden of the Society, a collection of *Orchidaceous plants*, amongst which were *Cattleya crispa*, *C. Harrisoniæ*, *Calanthe variabilis*, *Oncidium Lanceanum* and *On. Papilio*.

The following presents were announced ;

The Ladies' Flower Garden of Ornamental Bulbous Plants, No. 17, from Mrs. Loudon.

The Botanical Register, for August, from the Publishers.

The Athenæum, for July, from the Editor.

Sept. 7, 1841.

ORDINARY MEETING.

The following Fellow was elected :

Sir John Roger Kynaston, Bart., Hardwicke Hall, Ellesmere, Shropshire.

The following were the principal subjects of exhibition :

From Mr. James Roberts, Gardener to Matthew Wilson, Esq., of Eshton Hall, near Skipton, Yorkshire, some exceedingly fine *Grapes* from young vines of two year's planting ; a bunch of the *Cannon Hall Muscat*, weighed 2 lb. 3 oz., *White Nice*, 7 $\frac{3}{4}$ lb. *Black Hamburgh*, 2 lb. 5 oz. *Black Prince*, 2 lb. 15 oz. *Black Damascus*, 2 lb. 11 oz. and *Black Morocco*, 2 lb. 7 oz., (LARGE SILVER MEDAL awarded.)

From Mrs. Lawrence, F.H.S., a large collection of Stove Plants; amongst which were fine specimens of *Pancratium amœnum*, *Griffinia hyacinthina*, *Epidendrum floribundum*, and a species of *Hæmanthus*, (LARGE SILVER MEDAL awarded.)

From Messrs. Rollisson and Sons of Tooting, a collection of exceedingly fine Orchidaceous and other plants, containing amongst others *Cattleya crispa*, *Aerides odoratum*, *Dendrobium alpestre*, *Lilium speciosum*, and *L. lancifolium album*, (LARGE SILVER MEDAL awarded.)

From Mr. Cockburn, F.H.S., a *Seedling Verbena*.

From Thomas Nash Spong, Esq., 2, Parliament Street, a specimen of *Marine Peat*.

From Mr. Pullen of Ball's Pond Road, a *Seedling Scarlet Pelargonium*, called the *Princess Royal*.

From Richard Brook, Esq., F.H.S., a fine bunch of *Muscat of Alexandria Grapes*, weighing $1\frac{3}{4}$ lb. (CERTIFICATE awarded.)

From Mr. James Cuthill, Florist, Love Walk, Camberwell, a fine plant of *Lisianthus Russellianus*, (CERTIFICATE awarded.)

From Charles Knight, Esq., of Bellina Villa, Kentish Town, a collection of *Dahlias*.

From G. I. L. Camden, Esq., of Hounslow, some *Seedling Apricots*.

From Mr. Henderson, F.H.S., of Pine Apple Place, plants of *Beckia camphorosmæ*, *Campanula stricta* and *Acacia pulchella* var. *hirsuta*.

From Mr. Gaines of Battersea, two *Seedling Dahlias*.

From Mr. Veitch of Exeter, a new species of *Gesnera* called *zebrina*, (SILVER BANKSIAN MEDAL awarded.)

From Mr. Edmonds, Gardener to His Grace the Duke of Devonshire, a plant of *Catasetum citrinum*.

From Mr. Ansell of Camden Nursery, a *Seedling of Fuchsia fulgens* and a collection of *Dahlias*.

From Mr. Davis of Luton, two *Seedlings of the Yellow Costen Apple*.

From Mr. George Mills, F.H.S., a brace of *Cucumbers* grown in boxes in a Pine Stove.

From Messrs. Beck and Smith of Hornsey Road, a *Seedling Dahlia*.

From Mr. James Stewart, Gardener to William Bagge, Esq., of Stradsett Hall, Downham, a *Seedling Black Hamburgh Grape*, (CERTIFICATE awarded.)

From Mr. Robert Buck, F.H.S., fine bunches of *Cannon Hall Muscat*, of two varieties of the *Deccan*, and the *Kishmish* or *White Currant Grape*, from which the Sultana raisins are procured, grown on a pot-vine, (SILVER BANKSIAN MEDAL awarded for the latter.)

From Mr. William Dowson, Gardener to William Leaf, Esq., of Streatham, a *Pine Apple*, called the *Pitch Lake*, weighing 2 lb. 13 oz. and an *Otaheite Pine*, weighing 3 lb.

From Mrs. Wray of Cheltenham, a plant of *Beckia camphorosmæ*.

From James Bateman, Esq., F.H.S., a remarkably fine spike of *Odontoglossum grande*, and one of *Schomburgkia tibicinis*, (SILVER BANKSIAN MEDAL awarded for the former.)

From Messrs. Brown and Attwell of Uxbridge, a *Seedling Dahlia*, called *Frederick the Great*.

From Mr. T. Rivers of Sawbridgeworth, a collection of *White Provence* and *Crimson Perpetual Roses*, grown on bushes which had their blooming shoots cut off for the last three or four years, just as the buds began to swell, by which means they now flower in the Autumn.

From Mrs. Marryat, F.H.S., a *Water Melon*, and a collection of *Cut Flowers*.

From the Garden of the Society, a large collection of *Stove* and *Greenhouse Plants*, amongst them were *Oncidium incurvum*, *Stanhopea oculata*, *Epidendrum ciliare* and *Achimenes longiflora*; with cut flowers of *Salvia regla*, *Hedychium Gardnerianum*, *Pentstemon gentianoides coccineum* and *P. fruticosum*. Also several kinds of *Peaches*, *Nectarines* and *Plums*; among the latter was the *Reine Claude Violette*, one of the best sorts in this wet season, and *Pond's Seedling*, a large showy kind, which bears very abundantly on a standard.

The following presents were announced :

The Floricultural Cabinet, for August, 1841, from the Author.

The British Flowering Plants, for August and September, from the Author.

The Botanical Register, for September, from the Publishers.

Paxton's Magazine of Botany, for August, from the Author.

October 5, 1841.

ORDINARY MEETING.

The following were the principal subjects of exhibition ;

From Mrs. Lawrence, F.H.S., a remarkably fine specimen of *Aphelandra cristata*; a seedling *Euphorbia*, raised from *E. splendens*, crossed with *E. Bronnii*; *Oncidium ciliatum*, *Rodri-*

guezia recurva, and various other *Orchidaceous plants*, (SILVER BANKSIAN MEDAL awarded for the *Aphelandra cristata*.)

From John Williams, Esq., of Pitmaston, several *Melons* ripened in an open sided frame, in front of which screens of fly-wire painted black, had been placed in an inclined position; the rays of the sun, falling directly upon these screens, heated them to a temperature exceeding 90° and the air in passing through the interstices of the wire raised the heat of the interior of the frame many degrees higher than it otherwise would have been. Also four seedling *Pears* raised from the Seckle, crossed with the pollen of Gansell's Bergamot; and two *Apples* raised from the seed of the Old Golden Pippin, well adapted for enriching the juice of Cyder Apples, (A CERTIFICATE was awarded for the *Melons*.)

From Mr. Henry Silverlock, F.H.S., of Chichester, a bunch of *Black Hamburgh Grapes*, cut from a Vine twelve years old, which had never before produced good fruit. In the early part of the spring the main stem was sawed nearly through, the only nourishment being conveyed to the upper branches through the inner bark. The Vine broke in due season, and produced sixty bunches, equal to the one exhibited.

From James Bateman, Esq., F.H.S., a remarkably fine specimen of *Dendrobium chrysanthum*; *Gongora maculata*, *Odontoglossum grande*, and *Maxillaria pallidiflora*, (BANKSIAN MEDAL awarded for the *Dendrobium*.)

From Mr. George Shiells, Gardener at Erskine House, a dish of excellent *Black Hamburgh Grapes* grown upon a flued wall, without glass, (KNIGHTIAN MEDAL awarded.)

From Mr. G. J. Camden, of Hounslow, six sorts of *Seedling Apples*.

From Mr. James Roberts, Gardener to Matthew Wilson, Esq., of Eshton Hall, Skipton; three handsome *Pine Apples*, namely, a *Blood Pine*, weighing 4½ lbs., an *Enville*, 3½ lbs., and an *Otaheite*, 5lbs., also *White Muscat*, *Black Prince*, *Black Hambro'* and *Black Morocco Grapes*, (BANKSIAN MEDAL was awarded for the *Otaheite Pine*.)

From Messrs. Veitch and Son, of Exeter, a very fine specimen of *Gloxinia macrophylla* a variety of *Gl. speciosa*, from Brazil, (CERTIFICATE awarded.)

From Mr. Toward, Gardener to Her Royal Highness the Duchess of Gloucester, at Bagshot, four *Queen Pine Apples*, weighing respectively 3lb. 4 oz., 4 lb. 2 oz., 3lb. 3 oz., and 2lb. 13 oz., their total weight being 13lb. 6 oz. (KNIGHTIAN MEDAL awarded.)

From Mr. Cuthill of Love Walk, Denmark Hill, Camberwell, a plant of *Lisianthus Russellianus*.

From Mr. Denyer of Brixton, a *Collection of Apples*.

From Mr. Mills, F.H.S., Gardener at Gunnersbury Park, plants of *Ipomœa Horsfalliæ* and *Manettia cordifolia*; with a brace of Cucumbers, grown in Mills's improved pits, (a CERTIFICATE awarded for the latter.)

From W. H. Story, Esq., F.H.S., a plant of his seedling *Epacris*, called *grandiflora rosea*.

From the Rev. R. B. Greenlaw, Blackheath, Kent, twenty-seven varieties of Potatoes, raised from seed saved from Fox's Seedling.

From Messrs. Wood and Son of Maresfield, Sussex, a Collection of Roses and a Seedling *Petunia*, called *magna rosea*, (BANKSIAN MEDAL awarded for the Roses.)

From Messrs. Lane, of Great Berkhamstead, Herts, a collection of Roses and a cut specimen of *Fuchsia corymbiflora*, (for the Roses, a BANKSIAN MEDAL was awarded.)

From Messrs. Chandler and Son, a collection of Dahlias, a fine plant of *Sedum Sieboldii*, and *Sempervivum aristatum*, (a CERTIFICATE awarded for *Sedum Sieboldii*.)

From Mr. Jackson of Kingston, a large and well grown collection of Heaths, amongst which were *Erica Banksiana*, *E. elata*, *E. acuminata longiflora*, *E. exurgens coccinea*, and *E. retorta major*, (BANKSIAN MEDAL awarded.)

From Robert Gunter, Esq., F.H.S., three exceedingly handsome Pine Apples, consisting of a *Montserrat*, weighing 4 lb., two *Antigua Queens*, one 3½ lb. and the other 4 lb. 1 oz. in weight, (KNIGHTIAN MEDAL awarded.)

From Mr. John Rogers of Eaton Square, Pimlico, a New Raspberry, called the *Victoria*.

From Mr. Walker, Gardener to Thomas Harris, Esq., F.H.S., a remarkably fine specimen of *Oncidium Baueri* and several other Orchidaceous plants, (a BANKSIAN MEDAL awarded for the *Oncidium*.)

From the Garden of the Society were a large collection of Orchidaceous and other plants, amongst which were *Odontoglossum grande*, *Miltonia candida*, *Saccolabium papillosum*, *Swainsonia coronillæfolia* and a Cotton plant, upon which was a ripe pod of Cotton.

The following Presents were announced;

The Botanical Register, for October, from the Publishers.

The Floricultural Cabinet, for September, from the Editor Mr Joseph Harrison.

Acta Academiæ Naturæ curiosorum, Vol. 18, Supplement I, from the Academy.

The Kitchen Garden, (extracted by permission from the British

Almanac of the Society for the Diffusion of Useful Knowledge, for the year 1837), from Richard Taylor, Esq.

Comptes Rendus, Nos. 3, 4, 5, 6, Vol. 13, for the 2nd half year, from the Academy of Sciences at Paris.

November 2, 1841.

ORDINARY MEETING.

A Paper by Mr. Henry Crace, on Pruning Fruit Trees was read.

The Author stated that his garden had been formed in a brick-field, on the London clay; and that his first operation after taking it was to cut trenches in the clay, filling them up with brick drains, repeated every fifteen feet across the garden and conducted into a tank. He next covered the ground with lime rubbish, and street sweepings; and trenched the whole as deep as the good soil went. He then planted his trees *on* the ground, not *in* it, by raising small hillocks, and placing the trees upon them. After explaining in what way this operation was effected, he proceeded to state, that from the nature of the soil, his trees had always a tendency to luxuriant growth, which he annually checked, by cutting the roots, to within two or three feet of the stem, according to the size of the plant; and he is satisfied that, by suffering only fibrous roots to exist, a greater quantity of blossom-buds is produced. His management of the pruning was principally applied to Apple and Pear trees. His first operation is about the month of June, when the sap is rising rapidly through the tree, to nip off the young shoot, to about six inches in length, (the spring shoots at this period being about twelve inches long.) This instantly stops the consumption of sap, which is in consequence forced to the dormant eyes, or buds, on the old wood; it is also, the means of ripening the young shoots much sooner: and it causes the bloom-buds immediately around the shoulder, to throw forth foliage; consequently bringing to maturity numberless blossom eyes, otherwise dormant. When the trees make their Midsummer shoots, the cut branches again throw forth their young wood, from the upper eyes; and in case they are strong, he again nips them off. As the fruit becomes ripe and gathered, he commences autumn pruning, by cutting off all shoots, to within a half an inch of the shoulder, taking care not to injure the leaves beneath; thus although

the whole of the trees are then pruned, he has nearly every one covered with foliage. He leaves the top shoots uncut until the winter; when he again trains every tree, with tar-cord, raising the tie a few inches annually; and although his trees have been twelve years planted, he has a large quantity of them not more than three or four feet high. He is also of opinion that the same method is applicable to all fruits, except Peaches and Nectarines on walls.

Mr. Robert Fortune, Superintendent of the Hothouse Department in the Society's Garden, laid before the Meeting the following note upon *Oxalis Deppei*.

In one of the early numbers of the Gardener's Chronicle Professor Morren of Liège brought into notice *Oxalis Deppei* as a new culinary plant. In England it has only been grown for ornamental purposes, to decorate the conservatory and flower beds, but in Belgium it has been much cultivated for table, its leaves being dressed like sorrel, the flowers used in salad and the roots eaten like asparagus in the Flemish fashion, or served up like scorzonera and endive with white sauce.

A few of its bulbs were therefore planted out in a prepared bed in the Garden of the Society. The soil in which they were grown was very light and sandy, being chiefly composed of decayed leaves, sandy peat, and a small quantity of loam. They will certainly not succeed in heavy stiff soil; although they will grow well enough and form a quantity of bulbs, the roots will not grow to any size. The bulbs should be planted in rows about nine inches or a foot apart, and about a foot between the rows, and then slightly covered with soil. They should be planted in April and taken up in October. If treated in this way each bulb will produce a root of the same size as those exhibited to day. After they are taken up they should be preserved in dry sand and kept free from frost. Each plant is very prolific in the formation of bulbs so that it is easily propagated.

Specimens of this root were exhibited and distributed to the Members present.

Mr. Fortune next presented a memorandum concerning the cultivation of *Achimenes longiflora*. He stated that Mr. Hartweg had found this beautiful plant growing in the ravines of Guatemala. The roots arrived in very good order, owing to their having been packed in dry loam, and sent home at that period of the year when the plant is naturally in a resting state.

Its stems were described as being of two kinds, some creeping along the ground and amongst the soil, and forming fibrous roots and numerous imbricated buds resembling scaly bulbs;

others growing in an upright position from a foot to two feet in height, branching and covered with short spreading hairs. The flowers grow singly from the axils of the leaves, are about two inches long and their border nearly two inches and a half in diameter, with much the outline of a good heartsease; the tube is of a dark cream colour, the border purple or deep blue changing into lilac.

The plant was said to be of the easiest cultivation, flowering in August and continuing covered with large violet flowers for three or four months. It seems to flourish in any free soil, and is more easily propagated than any plant with which I am acquainted. In the spring when it begins to grow this can be done by separating and potting the scaly bulbs described above; afterwards its creeping stems will strike their roots into the soil and can be taken off perfect plants; and at all times, while the plant is growing, cuttings may be struck in a few days. Every one who has a warm greenhouse or cucumber or melon frame to start it in, and enable it to form its flower buds in summer, may have it in full bloom in the common greenhouse or sitting room in autumn. The lovers of drawing-room plants may introduce it there and grow it as easily as they now do the *Achimenes coccinea*. Those who have sufficient accommodation may produce a fine effect by planting a quantity of the roots in a large flat box, and so forming a bed of flowers, which will contrast beautifully with the green foliage of the surrounding plants.

After the flowering season is past the stems die off and the roots require no more care than keeping perfectly dry and free from frost during the winter. When spring comes round and the plant shews signs of growth it must be repotted, at the same time removing some of the old soil and dividing the roots, where they seem to be sending up too many young stems for the size of the pot.

Mr. Robert Thompson, Superintendent of the Fruit Department, communicated some account of a Plum called the Ickworth Imperatrice, sent to the Society by their late President, Mr. Andrew Knight.

Its parentage on both sides possesses much merit, it having been raised from the Imperatrice Violette and pollen of Coe's Golden Drop. The fruit is middle-sized, or somewhat larger than its female parent. The Skin is purple, richly traced, as if embroidered, with golden brown lines, some like straight pencillings radiating downwards from the insertion of the stalk, while others are wavy or disposed circularly. The Flesh is greenish amber, partly adhering to the stone, juicy and very

rich when allowed to hang till it begins to shrivel and part from the tree. The tree is of a hardy growth, and appears likely to be an abundant bearer as a standard; the shoots, are glabrous; the leaves oval or obovate, crenated, smooth, shining, dark green. The fruit ripens in the beginning of October, and forms one of the finest late plums for the dessert; more especially as it may be kept in a fresh state for a considerable time, if placed in a dry situation, ready for use, and secure from the storms or even frosts, which frequently render the maturity of later hanging varieties, such as Coe's Late Red, very precarious. It will moreover ultimately attain the condition of a prune, for a fruit enclosed in paper when gathered and laid on a shelf, was found in that condition the following Midsummer.

The following were the principal subjects of exhibition;

From John Luscombe, Esq., of Plymouth, specimens of *Limes*, gathered from trees, the leaves of which as well as the fruit in a young state had been frozen hard and crisp during the previous winter.

From Mr. W. P. Ayres, Gardener to John Dobede, Esq., of Soham Place, Mildenhall, Suffolk; a seedling *Apple* and 26 kinds of *Pears*, including the *Marie Louise*, *Napoleon*, *Glout Morceau* and *Passe Colmar*; the situation in which they were grown, being but a short distance from the cold fens of Cambridgeshire.

From Mr. J. B. Whiting, Gardener to H. T. Hope, Esq., F.H.S., of the Deepdene, Dorking, specimens of *Apples* of the year 1840; which had been kept in a cave, dug in the side of a sandy hill, where there was no ventilation, but where the temperature was nearly uniform with that of the earth. Although the atmosphere was always damp, yet the flavour of the specimens sent was little impaired.

From Mrs. Lawrence, F.H.S., were well grown specimens of *Cypripedium insigne* and *Gesnera zebrina*, with a collection of *Heaths* and various other plants, (a BANKSIAN MEDAL awarded for the two former.)

From Thomas Davies, Esq. of 19, Hanover Street, Hanover Square, a dish of *Emperor Alexander Apples* and another sort unnamed.

From Mr. George Mills, F.H.S., a brace of *Hybrid Cucumbers*.

From Mr. Snow, Gardener to the Earl De Grey, F.H.S., at Wrest Park, Bedfordshire, two specimens of an *Apple* of very large size and a dish of *Pears*.

From Mr. Appleby, Gardener to Thomas Brocklehurst Esq., F.H.S., two *Montserrat Pine Apples*, one weighing 3 lb. 5 oz.,

the other 3 lb. 12 oz., with a curious species of *Dendrobium*, *Oncidium Suttoni*, and various other Orchidaceous plants, (a CERTIFICATE awarded for the *Pine Apples*.)

From Messrs. Fairbairn, of Clapham, a fine plant of *Erica Banksiana*, (CERTIFICATE awarded.)

From Mr. Spirey, Gardener to John Tharp, Esq., Chippenham Park, Cambridgeshire, a brace of excellent *Cucumbers*, from plants grown in pots, (CERTIFICATE awarded.)

From Mr. Roberts, Gardener to Matthew Wilson, Esq., of Eshton Hall, near Skipton, Yorkshire, bunches of the *Black Prince*, *Black Morocco*, and *White Nice Grapes*, weighing respectively 1½ lb., 2½ lb., and 4½ lb.

From Mr. Patterson, Gardener to the Earl of Chesterfield, Burton upon Trent, a brace of *Cucumbers*.

From Mr. Fuller, Gardener to George L. Fox, Esq., F.H.S., three specimens of an excellent hybrid *Radish*, raised from seed between the Black Spanish and common garden variety, (CERTIFICATE awarded.)

From Messrs. Rollisson and Son of Tooting, a beautiful specimen of *Epidendrum cuspidatum*: with well grown plants of *Oncidium ciliare*, *Dendrobium chrysanthum*, *Cattleya labiata*, *Epidendrum diffusum* and *Acropera Loddigesii*, (BANKSIAN MEDAL awarded for the former.)

From Mr. Falconer, Gardener to Archdale Palmer, Esq. of Cheam, Surrey, a very handsome specimen of *Cypripedium insigne*, (CERTIFICATE awarded.)

From Mr. Carson, Gardener to W. G. Farmer, Esq., Nonsuch Park, Surrey, a plant of *Clitoria Ternatea* with white flowers.

From Messrs. Lane and Son of Berkhamstead, a collection of *Roses*, (grown in the open air without any protection.)

From Mr. Jackson of Kingston, a large collection of well grown *Heaths*, and a plant of *Statice sinuata*, (BANKSIAN MEDAL awarded for the *Heaths*.)

From Mr. Thomas Hatch, Gardener to Philip John Miles, Esq., Leigh Court, Bristol, three fine *Montserrat Pine Apples*, of the respective weights of 4¼ lb., 3 lb. 15 oz., and 3 lb. 13 oz., with two handsome *Queen Pine Apples*, each weighing 3¼ lb. (KNIGHTIAN MEDAL awarded.)

From Messrs. Chandler and Sons, of Vauxhall, nineteen excellent varieties of *CHRYSANTHEMUMS*, (a CERTIFICATE awarded.)

From the Garden of the Society were a large collection of *Orchidaceous* and other plants; amongst which were *Cattleya labiata*, *Cynoches chlorochilum*, a variety of *Cyrtochilum maculatum*, *Pentlandia miniata*, a pretty greenhouse bulb, *Tropæolum Moritzianum*, with cut flowers of *Salvia Regia* and *Hedychium Gardnerianum*. Roots of *Oxalis Deppii* were also exhibited, and the

following Pears: *Duchesse d'Angoulême*, from a wall-tree, the remaining ones from standards: *Beurré d'Arenberg*, *Urbaniste*; *Double Phillips*, a handsome standard Pear, large and tolerably good: the *Quaker Pear*, which bears considerable resemblance to the *Doyenné gris*: *Poire d'Amande*, *Figue de Naples*, *Bezi de la Motte*, *Pomme Poire*, very good, hollowed at the eye and stalk, like an Apple: and the *Burgermeester*, a very excellent Pear in a warm season.

The following presents were announced;

The Athenæum, for August, for September and October, from the Editor.

The Botanical Register, for November, from the Publishers.

Proceedings of the Geological Society of London, Vol. III. Part II. from the Society.

Comptes rendus, &c. No. 15, for the second half year of 1841, from the Academy of Sciences.

Enumeratio Plantarum Novarum, from the Author, Cl. Schrenk.

No. 111 and 112 of *the British Flowering Plants*, by Mr. Wm. Baxter.

The Floricultural Cabinet, for November.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON,
1841.

No. XVII.

December 6, 1841.

GARDEN COMMITTEE.

The following reports were laid before the Committee ;

Hardy Department.—The Superintendent reported that he had tried several experiments with *Guano* upon plants in pots. In loam, containing one fiftieth part of this substance, *Verbenas* and *Salvias* became luxuriant in about the same degree as if potted in rotten dung. The same plants also flourished exceedingly in sand containing a similar proportion of *Guano*. The same effect or even a more beneficial action was produced upon them when peat was substituted for sand. But when rich garden soil was employed with the same proportion of *Guano*, the plants became languid and died. It was therefore inferred that the value of *Guano* as a manure will depend upon the soil with which it is employed, and that a quantity which would be highly beneficial in poor barren soil will become deleterious if employed in land previously rich and well manured.

The following were stated to be the results of manuring plants with *Nitrate of Soda*.

In February, 1841, some old worn out garden *Roses*, had a portion of this salt applied to them, at the rate of one cwt.

per acre, or $\frac{3}{4}$ lb. to the rod. It was sown broad-cast all over the ground, which is easily done by mixing it with dry sand. About the end of April the ground became covered with a greenish appearance, such as is frequently seen in damp situations, in the autumn. As the dry weather advanced that appearance ceased. The plants became much more healthy, and of a fine dark green; in the autumn they appeared far more robust than those adjoining. They were also less infested with insects than the latter, but this may have arisen from their being in a more healthy state. *Dahlias* were also tried with Nitrate of Soda, each plant having about $\frac{1}{2}$ oz. given to it, mixed with water. The plants operated upon became like the *Roses*, of a fine dark green, more robust and compact in their growth, and flowered rather more freely, and earlier than others which had no Nitrate. It had no effect on the colours of the flowers. A few of these *Dahlias* were in about three weeks again supplied with an additional ounce, mixed with water as before, but without any additional effect being perceptible, nor was any further result obtained when some of the same plants had a third $\frac{1}{2}$ oz. administered to them about a month after.

Some *Verbenas*, *Petunias*, *Pentstemons*, and various other plants were watered with the Nitrate, at the rate of $\frac{3}{4}$ lb. to the rod, and with the same results, except that they seemed to become exhausted in the autumn sooner than those which were not dressed with the Nitrate. This however may have been owing to the long wet autumn. Nitrate of Soda acts very quickly on plants; some stunted Oaks and a Silver Fir in pots became of a fine healthy green in about ten days after its application. It should be given in all cases when plants are beginning to be in full vegetation and not when they are dormant; if applied then, it seems to have little effect. It should also in all cases be given in damp weather; if applied in very dry weather, and over head it acts in the same way as common salt by destroying the leaves and young shoots.

From the *Hothouse Department*, Mr. Fortune reported that during the summer some experiments had been in progress with a view to ascertain the value, as a manure for plants, of the refuse left in the fabrication of Prussiate of Potash. This substance had been used in various proportions for the growth in the open ground of such plants as *Pelargoniums*, *Verbenas*, *Salvias* and *Pentstemons*, but up to the present time when the frost destroyed them, no effects either deleterious or otherwise had been produced.

December 7, 1841.

ORDINARY MEETING.

Earl Fortescue of Grosvenor Square, was elected a Fellow of the Society.

The following were the principal subjects exhibited ;

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., exceedingly fine specimens of *Luculia gratissima*, *Chorozema cordatum*, and *Epiphyllum truncatum*, with various other plants ; also a fruit of the *Sion House Cucumber*, grown in a pot, (BANKSIAN MEDAL awarded for the *Luculia*, *Chorozema*, and *Epiphyllum*.)

From Mr. Henry Kenny, Gardener to the Viscount Maynard, Easton Lodge, Dunmow, Essex, a large collection of *Apples*, consisting of Thirty-two sorts, (CERTIFICATE awarded.)

From Mr. Bissett, Gardener to Thomas Williams, Esq., of Burwood, House, Cobham, Surrey, an exceedingly fine *Enville Pine Apple*, weighing 7½ lbs., and a *Montserrat ditto*, weighing 4 lbs. 11 oz., (KNIGHTIAN MEDAL awarded.)

From Mrs. Lawrence, F.H.S., remarkably well grown specimens of *Zygopetalum intermedium*, *Z. crinitum*, *Neottia orchiioides* and *Roxburghia unicolor*, (BANKSIAN MEDAL awarded.)

From Richard Marshall, Esq., of Muswell Hill, a plant of *Epiphyllum truncatum*.

From Mr. Booth, Gardener to Sir Charles Lemon, Bart., plants of *Physianthus Lampenii* and *Stanhopea graveolens*.

From Mr. John Halliday, Gardener to Lord Sondes, Elmham Hall, Norfolk, some *Cattleya-Guavas*, grown in a Greenhouse.

From Messrs. Lucombe, Pince and Co., of Exeter, a beautiful plant of *Corræa longiflora*, (CERTIFICATE awarded.)

From Mr. Dean, Gardener to James Bateman, Esq., F.H.S., a splendid specimen of *Barkeria Lindleyana*, with a variety of *Stanhopea Wardii*, and other *Orchidaceous plants*, (BANKSIAN MEDAL awarded for the *Barkeria*.)

From Mrs. Wiglesworth, Town Head, Slaidburn, Clitheroe, some *Oranges* and *Shaddocks*.

From Mr. R. Ross, Gardener, Penrhyn Castle, a very fine *Queen Pine Apple*, weighing 3 lb. 9 oz., (BANKSIAN MEDAL awarded.)

From Mr. Stanley, Gardener to Henry Berens, Esq., F.H.S., some *Cucumbers*.

From Mr. Thomas Hatch, Gardener to Philip John Miles, Esq., Leigh Court, Bristol, 3 handsome *Montserrat Pine Apples*,

weighing respectively 3 lbs. 8 oz., 3 lbs. 7 oz., and 3 lbs. 5 oz. with a fine fruit of the *Enville Pine*, weighing 4 lbs., (BANKSIAN MEDAL awarded for the *Montserrats*.)

From Mr. Cockburn, F.H.S., some fine roots of the *Oxalis Deppei*, (CERTIFICATE awarded.)

From Mr. Charles Judd, Gardener to George Knott, Esq., F.H.S., cut flowers of a handsome new variety of *Epiphyllum*, (CERTIFICATE awarded.)

From John Allnutt, Esq., F.H.S., a collection of *Camellias*.

From the Garden of the Society, were plants of *Rondeletia speciosa*, *Oncidium Suttoni*, *Lælia albida*, and *Gesnera longifolia*, with cut flowers of *Chrysanthemums*. The following *Pears* were also exhibited; the *Glout Morceau*, *Passe Colmar*, *Beurré Diel*, and *Bezi Væet* from wall trees; with *Knight's Winter Crassane*, and the *Old Colmar* from standards. *Knight's Winter Crassane* is one of the best bearers known, and the tree, although vigorous and hardy, is likely to overbear itself. The *old Crassane* is the very reverse.

The following presents were announced :

Paxton's Magazine of Botany, for September, October and November, from the Editor.

The Botanical Register, for December, from the Publishers.

Comptes rendus, Nos. 16, 17 and 18, (for the second half-year of 1841), from the Academy of Sciences.

Proceedings of the American Philosophical Society, No. 18, from the Society at Philadelphia.

January 3, 1842.

GARDEN COMMITTEE.

Hothouse Department.—Mr. Fortune made the following report upon the cultivation of Orchidaceous plants.

The collection of Orchidaceous plants in the garden has been much increased of late years by the introduction of many rare and beautiful species from the high lands of Mexico and Guatemala. When these were sent home, Mr. Hartweg informed us in his letters, that the thermometer was sometimes near the freezing point where many of them grew; and this was confirmed by the quantity of small mosses, which we found growing upon some of the branches to which the plants had attached themselves. I, therefore, about two years ago, removed many of them into a house, which is kept cooler than the Orchidaceous

stove, and they have succeeded much better than others of the same kinds, which were allowed to remain in a high temperature. Many of those which are most unmanageable in the Orchidaceous house succeed here without any trouble; it is evidently the most natural place for them, as in other circumstances they are over excited, growing sickly and languid, forming smaller pseudo-bulbs and leaves every year, and finally perishing.

Mr. Loddiges and, I believe, Mr. Bateman have both experienced the same results; it is, therefore, a circumstance which cannot be too well known, because many persons have been deterred from growing Orchidaceous plants, by believing that they require such a high temperature. The house in the garden where they are grown has no artificial heat during the greater part of the summer, and in winter it is kept at about 55 degrees. The air, however, is always kept more moist than in a common greenhouse.

January 18, 1842.

ORDINARY MEETING.

There was read, from Mr. George Shiells, of Erskine House, near Glasgow, a communication on the Cultivation of Grapes on flued walls in the open air in Scotland. The author premised that his vine border is composed of a strong loam, upon a porous whinstone bottom, and is mulched over every winter with littery dung. In the spring the strawy part is taken off and the remainder forked lightly in. The border is well watered with drainings from the dunghill two or three times in the course of the season.

In former years, when the summers were more warm and sunny, his practice was as follows.

About the end of April or beginning of May, when the clusters began to appear, a double net was placed against the wall to protect them, having the upper side fixed over the projecting edge of the coping and the under side fastened to stakes placed four-feet distant from the wall. This netting was allowed to remain until the end of June, or until all the fruit was set. Fire-heat was not applied until the middle or latter end of May, in order to bring the clusters to blossom early in June, so that the whole crop might be set by the end of that month. In bright sunshine very moderate fires were kept during the day. If the fine weather continued the fire was omitted from the middle of July till the middle of August, after which time the wall had

become considerably shaded by the foliage. The fire was then renewed, and kept somewhat stronger than before through the day, until all the fruit was gathered.

He stated also that for some years past there has been so little sunshine in summer, that he has been under the necessity of beginning to put fire to the wall about the middle or end of April, and of continuing it night and day until the crop has been gathered. The heat is very moderate through the day in bright sunshine, until the leaves have attained their full size and have partially shaded the wall; but afterwards it is kept stronger through the day than at night: at noon, in bright sunshine, the air within three or four inches of the wall is very warm, often 90° or 100° , while at the same time the hand can be held on the hottest part of the wall without inconvenience. He has no thermometer permanently placed at the wall, and he has only tried the heat occasionally; but he thinks, that during the summer months the air at four inches from the wall at six o'clock P.M. ranged between 60° and 70° , and at six A.M. betwixt 50° and 60° ; but it was frequently lower than 60° in the evening and than 50° in the morning.

When the Grapes are pretty well coloured, a net is put over them to guard them from birds; it also prevents their being injured much by wind and rain; and if the net is previously dipped in coal gas water, and well dried before being put up, the ripe Grapes are seldom attacked by wasps.

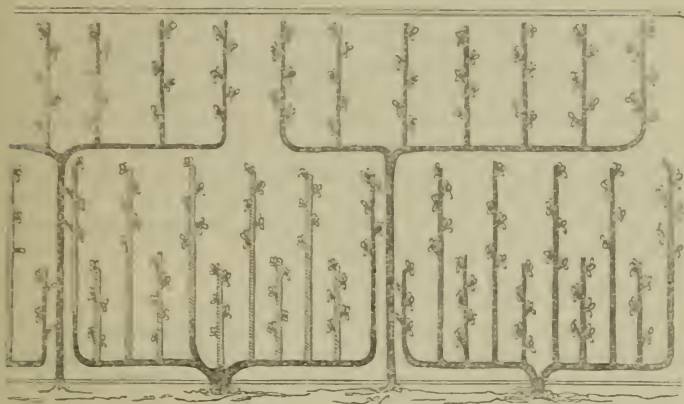
He calculates that the expense of heating the wall for a season does not exceed 30s. upon an average of seasons.*

Black Hamburgh Grapes begin to colour about the 6th or 10th of August, and some are ripe in the latter end of September, or much earlier in fine seasons, if required. In the beginning or middle of November what remains of the crop is cut, and preserved in a dry airy room; the fire is then discontinued (for a little fire heat is continued until the crop is off), and in a week or two afterwards in mild weather the vines are pruned.

The wall is twenty-one inches thick and is covered with a saddle-backed coping, which projects four inches on each side, and has a small groove under the edge to intercept the water which flows down the slope of the coping. It is about fifteen feet high, and the length, which is occupied with vines and wrought by one fire, is about thirty-six feet.

* The usual price of coals at Glasgow is from 8s. to 10s. per ton, according to the quality and season of the year. They use dross for forcing houses and flued walls, the usual price of which in Glasgow is about 3s. 6d. per ton, or delivered here at 5s. per ton. Some of it is pretty round, and for steady fires preferable to large coals.

The following is a rough sketch of the mode of training.



The bearing branches of the vines are about two feet six inches apart; the longer branches of the vines, occupying the lower part of the wall, bear only on the upper half of their length; all the others on their whole length. Twenty or twenty-five clusters of Black Hamburgh Grapes are considered sufficient for each vine covering a space of wall twelve feet by ten. Muscadines being much smaller, double that number of clusters is allowed on each vine.

The following were the principal subjects of exhibition :

From Mr. Bisset, Gardener to Thomas Williams, Esq., of Burwood House, Cobham, Surrey, a fine *Providence Pine Apple*, and an *Enville do.*, weighing respectively 5 lbs. 2 oz., and 4 lbs. 7 oz., (BANKSIAN MEDAL awarded.)

From William Henry Story, Esq., F.H.S., a well grown specimen of *Epacris carnumbrata* and a seedling ditto, (BANKSIAN MEDAL awarded.)

From Mr. Benjamin Fielder, Gardener to William Linwood, Esq., a beautiful specimen of *Dendrobium speciosum*, (BANKSIAN MEDAL awarded.)

From Mr. Maskett, Gardener to Edward Smith, Esq., of Sittingbourne, Kent, four *Seedling Epacris*es.

From Messrs. C. and T. Chapman of Brentford End, Middlesex, *Specimens of their New Spring Potatoe*.

From Mr. Thomas Hatch, Gardener to P. J. Miles, Esq., of Leigh Court, Bristol, two *Enville Pine Apples*, of the respective weights of 3 lbs. 9 oz., and 3 lbs. 4 oz., with a well swelled *Queen Pine Apple*, weighing 3 lb. 8 oz., (CERTIFICATE awarded.)

From Mr. Richard Todd, of Newnham Paddox, Lutterworth, fine specimens of *the Charlesworth Tokay Grape*, (CERTIFICATE awarded.)

From James Bateman, Esq., F. H. S., a beautiful variety of *Oncidium Cavendishianum*, (BANKSIAN MEDAL awarded.)

From Mr. Ross, of Penrhyn Castle, near Bangor, a *Melon*.

From Charles B. Warner, Esq., F. H. S., a specimen of *Habranthus pratensis* from South America, (BANKSIAN MEDAL awarded.)

From the Garden of the Society were plants of *Lalia anceps*, *Oncidium leucochilum* and *Suttoni*, *Amaryllis aulica*, *Euphorbia Jacquiniiflora*, and various others; with cut flowers of *Luculia gratissima* and *Chimonanthus fragrans*.

The following presents were announced :

Stockholm's Flora, from the Author, J. E. Wikström, 1840.

A Treatise on the Theory and Practice of Landscape Gardening, adapted to North America, from the Author, A. J. Downing, New York and London, 1841.

The New American Orchardist, from the Author, Mr. William Kenrick, third edition, Boston, 1841.

The Athenæum for November and December, from the Editor.

Baxter's British Flowering Plants, No. 113 and 114, from the Editor.

Paxton's Magazine of Botany, for December and January, from the Editor.

The Botanical Register, for January, from the Publishers.

Harrison's Floricultural Cabinet, for December and January, from the Editor.

February 1, 1842.

ORDINARY MEETING.

The following candidate was elected a Fellow of the Society :

Mr. Finney, Nurseryman, Newcastle-upon-Tyne.

The following letter was read from Henry Lucas, Esq., F. C. M. H. S., Her Majesty's Consul at Rio Janeiro, respecting a Chili Palm, the "*Jubea Spectabilis*."

"It is chiefly in the middle provinces that this Palm is found. It is not a common tree, being very partial; but several estates owe much of their value to the number of these palms, of which, though the stem is useless, the leaves, sap, and fruit yield a large income to the proprietor. For thatching houses, the leaves are considered the best and most durable material; the sap boiled to

sirup, is used as an agreeable substitute for honey; and the small nuts, about an inch in diameter, of which every tree produces a great number, are highly esteemed, and form a considerable article of export to Peru. A curious method is employed to free the nut from the green husk that envelopes it; a process formerly attended with great loss of time, and much trouble. A number of cows and oxen are driven into an enclosure, where a quantity of this fruit is spread, and being very fond of its husk, they presently set to work, eating the fruit, very slightly masticating it in the first instance, and swallowing it whole; afterwards, while chewing the cud, the nuts are rejected; and when the meal is finished, a heap of them is found before each of the animals, perfectly free from the husk; the cattle being thus supplied with food at a season when little grass remains on the hills, at the same time that they effectually perform a very useful operation." A valuable syrup is also furnished by this plant by boiling down its juice.

"The land in which these Palm trees grow is damp and sandy, and is watered by a considerable rivulet. On entering the Valley, the Palms are scarce, and, amongst bushes, two or three appear together; but on advancing farther they increase in number, and I found clumps of thirty to fifty, being also informed that farther in the interior, they had taken almost exclusive possession of the land.

"The workmen distinguish two Palms by the name of Capitanas, which are the highest;—one they call Gemeos (twins), because it produces a second shoot from the middle of the tree; the other is called Amarilla on account of the foliage being yellow. One of the Capitanas which I saw was, without doubt, 130 feet high, and appeared to me to be as tall as any of the trees in our Brazilian forests; it was impossible to obtain the Cocoas on account of its great height. The nuts germinate after having been planted one year, but grow very slowly, and at the expiration of a hundred years they begin to bear fruit.

"It is during the dry season only, which occurs from October to April, that the syrup is made. For this purpose the Palm tree is partially cut through near to the root, and a rope being fastened to the branches it is forced down to the ground, but with care, in order to avoid its being broken; this frequently happens, in which case it does not yield juice. The female trees only are cut down. The leaves of the Palm tree being stripped off, a piece is cut out of it, in a cross direction, from which the juice begins to run. When it ceases, another aperture is made higher up; this is repeated every time the flowing stops, until the sprout or top of the tree, called by the Chilians Palmito, is approached to within about nine inches of its base. I was

told that this top part when exfoliated, is tender and presents a pith, which either boiled, roasted, or cooked in any other manner is excellent ; this I can readily believe, because our Brazilian Palm is of the same nature, and is highly esteemed.

" The juice obtained from the Palm trees is immediately passed into copper cauldrons, in which, by a process similar to that used in the manufacture of sugar in Brazil, and with intense heat, it attains the necessary consistence. The syrup is taken to Santiago in sheepskin bags fastened upon mules backs ; its appearance and taste resemble those of molasses.

" This syrup may be refined to a very high degree, and the proprietor of the Estate of Cocalan intends to make experiments in the distillation of Rum, which will be as good, I think, as that made from Sugar Cane. He cut down this summer, upon his own account, 500 Palm trees, and sold 250 to a maker of syrup at 4½ dollars each. It is supposed that each Palm tree produces, upon an average, an aroba or 32 lb. liquid measure of syrup, and each aroba is sold upon the premises for 12 dollars."

" The Palm tree begins to blossom in October, this is the time that it ought to be cut. The Cocoas are ripe in March ; they are round, and of the size of a walnut, white inside, and having a small cavity in the centre ; the taste is similar to that of most of our Brazilian Cocoas.

The following were the principal subjects of exhibition ;

From John Allnutt, Esq., F. H. S., a *Camellia*.

From Messrs. Rollison and Sons, of Tooting, a most noble plant of *Dendrobium cærulescens*, having between 200 and 300 flowers expanded at one time : a variety of *Stanhopea oculata* ; *Cypripedium insigne*, and a species of *Vanda*, from China, (a SILVER KNIGHTIAN MEDAL awarded for the *Dendrobium*.)

From Mr. George Mills, F. H. S., a brace of *Cucumbers*.

From the Garden of the Society, a collection of Orchidaceous and other plants ; including *Cymbidium sinense*, *Oncidium Caven-dishianum*, *Zygopetalum rostratum*, and *Acacia longifolia* ; with cut flowers of *Chimonanthus fragrans* and *C. fragrans grandiflorus*.

The following Present was announced ;

The Botanical Register, for February, from the Publisher.

February 15, 1842.

ORDINARY MEETING.

The following were the principal subjects of exhibition :

From Mrs. Lawrence, F. H. S., a magnificent plant of *Dendrobium nobile*, with well grown specimens of *D. Pierardi*, *Cyrtochilum maculatum*, *Phaius grandifolius*, *Oncidium papilio*, and various others. (KNIGHTIAN MEDAL awarded for *Dendrobium nobile*.)

From Mr. Charlwood, F. H. S., of Covent Garden, specimens of the *preserved Fig Tomato*, which is said to resemble the fig somewhat in flavour, and to be adapted for cultivation in this country in ordinary seasons. It had an agreeable taste and may prove a useful addition to the articles employed in confectionery, and in its green state, might be used as a pickle.

From Mr. Bisset, Gardener to Thomas Williams, Esq., of Burwood House, Cobham, three handsome *Enville Pine Apples*, weighing respectively 3 lb. 12 oz., 3 lb. 1 oz. and 3 lb. 7 oz., (CERTIFICATE awarded.)

From Messrs. Chapman of Brentford, Middlesex, specimens of Chapman's *New Spring Potato*.

From John Allnutt, Esq., F. H. S., *Plants and cut flowers of Camellias*.

From W. H. Pepys, Esq., F. H. S. some *Glout Morceau Pears*.

From Mr. Gaines, of Battersea, a *Cineraria* called the *Prince of Wales*.

From Mr. Edmunds, Gardener to the Duke of Devonshire, President, a very handsome specimen of *Miltonia Russelliana*. (CERTIFICATE awarded.)

From C. B. Warner, Esq., F. H. S., *Warner's Portable Horticultural Water Engine* for the purpose of watering plants in an elevated position.

From the Garden of the Society were *Dendrobium nobile*, *Bifrenaria aurantiaca*, *Mormodes lineatum*, and several other *Orchidaceous plants*, with cut flowers of *Gesnera longifolia* and *Chimonanthus fragrans*.

Cuttings of the following fruit trees were also distributed.

The *Royale Hâtive Plum*, a very excellent fruit, of a purple colour bearing considerable resemblance to the *Reine Claude Violette*, but ripens much earlier than that variety and differs also in the leaves being covered with pubescence.

Knight's Large Green Drying Plum ; as large, and higher flavoured than the *Washington*.

Büttner's October Morello Cherry, which retains its foliage

longer than any other known variety of cherry ; the fruit may be gathered from a standard in the month indicated by the name, and of course very much later, when duly protected, against a wall.

Hucon's Incomparable Pear. One of the best hardy pears that can be cultivated. A handsome middle sized, roundish fruit, buttery, and rich flavoured.

The following presents were announced ;

11me Rapport Annuel sur les travaux de la Soc. d'Histoire Naturelle de l'Ile de Maurice, par M. Louis Bouton, from the Author. (Maurice, 1841.)

Paxton's Magazine of Botany for February, from the Editor.

Harrison's Floricultural Cabinet for February, from the Editor.

Baxter's British Flowering plants for February, from the Editor.

The Journal of the Royal Agricultural Society of England, (Vol. 2, Part 3.) from the Society.

The Suburban Horticulturist, Parts 4, 5, 6, 7, from the Author, J. C. Loudon, Esq.

March 1, 1842.

ORDINARY MEETING.

The following paper on the cultivation of *Asparagus* in Guipuscoa, by Captain E. W. Churchill, R.M., was read.

Having been struck by the unusual size of the *Asparagus* brought into the market at San Sebastian, in the Province of Guipuscoa, North Spain, I availed myself of all opportunities to ascertain the culture ; the following are the observations made at different seasons for more than four years at such intervals as more serious and less pleasant occupations permitted.

It will be necessary to state that the River Urumea, which flows into the sea, E. of San Sebastian, finds its way on its near approach to that city, through very elevated ground, which advances boldly on the right bank ; while on the left it retires, leaving a space about three miles long, and on an average half a mile wide of flat ground elevated about three feet above mean high water mark. The soil of this flat is composed of alluvium and detritus from the hills in the back ground, which are of sand stone, and supply numerous and never failing rills. This alluvial flat is named the district of Loyola, and the inhabitants of San Sebastian are thence supplied with an enormous quantity of vegetables ; amongst others with remarkably luxuriant *Asparagus*, of which it is my business to speak.

The *Asparagus* is grown in beds about five feet wide, which

vary from twenty to forty, and even more than sixty feet in length. In constructing these beds, no previous preparation save that of digging and raking is had recourse to ; it being immaterial whether the previous crop has been Maize (Indian Corn), Lettuce, Capsicum or Tomatoes. The seed is sown in March, in drills about two inches deep, eighteen inches distant from the alleys ; leaving a space of two feet between the drills, which are consequently only two in number, running invariably E. and W. As soon as the plants have attained about six inches of growth, they are carefully thinned by hand to something more than one foot apart ; the young plants thus taken up being carefully replanted in a similar bed ready for their reception ; where they are watered by one of the rills before mentioned being made to pass over the bed at least once a day, during the summer months after their removal. A similar watering is given to the seedling bed, the water being slowly and carefully caused to pass between the rows, and even round each plant. In the month of March following, the beds are covered with from three to four inches of fresh night soil, which is lightly dug in after the plants have ceased to vegetate in the autumn of the second year.

I must make a digression to explain the facility with which the manure alluded to is procured. After the memorable siege of San Sebastian in 1813, the city was burnt to the ground, and the New Town being rebuilt on the levelled ruins of the old, it was found next to impossible to construct sewers, which must necessarily have been carried through vast masses of obstructing masonry. Every house therefore has a cistern below the level of the street, into which all impurities find their way ; these, according to municipal regulations, are emptied once a year, poisoning the air for many days, jocosely termed by the inhabitants (to whom custom has rendered this abomination endurable) "*las flores de Marzo*" the flowers of March : the peasantry of Loyola are the privileged people to cart away this valuable manure.

In the end of April or beginning of May in the third year, the Asparagus in the seedling beds is fit to cut. Previous to this, vegetable matter brought down by the swelling of the river in March and early in April, when the snows melt from the mountains, and which consists almost entirely of leaves, is laid as lightly as possible over the entire surface of the beds, about eight inches deep. As soon as the plants peep through this covering, the cutting commences by laying bare the stems ; the leaves being carefully removed from around each stem by hand, thereby permitting the selection of the finest shoots, which are rendered from their leafy covering perfectly white and tender. As soon as the plants begin to wither, this vegetable covering is removed, to be renewed each year as long as the bed is in bearing. Night soil of the same thickness as before is again laid on every year, with this difference, that its application is autumnal during the after culture.

In all seasons care is taken to eradicate weeds by hand, as it is considered prejudicial to dig the beds much.

Under this treatment, aided by a friable soil moistened at will, I have seen *Asparagus* produced from three to six and sometimes more inches in circumference; one peculiarity I remarked was that the larger shoots were rarely cylindrical, but flattened, or rather presented the appearance of an agglomeration or union of two or more. The transplanted beds never equal the seedling in size, and are not fit for market until the fourth year.

It will be perceived that the covering of leaves is used for the purpose of blanching the shoots, and for facilitating the cutting; it serves also as a protection against frosts, which I have known sharp in that country, even in May, should the wind blow from the S.E., which passing over the Pyrenees is extremely biting and severe.

I ought to have mentioned that the tides flow past the whole district of Loyola,* and also all the numerous ditches with which it is intersected, and at Spring tides the *Asparagus* roots are in many places under salt water, which they consider beneficial, being at the same time solicitous to preserve their Lettuce beds from the same influence.

The following were the principal subjects of exhibition :

From Mr. Joseph Goode, Gardener to Mrs. Lawrence, F.H.S., remarkably fine specimens of *Maxillaria tetragona*, *Franciscea Hopeana*, *Hovea pungens*, and *Jasminum ligustrifolium*, with many other plants, (KNIGHTIAN MEDAL awarded.)

From Sigismund Rucker, Esq., F. H. S., exceedingly fine plants of *Odontoglossum stellatum*; a new species of *Lælia*, and a species of *Dendrobium*, (KNIGHTIAN MEDAL awarded.)

From James Bateman, Esq., F. H. S. cut flowers of *Cælogyne nitida*, *Cyrtochilum maculatum*, and a variety of *Epidendrum fuscatum* called *E. Clowesii*, (CERTIFICATE awarded.)

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., a brace of *Sion House Cucumbers*, (from plants grown in pots,) and a plant of *Habranthus pratensis*.

From Hasler Hollist, Esq., F.H.S., fourteen sorts of *Potatoes*, among which were a *Kidney*, the net produce of one row, eighteen feet in length, and occupying four square yards of ground, being 55 lbs. 13 oz. : a *pink Kidney*, net produce from one potato 4 oz. in weight, 9 lbs. 2 oz. : some *Kidneys*, net produce from two potatoes, 15 lbs. 2 oz. : *Golden Knobs*, net produce from three pota-

* *Loyola* compounded of the Basque or Eskarien words, *lohia*, mud, and *oiala*, spread out like a cloth, is not the birth place of the celebrated Ignatius Loyola, who was born near Ascoitia, in the same province. *Lohiala* has perhaps been corrupted or altered into *Loyola*, most probably the latter, in veneration of or in hopes of aid from this much esteemed Saint.

toes, 28 lbs. 6 oz.: *some Kidneys*, net produce from one seedling potato, weighing less than 2 oz., 14 lbs. 2 oz., (BANKSIAN MEDAL awarded.)

From Mr. Robert Errington, Gardener to Sir Philip Egerton, Bart., F.H.S., specimens of the *Dumelow's Seedling Apple*.

From Mr. Benjamin Fielder, Gardener to William Linwood, Esq., F.H.S., a handsome plant of *Cyrtopodium Andersonii*, (CERTIFICATE awarded.)

From Messrs. Chapman, of Brentford, samples of their *New Potato*.

From the Garden of the Society, a collection of plants including *Aspasia epidendroides*; a fine variety of *Oncidium ampliatum*, *Begonia vitifolia*, *Amaryllis crassicaulis*, *Odontoglossum pulchellum*, and *Mirbelia ledifolia*, with *cut flowers* of a species of *Salvia*.

The following Cuttings of *Pears* were also distributed ;

Knight's Monarch : the original tree of which excellent variety was raised at Wormsley Grange, near Hereford, where Mr. Knight had a Nursery of seedling fruit-trees. In collecting and transferring cuttings of various kinds of these, for the purpose of grafting at Downton Castle, (a distance of more than twenty miles,) a very inferior sort was substituted for the Monarch, by the mistake of some persons employed in the transfer ; in which however neither Mr. Knight nor his Gardener were concerned. Cuttings of this spurious sort were distributed, before Mr. Knight was aware of the circumstance ; it grows with extraordinary vigour ; the wood is very dark-coloured, or almost black, armed with strong prickles, as long as those on the cock-spur thorn. The true sort, now distributed from a tree which fruited last season in the Society's Garden, has shoots of a yellowish tinge.

Althorp Crassane, an excellent Autumn variety, found to succeed well as a standard.

Winter Crassane : a most abundant bearer, as a standard, with the flavour of the old Crassane.

The following present was announced :

The Botanical Register, for March, from the Publisher.

March 7, 1841.

GARDEN COMMITTEE.

The following Reports were laid before the Committee.

During the past year, various experiments have been in progress to ascertain what effects would be produced upon plants by

potting, or striking them from cuttings in charcoal ; or by mixing it in various proportions in the soil in which they were to be grown. From what had been published on this subject in " Liebig's Organic Chemistry " and elsewhere, I had been led to expect some very decided results, but after varying the experiments in many different ways, nothing has happened which proves Charcoal to be useful as a *chemical* agent in the growth of plants. When pounded and used by itself, it is very apt to get too dry, and then runs together and sets very hard. Some Orchidaceous plants, Gloxinias and Cacti, were potted in it, but they did not succeed, evidently from these causes above mentioned.

When mixed with the soil, in the proportion of two-thirds of charcoal to one-third of soil, and also in smaller quantities, such plants as oranges, *Ipomœa scabra*, *Gesneras* and Cacti grew very well in the mixture, but not better than others which were treated in the common way.

Cuttings of the common Caper, *Ficus elastica*, *Euphorbia Jacquiniflora*, *Ipomœa*, and various other kinds were planted both in pounded charcoal and in different proportions mixed with sand ; but the results were not more favourable to the charcoal than to the common sand usually employed for that purpose. The caper rooted freely in both ways, but the others did best in the sand. Many cuttings, when planted in pure charcoal, or even where that formed a principal part of the mixture, threw off their leaves in a short time and rotted at the base.

From what has come under my observation during these experiments, I would not recommend this substance to be used by itself for the growth of plants or for striking cuttings ; and if it does produce any good chemical effects when mixed with soil, these will probably depend in a great degree upon the constitution of the soil, in the same way as lime and chalk are only good manures for certain lands. But it is very possible that these effects are only mechanical, tending to keep the ground open ; in the manner which renders ashes so beneficial to stiff soils.

Robert Fortune.

A solution of Nitrate of Soda is found to be very effectual for killing slugs, of which the ground is this season so full, that the entire crop of some kinds of vegetables has been destroyed in the market-gardens near London. The solution of Nitrate of Soda is more efficacious than lime-water where it can be applied without touching the foliage.

Robert Thompson.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON,
1842.

No. XVIII.

March 15, 1842.

ORDINARY MEETING.

The following gentleman was elected a Fellow of the Society :

Charles Sedgefield Crowley, Esq., of Broad Green Lodge, Croydon.

A report from Mr. Fortune, Superintendent of the Hothouse Department in the Society's Garden, on Experiments upon the effects of Kyanized Wood and Mercurial Vapour upon Plants, was read.

Two boxes constructed upon the principle of Mr. Ward's cases, the one made of wood steeped in Kyan's tanks, the other of common wood, were filled with the same kind of soil and plants. After six months, the plants treated in this manner did not succeed well in either box, but those in the Kyanized one did quite as well as those in the other. It should be stated, however, that both boxes were painted.

In June, some Kyanized wood was put amongst the stems and leaves of *Calandrinia discolor*, and a common *Pelargonium*, and then covered with hand-glasses. At the same time hand-glasses were put over an equal number of plants of the same description which grew side by side with the others. After

growing in these circumstances for three months, it did not appear that the Kyanized wood had produced any bad effects.

It appeared thus that wood dipped in Kyan's tanks produces no injurious effects upon plants in a dry and cool atmosphere; but it remained to be ascertained whether it would be equally harmless in a warm and moist one. Some plants capable of standing a very high temperature were put under a hand-glass in the stove, and several pieces of Kyanized wood were introduced amongst them. In about three weeks, the plants began to look sickly, those leaves which accidentally came in contact with the wood became yellow and withered, and a fine vigorous specimen of the sensitive plant was killed. The wood was then taken out, the plants top-dressed and the hand-glass washed. The apparatus was put back in the same place, the wood excepted, when the sickly plants gradually recovered, their new leaves were fresh and green, and were not injured as they had been before.

On the 1st of April, seven hand glasses with moveable tops were placed side by side in the pit of a moist stove. Seven Balsams of the same size, and equally healthy, were placed below them, one in each. A small pan was then put under each glass to receive the following substances.

No. 1. Half an ounce of mercury.

2. Half an ounce of corrosive sublimate, mixed with wet saw dust.

3. Was left in its natural state.

4. Weak muriatic acid.

5. Half an ounce of dry calomel.

6. Half an ounce of dry corrosive sublimate.

7. Moistened shavings of Kyanized wood.

The plant in No. 1, where the mercury was, became visibly affected on the 5th day, and in two days afterwards some weeds which vegetated in the soil also looked sickly; the plant gradually became worse up to the 15th, when it had lost all its leaves and was removed from under this hand-glass, and placed under No. 4, which contained the weak muriatic acid. This change of circumstances had a marked effect upon the sickly plant, which now began gradually to recover, and on the 30th of May—about six weeks after its removal—it was perfectly healthy.

At the time that the last plant was removed from No. 1, namely, on the 15th of April, another healthy one was introduced, which suffered in the same manner, and lost all its leaves in nearly the same space of time.

In No. 2, where the corrosive sublimate and moistened saw-dust were, no bad effects were visible until the 12th day; but at that time the leaves began to curl and look unhealthy, turning yellow and finally dropping off, so that on the 15th of May it

was removed with scarcely a leaf remaining. Another healthy plant was then placed in the same circumstances, and suffered in the same manner, though not so rapidly as the first.

No. 3, had no preparation of any kind under the hand-glass, and the plant here continued to grow throughout the whole time of the experiments without suffering in any way, further than by being drawn up, and by having its top injured by the pressure of the hand-glass.

No. 4. The diluted muriatic acid had a most beneficial effect upon the Balsam in this hand-glass; it grew more luxuriantly than any of the others, and the weeds in the pot vegetated and flourished in a very remarkable manner. Further, as before remarked,—the sickly leafless plant, brought here from No. 1, gradually recovered, and was soon in a high state of health.

The plants in Nos. 5 and 6, where the dry calomel and dry corrosive sublimate were, did not seem to be at all affected until about the 15th of June, and then only slightly; if this was owing to the nature of these compounds, their action must have been very slow.

In all these cases the atmosphere contaminated by mercury proved deleterious, affecting the plants by making the leaves curl at the edges and become dry and yellow. The vapour of muriatic acid however revived them and made them grow with unusual vigour.

The effects produced by the shavings of Kyanized wood were somewhat similar, and agree with other observations which have been made elsewhere. A frame was formed of this wood for the growth of Melons in the garden of the Society, but it was found impossible to succeed with it. In the *Gardeners' Magazine* for Sept. 1839, Earl Manvers states, that he had some rafters "steeped in the solution, at the strength of one gallon of corrosive sublimate to ten gallons of water," and that the effects upon vegetable life were of the most injurious kind, three fine healthy vines being killed and the condition of the others being much affected. And finally, Messrs. Loddiges of Hackney, were induced to use it upon a considerable scale in rafters for their Orchidaceous house, and for many other buildings in their extensive nursery, where its bad effects were soon discernible; and if they had not been counteracted by painting over the wood, many of the valuable plants in that establishment would no doubt have been destroyed. In fact, after the lapse of several years they are still obliged to paint it frequently to prevent any bad effects.

From these experiments it seems that we may safely arrive at the following conclusions. 1st. That the vapours which arise

from mercury in a warm and moist atmosphere are very injurious to the health of the plant with which they come in contact. 2nd. That muriatic acid has probably a contrary effect, because plants which were placed under the same circumstances otherwise, were destroyed in mercurial vapour, while in the atmosphere of muriatic acid they grew with great luxuriance.

The following were the principal subjects of exhibition :

From Mr. Joseph Goode, Gardener to Mrs. Lawrence, F.H.S., handsome specimens of *Columnnea Schiediana*, *Maxillaria aromatica*, and a species of *Gompholobium*; with *Æschynanthus maculatus* and other plants, (BANKSIAN MEDAL awarded for the three former.)

From Sigismund Rucker, Esq., F.H.S., exceedingly fine plants of *Dendrobium speciosum*, *Phalænopsis amabilis*, and *Chysis bracteescens*, (KNIGHTIAN MEDAL awarded.)

From Messrs. Rollisson and Sons of Tooting, a handsome specimen of *Vanda cristata*, and a species of *Bignonia*, (CERTIFICATE awarded.)

From T. N. Parker, Esq., of Sweeney Hall, a dish of *Sweeney Nonpareils*, which had been kept in straw upon a shelf in a garden-shed facing the north, without fire, but with the door and window closed: a dish of the same, which had been kept on a shelf in a north-room, without fire for three or four weeks; also samples of *Vaughan's Seedling*, *Purple Kidney*, and *Sweeney Seedling Potatoes*.

From Sir J. R. Kynaston, Bart., of Hardwick Hall, near Ellesmere, a dish of *Sweeney Nonpareils*, which had been kept on a shelf in a north-room, without fire for three or four weeks.

From Mr. James Stewart, Gardener to William Bagge, Esq., M.P., Stradsett Hall, Norfolk, a brace of Cucumbers and a *Hybrid Shaddock*, raised from seed.

From Messrs. Veitch and Son of Exeter, a new species of *Cynoches* from the Brazils, resembling *C. maculata*; *Begonia coccinea* and *Primula denticulata*, a new species from the Himalayan Mountains, (BANKSIAN MEDAL awarded.)

From William Henry Story, Esq., Heddon House, Isleworth, plants of *Epacris rosea umbrata* and *Epacris coruscans*.

From Mr. Joseph Miller, Gardener to Lady Mildmay, of Dogmersfield Park, Hampshire, twelve very handsome *Hybrid Amaryllises*, and a cut flower of a *Hybrid Cereus*, (BANKSIAN MEDAL awarded for the Amaryllises.)

From Messrs. Chapman of Brentford, Specimens of *Chapman's New Spring Potato*.

From Mr. J. A. Henderson, F.H.S., well grown plants of *Physolobium carinatum*, *P. gracile*, and *Coryanthes speciosa*, (CERTIFICATE awarded.)

From Mr. Gaines of Battersea, a seedling *Cineraria*, called the *Prince of Wales*, and a *Camellia*.

From Mr. Joseph Wells, Gardener to William Wells, Esq., F.H.S., cut flowers of *Camellias*, and some handsome seedling *Rhododendrons*, raised between *R. arboreum album* and *R. catawbiense*; also blooms of *Rhododendron arboreum*, and *album*, (BANKSIAN MEDAL awarded for the *Rhododendrons*.)

From John Allnutt, Esq., F.H.S., plants of *Camellia imbricata*, *C. reticulata*, *C. Donckelari* and *C. candidissima*.

From Mr. Edmonds, Gardener to His Grace the Duke of Devonshire, specimens of the *King Cineraria*.

From the Rev. John Clowes, F.H.S., a magnificent specimen of *Maxillaria Skinneri*, (LARGE SILVER MEDAL awarded.)

From Mr. Rivers of Sawbridgeworth, a collection of forced *Roses*, grown in a Pit heated by an Arnott's Stove, (BANKSIAN MEDAL awarded.)

From Mr. Ivery, Nurseryman, Peckham, a plant of his seedling *Cineraria*, called the *Rival King*.

From the Garden of the Society, a collection of plants, including, a fine variety of *Oncidium ampliatum*, *Maxillaria Harrisoniæ*, *Hovea pungens*, a handsome *Acacia*, called *rubida*, and *Correa Cavendishiana*.

Cuttings of the following *Pears* were distributed: the *Eye-wood*; one of the many hardy and excellent varieties raised by Mr. Knight, resembling a Bergamot in shape; with yellowish white, melting, buttery and highly flavoured flesh, and ripening in October and November. "In 1833, when other varieties of *Pears* did not attain their usual excellence in Herefordshire, this was found to be very good."

Beurré d'Amalis;—A large obovate *Autumn Pear*, of the colour of a Brown *Beurré*, which it also resembles in consistence and flavour; but it is hardy enough to bear as a standard, a property which the Brown *Beurré*, generally speaking does not possess.

Nelis d'Hiver;—A middle sized fruit, not particularly adapted for market growers, but its high flavour entitles it to a place in every private garden in which *Pears* are cultivated.

Cuttings of the following *Apple* were likewise distributed;—the *Sudbury Beauty*;—a very handsome and excellent dessert apple, raised some years ago by Dr. Maclean of Colchester. It has the appearance of a well grown *Downton*; but the flesh is yellower and more sugary.

The following presents were announced:

The Suburban Horticulturist, Part IX. from the Editor, J. C. Loudon, Esq.

Parson's Magazine of Botany, for March, from the Editor.
16th and 17th Annual Report of the Ferdinandeum, at Innsbruck,
1840 and 1841.

Report on the Botanic Garden of the Ferdinandeum, at Innsbruck,
1840.

The Athenæum, for February, from the Editor.

Acta Academia Naturæ curiosorum, Vol. XIX. Supplement 2
(Bonn, 1841.)

April 4, 1842.

GARDEN COMMITTEE.

The Superintendent of the *Orchard and Kitchen Garden* reported, that farther trials had been made with Nitrate of Soda and Quicksilver for the destruction of Slugs.

The first crop of Peas, sown November 25, 1841, was totally destroyed; and another sowing, February 11, partially so. The destruction was effected under ground by a dark coloured slug, the same as that which eats the tubers of Potatoes; 18lbs. of Nitrate of Soda killed a vast number; but this could not well be effected after the crop got above ground. The whole of the Kitchen Garden was therefore very early in the morning, sprinkled over with six bushels of hot lime, and the dead slugs were to be seen as numerous as 12 in a square foot. This process has been since twice repeated with nearly similar effects.

Taking into comparison the expense of Nitrate of Soda and that of Lime, in order to effect an equal amount of destruction, it has been computed that the Lime is not one-tenth part so expensive as Nitrate of Soda, whilst it can be applied over most kinds of foliage without injury to such. But on the other hand, Nitrate of Soda may be more advantageously employed in particular cases to destroy those that lurk at a considerable depth below the surface, and there feed, as in the case of the Potato crops of last year, which were in many instances destroyed to an extent quite unprecedented.

April 5, 1842.

ORDINARY MEETING.

The following gentleman was elected a Foreign Corresponding Member of the Society:

Dr. William Henry De Vriese, Professor of Botany, Amsterdam.

The following were the principal subjects of exhibition :

From Mr. Joseph Goode, Gardener to Mrs. Lawrence, F. H. S., a large collection of plants, amongst which were exceedingly fine specimens of *Oncidium pulchellum*, *Epacris impressa*, and *Erica Linnæoides*; with cut flowers of *Combretum macrophyllum*, *Camellia Henri Favre*, and various others, (KNIGHTIAN MEDAL awarded for the three first-mentioned plants.)

From Mr. Slater, Gardener to John Spooner, Esq., of Hillingdon, plants of *Enkianthus reticulatus*, *Telopea speciosissima* and some *Seedling Cinerarias*.

From Mr. T. Appleby, Gardener to T. Brocklehurst, Esq., F. H. S., an *Enville Pine Apple*, weighing 2 lbs. 5 oz.; plants of a variety of *Oncidium luridum*, imported from Demerara; a species of *Bletia*, from Guatemala, and *Phaius Wallichii*.

From Sir John T. Tyrrell, Bart., M. P., four remarkably fine *Lettuces*, (CERTIFICATE awarded.)

From Mr. M. Henderson, Coleorton Hall Gardens, a well swelled bunch of *Black Portugal Grapes*, cut from plants raised from eyes, and grown in pots, (CERTIFICATE awarded.)

From the Royal Botanic Gardens, Regent's Park, sent by Mr. Marnock, the Curator, two very large plants of *Andromeda floribunda*, and a specimen of *Phycella ignea* var. *glauca*.

From Alexander Rowland, Esq., F. H. S., a collection of *Roses*.

From Mr. Brown of Slough, a *Seedling Heartsease*, called the *Countess of Orkney*.

From Mr. Jackson, of Kingston, well grown plants of *Erica physoides*, *E. grandinosa*, *E. princeps*, var., *E. mutabilis*, *E. Cushiana*, and *E. elegans*, (BANKSIAN MEDAL awarded for the latter.)

From Mr. George Mills, F. H. S., a remarkably fine brace of *Cucumbers*, each 21½ inches in length, (BANKSIAN MEDAL awarded.)

From Horatio Kemble, Esq., F. H. S., a dish of *Old Golden Pippins* and a *New-town Pippin*.

From Mr. Harley, Gardener to G. Cornwall Legh, Esq., F. H. S., a plant of *Maxillaria variabilis*.

From Messrs. Chapman, of Brentford, specimens of *Chapman's Potato*.

From Mr. E. Denyer, Nurseryman, Loughborough Road, North Brixton, a *Seedling Apple*, from the Old Nonpareil; and *Winter Thorn Pears*.

From Mr. Gaines of Battersea, a seedling *Rhododendron*, called the *Prince of Wales*; and a collection of *Heartsease*.

From Mr. Pearson, Eschol Nursery, Hampstead Road, some *Seedling Camellias*.

From Mr. Ivery, Nurseryman, Peckham, some handsome

Seedling Cinerarias, called the *Rival King*, (CERTIFICATE awarded.)

From John Willmore, Esq., F. H. S., of Oldford Lodge, near Birmingham, a very handsome species of *Peristeria*, (BANKSIAN MEDAL awarded.)

From Mr. T. Redding, Gardener to Sir John Delves Broughton, Bart., F. H. S., some *Camellias*.

From Mr. Rivers, of Sawbridgeworth, a collection of *Roses*, and some *Sturmer Pippin Apples*.

From Messrs. Young, of Epsom, a species of *Siphocampylus*.

From Messrs. Chandler and Sons, of Vauxhall, plants of *Camellia Albertus*, and *C. serratifolia*.

From Mr. Hopgood, of Craven Nursery, Bayswater, two plants of *Physolobium carinatum*, and one of *Zichya dilatata*.

From John Allnutt, Esq., F. H. S., four plants of *Camellias*, and cut flowers of a *Seedling ditto*.

From Mr. Standish, Nurseryman, of Bagshot, a handsome plant of *Zichya villosa*, (CERTIFICATE awarded.)

From Mr. Toward of Bagshot Park, a plant of *Bilbergia zebrina*.

From the Garden of the Society, a large Collection of Orchidaceous and other plants; amongst them were *Oncidium sphacelatum*, *Acanthophippium bicolor*, *A. sylhetense*, *Cyrtorchilium maculatum*, *Acacia Riceana*, *Chorozema varium*, and a variety of *Cinerarias*; with cut flowers of *Camellia reticulata*, *C. Colvilli*, *C. imbricata*, and *Press's Eclipse*, from plants grown in pits.

The following Presents were announced :

Arboretum Britannicum, abridged, Part V. from J. C. Loudon, Esq.

The Botanical Register, for April, from the Publishers.

Floricultural Cabinet, for April, from Mr. Joseph Harrison.

The Athenæum, for March, from the Editor.

British Flowering Plants for March and April, from Mr. Wm. Baxter.

The Ladies' Flower Garden of Ornamental Perennials, Part IV. from Mrs. Loudon.

Transactions of the Horticultural Society of Berlin, Vol. 16, Part I. from the Society.

April 19, 1842.

ORDINARY MEETING.

The following gentlemen were elected Fellows of the Society :

General Brotherton, 13 Cadogan Place.

Alexander Allan Francklyn, Esq., 18 Hertford Street, Park Lane.

The following were the principal subjects of exhibition :

From Messrs. Lucombe and Pince, of Exeter, a new and highly beautiful white *Azalea*, called *A. leucomegista*, the flowers of which are exceedingly large, and are produced in corymbs bearing more resemblance to those of a *Rhododendron* than an *Azalea* ; and a bloom of *Rosa Devoniensis*, (KNIGHTIAN MEDAL awarded for the *Azalea*.)

From Mr. Rivers of Sawbridgeworth, a handsome collection of forced *Roses*, (CERTIFICATE awarded.)

From Messrs. Veitch, of Exeter, a beautiful new species of *Manettia*, called *bicolor*, raised from Brazilian seeds, and a species of *Epidendrum*, (BANKSIAN MEDAL awarded for the *Manettia*.)

From Messrs. Chapman, of Brentford, a sample of their *New Spring Potato*.

From Mr. Brown, of Slough, specimens of the seedling *Heartsease*, called the *Countess of Orkney*, and 30 other varieties.

From Mr. Hugh Low, of Clapton Nursery, a species of *Conanthera*, from Chili.

From Messrs. Rollisson and Sons, of Tooting, a cut specimen of *Combretum macrophyllum*, a magnificent plant of *Dendrobium macrophyllum*, and *Dombeya cannabina*, (KNIGHTIAN MEDAL awarded for the *Dendrobium*.)

From Messrs. Young, of Epsom, a species of *Gesnera*, a seedling *Azalea*, *Ardisia japonica*, and the sweet scented *Illicium religiosum*, (CERTIFICATE awarded for the latter.)

From Messrs. Chandler and Sons, of Vauxhall, a *Camellia* called *nitida*, introduced from China by John Reeves, Esq.

From Mr. Henry Silverlock, F. H. S., of Chichester, a Seedling *Heartsease*, called *Prince Albert*.

From the Garden of the Society numerous Orchidaceous and other plants, comprising *Oncidium leucochilum*, *Broughtonia sanguinea*, *Dendrobium secundum*, *Pimelea spectabilis*, *Chorozema varium*, *Acacia myrtifolia* and *Pentlandia miniata*.

The following Presents were announced :

The Suburban Horticulturist, Part X., from the Editor J. C. Loudon, Esq.

Paxton's Magazine of Botany, for April, from the Editor.

May 2, 1842.

ANNIVERSARY MEETING.

The following Fellows of the Society, viz. :

The Earl of Ilchester.

Sir W. Hooker.

R. W. Barchard, Esq.

were elected new Members of the Council in the room of

Edward Forster, Esq.

Edward W. Pendarves, Esq.

George Bentham, Esq.

The following Fellows of the Society were re-elected Officers for the ensuing year : viz.

The Duke of Devonshire, President.

Thomas Edgar, Esq., Treasurer.

Alexander Henderson, M. D., Secretary.

The Auditors presented the following report :

We, the Auditors appointed by the Council of the Horticultural Society of London, do Report that we have carefully examined the Entries in the various Books, and compared them with the Vouchers produced, and that the whole were found perfectly correct, the Officers of the Society having afforded every assistance during the enquiry.

The following is the state of the Cash Account on the 31st of March, 1842.

D ^R .	To Balance at Bankers, 1st			
	April 1841	£139	9	1
	To ditto in hands of Vice-Secretary, ditto,	19	8	0
	To amount of various Receipts	6872	3	9
		<hr/> £7031 0 10		

	Brought forward	£7031	0	10
C ^{rs} .	By payments on account of new			
	Conservatory	£344	10	7
	By various other Payments	6448	10	5
			<u>6793</u>	<u>1 0</u>
	Leaving a Balance of	£	237	19 10
	Being with Sir W. P. Call, & Co.	£196	11	10
	Vice-Secretary per P. C. Book	41	8	0
			<u>£237</u>	<u>19 10</u>

It will no doubt be a source of gratification to the Members to be informed that the receipts for the past year were £1119..17..8. beyond the expenses, by which means the floating debt of the Society has been considerably reduced, the Bonded debt being £9050., and the debt on open accounts £4224..0..2., making together £13,274..0..2., which is a decrease upon the debt of last year of £1047..12..8.

The Auditors cannot allow this opportunity to pass without noticing the great interest and amusement afforded to the Public by the Exhibitions at Chiswick: a proof of which they find in the constantly increasing number of Visitors. The competition which is thus excited among the Exhibitors cannot fail to lead to improved modes of cultivation, and thus to the direct advantage of those by whose assistance the Horticultural Society is maintained.

21, REGENT STREET,
27th April, 1842.

R. W. BARCHARD.
GEORGE BAIN.
RICHARD CHANDLER.
C. WENTWORTH DILKE.
CHARLES B. WARNER.

ABSTRACTS OF RECEIPTS AND EXPENDITURE, between the 1st of April, 1841, and 31st of March, 1842.

Dr.		Cr.	
£.	s. d.	£.	s. d.
To admission fees from Fellows	252 0 0	By rents, rates, taxes, &c. Regent Street, and Chiswick	614 17 8
To compositions for life from ditto	189 0 0	By repairs of house in Regent street	47 11 8
To subscriptions received from ditto	3364 14 6	By housekeeping expenses, Regent Street	39 9 0
To amount of Transactions sold	76 8 1	By salaries and collector's poundage	1137 9 6
To rent of apartments let off in Regent Street	150 0 0	By interest on bonded debt	450 0 0
To garden produce sold	37 0 3	By cost of publishing Transactions, and Proceedings of Meetings	267 7 6
To charges to Fellows for packing plants, &c.	81 1 8	By library charges, for books, binding, &c.	13 19 6
To miscellaneous receipts	14 17 9	By printing, stationery, and stamps	75 5 9
To Garden Exhibition account: viz.		By medals & rewards at Ordinary Meetings in Regent Street	141 18 0
Amount of Receipts	£4875 9 0	By cost and charges on foreign missions and importations	372 5 1
Deduct:		By expenses of meetings, postage, &c.	146 7 5
Cost of Medals awarded	£ 747 7 0	By miscellaneous expenses in Regent Street, including Solicitor's Bill for £34.19.6	63 13 11
General expenses of the three meetings	1421 0 6	By ditto at the Garden, for seeds, plants, carriage, &c.	126 18 3
	2168 7 6	By garden charges for implements, mats, &c.	114 19 4
	2707 1 6	By ditto tan, dung, mould, &c.	97 0 5
		By ditto baskets, &c. for packing plants, seeds, &c. for Members	196 10 4
		By garden current labour	1090 1 3
		By ditto for repairs to houses, &c.	294 6 5
		By ditto for New Conservatory	344 10 7
		By ditto coals and coke	117 14 6
		By balance, being surplus of receipts over Expenditure,	5752 6 1
			1119 17 8
		£ 6872 3 9	

May 3, 1842.

ORDINARY MEETING.

The following gentlemen were elected Fellows of the Society :

Robert Boyd, Esq., Plaistow Lodge, Bromley, Kent.

J. C. Mac Mullen, Esq., Lavender Hill.

H. Villebois, Esq., Benham Place, Newbury.

Benjamin N. Williams, Esq., Enfield, Middlesex.

The following were the principal subjects of Exhibition :

From Mr. Veitch, of Exeter, cut flowers of a species of *Phaseolus*, *Bignonia Pandora*, *Oncidium ramosum*, *Stigmatophyllon aristatum*, and a variety of *Clematis montana*.

From Mr. Edward Beck, of Isleworth, three *Calceolarias*, grown in slate boxes, in excellent health.

From Mr. Joseph Goode, Gardener to Mrs. Lawrence, F.H.S., a large collection of plants, including remarkably well grown specimens of *Erica pinifolia*, *E. fastigiata lutescens*, *Chorozema Dicksoni*, *Azalea speciosissima*, and *Cytisus phillipensis*, (A CERTIFICATE awarded for the *Cytisus*, and a KNIGHTIAN MEDAL for the other plants.)

From Mr. Dean, Gardener to James Bateman, Esq., F. H. S., very beautiful specimens of *Epidendrum Stamfordianum*, *Lælia cinnabarina*, and *Cattleya Skinneri*, with *Cyrtorchilum maculatum*, *Stanhopea quadricornis* and *Dendrobium densiflorum*, (KNIGHTIAN MEDAL awarded for the three former.)

From Mr. Stanley, Gardener to Henry Berens, Esq., F.H.S., of Sidcup, Kent, some *Seedling Calceolarias*, and a fine plant of *Goodia lotifolia*, (CERTIFICATE awarded for the latter.)

From Mr. Ivery, Nurseryman, Peckham, a *collection of Cinerarias* and a *Seedling Mimulus*.

From Mr. I. Henchman, Nurseryman, Edmonton, a *Collection of Heartsease*.

From Mr. Charles MacGregor, Gardener to Henry Villebois, Esq., F. H. S., a *Melon*, weighing 1 lb. 15 oz.

From Mr. Henderson, Gardener to Sir George Beaumont, Bart., some *Seedling Pelargoniums*.

From Messrs. Lucombe, Pince and Co., of Exeter, a species of *Daviesia*, and a very handsome *Pink Leptospermum*, (CERTIFICATE awarded.)

From Mr. Richard Atlee, Gardener to Henry Beaufoy, Esq., of South Lambeth, exceedingly fine plants of *Boronia serrulata*, and *B. pinnata*, with various *Ericas*, (BANKSIAN MEDAL awarded for the *Boronias*.)

From Mr. Graves, Gardener to Mrs. Cannon, plants of *Epidendrum inversum*, and *Oncidium flexuosum*.

From C. B. Warner, Esq., F. H. S., a fine plant of *Epidendrum variegatum*, with *Broughtonia sanguinea*, and various other Orchidaceous plants, (CERTIFICATE awarded for the *Epidendrum*.)

From Messrs. Lane and Son, Great Berkhamstead, an excellent Collection of Roses, and a stand of *Heartsease*, (CERTIFICATE awarded for the *Roses*.)

From Mr. J. A. Henderson, F. H. S., a collection of pretty Seedling *Cinerarias*, (CERTIFICATE awarded.)

From Mr. Alexander Scott, Gardener to Sir George Staunton, Bart., F. H. S., a fine cluster of the fruit of *Musa Cavendishii*, (BANKSIAN MEDAL awarded.)

From William Henry Story, Esq., F. H. S., exceedingly fine plants of *Erica aristata major*, *E. mundula*, and *E. campanulata*; with Six hybrid varieties of *Erica*, (KNIGHTIAN MEDAL awarded for the three former.)

From Mr. Standish, Nurseryman, Bagshot, plants of *Calceolaria Standishii*, and a species of *Salvia*, from the north of India, (CERTIFICATE awarded.)

From Lord Berhaven, F. H. S., some *Shaddocks* and *Oranges*.

From Frederick Coventry, Esq., of Jersey, a very pretty species of *Tropæolum*, and a Seedling *Calceolaria*, (BANKSIAN MEDAL awarded for the *Tropæolum*.)

From the Garden of the Society, a large collection of plants, including a beautiful species of *Barkeria*, from Guatemala, called by the natives *Flor d'Izabal*; *Oncidium luridum guttatum*, *Odonotoglossum læve*, *Epidendrum crassifolium*, *Indigofera sylvatica*, and a collection of *Cinerarias*.

The following Presents were announced :

The Botanical Register, for May, from the Publishers.

The Floricultural Cabinet, for May, from Mr. Joseph Harrison.

The Athenæum, for April, from the Editor.

May 14, 1842.

EXHIBITION AT THE GARDEN.

The number of Visitors upon this occasion, exclusive of Exhibitors, amounted to 5369. The weather was particularly fine, and many of the plants, especially the Azaleas, surpassed any thing of the kind which had been witnessed on previous occasions.

The award of the Judges was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Goode, Gardener to Mrs. Lawrence, F. H. S., for a large collection of Stove and Greenhouse plants.
2. To Mr. Davis, Gardener to Lord Boston, for a miscellaneous collection of Fruit.
3. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for twenty species of Cape Heaths.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Catleugh, of Hans Street, Chelsea, for a large collection of Pelargoniums.
2. To Mr. Hunt, Gardener to Miss Traill, of Hayes Place, Bromley, Kent, for a large collection of Stove and Greenhouse plants.
3. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a collection of Stove and Greenhouse plants.
4. To Mr. Pawley, of the White Hart Inn, Bromley, Kent, for a collection of Stove and Greenhouse plants.
5. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., for Stove and Greenhouse climbers.
6. To Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., for a miscellaneous collection of Fruit.
7. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Greenhouse Azaleas.
8. To Mr. Smith, of Norbiton, Surrey, for Greenhouse Azaleas.
9. To Mr. R. May, Gardener to Emanuel Goodheart, Esq., of Beckenham, Kent, for six species of Cape Heaths.
10. To Mr. Hunt, Gardener to Miss Traill, F. H. S., for six species of Orchidaceous plants.

THE LARGE SILVER GILT MEDAL.

1. To Mr. Catleugh, of Hans Street, Chelsea, for a small collection of Pelargoniums.
2. To Mr. Gaines, of Battersea, for a small collection of Pelargoniums.
3. To Mr. J. Dodds, Gardener to Sir George Warrender, Bart., F.H.S., for Grapes.
4. To Mr. Mann, (Gardener), Westburton, Petworth, Sussex, for Pine Apples.
5. To Mr. Jackson, of Kingston, Surrey, for twenty species of Cape Heaths.

THE LARGE SILVER MEDAL.

1. To Mr. Beck, of Isleworth, for a large collection of Pelargoniums.
2. To Mr. Gaines, of Battersea, for a large collection of Pelargoniums.
3. To Messrs. Lane and Son, of Great Berkhamstead, Herts, for a collection of Chinese Roses.
4. To Mr. M^r Onach, Gardener to E. Vines, Esq., F. H. S., for Herbaceous Calceolarias.
5. To Mr. Catleugh, of Hans Street, Chelsea, for Herbaceous Calceolarias.
6. To Mr. M^r Onach, Gardener to E. Vines, Esq. F. H. S., for Shrubby Calceolarias.
7. To Mr. Catleugh, of Hans Street, Chelsea, for Shrubby Calceolarias.
8. To Mr. Redding, Gardener to Mrs. Marryat, F. H. S., for a large collection of Stove and Greenhouse plants.
9. To Mr. Goode, Gardener to Mrs. Lawrence, F. H. S., for a small collection of Stove and Greenhouse plants.
10. To Mr. Clarke, Gardener to T. Smith, Esq., of Shirley Park, Croydon, for a small collection of Stove and Greenhouse plants.
11. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for a small collection of Stove and Greenhouse plants.
12. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for a collection of six species of Stove and Greenhouse plants.
13. To Mr. Fraser, of the Lea Bridge Road, for a collection of six species of Stove and Greenhouse plants.
14. To Mr. Clarke, Gardener to M. T. Smith, Esq., of Shirley Park, Croydon, for Stove and Greenhouse climbers.
15. To Mr. Jackson, of Kingston, Surrey, for a small collection of Stove and Greenhouse plants.
16. To Mr. Catleugh, of Hans Street, Chelsea, for a small collection of Stove and Greenhouse plants.
17. To Mr. Paxton, Gardener to His Grace the Duke of Devonshire, for a miscellaneous collection of Fruit.
18. To Mr. Judd, Gardener to George Knott, Esq., for Grapes.
19. To Mr. Wilmot, of Isleworth, for Grapes.
20. To Mr. J. Toy, Gardener to Rowland Alston, Esq., F. H. S., for Pine Apples.
21. To Mr. Falconer, Gardener to Archdale Palmer, Esq., of Cheam, Surrey, for Greenhouse Azaleas.
22. To Mr. Jackson, of Kingston, Surrey, for Greenhouse Azaleas.

23. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for six species of Cape Heaths.
24. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Tall Cacti in flower.
25. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for six species of Orchidaceous plants.
26. To George Barker, Esq., F.H.S., of Birmingham, for *Phalænopsis amabilis*.
27. To Mr. Jackson of Kingston, Surrey, for *Erica elegans*.
28. To Mr. R. May, Gardener to Emanuel Goodheart, Esq., of Beckenham, Kent, for *Erica aristata major*.
29. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for *Leschenaultia formosa*.
30. To Mr. Paxton, Gardener to His Grace the Duke of Devonshire, for *Rhododendron Gibsoni*.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. Bromley, Gardener to Miss Anderdon, for a large collection of Pelargoniums.
2. To Mr. Slowe, Gardener to William Baker, Esq., of Bayfordbury, Herts, for a large collection of Pelargoniums.
3. To Mr. Kyle, Gardener to Robert Barclay, Esq., for a collection of six species of Stove and Greenhouse plants.
4. To Mr. J. Loudon, Gardener to S. Gurney, Esq., of West Ham, Essex, for Grapes.
5. To Mr. G. Wortley, Gardener to J. F. Maubert, Esq., F.H.S., for Grapes.
6. To Mr. Chapman, of Vauxhall, for Grapes.
7. To Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., for Elruge Nectarines.
8. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., of Bromley Common, for Greenhouse Azaleas.
9. To William Henry Story, Esq., F.H.S., for six species of Cape Heaths.
10. To Mr. Pawley of the White Hart Inn, Bromley, Kent, for six species of Cape Heaths.
11. To Mr. Paxton, Gardener to His Grace the Duke of Devonshire, for six species of Orchidaceous plants.
12. To Mrs. Wray, F.H.S., for *Cattleya Skinneri*.
13. To Mr. Paxton, Gardener to His Grace the Duke of Devonshire, for *Dendrobium Devonianum*.
14. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for *Erica Hartnelli*.

15. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Elichrys-um humile*.
16. To Mr. Clarke, Gardener to M. T. Smith, Esq., of Shirley Park, Croydon, for *Leschenaultia formosa*.
17. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for *Tropæolum tricolor*.
18. To Mr. Paxton, Gardener to His Grace the Duke of Devonshire for six species of Orchidaceous plants.
19. To Mr. Donald of Woking, Surrey, for Hardy Azaleas.
20. To Mr. Wilmer of Sunbury, Middlesex, for Tulips.

THE SILVER BANKSIAN MEDAL.

1. To Mr. Gaines of Battersea, for Shrubby Calceolarias.
2. To Mr. Tillery, Gardener to His Grace the Duke of Portland, for a miscellaneous collection of Fruit.
3. To Mr. Clarke, Gardener to M. T. Smith, Esq., of Shirley Park, Croydon, for a miscellaneous collection of Fruit.
4. To Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., for Grapes.
5. To Mr. J. Dodds, Gardener to Sir George Warrender, Bart., F.H.S., for Pine Apples.
6. To Richard Brook, Esq., F.H.S., for Apples and Pears.
7. To Mr. Hardie, Gardener to John Jarrett, Esq., F.H.S., for an early Cantaloupe Melon.
8. To Mr. Paxton, Gardener to His Grace the Duke of Devonshire, for May Duke Cherries.
9. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Polygala oppositifolia*.
10. To Mr. Fraser, of the Lea Bridge Road, Leyton, for *Epacris grandiflora*.
11. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for *Elichrys-um humile*.
12. To Mr. Hardie, Gardener to John Jarrett, Esq., F.H.S., for *Saccolabium guttatum*.

THE CERTIFICATE OF MERIT.

1. To Mr. Standish, Nurseryman, of Bagshot, for *Calceolaria Standishii*.
2. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a *Calceolaria*, (*Ne plus ultra*).
3. To Mr. Gaines of Battersea, for a *Pelargonium*, (*Amulet*).
4. To the Rev. R. Garth of Farnham, Surrey, for a *Pelargonium*, (*Symmetry*).

5. To Mr. Willmer of Sunbury, Middlesex, for a Tulip, (Prince of Wales).
6. To Mr. Mc Farlane, Gardener to J. R. Mills, Esq., of Stamford Hill, for Cucumbers.
7. To Mr. Chapman of Brentford for Potatoes.
8. To Mr. Baldwin of Turnham Green, for Apples.
9. To Mr. Farnes of St. John Street, for Chappell's Cream Broccoli.
10. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for *Podolobium trilobum*.
11. To Mr. Croucher, Gardener to J. Allcard, Esq., of Stratford Green, Essex, for *Azalea variegata*.
12. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for *Tropæolum* sp.
13. To Mr. Kyle, Gardener to Robert Barclay, Esq. of Leyton. for *Bossiæa* sp.
14. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for *Columnæa longiflora*.
15. To John Allnutt, Esq., F.H.S., for *Zichya coccinea*.
16. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for *Clematis azurea*.
17. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for *Azalea Gladstoni*.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitions.	MEDALS AWARDED.						
		Gold Knightian.	Gold Banksian.	Large Silver Gilt.	Large Silver.	Silver Knightian	Silver Banksian.	Certificate of Merit.
Azaleas - - - -	5	—	2	—	2	1	—	—
Heaths, collections of 20 - -	2	1	—	—	—	—	—	—
Ditto, collections of 6 - - -	4	—	1	1	1	2	—	—
Tall Cacti - - - - -	1	—	—	—	1	—	—	—
Orchidaceæ, collections of 6 -	3	—	1	—	1	1	—	—
Ditto, single specimens - - -	6	—	—	—	1	2	1	—
Pelargoniums, collections of 12	6	—	1	—	2	2	—	—
Ditto, collections of 6 - - -	2	—	—	2	—	—	—	—
Roses - - - - -	1	—	—	—	1	—	—	—
Stove and Greenhouse Plants, large collections - - - -	3	1	1	—	1	—	—	—
Ditto, small collections - - -	7	—	2	—	5	—	—	—
Ditto, six species - - - - -	4	—	—	—	2	1	—	—
Stove and Greenhouse Climbers -	2	—	1	—	1	—	—	—
Herbaceous Calceolarias - - -	3	—	—	—	2	—	—	—
Shrubby ditto - - - - -	3	—	—	—	2	—	1	—
Collections of Fruit - - - - -	5	1	1	—	1	—	2	—
Grapes - - - - -	13	—	—	1	2	3	1	—
Pine Apples - - - - -	18	—	—	1	1	—	1	—
Miscellaneous Fruit - - - - -	15	—	—	—	—	1	3	2
Single ornamental Plants - - -	40	—	—	—	4	4	3	8
Seedling Florists' Flowers - -	23	—	—	—	—	—	5	—
Miscellaneous - - - - -	11	—	—	—	—	2	—	2
Total.	177	3	10	5	30	19	17	12

May 24, 1842.

ORDINARY MEETING.

The following Candidates were elected Fellows of the Society :

The Earl of Harewood.

Sir Hugh Purves Hume Campbell, Bart., 27, Great George Street; and Marchmont House, Berwickshire.

Mr. Alexander Couper, Epsom,

Mr. John Edward Lane, Great Berkhamstead, Hertford.

Sir Henry Meux, Bart., Theobald's Park, Herts; and 19, Russell Street.

George Phillips, Esq., 12, Hill Street.

Christopher Puller, Esq., 30, Grosvenor Square; and Youngsbury, Herts.

The following were the principal subjects exhibited:

From Mr. Goode, Gardener to Mrs. Lawrence, F. H. S., extremely fine plants of *Aerides affine*, *Maxillaria Tetragona*, two varieties of *Cattleya Mossia*, two species of *Epidendrum* and *Gompholobium intermedium*, (BANKSIAN MEDAL awarded.)

From Mr. Ferguson, Gardener to the Duke of Buckingham and Chandos, of Stowe, Bucks, some *Melons*, and a dish of fine *Black Hamburg Grapes*, cut from a Vine of seven branches, each 8 feet in length, which has borne 458 bunches within the last three years, (CERTIFICATE awarded.)

From William Henry Story, Esq., F. H. S., 15 very beautiful *Seedling varieties of Ericas*, (KNIGHTIAN MEDAL awarded.)

From Mr. Dodemeade, Gardener to William Leaf, Esq., F. H. S., a basket of *Mushrooms*.

From Messrs. Chandler and Sons, of Vauxhall, a plant of *Rhododendron fragrans*.

From Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., some remarkably fine *Peaches* and *Nectarines*, (BANKSIAN MEDAL awarded.)

From Messrs. Veitch and Sons, of Exeter, cut Flowers of *Mimulus bicolor*, *Stigmatophyllum aristatum*, *Begonia coccinea*, and *Gloriosa speciosa* var. *Macrophylla variegata*.

From John Albutt, Esq., F. H. S., a plant of a handsome *Azalea*, called *fulgens*, (CERTIFICATE awarded.)

From C. B. Warner, Esq., F. H. S., a species of *Habenarias*, from South Chili.

From Mr. Gaines, of Battersea, a seedling *Pelargonium*, called *Princess Royal*.

From Mr. Cowan, Gardener to Matthew Forster, Esq., F. H. S., a seedling *Pelargonium*.

From the Garden of the Society, a large collection of Orchidaceous and other plants; amongst which were *Oncidium striatum*; three species of *Stanhopea*, *Cattleya intermedia*, *Dendrobium moschatum*, *Leichenanthes biloba*, *Hortia japonica*, and a new *Campanula*, called *Grandis*; with Cut Flowers of *Penstemon crassifolius*, and a branch of the *Purple Laburnum*, with the flowers sporting back to those of the original species from which it was raised.

The following presents were announced :

Catalogue des Cultures des frères Cels, Horticulteurs, Pépiniéristes, &c , a Paris, and Catalogue des Camellias et Rosiers cultivés dans l'établissement des frères Cels, from the Authors.

June 7, 1842.

ORDINARY MEETING.

The following gentleman was elected a Fellow of the Society
Francis Foljambe, Esq., East Retford, Nottinghamshire.

The following were the principal subjects of exhibition :

From J. Bateman, Esq., F.H.S., a fine spike of the highly beautiful *Aérides Brookeii*; with *Odontoglossum læve*, *Govenia liliacea*, and various others, (KNIGHTIAN MEDAL awarded for the *Aérides*.)

From Mr. Paine, Gardener to Miss Wigan, of Highbury Terrace, Islington, a *Cactus* called *fulgidus*, greatly resembling *C. Ackermanni*.

From Mrs. William Phillips, of Streatham Common, some *Stocks*.

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., two *Seedling Cacti*, and a well grown plant of *Tropæolum edule*, (BANKSIAN MEDAL awarded for the latter.)

From Messrs. Treggon and Co., of 22, Jewin Street, and 57, Gracechurch Street, one of *Ward's Portable Greenhouses made of Zinc*, and capable of being heated with water.

From Mr. Edward Beck, of Isleworth, two *Seedling Pelargoniums*, grown in slate pots.

From Mr. Ivery, Nurseryman, of Rye Lane, Peckham, a seedling *Verbena*, called the *Queen*.

From the Earl of Carnarvon, of Highclere, Berks, a collection of *Hybrid Azaleas*, flowering for the first time.

A specimen of *Wood rendered incombustible*, from Mr. Payne.

From the Garden of the Society were the following plants; *Campanula grandis*, *Clematis Sieboldi*, *Statice mucronata*, *Pernetia angustifolia*, *Glossocomia orata*, *Fuchsia Monypennii*, *Malva Creeana*, and *Pæonia albiflora Whitleji*, with *Cut flowers* of *Rhododendrons* and *Azaleas*, and a hardy shrubby species of *Indigofera*, from Northern India.

The following presents were announced ;

The Horticultural Cabinet for June, from Mr. Jos. Harrison.

Baxter's British Flowering Plants for June, from the Editor.

The Botanical Register for June, from the Publishers.

The Florist's Journal, No. 29, from the Publishers.

Paxton's Magazine of Botany for June, from the Editor.

The Athenæum for May, from the Editor.

June 11, 1842.

EXHIBITION AT THE GARDEN.

The number of Visitors at this meeting far exceeded that upon any previous occasion, and amounted, exclusive of exhibitors, to 13,351.

The award was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a large collection of Stove and Greenhouse plants.
2. To Mr. May, Gardener to Emanuel Goodheart, Esq., of Langley Park, Beckenham, Kent, for twenty species of Cape Heaths.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Bell, of Chelsea Hospital, for a large collection of Pelargoniums.
2. To Mr. Catleugh, of Hans Street, Chelsea, for a large collection of Pelargoniums.
3. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S. for a large collection of Stove and Greenhouse plants.
4. To Mr. Barnes, Gardener to George Ward Norman, Esq. F.H.S., for a small collection of Stove and Greenhouse plants.
5. To Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, for a small collection of Stove and Greenhouse plants.
6. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., for Stove and Greenhouse Climbers.
7. To Mr. Dodds, Gardener to Sir George Warrender, Bart., F.H.S., for a miscellaneous collection of Fruit.
8. To Mr. Henderson, Gardener to Sir George Beaumont, Bart., for a miscellaneous collection of Fruit.

9. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., Jun., F.H.S., for six species of Orchidaceous plants.
10. To Messrs. Rollisson, of Tooting, for six species of Orchidaceous Plants.

THE LARGE SILVER GILT MEDAL.

1. To Mr. Gaines, of Battersea, for a large Collection of Pelargoniums.
2. To Mr. Bourne, Gardener to Sir Edward Paget, G.C.B., of Chelsea Hospital, for a small collection of Pelargoniums.
3. To Mr. Catleugh, of Hans Street, Chelsea, for a small collection of Pelargoniums.
4. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for a large collection of Stove and Greenhouse Plants.
5. To Mr. Toy, Gardener to Rowland Alston, Esq., F.H.S., for Grapes.
6. To Mr. J. Davis, Gardener to Sir Simon Houghton Clarke, Bart., for Grapes.
7. To Mr. Brewin, Gardener to Robert Gunter, Esq., F.H.S., for Providence Pine Apples.
8. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for twenty species of Cape Heaths.
9. To Mr. Jackson, of Kingston, Surrey, for twenty species of Cape Heaths.

THE LARGE SILVER MEDAL.

1. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for a small collection of Pelargoniums.
2. To Mr. Gaines, of Battersea, for a small collection of Pelargoniums.
3. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq., F.H.S., for Common Garden Roses.
4. To Mrs. Fleming, of Binstead, Isle of Wight, for Chinese Roses.
5. To Messrs. Paul and Son, of Cheshunt, Herts, for Common Garden Roses.
6. To Messrs. Lane and Son, of Great Berkhamstead, Herts, for Chinese Roses.
7. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Herbaceous Calceolarias.
8. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Shrubby Calceolarias.
9. To Mr. Gaines, of Battersea, for Shrubby Calceolarias.

10. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., for a small collection of Stove and Greenhouse plants.
11. To Mr. Pawley, of the White Hart Inn, Bromley, Kent, for a small collection of Stove and Greenhouse plants.
12. To Mr. Clarke, Gardener to M. T. Smith, Esq., of Shirley Park, Croydon, Surrey, for a small collection of Stove and Greenhouse Plants.
13. To Mr. Geo. Shiells, Gardener to Lord Blantyre, of Erskine House, Renfrewshire, for a miscellaneous collection of Fruit.
14. To Mr. Chapman, of Vauxhall, for a miscellaneous collection of Fruit.
15. To Mr. Judd, Gardener to George Knott, Esq., F.H.S., for Black Hamburg Grapes.
16. To Mr. Bell, of Norwich, for Black Hamburg Grapes.
17. To Mr. Whomes, Gardener to Edmund Foster, Esq., of Clewer, near Windsor, for a Queen Pine Apple.
18. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., for twenty species of Cape Heaths.
19. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for six species of Cape Heaths.
20. To Mr. Pawley, of the White Hart Inn, Bromley, Kent, for six species of Cape Heaths.
21. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, for Tall Cacti in flower.
22. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for six species of Orchidaceous plants.
23. To Mr. Mylam, Gardener to Sigismund Rucker, Esq., F.H.S., for *Saccolabium præmorsum*.
24. To Messrs. Rollisson, of Tooting, for *Saccolabium guttatum*.
25. To Mr. Veitch, of Exeter, for *Erica depressa*.
26. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Ixora coccinea*.
27. To William Henry Story, Esq., F.H.S., for Hybrid *Ericas*.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. Bromley, Gardener to Miss Anderdon, of Upper Mall, Hammersmith, for a large collection of *Pelargoniums*.
2. To Mr. Rivers, of Sawbridgeworth, Herts, for Moss Roses.
3. To Alexander Rowland, Esq., F.H.S., for Common Garden Roses.
4. To Mr. Dennis, of King's Road, Chelsea, for Common Garden Roses.
5. To Messrs. Wood, of Maresfield, Sussex, for Common Garden Roses.

6. To Mr. Cobbett, of Horsell, near Woking, Surrey, for Common Garden Roses.
7. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq., F.H.S., for Chinese Roses.
8. To Mr. Rivers, of Sawbridgeworth, for Chinese Roses.
9. To Messrs. Paul and Son, of Cheshunt, for Chinese Roses.
10. To Mr. Catleugh, of Hans Street, Chelsea, for Shrubby Calceolarias.
11. To Mr. Whomes, Gardener to Edmund Foster, Esq., of Clewer Lodge, Windsor, for a Seedling Pelargonium (Sultana.)
12. To the same for a Seedling Pelargonium (Sir Robert Peel.)
13. To the same for a Seedling Pelargonium (Sunshine.)
14. To the same for ditto (Nestor.)
15. To Mr. Beck, of Isleworth, for a Seedling Pelargonium (Leonora.)
16. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Seedling Calceolarias, consisting of Queen of Fairies, Alba elegans, Alba atropurpurea, Magnet, Flora superba, Queen of Beauties, Prince of Wales, Alba coccinea, Princess, Sulphurea superba, Emperor, Joan of Arc, Alba Purpurea.
17. To Mr. Jackson, of Kingston, Surrey, for a small collection of Stove and Greenhouse plants.
18. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for a small collection of Stove and Greenhouse plants.
19. To Mr. Fraser, of Lea Bridge Road, Leyton, Essex, for a small collection of Stove and Greenhouse plants.
20. To Mr. Edward Mitchell, of Brighton, for Black Hamburgh Grapes.
21. To Mr. Wortley, Gardener to J. F. Maubert, Esq., F.H.S., for Black Hamburgh Grapes.
22. To Mr. Atlee, Gardener to Henry Beaufoy, Esq., of Lambeth, for Black Hamburgh Grapes.
23. To Mr. J. Fish, Gardener to H. H. Oddie, Esq., of Colney House, near Barnet, Herts, for a Ripley Queen Pine Apple.
24. To Mr. Fish, Gardener to Thomas Sowerby, Esq., F.H.S., for Peaches.
25. To Mr. M. Henderson, Gardener to Sir George Beaumont Bart., for Nectarines.
26. To Mr. Loudon, Gardener to Samuel Gurney, Esq., F.H.S., for Melons.
27. To Mr. Falconer, Gardener to Archdale Palmer, Esq., of Cheam, Surrey, for Tall Cacti in flower.

28. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for *Oncidium flexuosum*.
29. To Mr. Harding, Gardener to the Rev. Frederick Beadon, F.H.S., for *Statice grandiflora*.
30. To Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, for *Gardenia radicans*.
31. To William Henry Story, Esq., F.H.S., for *Erica splendens*.

THE SILVER BANKSIAN MEDAL.

1. To Mr. Willmer, of Sunbury, Middlesex, for Pinks.
2. To Mr. Cobbett, of Horsell, near Woking, Surrey, for Moss Roses.
3. To Mrs. Fleming, of Binstead, Isle of Wight, for Common Garden Roses.
4. To Messrs. Lane, of Great Berkhamstead, Herts, for Common Garden Roses.
5. To Mr. Rivers, of Sawbridgeworth, for Common Garden Roses.
6. To Alexander Rowland, Esq., F.H.S., for Chinese Roses.
7. To Mr. Toy, Gardener to Rowland Alston, Esq., F.H.S., for Chinese Roses.
8. To Mr. Cobbett, of Horsell, near Woking, Surrey, for Chinese Roses.
9. To Messrs. Wood and Sons, of Maresfield, Sussex, for Chinese Roses.
10. To Mr. Catleugh, of Hans Street, Chelsea, for Herbaceous Calceolarias.
11. To Mr. Joynes, Gardener to Mrs. Hall, of Totteridge, Herts, for Shrubby Calceolarias.
12. To Mr. Pamplin, of Walthamstow, Essex, for a Seedling *Pelargonium* (Duke of Devonshire.)
13. To Messrs. Lockhart, of Cheapside, for *Ranunculuses*.
14. To Mr. Falconer, Gardener to Archdale Palmer, Esq., of Cheam, Surrey, for a small collection of Stove and Green-house plants.
15. To Mr. Chapman, of Vauxhall, for Black Hamburg Grapes.
16. To Mr. William Pillans, of Woodchester Park, near Stroud, Gloucestershire, for Black Hamburg Grapes.
17. To Mr. J. Campbell, Gardener to General O'Loughlin, of Chalfont St. Peter's, Bucks, for Grapes.
18. To Mr. Mitchell, Gardener to Her Majesty the Queen Dowager, at Sudbury Hall, for Peaches and Nectarines.
19. To Mr. Scott, Gardener to Sir George Staunton, Bart., F.H.S., for Fruit of the *Musa Dacca*.

20. To Mr. Reid, Gardener to Sir Giffin Wilson, of Woburn House, Beaconsfield, Bucks, for a Cantaloup Melon.
21. To Mr. Edmonds, Gardener to His Grace the Duke of Devonshire, President of the Society, for *Peristeria pendula*.
22. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, for *Achimenes longiflora*.
23. To Mr. Goode, Gardener to Mrs. Lawrence, for *Pavetta caffra*.
24. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for *Ixora coccinea*.
25. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Elichrysium humile*.
26. To Mr. Falconer, Gardener to Archdale Palmer, Esq., of Cheam, Surrey, for *Polygala oppositifolia*.

THE CERTIFICATE OF MERIT.

1. To Mr. Beck, of Isleworth, for a Seedling *Pelargonium* (Meteor.)
2. To Mr. T. Basset, of the Priory, Bodmin, for a Seedling *Pelargonium* (Model of Perfection.)
3. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for Seedling *Calceolarias* (Delicatissima and Shrubby Perfection.)
4. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for Seedling *Calceolarias* (Unique and *purpurea grandiflora*.)
5. To Mr. Brown, Gardener to Messrs. Clews, of Acton Green, for Black Hamburg Grapes.
6. To Mr. J. Fish, Gardener to H. H. Oddie, Esq., of Colney House, near Barnet, Herts, for Melons.
7. To Mr. Leslie, Gardener to John Fleming, Esq., M.P., F.H.S., for Strawberries and Cherries.
8. To Mr. Elliott, Gardener to J. B. Boothby, Esq., F.H.S., for Strawberries.
9. To Mr. Thomas Baldwin, of Turnham Green, for Apples and Strawberries.
10. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for *Leschenaultia formosa*.
11. To Mr. Falconer, Gardener to Archdale Palmer, Esq., of Cheam, Surrey, for *Erica depressa*.
12. To Mr. Sautler, Gardener to J. M. Yeeles, Esq., of Bath, for *Erica tricolor*.
13. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for *Achimenes longiflora*.
14. To Mr. Richard Forrest, F.H.S., of Kensington, for *Statice arborea*.
15. To Mr. Gaines, of Battersea, for a Seedling *Digitalis*.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitions.	MEDALS AWARDED.						
		Gold Knightian.	Gold Banksian.	Large Silver Gilt.	Large Silver.	Silver Knightian.	Silver Banksian.	Certificates.
Pinks - - - -	1	—	—	—	—	—	1	—
Heaths, collections of 20 - - -	4	1	—	2	1	—	—	—
Ditto, collections of 6 - - -	2	—	—	—	2	—	—	—
Orchidaceæ, collection of 6 species -	3	—	2	—	1	—	—	—
Ditto, single specimens - - -	8	—	—	—	2	1	1	—
Pelargoniums, collections of 12 -	4	—	2	1	—	1	—	—
Ditto, collections of 6 - - -	4	—	—	2	2	—	—	—
Roses, miscellaneous - - -	27	—	—	—	4	8	8	—
Stove and Green-house Plants, large collections - - -	3	1	1	1	—	—	—	—
Ditto - - - Ditto - - - small collections - - -	5	—	2	—	3	3	1	—
Ditto - - - Ditto - - - in sixes -	7	—	—	—	—	—	—	—
Calceolarias - - - -	6	—	—	—	3	1	2	—
Cacti - - - -	3	—	—	—	1	1	—	—
Single Plants - - - -	61	—	—	—	—	—	—	—
Collections of Fruit - - - -	4	—	2	—	2	—	—	—
Grapes - - - -	16	—	—	2	2	3	3	1
Pine Apples - - - -	4	—	—	1	1	1	—	—
Peaches and Nectarines - - -	3	—	—	—	—	2	1	—
Miscellaneous Fruit - - -	11	—	—	—	—	1	2	4
Florists' Flowers - - -	—	—	—	—	—	—	1	—
Miscellaneous, not Florists' Flowers -	18	—	1	—	3	3	5	6
Seedling Florists' Flowers - -	50	—	—	—	—	6	1	4
Total	244	2	10	9	27	31	26	15

June 21, 1842.

ORDINARY MEETING.

The following Candidates were elected Fellows of the Society :

George Clive, Esq.

William Hackblock, Esq., Denmark Hill.

Alexander Murray, Esq., M. P., Orleans House, Twickenham.

George Tomlins, Esq., 1, Carlton House Terrace; and Riby Hall, Lincolnshire.

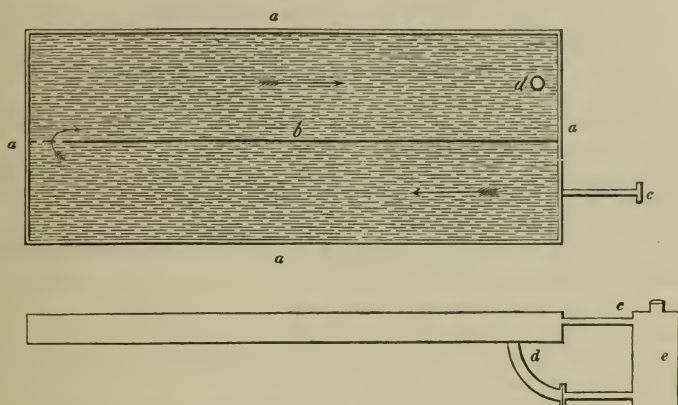
Mrs. Eliza Whatman, 5, Orchard Street, Portman Square; and Vinters, Maidstone.

A Paper was read, from Mr. W. E. Rendle, of the Union Road Nursery, Plymouth, upon an economical mode of heating Forcing and other Houses without pipes, flues, hot dung, or any fermenting material; the following is a description of the plan. In a house 24 feet long and 8 feet wide, a wall about $3\frac{1}{2}$ feet high is raised so as to form a pit; a space about 20 inches wide being left all round for a walk. On this wall stands a wooden tank, 4 inches deep, and divided lengthwise, with the exception of a few inches at one extremity, by a partition. This tank is filled with water, and is connected by means of a small pipe with one of Shewen's conical boilers. Upon lighting the fire, the water, as soon as it becomes heated, rises of course to the aperture *c*, and forms a current to the point *d*, where a pipe is fixed in the bottom of the tank, through which the water presses down into the boiler, and thus a regular circulation is kept up. The water can, in the course of an hour, be raised to 150° , at the cost of about twopennyworth of fuel, and a very small fire will maintain it at that temperature. On the top of the tank are slate slabs, upon which a layer of sand or sawdust 4 inches deep, is spread; this is surrounded by a board on edge, to prevent it from falling over the sides of the tank.

This plan is very simple and economical, as the heat which the water conveys is immediately communicated to the sand or sawdust, and from thence to the roots of the plants plunged in those materials. On this account it is well adapted for propagating houses, and indeed for any buildings in which Pines, Cucumbers, and Orchidaceous plants are cultivated. Any requisite degree of moisture in the atmosphere may be obtained by leaving apertures in the slate slabs, which cover the tank, to allow the steam to rise through.

The following is a sketch of the apparatus: *a*., sides of the tank, 4 inches deep, 20 feet long, and 5 feet wide; *b*., partition

in the tank, round which the water circulates ; c., entrance of the water from the boiler ; d., pipe through which the water returns to the boiler, e.



The following were the principal subjects of exhibition :

From Mr. Goode, Gardener to Mrs. Lawrence, a large collection of plants, amongst which were *Stanhopea insignis*, *Chysis aurea*, *Oncidium pulvinatum*, *Aristolochia ciliosa*, *Combretum grandiflorum*, and an exceedingly pretty herbaceous *Pentstemon*? from Mexico, (BANKSIAN MEDAL awarded for the latter.)

From Mr. Jackson, of Kingston, Surrey, a collection of well grown *Heaths*, including *Erica gemmifera*, *E. Bergiana*, *E. elegans*, and *E. jasminiflora alba*, (BANKSIAN MEDAL awarded.)

From Mr. Parsons, Gardener to Augustin George, Esq., of Enfield, four *Queen Pine Apples*, weighing respectively, 2 lbs. 14 oz., 2 lbs. 12 oz., 2 lbs. 10 oz., and 2 lbs. 10 oz. ; with specimens of a *Seedling Strawberry*, and a plant of *Gloriosa superba*.

From Mr. Myatt, of Deptford, Kent, some exceedingly fine fruit of his *British Queen* and *Prince Albert Strawberries*, (CERTIFICATE awarded for the *British Queen*.)

From Mr. S. Rylance, Gardener to J. B. Glegg, Esq., F. H. S., two *Montserrat Pine Apples*, some fine *Newington Nectarines*, and fruit of the *Passiflora edulis*, (BANKSIAN MEDAL awarded for the *Nectarines*.)

From Dr. Royle, a *Caubul Melon*, grown by S^r Solly, Esq., at Heathside, Dorset.

From Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., some *Seedling Verbenas*.

From Mr. James Roberts, Gardener to Matthew Wilson, Esq.,

Eshton Hall, Skipton, Yorkshire, some *Melons*, and remarkably fine *Peaches*, (CERTIFICATE awarded for the *Peaches*.)

From Mrs William Phillips, F. H. S., of Streatham Common, some *White Cucumbers*.

From Mr. Piper of Chiswick, a shoot of the *Moss Rose*, sporting to the *Provence*.

From Messrs. Rollison & Sons, of Tooting, two handsome specimens of *Stanhopea*, (CERTIFICATE awarded.)

From Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., a new *Aspasia*, called *lunata*.

From Messrs. Lane and Son, of Great Berkhamstead, Herts, a good Seedling *Fuchsia*, called *F. Lancii*.

From Mr. Beck, of Isleworth, a Seedling *Pelargonium*, grown in a Slate Pot, and another grown in a Common Pot, to shew that plants will thrive as well in pots made of the former material, as in others of a more porous nature.

From Mr. Stephen Hooker, F. H. S., a collection of *Roses*, some of which were raised from Seed. Many of the latter were very good, (CERTIFICATE awarded.)

From the Garden of the Society, were *Achimenes longiflora*, *Oncidium Wentworthianum*, *Brachycome iberidifolia*, *Lobelia ramosa*, *Milla biflora*, *Loasa Pentlandica*, and various other plants; with cut flowers of *Pæonia albiflora fragrans*, *P. Humei*, and a collection of *Roses*.

The following present was announced :

The Flora Batava, Nos. 123 and 124, from His Majesty the King of Holland.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON
1842.

No. XIX.

June 22, 1842.

FIRST REPORT OF THE CHEMICAL COMMITTEE.*

In the month of June 1841, His Grace the Duke of Devonshire, the President of the Horticultural Society, liberally offered

* The CHEMICAL COMMITTEE of the Horticultural Society consists of all Fellows of the Society who may subscribe annually to the expenses incurred in the experiments conducted by Mr. Solly.

The following are the names of the present Committee, and the amount of their annual subscriptions.

HIS GRACE THE DUKE OF DEVONSHIRE	-	-	-	-	£50	0	0
Edward Barnard, Esq.	-	-	-	-	1	0	0
Dr. Henderson	-	-	-	-	1	0	0
Sir Charles Lemon, Bart. M.P.	-	-	-	-	5	0	0
Dr. Lindley	-	-	-	-	5	0	0
Sir Oswald Mosley, Bart.	-	-	-	-	5	0	0
W. Murray, Esq.	-	-	-	-	2	0	0
E. W. Pendarves, Esq. M. P.	-	-	-	-	2	0	0
W. H. Pepys, Esq.	-	-	-	-	2	0	0
John Rogers, Esq.	-	-	-	-	5	0	0
Dr. Royle	-	-	-	-	1	0	0
Sir John Sebright, Bart.	-	-	-	-	5	0	0
R. H. Solly, Esq.	-	-	-	-	5	0	0
Samuel Solly, Esq.	-	-	-	-	5	0	0
Edward Strutt, Esq. M. P.	-	-	-	-	2	0	0
J. Wedgwood, Esq.	-	-	-	-	1	0	0
C. Webb, Esq.	-	-	-	-	3	0	0

to place at the disposal of the Council the sum of fifty pounds a year towards the expenses of an investigation into the Chemistry of Horticulture. Feeling the importance of the subject, and anxious to advance the cause of science by strengthening the connection between the theory and practice of Gardening, certain Fellows of the Society expressed their readiness also to contribute towards a fund for the same purpose. The proposal, which the munificence of the noble Duke had originated, was therefore at once taken up; and led to the formation of a Committee to superintend a series of experiments on the Chemistry of Vegetation and the influence exerted by various substances on the growth of Plants.

It was decided that all Subscribers to the Fund should be Members of the Committee, and that the experiments should be entrusted to Mr. Edward Solly, Jun'.

Investigations of this nature are necessarily very slow, and a single season is far from sufficient to enable any considerable report to be made. The Committee, however, anxious to make known to the Fellows of the Society, that such experiments are in progress, have requested Mr. Solly to prepare for publication the following statement of the general nature of his proceedings during the first year. It is their intention to follow it by other reports as quickly as such results shall have been obtained as will justify their being made the subject of publication.

HORTICULTURAL CHEMISTRY has hitherto received but a small share of the attention which it deserves, considering the beneficial results to be anticipated from its study. Numerous isolated experiments have been recorded, but the attempts that have been made to collect the facts thus obtained, or to arrange the information which may be derived from them into a useful and intelligible system, are by no means numerous. The reason of this, however, is obvious; for when we remember that till a very recent period the whole science of vegetable chemistry was enveloped in darkness and mystery, and the simplest processes of vegetation were but imperfectly understood, it is hardly surprising, that so little use should have been made of the assistance which chemistry was capable of rendering in many of the processes of cultivation, when the leading principles which regulate the growth of plants, and the great chemical laws on which their nutrition depends, were as yet scarcely understood.

The recent labours of chemists, amongst whom the name of Liebig stands pre-eminent, have explained many of the facts previously incomprehensible, have disproved many of the theories of former observers, and by supplying certain and accurate data to

start from, have laid the foundation of a complete and practical system of Agricultural Chemistry. The great sources of the food of plants have been traced out, and determined; the manner in which they obtain the various elements necessary to their growth has been investigated, and attention has been drawn to the importance of studying the nature of the inorganic substances always present in plants in small quantities. Liebig has more especially drawn attention to the necessity of supplying these substances to growing plants, as well as of those which more properly speaking constitute their food, namely such as supply them with carbon, oxygen, hydrogen, and nitrogen, the four elements, which by entering into combination with each other in different proportions give rise to the formation of woody fibre, gum, starch, gluten, and all the various proximate elements of plants, and which consequently compose the whole of their organic structure. It has long been known that independent of the action of heat, light, and moisture, it is essential to the growth of plants that they be supplied with oxygen, hydrogen, nitrogen, and carbon, the elements of which they are composed, but Chemists and Physiologists have differed greatly as to the manner in which plants obtain these elements, and consequently as to the use and mode of action, both of soil and manure. The recent writings of Liebig have done much towards explaining these processes, for not being a physiologist and therefore having no peculiar physiological views to support, he has argued on known facts merely as a chemist, and explained in a clear and scientific manner the chemical processes of vegetation, which were previously either not understood at all, or but imperfectly and in many cases erroneously accounted for.

Much has been written on the source of CARBON, and the state which it must be in to enable it to enter into the organs of plants and assist in their growth by undergoing assimilation. It was long ago believed by Drs. Priestley and Ingenhousz as well as other observers, that plants derive the carbon which they contain from the carbonic acid always present in the air. They observed that it was impossible for the carbon contained in a large tree for example, to have been possibly derived from the soil, because the space of earth through which the roots of such a tree spread never contains carbon enough to supply the very large quantity of that element required by the tree. They therefore conceived that the carbon was derived from carbonic acid, partly from that existing in the air and partly from gas generated in the soil by the gradual oxidation of carbonaceous matters. More recently a theory was started which derived considerable importance from the names of the eminent chemists who supported it; it was supposed

that the brown carbonaceous matters of the soil were the principal source of the carbon of plants, and that these substances being rendered soluble in water by the presence of alkaline and other inorganic compounds in the soil, were thus brought into a fit state to be absorbed by the roots of plants. These two theories have been well contrasted together by Liebig, who has shewn the many great objections to the latter view, and very completely re-established the old theory that plants derive their carbon from the decomposition of carbonic acid gas and not from the absorption of solid carbonaceous matters existing in the soil. The chief use then of the various organic substances added to land, as far as they supply carbon, consists in their furnishing a continual source of carbonic acid, a gas which is evolved by all organic substances whilst undergoing decay.

The importance of NITROGEN in the growth of plants has in former times been greatly overlooked, and by some observers almost entirely forgotten. It is true that Priestley and his contemporaries thought it probable that this gas must have some influence on vegetation, but their experiments were imperfect, and the conclusion which they appear to have arrived at was, that nitrogen was of very little importance compared to carbon and oxygen. More recently, as chemistry advanced, the assimilation of nitrogen began to be thought more necessary to the growth of plants, but still very indefinite ideas were entertained respecting the mode in which it was absorbed; and although the Agricultural Chemists at the commencement of this century were aware that nitrates, and salts of ammonia had strong influence on the growth of plants, and considered that they were valuable chiefly as sources of nitrogen, yet they did not take into consideration the fact that nitrogen can only be assimilated in a state of combination and they were not aware that the absorption of nitrogen by plants, was essential to the formation of those compounds, on the presence of which the value of nearly all vegetables and plants as articles of food mainly depends. Chemical enquiries into the compounds of nitrogen have shewn that this singular element has as it were a reluctance to enter into combination with other substances, not uniting with them under ordinary circumstances when in the free state; but combining with them for the most part easily, when in the nascent state, or at the moment of being evolved from one of its compounds in a state of decomposition. It is known for example that the nitrogen of the air is unable under all ordinary circumstances to unite with oxygen, carbon, and similar simple substances, and from the knowledge of this we are led to conclude that plants cannot derive their nitrogen from that great reservoir of free

nitrogen—the atmosphere. Liebig who was the first to point out the vast importance of this element in the processes of vegetation, has also investigated the source whence it is derived. He has shewn that the nitrogen of the air cannot be assimilated, but that the air always contains a minute trace of ammonia—a compound of nitrogen, and therefore a substance in which it exists in a form capable of being assimilated by plants; by a most ingenious series of experiments and deductions he has established the theory that plants derive the nitrogen, which is necessary to their growth, by decomposing ammonia and assimilating the nitrogen it contains, and that the ammonia which thus supplies them with nitrogen is constantly being formed by the decay of animal and similar organic matters. This theory enables us readily to understand multitudes of practical facts and observations, and gathers strength the more it is examined. It bears directly on all the operations of the farmer, and is of especial interest in connexion with the action of manure.

The substances which according to the views of Liebig constitute the food of plants are water, carbonic acid, and ammonia, these not only contain the four elements of organic matter, but contain them in a condition capable of being assimilated by the organs of plants.

In addition to these three substances however it is well known that plants absorb others, of an INORGANIC nature in far smaller quantity; the former are derived principally from the atmosphere, whilst the latter are obtained wholly from the earth and therefore of course consist of substances existing in the soil in contact with their roots. As the composition of soils varies greatly in different parts of the world, so the nature of the inorganic substances absorbed by plants growing in various localities is different. Very little indeed is known of the office which these substances perform in the economy of plants and hence the investigation of this subject presents a wide field of inquiry. Many analyses of plants have been made, but they are of comparatively little value because we have not at the same time careful analyses of the soils on which they grew. It has long been known that certain plants, contain small quantities of peculiar inorganic substances, thus wheat contains phosphoric acid in combination with an earthy base; and as this appears to be always the case, it is inferred that wheat could not be made to grow well, in a soil not containing any phosphates. Our knowledge of this part of vegetable chemistry is very scanty, being entirely confined to isolated facts, whilst the effect produced by the absorption of these earthy substances, or the circumstances most favourable to their absorption are unknown. Hence even when by analysis we

have learnt the nature of the substances thus absorbed by any plant we cannot therefore conclude that they are essential to the growth of that particular plant, because we find in some cases that the same plant when grown on another soil absorbs different earthy substances, which are therefore apparently able to replace those, which the previous analysis might have led us to consider essential to the growth of the plant. The investigation of this subject is full of interest and importance, and will probably lead to valuable results, more especially as regards the improvement of soils and the modes of rendering them best fitted for the cultivation of particular crops.

One subject on which this enquiry would throw light is the manuring of trees. At present comparatively very little is known, respecting the kind of manure best suited to the various kinds of timber or fruit trees. It is frequently stated that manure is hurtful to this or that kind of tree, merely because dung and similar matters are found injurious. It is clear that in such cases the kind of manure applied was not suitable to the plant, but it is not therefore to be concluded that all manure would be hurtful; it might as well be argued that because an animal could not be supported on a certain kind of food, that therefore no food whatever could keep it alive. The error has lain in attempting to apply manure at random, without knowing what substances the tree requires. Nothing certain is known respecting the influence which inorganic matters contained in the soil have on the formation of woody fibre for example; that they have considerable influence there can be little doubt, from the very different quality of the wood of the same tree when grown on different soils. No doubt the relative goodness of timber is greatly influenced by climate, dryness of air, periodical winds and other similar causes, but at the same time it is certain that the nature of the soil is of great importance and it is very probable that its chemical composition as well as its mechanical texture, produce considerable variations in the strength and other properties of wood. A knowledge of the inorganic substances required by plants, and the object effected by their absorption, must lead to great improvements in the application of inorganic manures.

A series of curious experiments has been made by Dr. Daubeny, which appear to prove that plants, to a certain extent, have a power of *SELECTION* in their roots. He found that when plants of Barley were watered with a diluted solution of a salt of strontia, none of the earth was carried up into the plant; and he further ascertained that in this case the strontia was not first absorbed and subsequently returned by the roots, but that apparently such deleterious matters were at once rejected, and not suffered to

enter into the system. These investigations have been recently borne out by the experiments of Lampadius, but the data which he has supplied are hardly complete enough to allow of very accurate conclusions being drawn from his results, and the whole subject is still involved in uncertainty.

Although the sources whence plants derive their food are now well known, yet the precise mode in which the ASSIMILATION of the elements of organised matter is carried on, are as yet very little understood. The connection which exists between the assimilation of carbon, oxygen, and hydrogen, and the formation of organised structure is wholly unknown, whilst even the chemical laws which govern many of the more simple changes in the formation of the various proximate vegetable principles, have scarcely been investigated. In some measure this is a necessary consequence of the want of more distinct information, regarding the chemical powers of the rays of light, and till this is supplied some parts of the chemistry of vegetation must remain incomplete.

Equally enveloped in uncertainty are the causes of the DETERIORATING influence which some plants exert on the soil. It must be evident that if any plants are cultivated year after year upon the same land, they must gradually diminish the quantity of some of the inorganic constituents of the soil, and in fact that in time the soil will be unable to support any more of those plants unless some means be adopted for supplying to the soil those inorganic compounds which the crops have removed. In practice this is effected sometimes by manure, and sometimes by fallowing. In the latter case, by exposure to the air and moisture for some time, the disintegration of stony substances in the soil is effected, and thus various saline and earthy compounds are added to the soil. Sometimes the necessity of some arrangement of this kind is obviated by varying the nature of the plants cultivated, substituting for the plants which have exhausted the soil of some of its constituents, other plants which do not require them, but which absorb another kind of inorganic matter. This effect of plants has been known from very early time, and led to the adoption of various systems of rotations of crops ; it has, however, been alleged that there exists another cause of deterioration perfectly different in nature from the one just adverted to. Certain experiments have been quoted to prove that plants excrete by their roots all useless or noxious matters, whether they are formed in their vessels, or absorbed along with other substances from the soil. It has been supposed that the presence of these excreted matters in the soil must render it unfit for the cultivation of the same species of plant, although it might not interfere with the growth

of other plants, on which the excretions might produce no bad effects. Amongst the experiments most commonly quoted in proof of the theory of excretions are those of Macaire, who thought he had ascertained by positive and unquestionable experiments that the roots of plants possess the power of excretion; and accordingly the theory received very general credence; recently however doubt has been thrown on his conclusions by the experiments of M. Braconnot, who has repeated the experiments of Macaire with great care, and has arrived at the conclusion that the substances which the latter thought were excretions were in reality only the natural juices of the plant, which, from the mode in which the experiments were conducted escaped in consequence of the accidental rupture of the fine fibres of the roots. The theory of excretions therefore requires new proof before it can be admitted as established; yet it is hardly justifiable wholly to reject it, since there yet exist many facts which make it appear probable.

Reference has just been made to the formation of organised tissues, and the connection existing between the assimilation of carbon, oxygen, and hydrogen, and the formation of proximate principles; what was said on that subject might be equally applied to the formation of COLOURING and ODOROUS matters in flowers and plants. The circumstances which influence or modify these secretions, nay even the very conditions requisite to their production, are unknown. If the study of this part of the subject is less important practically, it is of nearly equal interest in a scientific point of view.

Such were a few of the many subjects requiring investigation, and the study of which promised valuable results, when the Chemical Committee of the Horticultural Society was appointed. It was, however, evident to the Committee that it was impossible to take up more than one of these branches of inquiry at once. In order to arrive at good and trustworthy results, it was necessary to confine attention to a few great points, and to investigate them by numerous experiments, carefully repeated, and so varied that the results they led to might be unquestionable, and furnish correct data for future inquiry. The connexion between the earthy matters of the soil and the plants which are grown in it, is less perfectly understood, than any other part of the chemistry of vegetation. That subject therefore seemed one most worthy of early examination, because it embraced the great leading principles of both agriculture and horticulture, and promised to be of great value, in preparing a way for future experiments.

It is unnecessary to observe to the scientific reader that this investigation is one of no trifling labour, and that thousands of

careful and often tedious experiments must be made before any useful deductions can be obtained. I shall therefore not attempt at present to produce any Report on the experiments which have already been made on this subject, but confine myself to a few remarks on the way in which some of the inquiries are being conducted. In order to trace out the apparent connection between the various vegetable productions, and the soil on which the plants yielding them grow, collections have been made from various parts of the kingdom of timber, fruits, seeds, &c., and the soils on which they were raised; these are being analysed, and the results can hardly fail to be of great interest. The second stage of these experiments consists in the endeavour to apply to practice, the rules deduced from the experiments already made; attempts are made to improve or alter the quality of the produce, by the application of those substances which were found to have been absorbed from the soil by the plants which yielded the best timber, or seeds. It is almost unnecessary to observe that in these experiments attention must at the same time be paid to many other circumstances, besides the mere chemical composition of the soil. The great influence of meteorological agency, is not forgotten, and especial attention has been paid to the mechanical texture of the soil. On this latter point an extensive series of experiments has been made and the results obtained will be shortly laid before the Committee. The influence which the state of division and cohesion of the soil has on its fertility seems to have been somewhat overlooked by writers on agricultural chemistry, whilst in fact there appears good reason to consider it even more important than the chemical composition of the soil.

In the course of the experiments which have been made in connexion with this investigation, many facts have been ascertained not immediately connected with the main object of inquiry. Some of these which appear new, are perhaps worthy of record. At present I shall say nothing of those experiments, or trains of investigation which are intended to form the subjects of future reports, but confine my remarks to a few points which, though of less importance, yet appear deserving attention.

One of the substances of the greatest interest in vegetable chemistry is SULPHUR; it occurs in the soil, the air, in many vegetable substances, and in several of the best manures. What influence has it on growing plants? There are two compounds of Sulphur with which we have to deal in this consideration, namely that which it forms with oxygen, the sulphuric acid, and that which it forms with hydrogen, viz. sulphuretted hydrogen or hydro-

sulphuric acid. The former exists in the soil in combination with various bases constituting sulphates; the latter is generated during the decay or putrefaction of many organic substances, and is consequently present in manure; it is also present in very minute quantity in the air. The formation of this gas in manures, &c. depends on the fact that sulphates, or salts of sulphuric acid, are liable to be decomposed by decaying organic matters, and hence those animal and vegetable substances which contain sulphates, frequently evolve sulphuretted hydrogen when they decay. In such cases the presence of this gas is known by its exceedingly offensive odour, and we are therefore warned of its presence and enabled to guard against the bad effects which it might produce, for it is one of the most poisonous gases known: a very small quantity of it in the air producing bad effects on those who respire it, and in larger quantities proving fatal. The influence exerted by this gas on the animal economy is tolerably well known from the experiments of Thenard and Dupuytlen, who exposed different animals to atmospheres contaminated with various proportions of this gas, and the effect produced by a small quantity in the air on the human frame is very well known to chemists and physiologists. The action however which sulphuretted hydrogen and its compounds have on growing plants is almost wholly unknown. It is commonly believed from the few experiments which have been published on this subject, such as those of Christison and Turner, that sulphuretted hydrogen gas possesses as poisonous properties with regard to plants, as it does with respect to animals. I will not now bring forward the written opinions published on this subject, but merely quote a passage from the writings of Liebig. Speaking of the refuse ammoniacal liquor of the gas works, a fluid which always contains a small quantity of sulphuretted hydrogen, he says "Now the ammoniacal liquor of the gas works contains the ammonia in the form of carbonate and hydrosulphate (sulphuret of ammonium). The latter compound is a deadly poison to vegetables, nor can we conceive that by dilution its properties can be changed." This statement of Liebig is probably in part founded on the known effects of the gas upon animals, and partly on the fact that farmers in the preparation of manures, always expose it in a heap for some time until the greater part of the sulphuretted hydrogen is dissipated. In the course of experiments, I was led to make trial of the action of some of the compounds of this gas on growing vegetables, and the results I obtained were very different from what I had expected. I made use of the hydrosulphuret of ammonia, the very compound described by Liebig as being a "deadly poison;" but in place of killing plants

I found that in small quantity it produced decidedly beneficial effects ; in some cases when it was applied to plants in an unhealthy state from the action of other substances, it had the effect of invigorating them, and of restoring their leaves to a healthy, green, and crisp condition. The plants with which these effects were best observed were the garden lettuce and the common Windsor bean. The solution of the hydrosulphuret of ammonia employed was prepared by mixing a saturated solution of the compound with fifty times its bulk of water : such a solution had a most nauseous disgusting smell and contained of course a large quantity of sulphuretted hydrogen. The plants under experiment were selected from many, and were of the same age, and size, and as far as possible in the same healthy state of growth. Some were watered with common water, others with a dilute solution of hydrosulphuret of ammonia. At first only a few drops of the solution were given, but finding that this produced little or no effect, the dose was increased, and as much as half an ounce a day, and sometimes even more, was given to each plant ; it was found that those thus treated became stronger and sturdier, their leaves were of a bright deep green, the space between the nodes, or the distance from leaf to leaf, was shorter, and the stems were stronger, and the whole plant more flourishing than in those watered in the ordinary way, although all other circumstances were alike, and care was taken to place all under the same condition, by exposing them equally to air and light, and giving them the same quantity of water every day. Plants in a languid state from over doses of nitrate of potash, or soda, or other saline manures, if not too much injured by their previous treatment, appeared to recover more rapidly when watered with the solution of hydrosulphuret of ammonia, than when merely treated with common water. In some of these latter cases a much stronger solution was employed than that already mentioned, containing two drachms of the saturated solution of hydrosulphuret of ammonia in fifty of water, and of this eight drachms were given daily. For some time after thus watering the plants, the earth retained a strong smell of sulphuretted hydrogen, and the water which drained through, when tested by a salt of lead, evidently contained a large quantity of that gas.

These and similar experiments naturally make one enquire whether the influence of sulphur on the growth of vegetables has not been rather overlooked ? It is a beautiful provision in the order of the creation that plants in decaying give rise to the formation of those very substances requisite for the support and growth of fresh plants. We know that plants in decaying evolve ammonia, carbonic acid, and other substances which constitute

the principal food of plants, but we know also that in decaying they evolve sulphuretted hydrogen ; it is reasonable therefore to expect that that substance, like the other products of vegetable decay, should have some influence on the growth of plants. Its presence in manures is well known and readily proved, but its presence in the air in which it exists in exceedingly minute quantity is less readily shewn. We know however that it is constantly being formed on the surface of the earth, and we have evidence of its presence in the air by several effects, such as the tarnishing of some metals, and the blacking of white paint ; these effects which take place gradually and slowly, are principally occasioned by the presence of sulphuretted hydrogen and its compounds, more particularly the hydrosulphuret of ammonia, in the air. Lastly, if the vegetable kingdom is the great means of purifying the air, and retaining it in a fit state for the respiration of men and animals, the absorption and decomposition of sulphuretted hydrogen by plants must constitute not the least important of their functions. It must be obvious, that if the inferences to be drawn from such experiments as those just described are correct, sulphuretted hydrogen is not the poisonous substance to plants which it is commonly supposed to be, that is to say that even though in large quantity it may be, and no doubt is, hurtful to vegetation, yet in small quantity it may produce most beneficial effects. One object gained by exposing dung and similar kinds of manure to the air for some time previous to applying it to the surface of the land is to get rid of much of the sulphuretted hydrogen evolved during its decay, and therefore in preparing artificial manures many chemists have been very careful to exclude that substance, regarding it as a poison ; the above experiments would lead to the conclusion that its presence is desirable rather than otherwise, but it must certainly be supplied only in limited quantity, and with caution. I may add one fact which has considerable interest in connexion with this matter. It is the custom in most parts of England to form the manure intended to be used for the land into a heap and leave it exposed to the air for some time ; in certain counties, and more particularly in the South-west, it is a common practice to plant such manure heaps with cabbages. These plants then, grow in a soil rich in sulphuretted hydrogen and its compounds, and they are generally very large and of a fine deep green colour. They have it is said a bad taste and are only used for feeding cattle ; this bad taste has however nothing to do with the health and vigour of the plant, and involves another question. The economy of such a system may be questionable, but it is certain that the cabbages must absorb a large quantity of ammonia and carbonic acid, and pro-

bably also of sulphuretted hydrogen, which under the ordinary system of exposing manure to the air would be lost. Further experiments on this subject are now in progress.

An experiment on the influence exerted by the soil on the COLOUR of flowers, though it failed in throwing light on the immediate object of experiment, led to some curious and interesting results. Two perfectly similar plants of the *Hydrangea* were taken and placed under the same general conditions with respect to light, air, etc., and watered with dilute solutions, the one of carbonate of soda, the other of muriatic acid, commencing with very small quantities and gradually increasing the doses. At the beginning of the experiment it was difficult to distinguish the one from the other; they had both the same number of leaves, were nearly of the same size, and alike in colour and general vigour, being both remarkably healthy plants. The solutions taken consisted of one drachm of concentrated muriatic acid, and one drachm of carbonate of soda, each dissolved in fifty drachms of water; of these at first one drachm diluted with two ounces of water was given to each plant daily, but the dose was gradually increased to twelve drachms of each solution, so that in a month the one had received nearly five drachms of concentrated muriatic acid, and the other plant more than half an ounce of carbonate of soda. Under this mode of treatment both plants continued to thrive and flourish and the blossoms were large and perfect, those formed by the plant treated with muriatic acid being rather the most forward of the two: they were however both of the same colour, nearly blue, although it was believed that had they been left untouched, the blossoms would have been pink. It is evident that the acid would have a tendency to render certain matters in the soil more soluble than others, whilst the carbonate of soda would have an opposite effect; the acid would render lime, magnesia, bases, and metallic-oxides more soluble, whilst the carbonate of soda would facilitate the solution of silica, acids, and organic substances in the soil. The result of these experiments is rather against those views which have been formed respecting the blue and red flowers of the *Hydrangea*, in which it is supposed that the absorption of iron or lime was essential to the change. During the progress of these experiments two facts worthy of record were observed, the one was that some plants are able to absorb a large quantity of muriatic acid, and secondly that great influence is exerted on the rate of evaporation of the leaves, by the substances absorbed from the soil. In most of the hitherto described experiments on the action of muriatic acid on growing plants, they have been exposed to the gas or vapour, which was found to possess poisonous powers; and indeed a great deal has

been said and written on the evil effects produced by muriatic acid gas on plants, attention having been very frequently drawn to the subject in consequence of legal proceedings being instituted at Newcastle, Liverpool and other places against alkali manufacturers, the muriatic acid evolved in their factories being considered a nuisance, and supposed to produce very bad effects on the gardens and fields in their neighbourhood. Notwithstanding all this, no direct and conclusive experiments have been made, and the general impression is, that muriatic acid is a most poisonous substance, even when applied in very small quantity to growing plants. In the experiments on Hydrangeas which I have mentioned, I was surprised to find how very large a quantity of this acid the plants were able to take up, and that so far from producing bad effects they flourished under its influence. The greatest quantity which I gave was from one-fifth to one-fourth of a drachm of strong acid to the plant per day, of course dissolved in a larger quantity of water, but still so strong as to be about as sour to the taste as common vinegar.

The other fact observed in these experiments was a great apparent diminution in the rate of EVAPORATION from plants watered with the dilute acid. Thus when two Hydrangeas, the one watered with acid, the other with carbonate of soda, were placed under the same circumstances, and watered with three ounces of water each, the one watered with the alkaline solution began to fade and seemed parched up by heat in the middle of the day, whilst the other remained crisp and fresh looking; subsequently it received five ounces of water daily, but even this did not seem sufficient, and seven ounces of water were found necessary to keep it in a condition similar to the other which was watered with three ounces, but under the influence of the muriatic acid. It might at first be supposed that this effect was principally due to the action of the carbonate of soda, but by comparing the plants with others similarly situated, there appeared little doubt that the rate of evaporation was diminished in that under the influence of the acid, and not that it was increased in the one watered with the alkaline solution.

The results which these experiments would lead to are curious and well worthy of being carried out. With regard to the effects of the acid on plants I may mention that experiments made at the Horticultural Gardens by Mr. Fortune, which are described in the last part of the Society's Transactions, lead to conclusions perfectly in accordance with those I had arrived at. He was desirous of ascertaining the action which Kyanised wood had on plants, in situations where they were exposed to the action of vapours arising from mercury, corrosive sublimate, and muriatic

acid, under different conditions, and he found that those exposed to the fumes of dilute muriatic acid thrived and grew luxuriantly, and that even those which had become sickly from the action of mercurial salts, recovered their full vigour when brought under the influence of muriatic acid vapour. When plants are watered with an acid solution, the acid will to a considerable extent, if not entirely, be neutralised by the bases it meets with in the soil; it will combine with the alkalies, earths, or metallic oxides present in the soil, according to the most simple chemical rules, combining with those substances for which it has the most powerful affinity. Hence, when plants are watered with muriatic acid, it is plain that the solution must contain muriates of potash, soda, lime, ammonia, &c., and the acid *may* be valuable as a means of facilitating the absorption of these substances; but this is mere speculation, because in the present state of our knowledge of the office performed by saline and earthy matters absorbed by plants, it is almost useless to apply ordinary chemical laws to explain the phenomena observed. The fact, however, that muriates and similar salts, in which bases are combined with strong acids should be directly absorbed by growing plants and produce good effects, is rather evidence against the view of those, who believe that bases can only assist in the growth of plants when combined with weak acids, such as the carbonic; and that the presence of strong acids, such as the sulphuric in the organs of plants must immediately prove destructive to them. Bearing however in mind the fact that plants absorb saline substances gradually and in very small quantities, it is easy to understand, that decompositions of a complicated nature, may take place in their organs.

In experiments on the action of saline manures on plants, there are two things to be considered, viz. the action which they may have on any substance present in the soil, and the state of mechanical division in which they are applied; on the latter circumstance much of their action will often depend, as it will influence their solubility and absorption by the roots of plants, to a great extent; thus sulphate of lime may be formed in a soil containing lime, by the addition of dilute sulphuric acid, and the gypsum thus formed will be diffused throughout the soil, and presented to plants in a far more soluble state, than could possibly be effected by artificial means. Some salts, such as the soluble compounds of lime, are very liable to be decomposed by substances present in the soil. As an illustration of this I may mention the MURIATE OF LIME, or chloride of calcium. A number of plants of the common Heartsease were watered with a solution of this salt, and after growing for some time were ex-

mined with a view to ascertain whether any of it had been absorbed by the plants that had been thus treated, and similar ones which had not been so watered were gathered, and care taken to select good clean plants, so as to derive no impurity from the soil. On examination it was found that those watered with the muriate of lime did not, any more than those grown under ordinary conditions, contain *any* muriate of lime. A great difference was found in the relative per centage of muriatic acid; for those watered with muriate of lime contained 8·9 muriatic acid, whilst the others contained only 0·7. The muriatic acid in both cases was combined with alkali, and not with lime; it is tolerably certain that the muriate of lime had been decomposed by alkaline salts present in the soil.

As I have already stated, the action of saline compounds is very little understood, and I will not therefore go much further into the subject, as the only conclusions I could at present come to would of necessity be theoretical. I will however draw attention to one more point. An opinion is held by many that the alkalis must be in combination with a weak acid, because plants are unable to separate them from compounds with strong acids. Dr. Daubeney when speaking of the sulphate of ammonia, says: "there is no reason to believe that the organs of a vegetable can decompose sulphate of ammonia, and if they were able to do so, the disengagement of free sulphuric acid in consequence, could hardly fail to be injurious to their structure." If we assume that salts of ammonia are merely valuable to plants as sources of nitrogen, the above view would be a necessary conclusion; but there appears good reason to believe that these salts have other action besides merely supplying ammonia, and that their absorption by plants can produce other effects than the one just mentioned. Precisely the same effects can be produced by sulphate of soda, as by nitrate of soda, on some plants; and the explanation which might be given in the latter case that the nitrate supplied nitric acid, and consequently nitrogen in a form capable of being assimilated, could not be adopted in the case where the sulphate was used. Some common *Pelargoniums* were watered with a dilute solution of sulphate of soda, and after a short time the effects produced became visible in the rich green colour of the leaves, and shortening of the distance between the nodes, precisely the same as if nitrate of soda had been employed. On examination it was found that the principal difference between them and common *Pelargoniums* was, that they contained more Sulphate of soda. The green plant fed with sulphate of soda contained 14 parts of sulphuric acid in 10,000 of the plant, whilst the other contained but 8 in a similar weight; in the latter case

combined with lime alone, but in the former partly in combination with soda.

It is easy to ascertain with great accuracy the quantity of sulphuric acid present in a plant, as the tests for that substance are easily used, and the acid is not liable to be soon decomposed by any change which may take place in the organic matter of the plant. In the case of some acids however, such as nitric acid, the question is one of more difficulty, because not only are the tests for it less certain, but the acid itself is rather liable to undergo decomposition and change in the organs of the plant; hence experiments on this acid are less satisfactory than most others. The subject is however so important, that new experiments are required to make the matter certain and intelligible. I believe that in many cases, very beneficial effects were produced on peas, beans, lettuces, and even on young trees, by nitrate of potash or soda, the salt being absorbed from the soil in an unaltered state, and producing those marked effects which have been so frequently observed; without having been decomposed. I did not at all times obtain this result, for some times no trace of nitrate could be detected in the plants which had been watered with it. It is hardly probable that under ordinary circumstances, these nitrates could be decomposed by any matters present in the soil, for the tendency of most soils is to form, rather than decompose them, and it is well known that some plants require and absorb nitrates from the soil, such as lettuces, tobacco, sun-flowers, &c. the leaves of which contain so large a quantity of nitrates, that when dried they burn like Amadou or tinder. Plants of this kind absorb nitrates artificially applied to the ground and are immediately benefited by its application, though the salt is absorbed whole, and not decomposed.

Though in general I abstain from making any reference to the experiments on soils, on which I have been for some time past engaged, I may perhaps say a few words respecting the nature of the serpentine soils of Cornwall. The results of the investigation instituted by Sir Charles Lemon in the composition of the soils in some of the serpentine districts of Cornwall, seemed to me so very strange and unexpected, and so totally opposed to the commonly received theories of the formation of soils, that I was glad to avail myself of an opportunity of examining a portion of the soil. It was stated that the soil which rested on the serpentine was destitute of magnesia, though the rock below contained nearly thirty per cent. It may, perhaps, seem unnecessary to say that my experiments agreed in the main with those of the Chemists who had previously examined it, but I think it is worth while to add, that although I did find a remarkably small quan-

tity of magnesia in the soil, and in so far a great difference between it and the serpentine, still I cannot say that it is wholly destitute of it. In 2000 grains of soil I found six grains of magnesia ; this is about one-third part per cent. or at the rate of 30 per 10,000, a very small quantity no doubt when compared with the Serpentine which contains it at the rate of about 3000 parts in 10,000, and which might therefore be expected to yield a soil containing a very considerable proportion of the earth ; it must, however, be remembered that such a quantity of magnesia as I have mentioned is very considerable when compared with what plants require, and the quantity which any crop removes ; amounting in fact to many thousand pounds weight per acre on the very lowest computation.

The greatest quantity of INORGANIC MATTERS is absorbed by plants in the earliest stages of their growth, that is to say, when examined, young plants are found to contain in proportion far more earthy and saline substances, than similar plants of more advanced age. In order to trace, if possible, the stage at which this influence commences, a series of experiments was made on the effects of saline and other substances on the germination of seeds. The result obtained was unexpected, because as, in the commencement of germination, the first effect is usually a mere softening or swelling up of the whole mass, and therefore rather a mechanical effect, it was not expected that this part of the process could be affected by small quantities of saline matters. It appeared however that the swelling of the seeds and consequent germination was influenced by the presence of certain substances. Weighed portions of seeds, principally the common Windsor bean, were immersed in weak saline solutions, and weighed after a certain period, which of course shewed the increase they had gained by immersion in the various fluids. It is generally stated that seeds germinate better or more rapidly in the dark than when exposed to the influence of light. It would appear however that this is not always the case, for in some solutions the seeds exposed to light, germinated most rapidly. No saline substance that was tried caused the seeds to germinate more rapidly than they did under ordinary conditions in pure water, but many saline substances caused them to germinate far more slowly in darkness than in light. To refer at once to an experiment. It was found that—

Beans weighing 1000 became in light 1309, in darkness 1362, when immersed in pure water.

But the same weight became in light 1282, in darkness 1066, in very dilute muriatic acid.

I mention this as a strong case, for in light the presence of

muriatic acid diminished the increase in weight by 27 parts, but in darkness by 282 parts, thus making those in light appear to increase the most. A similar effect in various degrees was caused by dilute solutions of phosphate of soda, muriate of soda, carbonate of soda, sulphate of magnesia, carbonate of ammonia, and pure water, in all of which agents seeds increased most rapidly in the dark; whilst of those in solutions of nitrate of soda, sulphate of soda, muriate of ammonia and muriatic acid, those in the light increased most rapidly. It was evident however, that this rapidity of swelling was quite independent of subsequent growth, for those which increased most rapidly at first soon stopped, and but few grew particularly well. Other beans were made to germinate in water, then planted in ordinary earth, and watered with dilute solutions of various salts, so that each plant received one grain of salt per day; great differences were observed in the effects produced by different salts, such as nitrate of potash or soda, sulphate of magnesia, phosphate of soda, common salt, &c. according to the age of the plant; checking the growth of the plants when they were young but increasing their vigour when old or full grown. It was evident that the effect of some salts such as common salt, nitrate of soda, and some of the salts of ammonia, was principally if not wholly produced after their absorption by growing plants, while sulphate of magnesia, phosphate of soda and many others were decomposed in the soil, and influenced its texture even in minute quantity. Upon these however and the other points now under investigation, I forbear to speak more particularly until my experiments are in a more complete state.

June 13, 1842.

E. SOLLY.

July 4, 1842.

GARDEN COMMITTEE.

Read the following reports.

A portion of the mown grass in the Arboretum was divided into squares, containing a rod each, for the purpose of ascertaining the effect of various manuring substances. On the 24th of November, 1841, those substances were applied, and on the 4th of May, 1842, the squares were mowed, with the results given in the following table. Unfortunately the spring of 1842 was so dry and cold as to render the experiments comparatively unimportant, and when the grass was beginning to grow it was necessary to put an end to them, in order to make way for the arrangements connected with the Exhibitions at the Garden. Nevertheless it is thought desirable to put the results on record.

Substance applied.	Quantity per acre.	Weight of grass when mowed.
Nothing . . .	—	15 lbs.
Sea Peat . . .	1½ cwt.	15 lbs.
Nitrate of Soda . .	1 cwt.	16 lbs.
Ditto . . .	2 cwt.	22 lbs.
Nitrate of Potash . .	1 cwt.	16½ lbs.
Ditto . . .	2 cwt.	17 lbs.
Salt cake; impure } sulphate of Soda }	1 cwt.	14 lbs.
Ditto . . .	2 cwt.	14 lbs.
Gas water . . .	{ 160 galls. diluted with 7 times the quantity of water. }	20 lbs.
Ditto . . .	320 galls.	43 lbs.
Ditto . . .	640 galls.	57 lbs.
Gas Lime . . .	1 ton	19 lbs.
Ditto . . .	2 tons	30 lbs.
Sulphate of Iron . .	25 lbs.	{ no effect: but the clo- ver unusually thick and strong.
Ditto . . .	50 lbs.	{ ditto, clover stronger still.
Ditto . . .	100 lbs.	ditto, ditto.
Muriate of Lime . .	1 cwt.	no effect.
Ditto . . .	2 cwt.	ditto.
Charcoal dust . . .	1 cwt.	20 lbs.
Ditto . . .	2 cwt.	23 lbs.
Bleaching Powder } (Chloride of Lime) }	1 cwt.	30 lbs.
Ditto . . .	2 cwt.	30 lbs.
Sulphate of Copper .	25 lbs.	{ no effect, no white clover.
Ditto . . .	50 lbs.	ditto.
Ditto . . .	100 lbs.	ditto.

On the 1st of March, 1842, the following additional applications were made to other squares also consisting of one rod each, and cut on the 10th of May.

Substance applied.	Quantity per acre.	Weight of grass when mowed.
Daniel's manure .	260 lbs.	20 lbs.
Gypsum . . .	280 lbs.	17 lbs.
Ditto . . .	560 lbs.	38 lbs.
Gypsum and Gas-water mixed some time before using	280 lbs.	20 lbs.
Ditto . . .	560 lbs.	21 lbs.
Sawdust 1 Bush., Ammoniacal Liqueur 1 Gallon, and Nitrate of Soda 3 lbs.	640 lbs.	19 lbs.
Sawdust 1 Bush., Ammoniacal Liqueur 2 Gallons, and Nitrate of Soda 6 lbs.	700 lbs.	21 lbs.
Sawdust 1 Bush., Ammoniacal Liqueur 1 Gallon, and Sulphuric acid 1 qt.	500 lbs.	17 lbs.
Sawdust 1 Bush., Ammoniacal Liqueur 1 Gallon, and Sulphate of Soda 3 lb.	500 lbs.	17½ lbs.

Kitchen Garden Department.—The *Oignon de Nocera Blanc très Hâtif* deserves particular notice, for it seems better adapted for pickling than any hitherto known variety. It was sown in the same sort of soil and at the same time as the other varieties of onion, none of which, not even the Silver-skinned, have attained half their growth, whilst the one in question is already at the point of maturity. It is very small, firm, roundish or oblate, very white. Its top is exceedingly dwarf and small, consisting generally of one, and at most of two, cylindrical leaves. It is preferable to the Silver-skinned, being smaller and firmer; and the *Oignon paille ou jaune* can no longer be esteemed the best for pickling, the *Oignon de Nocera Blanc très Hâtif* being of a more desirable colour, the latter variety occupies the ground for so short a period that it may be cleared in time for a summer crop of some other kind of vegetable.

Fuller's Hybrid Radish—is a strong-growing, long-topped variety; but its colour being a pale red, is bad; and it is not crisp.

Flack's New Large Victory Pea is a dwarf sort, with thick pods, channelled along the under suture, from the direction of which the apex is slightly elevated; peas large, somewhat four-sided.

Myatt's "Eliza" Strawberry is middle sized, ovate, and tolerably good, ripening about the same time as Keen's Seedling.

Myatt's "British Queen" Strawberry is very large, of a roundish irregular form and very good. Probably through Wilmot's Superb, or others, it has had a little of the Chili nature imparted; but it is superior in size, flavour, and bearing to any of the Chili breeds previously known. Later than the preceeding.

Swainstone Seedling Strawberry has a very broad foliage, in this respect much resembling Keen's Seedling; but plants of the former may easily be distinguished by their very scabrous petioles. The fruit is large, roundish or ovate, containing a little more acidity than Keen's Seedling does, and therefore not so apt to become flat. It bears most abundantly, and in succession, as it has been reported to do.

Of the varieties of Strawberries here mentioned, *Myatt's "Eliza,"* is not deserving of cultivation, but *Myatt's "British Queen,"* and the *Swainstone Seedling*, can be recommended.

A Black Hamburgh Vine potted in chopped vine-shoots and leaves, with only a little poor soil to hold it, has continued to thrive. Patches of the different varieties of Strawberries, which have had no dung for many years, have borne well, considering the dry weather; and this appears to be attributable to their own decayed foliage, and such decayed leaves from the apple-trees as had got entangled amongst the Strawberry leaves. Their own foliage, or that of trees is doubtless an excellent manure for Strawberries.

Hothouse Department.—For some time past experiments have been in progress to ascertain what effect coloured glass produces upon the germination of seeds, or upon the propagation of plants from cuttings, and to prove or refute the statements which have been made concerning its utility in a horticultural point of view. The details of these experiments, and the result is now produced.

In the first instance, some seeds of *Nemophila insignis* were sown in a bed on the open ground, and part of them were covered with a blue hand-glass, and part with a hand-glass of the common kind. Those under the blue glass germinated about a day sooner than the others, but in a short time the plants became long jointed and weak, and evidently suffered much from the want of light, while the others retained a strong and healthy appearance. Evaporation evidently went on much faster under the common glass than under the blue one, for, while the soil in the former

was quite dry, that in the latter retained the moisture. This experiment was repeated several times with similar results, and I was, therefore, led to believe that the moisture in the soil was the chief cause of the seeds germinating sooner under the blue glass, and that the chemical effects of the coloured rays was imaginary.

To prove whether or not this opinion was correct, seeds of the same plant were sown and covered with two common hand-glasses; the patches were both watered alike, and one of the glasses was shaded with a mat. The same results were obtained in this case as in the former; that is, the seeds vegetated soonest under the shaded glass, but as the plants grew they became drawn and weakly, resembling those under the blue glass.

In order to carry out the experiment, and render it as complete as possible, a small box or frame was made and divided into eight parts, the first of which was glazed with common glass, and the others with the seven prismatic colours—red, orange, yellow, green, blue, indigo and violet. The seeds of *Nemophila* were sown in each, the whole were watered alike, and the frame was put on. On the fourth day after this was done, the seeds under the red, green, indigo and violet glasses were above ground; those under the blue came up next, then those under the orange and yellow, and last of all under the common glass. The experiment was repeated again and again with different kinds of seeds in the course of last summer, with the same result, providing the weather was bright and fine. It will be seen, therefore, that the same thing happened in this experiment as in the other; namely, that the seeds vegetated soonest where there was least evaporation going on, and vice versâ. But the shade under the darker glasses was too much for the young plants, they very soon became drawn and weakly, and formed a striking contrast to those under the common hand-glass.

In the autumn, or when the sky was cloudy for a few days, during some of the experiments, the seeds under the orange and yellow glass vegetated sooner than those under any of the others. This is very easily explained—the orange and yellow glasses afforded sufficient shade during weather of this kind, and at the same time admitted more heat to the soil than the darker ones, and consequently the results (when these things are considered) are such as might have been expected.

Many experiments with cuttings were also tried with the same frame, and if the sky chanced to be clear for some days after the cuttings were planted, they did much better under the dark glasses, but when dull weather came they generally suffered much from damp, and in no instance did they succeed so well as under a common shaded frame. After watching these experi-

ments with seeds and with cuttings for more than a year, I think I am fully warranted in coming to the conclusion, that the action of coloured glass, where it has caused seeds to germinate more quickly than the kind in common use, has been merely *mechanical*, and consists in shading from bright sunshine, and consequently preventing evaporation from going too rapidly on; and, that if there is any *chemical* influence exercised by the violet coloured ray, about which so much has been said, it must be too weak to be of use in horticulture. If any one is inclined to use the glass, it should only be in small squares for covering pots, which can be removed at pleasure, and certainly not in permanent structures, such as hothouses or greenhouses.

New Hardy Shrub.—A large plant and several small ones of *Fabiana imbricata* were planted out last autumn, and prove to be perfectly hardy.

July 5, 1842.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society.

Mathew Bell, Esq., 4, Grosvenor Crescent, Belgrave Square.

James Giles, Esq., Bellsizes, Hampstead.

Thomas Pakenham, Esq., of Shalimar, near Acton.

James Edward Winterbottom, Esq., East Woodhay, Hants.

The following were the principal subjects exhibited :

From Mr. Mills, F. H. S., a *brace* of *Cucumbers*, grown upon plants raised from cuttings, struck in October, 1841, the fruit of which was also exhibited in February; proving that plants of this description will bear equally well with those raised from seed.

From the Garden of the Society a collection of plants, including, — *Miltonia spectabilis*, *Stanhopea venusta*, *Epidendrum asperum*, *Rondeletia speciosa*, *Brachycome iberidifolia*, and *Statice mucronata*; with collections of *Roses*, *Verbenas*, and *cut flowers* of *Triptilion spinosum*, *Potentilla insignis*, and *Pentstemon gentianoides coccineum*.

The following Presents were announced :

The *Horticultural Cabinet* No. 112, from the Editor Mr. Joseph Harrison.

The *Florists' Journal* Nos. 30, and 31, from the Proprietor.

Paxton's Magazine of Botany, for July, from the Editor.

The *Athenæum* for June, from the Editor.

The *Botanical Register*, for July, from the Publishers.

July 9, 1842.

EXHIBITION AT THE GARDEN.

The weather upon this occasion was very unpropitious, heavy showers falling during the greater part of the afternoon; the number of visitors was consequently small, amounting only to 3445, exclusive of exhibitors.

The award was as follows :

THE GOLD KNIGHTIAN MEDAL.

1. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, Middlesex, for a large collection of Stove and Greenhouse plants.
2. To Mr. Dodds, Gardener to Sir George Warrender, Bart., F.H.S., for a miscellaneous collection of Fruit.
3. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., for a miscellaneous collection of Fruit.
4. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for twenty species of Cape Heaths.

THE GOLD BANKSIAN MEDAL.

1. To Mr. Cock, of Chiswick, Middlesex, for a large collection of Pelargoniums.
2. To Mr. Gaines, of Battersea, Surrey, for a large collection of Pelargoniums.
3. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for a collection of Stove and Greenhouse plants.
4. To Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, for a collection of Stove and Greenhouse plants.
5. To Mr. Roberts, Gardener to M. Wilson, Esq., of Eshton Hall, Skipton, Yorkshire, for a miscellaneous collection of Fruit.
6. To Mr. May, Gardener to Emanuel Goodheart, Esq., of Langley Park, Beckenham, Kent, for six species of Cape Heaths.

7. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., Jun., F.H.S., for six species of Orchidaceous plants.
8. To Messrs. Rollisson, of Tooting, Surrey, for six species of Orchidaceous plants.

THE LARGE SILVER GILT MEDAL.

1. To Mr. Cock, of Chiswick, Middlesex, for a small collection of Pelargoniums.
2. To Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, for a small collection of Pelargoniums.
3. To Mr. Davis, Gardener to Abel Smith, Esq., of Wood Hall, Ware, Herts, for Grapes.
4. To Mr. Chapman, of Vauxhall, for Grapes.
5. To Mr. Spencer, Gardener to the Marquess of Lansdowne, F.H.S., for Pine Apples.
6. To Mr. Brewin, Gardener to Robert Gunter, Esq., F.H.S., for Pine Apples.
7. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, Middlesex, for twenty species of Cape Heaths.
8. To Mr. Jackson, of Kingston, Surrey, for twenty species of Cape Heaths.

THE LARGE SILVER MEDAL.

1. To Mr. Burrup, of Vassal Road, Brixton, Surrey, for Carnations.
2. To Mr. Norman, of Woolwich, Kent, for Carnations.
3. To Thomas Barnard, Esq., of Brixton, Surrey, for Piccotees.
4. To Mr. Dickson, of Acre Lane, Brixton, Surrey, for Piccotees.
5. To Mr. Bourne, Gardener to Sir Edward Paget, G. C. B., of Chelsea Hospital, for a large collection of Pelargoniums.
6. To Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, for a large collection of Pelargoniums.
7. To Mr. Gaines, of Battersea, Surrey, for a small collection of Pelargoniums.
8. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq., F.H.S., for Common Garden Roses.
9. To Mr. Hooker, F.H.S., of Brenchley, near Lamberhurst, Kent, for Common Garden Roses.
10. To Mr. Cobbett, Horsell Nursery, near Woking, Surrey, for Common Garden Roses.
11. To Mr. Milne, Gardener to Charles Snell Chauncey, Esq., F.H.S., for Chinese Roses.
12. To Messrs. Lane and Son, of Great Berkhamstead, Herts, for Chinese Roses.

13. To Messrs. Paul and Son, of Cheshunt, Herts, for Chinese Roses.
14. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for a collection of Stove and Greenhouse plants.
15. To Mr. Frazer, of Leyton, Essex, for a collection of Stove and Greenhouse plants.
16. To Mr. Bruce, Gardener to Boyd Miller, Esq., of Mitcham, Surrey, for a small collection of Stove and Greenhouse plants.
17. To Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, for a small collection of Stove and Greenhouse plants.
18. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, Middlesex, for Stove and Greenhouse climbers.
19. To Mr. Henderson, Gardener to Sir George Beaumont, Bart., for a miscellaneous collection of Fruit.
20. To Mr. Black, Gardener to C. I. Holcomb, Esq., of Valentines, Essex, for Grapes.
21. To Mr. Fielder, Gardener to William Linwood, Esq., F.H.S. for Pine Apples.
22. To Mr. Pawley, of the White Hart Inn, Bromley, Kent, for six species of Cape Heaths.
23. To Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., for six sorts of Orchidaceous plants.
24. To Mr. Brewster, Gardener to Mrs. Wray, F.H.S., of Oakfield House, near Cheltenham, for *Barkeria spectabilis*.
25. To Mr. Mylam, Gardener to Sigismond Rucker, Esq., Jun., for *Nepenthes distillatoria*.
26. To Mr. Dawson, Nurseryman of Brixton, Surrey, for *Erica Massoni*.
27. To Messrs. Luccombe and Pince, Nurserymen of Exeter, for *Erica ampullacea*.

THE SILVER KNIGHTIAN MEDAL.

1. To Thomas Barnard, Esq., of Brixton, Surrey, for Carnations.
2. To Mr. Dickson, of Acre Lane, Brixton, Surrey, for Carnations.
3. To Mr. Edmonds, of Wandsworth Road, Surrey, for Piccotees.
4. To Mr. Norman of Woolwich, Kent, for Piccotees.
5. To Messrs. Lane and Son, of Great Berkhamstead, Herts, for Moss Roses.
6. To Mr. Betteridge, of Milton Hill, Abingdon, Berkshire, for Common Garden Roses.

7. To Messrs Lane and Son, of Great Berkhamstead, Herts, for Common Garden Roses.
8. To Messrs. Paul and Son, of Cheshunt, Herts, for Common Garden Roses.
9. To Mr. Cobbett, of Horsell, near Woking, Surrey, for Chinese Roses.
10. To Mr. Whomes, Gardener to Edmund Forster, Esq., of Clewer Lodge, near Windsor, for a Seedling Pelargonium (Lord Chancellor.)
11. To Mr. Pamplin, of Walthamstow, Essex, for a Seedling Pelargonium (Count d'Orsay.)
12. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., of Wimbledon, Surrey, for a collection of Stove and Greenhouse plants.
13. To Mr. Pawley, of the White Hart Inn, Bromley, Kent, for a collection of Stove and Greenhouse plants.
14. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for a miscellaneous collection of Fruit.
15. To Mr. Spencer, Gardener to the Marquess of Lansdowne, F.H.S., for Grapes.
16. To Mr. Wilson, of Millichope, for Black Hamburgh Grapes.
17. To Mr. Henderson, Gardener to Sir George Beaumont, Bart., for Pines Apples.
- 18 To Mr. May, Gardener to Emanuel Goodheart, Esq., of Langley Park, Beckenham, Kent, for Pine Apples.
19. To Mr. Parsons, Gardener to Augustin George, Esq., of Enfield, Middlesex, for Pine Apples.
20. To Mr. Shiells, Gardener to the Lord Blantyre, of Erskine House, Renfrewshire, for Peaches.
21. To Mr. Lauder, Gardener at Downton Castle, Ludlow, Herefordshire, for Nectarines.
22. To Mr. Errington, Gardener to Sir Philip de Malpas Grey Egerton, Bart., M.P., F.H.S., for Peaches.
23. To Mr. Davis, Gardener to Sir Simon Houghton Clarke, Bart., F.H.S., for Nectarines.
24. To Mr. Hall, Gardener to W. B. Harcourt, Esq., of St. Leonard's Hill, Windsor, for Green Fleshed Melons.
25. To R. Barnard, Esq., of _____ for a Green Fleshed Melon.
26. To Mr. Redding, Gardener to Mrs. Marryat, F.H.S., for six species of Orchidaceous plants.
27. To Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., Esq., F.H.S., for *Oncidium* sp. nov.
28. To Mr. May, Gardener to Emanuel Goodheart, Esq., of Langley Park, Beckenham, Kent, for *Erica radiata*.
29. To Mr. Goode, Gardener to Mrs. Laurence, F.H.S., of Ealing Park, Middlesex, for *Euphorbia splendens*.

THE SILVER BANKSIAN MEDAL.

1. To Mr. Allaway, of Sonning, Reading, Berkshire, for Carnations.
2. To Mr. Orson, of Kennington, for Carnations.
3. To Mr. Willmer, Jun., of the King's Road, Chelsea, for Carnations.
4. To Mr. Allaway, of Sonning, Reading, for Piccotees.
5. To Mr. Willmer, of Sunbury, Middlesex, for Piccotees.
6. To Mr. Willmer, Jun., of the King's Road, Chelsea, for Piccotees.
7. To Mr. Garratt, Gardener to Sir Herbert Jenner Fust, F.H.S., for a large collection of Pelargoniums.
8. To Mr. Garratt, Gardener to Sir Herbert Jenner Fust, F.H.S., for a small collection of Pelargoniums.
9. To Mr. Cobbett, of Horsell, near Woking, Surrey, for Moss Roses.
10. To Mr. Stephen Hooker, F.H.S., of Brenchley, Lambeth, Kent, for Moss Roses.
11. To Alexander Rowland, Esq., F.H.S., of Rosenthal, Lewisham, Kent., for Common Garden Roses.
12. To Mr. Betteridge, of Milton Hill, near Abingdon, Berkshire, for Chinese Roses.
13. To Mr. Stephen Hooker, F.H.S., for Chinese Roses.
14. To Mr. Whome, Gardener to Edmund Foster, Esq., of Clewer Lodge, near Windsor, for a Seedling Pelargonium (*Actæon*.)
15. To The Rev. R. Garth, of Farnham, Surrey, for a Seedling Pelargonium (*Constellation*).
16. To Mrs. Fleming, of Binstead, Isle of Wight, for Chinese Roses.
17. To Mr. Clarke, Gardener to William Block, Esq. of Muswell Hill, Middlesex, for Grapes.
18. To Mr. Jones, Gardener to Sir Moore Disney, F.H.S., of East Acton, Middlesex, for Grapes.
19. To Mr. Fielder, Gardener to William Linwood, Esq., F.H.S., for Grapes.
20. To Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., for Pine Apples.
21. To Mr. Burr, Gardener to Henry Preston, Esq., of Moreby Hall, near York, for Pine Apples.
22. To Mr. Wilson, Gardener to the Rev. R. Pemberton, F.H.S., of Millichope, for Peaches and Nectarines.
23. To Mr. Davis, Gardener to Abel Smith, Esq., of Woodhall Park, Ware, Herts, for Melons.

24. To Mr. Martin, of Thames Bank, Pinlicko, for Melons.
25. To ———* for *Oncidium pulvinatum*.
26. To Mr. William Barnes, for six species of Orchidaceous plants.
27. To Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., for six species of Orchidaceous plants.
28. To Mr. Cock, of Chiswick, for *Achimenes longiflora*.
29. To Mr. Barnes, Gardener to George Ward Norman, Esq., F.H.S., for *Burtonia conferta*.
30. To Mr. Veitch, of Exeter, for Pink Echites.
31. To Mr. Edmonds, Gardener to his Grace the Duke of Devonshire, at Chiswick House, for *Banksia speciosa*.
32. To Mr. Brazier, Gardener to William Henry Story, Esq., F.H.S., for *Fuchsia pulcherrima*.
33. To Mr. John Lee, F.H.S., of Hammersmith, for Shrubland Scarlet Pelargonium.
34. To Mr. Baile, Florist, Covent Garden, for Globe Scarlet Compactum Pelargonium.
35. To Messrs. Lane and Son, of Great Berkhamstead, Herts, for *Fuchsia Lanci*.

THE CERTIFICATE OF MERIT.

1. To Mr. Pamplin, of Walthamstow, Essex, for a seedling Pelargonium, (Prince of Wales).
2. To Mr. Gaines, of Battersea, for a seedling Pelargonium, (Duchess of Sutherland).
3. To S. Smith, Esq., of Park Place, Walworth, Surrey, for a seedling Piccottee, (Prince Albert).
4. To Mr. Allaway, of Sonning, Reading, Berkshire, for a seedling Crimson Bizarre Carnation, (Venus).
5. To Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for seedling *Calceolarias*, (*C. floribunda* and *pulchella*).
6. To Mr. Kyle, Gardener to Robert Barclay, Esq., for a seedling *Verbena* (*speciosa*).
7. To Mr. Nicholson, Gardener to the Earl of Orkney, F.H.S., for Peaches and Nectarines.
8. To Mr. Parker, Gardener to J. Oughton, Esq., of Roehampton, Surrey, for Melons and Strawberries.
9. To Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., for *Brassia* sp. nov.
10. To Mr. Fielder, Gardener to William Linwood, Esq., F.H.S., for *Cattleya crispa*.
11. To the same, for *Odontoglossum læve*.

* Owing to some inaccuracy in entering this plant it is not known to whom it belonged.

12. To Mr. Edmonds, Gardener to His Grace the Duke of Devonshire, President, for *Hæmanthus multiflorus*.
13. To Mr. Goode, Gardener to Mrs. Lawrence, F. H. S., of Ealing Park, Middlesex, for *Abutilon Bedfordiensis*.
14. To Mr. Bourne, Gardener to Sir Edward Paget, G. C. B., of Chelsea Hospital, for *Campanula fragilis*.
15. To Mr. Goode, Gardener to Mrs. Lawrence, for *Erinus Lychnidea*.
16. To the same for *Cuphea Melvilla*.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitions.	MEDALS AWARDED.						
		Gold Knightian.	Gold Banksian.	Large Silver Gilt.	Large Silver.	Silver Knightian.	Silver Banksian.	Certificate.
Carnations - - - -	10	—	—	—	2	2	3	—
Picotees - - - -	12	—	—	—	2	2	3	—
Pinks - - - -	3	—	—	—	—	—	—	—
Heaths, collections of 20 - -	3	1	—	2	—	—	—	—
Ditto, collections of 6 - -	2	—	1	—	1	—	—	—
Orchidaceæ, collections of 6 -	6	—	2	—	1	1	2	—
Ditto, single specimens - -	12	—	—	—	1	1	1	3
Pelargoniums, collections of 12 -	5	—	2	—	2	—	1	—
Ditto, collections of 6 - -	4	—	—	2	1	—	1	—
Miscellaneous Roses - -	21	—	—	—	6	5	6	—
Stove and Greenhouse Plants, large collections - - - -	1	1	2	—	2	—	—	—
Ditto, small collections - -	7	—	—	—	2	—	—	—
Ditto, collections of six - -	2	—	—	—	—	2	—	—
Calceolarias - - - -	1	—	—	—	—	—	—	—
Collections of Fruit - - -	8	2	1	—	1	1	—	—
Grapes - - - -	22	—	—	2	1	2	3	—
Pine Apples - - - -	27	—	—	2	1	3	2	—
Peaches and Nectarines - -	7	—	—	—	—	4	1	1
Miscellaneous Fruit - -	20	—	—	—	—	2	2	1
Fine Single Specimens of ornamental plants - - - -	45	—	—	—	—	—	—	—
Miscellaneous - - - -	9	—	—	—	4	2	8	5
Seedling Florists' Flowers - -	35	—	—	—	—	2	2	6
Total.	253	4	8	8	27	29	35	16

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON,
1842.

No. XX.

July 19, 1842.

ORDINARY MEETING.

The following were elected Fellows of the Society :

John Edmund Body, Esq., Hyde Park Gate, Kensington.
William Cathrow, Esq., 42, Weymouth Street, Portland Place.
Charles Fiddey, Esq., Woodlands, Tooting Common, Surrey.
Edward Lloyd Gatacre, Esq., Gatacre, Wolverhampton.
G. H. Walker Heneage, Esq., M.P., Compton Bassett, Wilts.
Lieut.-Col. James Price Gwynne Holford, York Place, Port-
man Square, and Bucklands, Brecknockshire.
William Wooly Simpson, Esq., 8, Montague Place, Russell
Square.
Bentley Stocks, Esq., 1, King's Bench Walk.

The following were the principal subjects exhibited :

From Mr. Goode, Gardener to Mrs. Lawrencē, F.H.S., a large collection of plants, including a well flowered plant of *Epidendrum floribundum*, a species of *Oncidium*, *Burtonia conferta*, and eight fine varieties of *Heaths*. (KNIGHTIAN MEDAL awarded for the *Epidendrum* *Oncidium* and *Heaths*.)

From Mr. Edmunds, Gardener to the Duke of Devonshire,

Chiswick, a beautiful specimen of *Stephanotis floribunda*, with a plant of *Erica viridiflora* (BANKSIAN MEDAL awarded for the former.)

From the Hon. William Fox Strangways, F.H.S., a collection of cut flowers.

From Mr. Redding, Gardener to Mrs. Marryat, F.H.S., a handsome specimen of *Triptilion spinosum*, with *Statice arborea*, *Stanhopea oculata*, *Martiana* and various other plants, (CERTIFICATE awarded for the *Triptilion*.)

From Mr. James Cuthill, of Camberwell, a plant of *Lisianthus Russellianus* with a cutting of the same growing in water.

From Messrs. Veitch and Son of Exeter, a very beautiful blue Cinchonaceous plant, the *Rondilitia longiflora* (BANKSIAN MEDAL awarded.)

From Mr. Atlee, Gardener to Henry Beaufoy, Esq., of South Lambeth, some exceedingly fine *Black Hamburgh Grapes*, (BANKSIAN MEDAL awarded.)

From Messrs. Beck, & Co., Strand, a collection of German Stocks and Marygolds.

From Henry Welling, Gardener to Robert W. Barchard, Esq., of East Hill, Wandsworth, a well grown plant of *Lisianthus Russellianus*, (CERTIFICATE awarded.)

From R. Thompson, Esq., of Stansty Hall, a dish of *Waterloo Cherries*, with some very fine *Black Hamburgh*, *Lombardy*, and *Sweetwater Grapes*, (BANKSIAN MEDAL awarded for the *Black Hamburgh* and *Lombardy Grapes*.)

From Mr. Errington, Gardener to Sir Philip de M. Grey Egerton, Bart., a dish of *Murray Nectarines*.

From Messrs. Willmer & Son, of King's Road, Chelsea, a collection of *Carnations* and *Picotees*.

From Messrs. Hogg, of Paddington, a collection of *Carnations* and *Picotees*.

From Mr. Atkins, Gardener to Thomas Leach, Esq., of Melina Place, St. John's Wood, a stand of *Picotees*.

From the Garden of the Society, a large collection of Orchidaceous and other plants, amongst which were *Cynoches ventricosum*, *Grammatophyllum multiflorum*, *Peristeria Barkeri* var., *Oncidium incurvum*, *Grobya Amherstiae*, and several *Fuchsias*; with cut flowers of *Verbenas* and some plants grown in glazed pots.

The following presents were announced :

The Suburban Horticulturist, Part 12, from the Editor, J. C. Loudon, Esq.

Die Reihen-Egge, von Johann Hölbling, from the Author, 8vo. Vienna, 1842.

Verhandlungen der K. Landwirthschaft-Gesellschafts in Wien, N. S. Vol. II. part 1, from the Society, Vienna, 1842.

Memoires de l'Institut de France, Vol. 18.

Mémoires présentés par divers Savans à l'Académie Royale des Sciences de l'Institut de France, Vol. 7.

Comptes Rendus des Séances de l'Académie Royale des Sciences, Vol. 14, Lemestre, 1842.

Proceedings of the Geological Society, Nos. 77 to 83 inclusive, from the Society.

August 1, 1842.

GARDEN COMMITTEE.

The following reports were read.

Hardy Department.—Various plants in glazed pots have grown as well and in as healthy a manner as those in the common porous pots. The only difference in the management of them is, that those in glazed pots require rather more drainage and in general less water than the others.

GEO. GORDON.

Kitchen Garden Department.—Prince Albert's Marrow Pea proves to be the Milford Marrow.

Ady's fine large Cos Lettuce is the White Paris Cove Cos.

Guano, at the rate of 12 lbs. to 120 square yards, applied as a manure for Lettuces produced a good effect; but 10 lbs. of the same manure applied to 84 square yards of a border in front of West Aspect Wall, sown with turnips May 2nd, did not produce so evident an effect, probably, owing to the very dry weather.

R. THOMPSON.

August 2, 1842.

ORDINARY MEETING.

The following gentlemen were elected Fellows of the Society:

R. W. Gaussen, Esq., Brookman's Park, Herts.

Stephen Ram, Esq., 8, Hereford Street, and Ramsfort Gorey, Wexford.

Henry Russell, Esq., Swallowfield Park, Berkshire, and 27, Charles Street, St. James's.

The following were the principal subjects of Exhibition:

From Mr. Sellers, gardener to Lloyd Vaughan Watkins, Esq., F.H.S., six extremely fine *Queen Pine Apples*; two of which, weighing respectively 4 lbs. 10 oz. and 3 lbs. 15 oz., were cut from plants which had been turned out of the pots, and grown

in a border formed in the pit, the border being heated by hot water: two others, weighing 3 lbs. 5 oz. and 3 lbs. 4 oz., were cut from plants grown in the usual way, in pots plunged in tan: the remaining two, of the respective weights of 3 lbs. and 2 lbs. 13 oz., were cut from plants which were plunged in coal ashes instead of tan, as those last mentioned: showing the decided superiority of the former method over either of the latter, (KNIGHTIAN MEDAL awarded for the two former.)

From Mr. Watts, Gardener to Richard Marshall, Esq., of Limes, Muswell Hill, Hornsey, a remarkably well grown plant of *Lisianthus Russellianus*, the colours of which were much deeper than any before exhibited; the plant had received the alternate treatment of greenhouse and vinery, being kept during the dullest months of winter in the former situation, and during the remaining part of the year in the latter, (CERTIFICATE awarded.)

From Mr. Roberts, Gardener to M. Wilson, Esq., of Eshton Hall, some very fine *Black Hamburgh* and *Muscat of Alexandria Grapes*, (BANKSIAN MEDAL awarded.)

From Mr. Elliott, Gardener to Sir Wm. Ingilby, Bart., of Ripley Castle, Yorkshire, a dish of the *Fruit of Carica papaya*, which is found to set freely, if the female flowers are impregnated, when in a suitable condition.

From Sigismund Rucker, Esq., Jun., F.H.S., a very fine plant of *Miltonia spectabilis*, with others of *Oncidium Lanceanum* and *Cynoches chlorochilum*, (KNIGHTIAN MEDAL awarded for the former.)

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., of Ealing Park, a collection of plants, amongst which were an *unnamed half climbing papilionaceous plant*; well flowered specimens of *Erica inflata alba*, *E. retorta*, and *E. infundibuliformis*, with two *Clerodendrums*, *Statice arborea*, and various others, (Two BANKSIAN MEDALS awarded, one for the *papilionaceous plant* and another for the *Ericas*.)

From Mr. Jackson, of Kingston, Surrey, a large and well grown collection of Heaths, containing *E. ventricosa purpurea*, *Erica Savilleana*, *E. inflata*, *E. exurgens coccinea*, *E. retorta major*, and *E. jasminiflora alba*, with several others, (BANKSIAN MEDAL awarded for the two former.)

From Messrs. Veitch and Son, of Exeter, a cut specimen of a handsome dark species of *Echites (atropurpurea)* from the Organ Mountains, (BANKSIAN MEDAL awarded.)

From Mrs. Morris, F.H.S., a plant of *Stanhopea oculata*.

From Mr. Hamp, Gardener to James Thorn, Esq., Mauley House, South Lambeth, a species of *Chironia*.

From Mr. Errington, Gardener to Sir Philip Egerton, Bart., F.H.S., a handsome *Enville Pine Apple*, weighing 4 lbs. 8 oz., and two *Jamaica Pine Apples*, weighing 2 lbs. 4 oz. and 2 lbs. 2 oz.

From Mr. John Spencer, Gardener to the Marquess of Lansdowne, F.H.S., two fine fruit of the *Cayenne Epineux Pine Apple*, weighing respectively 4 lbs. 12 oz. and 4 lbs. 6 oz., (BANKSIAN MEDAL awarded.)

From Mr. Henderson, Gardener to Sir George Beaumont, Bart., Coleorton Gardens, a *brown leaved sugar loaf Pine Apple*, weighing 3 lbs., and another supposed to be the *Antigua Pine Apple*, weighing 3 lbs. 14 oz.

From Mr. Saul, Gardener to Earl Fortescue, of Castle Hill, three handsome *Queen Pine Apples*, of the respective weights of 4 lbs. 1 oz., 3 lbs. 12 oz., and 3 lbs. 4 oz., with some *Bellegarde Peaches*, (BANKSIAN MEDAL awarded for the *Pine Apples*.)

From Joseph Schroder, Esq., of Grove Road, Brixton, an exceedingly well grown plant of *Lilium lancifolium punctatum*, (CERTIFICATE awarded.)

From Mr. Todd, Gardener to J. G. Moneypenny, Esq., F.H.S., a *Seedling Fuchsia* called *Gibboniana*.

From Mr. Mountjoy, F.H.S., of Ealing, a new herbaceous plant, called *Pentstemon mexicanus*, a very handsome *Seedling Phlox* called *Picta*, *Achimenes Longiflora*, and a *Seedling Dahlia* called *Virgil*, (CERTIFICATES awarded for the *Penstemon* and *Phlox*.)

From Mr. Cuthill, of Camberwell, a plant of *Lisianthus Russellianus* and a cutting of the same in a bottle.

From Mr. Robertson, Gardener to Isaac Currie, Esq., of Bush Hill, Edmonton, a *collection of Melons* unnamed.

From Messrs. Lane and Son, of Great Berkhamstead, Herts, a striped *Nerium* called *Reyanot*.

From Messrs. F. A. Smith, of Cambridge Heath, Hackney, two *Seedling Dahlias*, named *Sir R. Sale* and *Rainbow*.

From Mr. Ivery, of Peckham, two *Seedling Fuchsias*, called *Gem* and *Iveryana*.

From William Levison Gower, Esq., F.H.S., some pretty *Picotees*, mostly *Seedlings*.

From the Garden of the Society, a large collection of plants, containing *Oncidium Lanceanum*, and *reflexum*, *Cattleya crispa*, *Phaius albus*, *Aloe xanthacantha*, *Chironia frutescens*, and various others.

The following Presents were announced :

Botanical Register, for *August*, from the Publishers.

Paxton's Magazine of Botany, for *August*, from the Editor.

Transactions of the Zoological Society of London, vol. 3, part 1, and proceedings of the Society, Nos. 93 to 108 inclusive, from the Society.

Archives du Muséum d'Histoire Naturelle de Paris, Tome 1, Liv. 2, 3, 4, and T. 2, Liv. 1 and 2, from the Society.

October 4. 1842.

ORDINARY MEETING.

The following were elected Fellows of the Society :

The Count de Salis, of Hillingdon, Middlesex.
Edward St. Vincent Digby Esq, Mintern, Dorsetshire.
Hugh Hornby Esq., Ribley, Preston, Lancashire.

The following were the principal subjects of exhibition.

From Mr Goode, Gardener to Mrs. Lawrence F. H. S. a large collection of *Orchidaceous* and other plants containing very beautiful specimens of *Oncidium microchilum* and *Crowea saligna*, (KNIGHTIAN MEDAL, awarded.)

From Mr. Henderson, Gardener, to Sir George Beaumont, Bart. six handsome *Queen Pine Apples*, weighing respectively 3 lb. 9 oz., 3 lb. 8 oz., 3 lb. 8 oz., 3 lb. 1 oz., 2 lb. 14 oz., and 2 lb. 13 oz. (CERTIFICATE awarded.)

From Mr. Davis, Gardener to Sir Samuel Houghton Clarke, a remarkably fine *Providence Pine Apple*, weighing 8lb. 3oz.; with an equally well grown specimen of the *Enville ditto*, weighing 7lb. 7oz., (KNIGHTIAN MEDAL awarded.)

From Richard Brooke Esq. F. H. S. an exceedingly fine bunch of *Muscat of Alexandria Grapes* weighing 2lb. 11oz. (BANKSIAN MEDAL awarded.)

From Mr. Joseph Bailey, Gardener to Richard Thompson Esq. of Stansty Hall, Wrexham, three bunches of *Muscat of Alexandria Grapes* two of which weighed 1½ lb each and the other 1lb. 5oz. (CERTIFICATE awarded.)

From Mr. Mc. Evoy, Gardener to Sir Bruce Chichester, Bart. Arlington Court, Barnstaple, Devon, an *Enville Pine Apple*, weighing 2lb. 9oz., which had been cut from a plant wintered with many others in a cold Vinery, where the thermometer on many mornings had fallen below the freezing point. The plants consequently, lost all their roots, but were afterwards repotted into peat soil and were fruited in 24 sized pots.

From Mr. Thomas Foster, Gardener to Viscount Downe of Beningbrough Hall, Yorkshire, a very fine *Montserrat Pine Apple* weighing 6lb. 6oz. (KNIGHTIAN MEDAL awarded.)

From Mr. Edward Spirey, Gardener to J. Sharpe Esq. of Chippenham Park near Mildenhall, Suffolk, two *Seedling Cucumbers*, one 23 inches, the other 24 inches in length.

From Mr. Errington, Gardener to Sir Philip Grey Egerton

Bart. F. H. S., a *Montserrat Pine Apple* weighing 4lb. 6oz., and a *Jamaica Pine Apple*, weighing 3lb. 11oz.

From Mr. Thomas Williams of Oldford, Birmingham, a cut flower of *Lycaste macrophylla*.

From Mr. William Giblett, of Bond Street, some *Nonpareils*.

From Mr. James Barnes, Gardener to the Lady Rolle, F. H. S. specimens of the *Fruit of Cycas revoluta*.

From Mr. Lumsden, Gardener to Henry Bevan Esq. F. H. S. a handsome *Black Antigua Pine Apple*, weighing 5½lb. ; this was introduced by the late Mr. Aldridge as the *true* Trinidad. (BANKSIAN MEDAL awarded.)

From Mr. Brown of Slough, a collection of *Dahlias*, (BANKSIAN MEDAL awarded.)

From Messrs. Veitch and Son, of Exeter, a plant of the beautiful new *Tropaeolum azureum* and a cut specimen of *Azalea japonica*, (LARGE SILVER MEDAL awarded for the *former*.)

From Messrs. Paul and Son, of Cheshunt, a collection of *Roses*.

From Mr. B. Fielder, Gardener to William Linwood Esq. of Enfield, a very handsome *Green Antigua Pine Apple* weighing 5½ lb: (BANKSIAN MEDAL awarded.)

From Mr. Smith, of the Hornsey Road, Islington, plants of *Fuchsia globosa grandiflora* and *F. fulgens coccinea*.

From Mr. Fleming, Gardener to His Grace the Duke of Sutherland, of Trentham Hall, two very fine *Providence Pine Apples*, weighing respectively 6¾lbs., and 5 lb. 6 oz. ; with two *Housainee Melons* one weighing 5 lb. 3 oz., the other 3 lb. 6 oz., (BANKSIAN awarded for the *Pines*.)

From Mr. Frost, Gardener to Lady Grenville, of Dropmore, Bucks, some remarkably good *Black Hamburgh* and *White Nice Grapes*, (BANKSIAN MEDAL awarded.)

From Messrs. Cormack and Oliver, of New Cross, Deptford, a *Seedling Fuchsia*.

From Mr. Henry Groom, of Clapham, a plant of *Agapanthus maximus*.

From Mr. Henry Silverlock, F.H.S., of Chichester, blooms of a *Seedling Heartsease*, called the *Prince of Wales*.

From Messrs. Smith, Nurserymen, of Cambridge Heath, Hackney, cut flowers of a *White Dahlia*, called *Wildman's Bianca*.

From Mr. James May, Seedsman, &c., of Marsh Lane, Tottenham, a collection of *Heartsease*.

From Mr. Turville, Gardener to Mrs. Bramston, of Springfield Lyons, Essex, a *Seedling Dahlia*, called the *Essex Triumph*.

From Mr. Quesnel, of Havre, a very beautiful plant of *Echmea fulgens*, from Pernambuco, and a species of *Billbergia*, (KNIGHTIAN MEDAL awarded for the first.)

From Messrs. Lane and Son of Great Berkampstead, Herts, a collection of *Roses*.

From Edmund Johnston, Esq., F.H.S., a specimen of *Aralia japonica*.

From Mr. George Cockburn, F. H. S., of Kenwood, Highgate, a plant of *Lycium aggregatum*.

From Mr. Charles Adams, Gardener to Mrs. Morris, of the Retreat, Battersea, a plant of a species of *Lælia*.

From Mr. Bowers, of Laleham, a brace of *Cucumbers*.

From H. G. B., Hampshire, a party-coloured Apple, resembling a Scarlet Nonpareil in form, but having exactly one half of its surface red, and the other green. The red was of uniform intensity so far as it extended, and its limits were as definite as if a line had been drawn longitudinally from the eye to the stalk; one half of the stalk also was red, and the other side was green.

From the Garden of the Society, a collection of *Orchidaceous* and other plants, amongst which were *Brassavola venosa*, *Odontoglossum grande*, *Oncidium pergameneum*, *Achimenes pedunculata*, *Niphaea oblonga*, *Fuchsia Wormaldi*, and *Sedum Sieboldii*; with cut flowers of *Mandevilla suaveolens*. Amongst the fruit were the *Aston Town*, *Louise Bonne*, *Flemish Beauty*, *Urbaniste*, *Seckle*, and *Gansel's Bergamot Pears*, with the *Wormsley Pippin Apple* which is said to be a good bearer, and a fine flavoured fruit for kitchen use.

The following Presents were announced :

Archives du Muséum d'Histoire Naturelle, Liv. 2, 3, 4, Tome 1, and Liv. 1 and 2, Tome 2, from the Minister of Public Instruction, Paris.

Paxton's Magazine of Botany for September and October, from the Editor.

The Botanical Register for September and October, from the Publishers.

Baxter's British flowering plants for July, August, and September, 1842, from the Editor.

The Floricultural Cabinet, Nos. 114 and 115, from Mr. Jos. Harrison.

Annual Report of the Agricultural and Horticultural Society of India for 1841, and proceedings of the same for January, 1842, from the Society, Svo., Calcutta.

The Florist's Journal, No. 33, from the Editor.

Proceedings of the American Philosophical Society, No. 22, Vol. 2, from the Society at Philadelphia.

November 1, 1842.

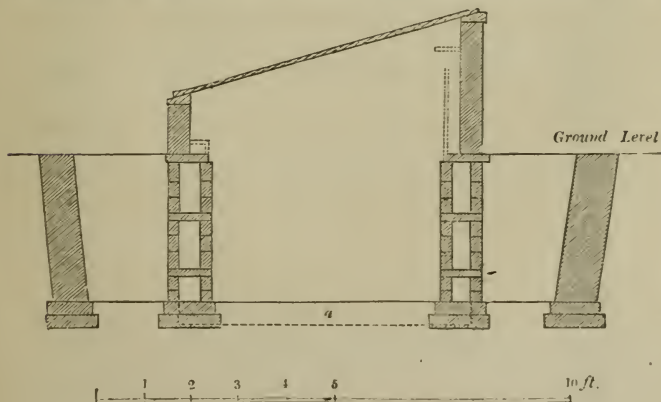
ORDINARY MEETING.

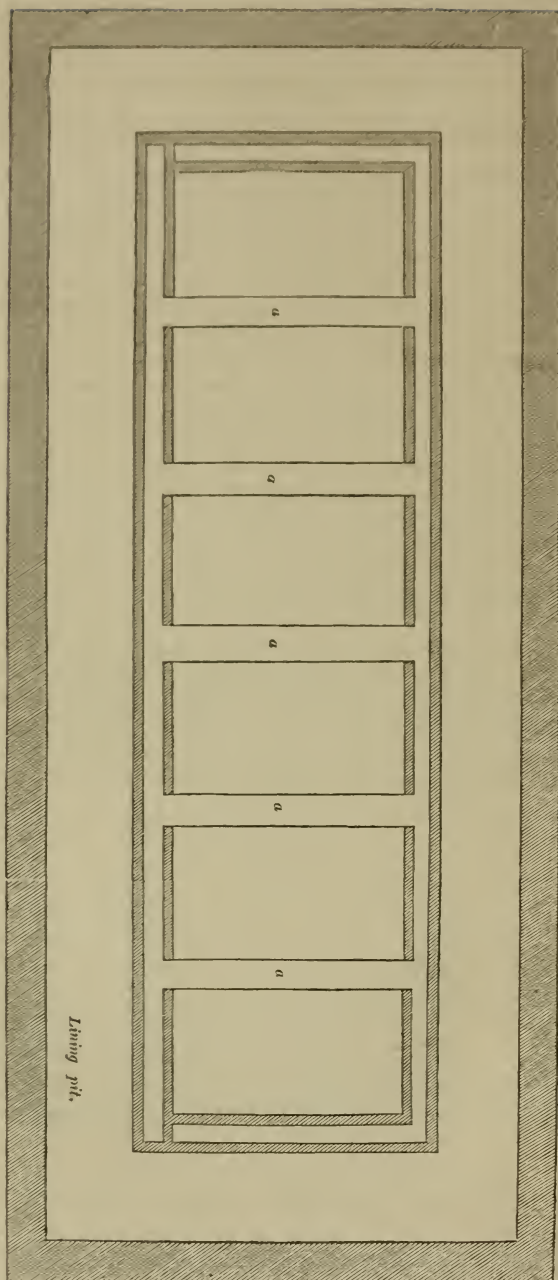
The following Gentlemen were elected Fellows of the Society :

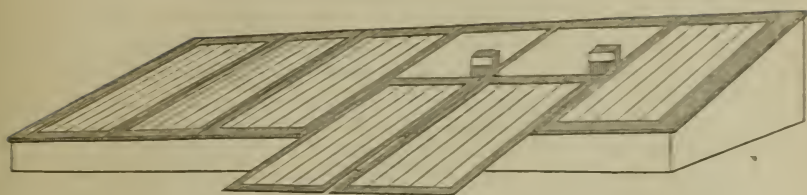
Robert Barclay, Esq., Grove House, Tooting.

Thomas Bridges, Esq., Elwer, Fetcham, Surrey.

A paper was read from Mr. Thomas Berry, Gardener to the Right Hon. C. Shaw Lefevre, on a peculiar form of construction for a Melon pit. This pit, which is usually known as the Heckfield pit, differs from the common pigeon-hole pit in having, instead of that contrivance, a warm air chamber or close flue, which commences at the foundation and is continued all round the pit to the height of three feet—the depth of the pit below the ground level. In carrying up this flue, a cross brick is occasionally laid in to give stability to the wall. The back and end flues are covered in with a course of bricks on bed laid across, which projects one inch beyond the other brickwork on the outside ; this projection not only gives a neat finish as a surface line, but serves as a rest for the boarding which conceals the lining. The front flue is covered by one brick laid across and also lengthwise alternately, on the outside course : thus, an opening is left between each cross brick for the ingress and egress of air from the cavity of the flue. In order that the air may take an inward direction, and also to prevent rubbish from falling into the flue, narrow pieces of slate are fixed in the joint above the cross bricks. In the back flue and under the centre of each light, an opening about a foot long is left, upon which the ventilation passage, in the shape of a thin box, is formed by the







back wall and two pieces of slate, placed in such a manner as to discharge the warm air towards the plants, at the distance of six inches below the glass. Below each rafter a nine inch duct (*a a*) is sunk in the floor, which communicates with the bottom of the cavity both in the front and back flues, so that a current of air from the ducts supplies the place of the warm air which makes its escape to the surface amongst the plants. This pit, which is simple in construction, and safe and convenient in the application of top and bottom heat, at the same time, and from the same materials, still continues to give great satisfaction in the culture of cucumbers, melons, and young pine plants.

It was announced, that any Members who might be desirous of determining the names and qualities of fruit, would, on application to the Secretary, be supplied with specimens of such varieties as the Garden of the Society produced. Not more than two specimens of any sort would be sent; and the expense of the package and carriage would be charged to the members making application for them. If a second supply of the same fruits should be required it would not be furnished gratuitously.

It was also announced, that since the last meeting a bunch of a seedling Grape, called *The Royal Albert*, had been received from Mr. John Savery Brock, of Guernsey. The bunch was stated to be large and handsome, about a foot in length, and 9 inches across the shoulders, which are strong. The berries are very large, from 3 to $3\frac{1}{2}$ inches in circumference, and inclining to oval; their colour, purple, with a fine bloom. Skin moderately thin. Flesh juicy, with a little crispness, scarcely so rich as a Black Hamburgh, but it would doubtless, when well ripened, be quite as good. The pedicels are strong and warted. Seeds, one or two in each berry. When, how, or by whom raised was not stated.

The following were the principal subjects of exhibition :

From Mr. T. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., ten very handsome cut specimens of *Orchidaceous* plants, amongst which were *Cattleya labiata*, *Odontoglossum grande*, *Miltonia Clowesii*, *Bolbophyllum barbigerum*, *Oncidium excavatum*, and *Saccolabium guttatum*, (KNIGHTIAN MEDAL awarded.)

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., a collection of plants, containing exceedingly fine specimens of *Gesnera zebrina*, and *Aphelandra cristata*, (BANKSIAN MEDAL awarded.)

From Charles B. Warner, Esq., F.H.S., *Vriesia psittacina* a handsome plant allied to *Tillandsia*, (CERTIFICATE awarded.)

From Sir Charles Monck, Bart., F.H.S., shoots of *Pinus Banksiana*, *P. uncinata*, *P. Pumilio*, and *P. Douglasii*, with cones attached to them.

From Mr. Jackson, of Kingston, a collection of *Heaths*, consisting of *Erica transparens superba*, *E. virescens*, *E. caffra*, *E. sebana purpurea*, *E. acuminata longiflora*, and *E. cerinthoides*.

From Mr. George Goodbrand, Gardener to George Crawshaw, Esq., of Colney Hatch, Finchley, six exceedingly fine bunches of *Black Hamburg Grapes*, weighing upon an average 1 lb. 2 oz. each, and grown under glass without the aid of fire, (BANKSIAN MEDAL awarded.)

From Mr. James Roberts, Gardener to Matthew Wilson, Esq., of Eshton Hall, Skipton, Yorkshire, four very good bunches of *White Muscat Grapes*, two of which weighed respectively 2 lbs. 1 oz. and 1 lb. 15 oz., the remaining two growing upon one shoot weighed 2 lbs. 11 oz.; with an extraordinary large bunch of the *White Nice*, weighing 4 lbs. 3 oz., (BANKSIAN MEDAL awarded.)

From Mr. Thomas Parkin, Gardener to P. D. Cooke, Esq., F.H.S., some *Grapes*, grown without fire or artificial heat.

From John Williams, Esq., of Pitmaston, a bunch of *Black* and another of *White Seedling Grapes*, from the open wall.

From Mr. Charles Judd, Gardener to George Knott, Esq., F.H.S., three very handsome *Queen Pine Apples*, one of which weighed 4 lbs. 4 oz., the others 3 lbs. 14 oz. each, (BANKSIAN MEDAL awarded for the former.)

From Mr. G. Fleming, Gardener to the Duke of Sutherland, of Trentham, a very fine *Otaheite Pine Apple*, weighing 4 lbs. 10 oz., and another, called the *Trentham Seedling*, not unlike an *Enville*, weighing 3 lbs. 10 oz., (CERTIFICATE awarded.)

From Richard Thompson, Esq., of Stansty Hall, two *Black Jamaica Pine Apples*, weighing 2 lbs. 3 oz. and 1 lb. 14 oz.

From George Wilbraham, Esq., of Delamere House, Northwich, Cheshire, specimens of *Marie Louise*, *Beurré d'Aremberg*, *Urbaniste*, *Flemish Beauty*, and *Althorpe Crassane Pears*.

From Col. Willard, of Eastbourne, some fine *Mayfield Pippin* and *Northern Greening Apples*.

From the Rev. S. Thornton, of Wendover, a specimen of the *Coucourzelle*, a much esteemed Italian Vegetable Marrow, weighing 25 lbs. 2 oz.

From S. H., *a mode of preserving fruit from wasps, flies, &c., in bags made of Linen*; with some *Coe's Golden Drop Plums*, which had been kept in that manner.

From Mr. George Cockburn, F.H.S., of Kenwood, Highgate, some very fine *roots of Oxalis Deppii*, and some *Ash-leaved Kidney Potatoes*, raised from sets, planted on the 7th of July, (CERTIFICATE awarded for the *Oxalis roots*.)

From the Garden of the Society were the following plants: *Oncidium ciliatum*, *Maxillaria foveata*, *Brassavola venosa*, *Odontoglossum Bictoniense* and *Cattleya labiata*; with a collection of fruit: viz. the *Beurré Bosc*, *Napoleon*, *Crassane*, *Reine Caroline Pears*, the latter handsome and very sweet but with rather crisp flesh; *Forelle*, not so rich as many others but with smooth and fine flesh; *Sucré Verte*, which ripens in succession from the same tree; *Winter Nelis*, and *Althorp Crassane*. Specimens of the *Golden Reinette*, *Sykehouse Russet*, *Downton*, *Franklin's Golden Pippin*, *Brabant Bellefleur*, and *Margil Apples* were also exhibited. It was stated, that the flavour of many kinds of Apples was not so good as might have been expected after so warm a Summer, probably from its being too hot and dry when they were growing, and too wet when they approached maturity.

The following Presents were announced:

The Florist's Journal, No. 34, from the Editor.

The Botanical Register for November, from the Publishers.

The Athenæum for September, from the Editor.

December 6, 1842.

ORDINARY MEETING.

The following gentlemen were elected Fellows of the Society:

Mr. William Buckmaster, Turnham Green.

Sir Ralph Howard, 17 Belgrave Square, and Bray Park, Wicklow.

Mons. L. Jacob Makoy, Liège.

The following were the principal subjects of Exhibition:

From Mr. Paxton, Gardener to His Grace the Duke of Devonshire, a magnificent plant of *Lælia anceps*, with *Trias racemosa*, and a species of *Renanthera*. (KNIGHTIAN MEDAL awarded for the *Lælia*.)

From Mr. Appleby, Gardener to Thomas Brocklehurst Esq.,

F. H. S., a large collection of cut *Orchidaceous* flowers; among which were several varieties of *Gongora maculata*, *Maxillaria Steelii*, *Cælogyne Gardneriana*, *Zygopetalum Mackaii*, *Epidendrum macrophyllum*, var. *roseum*, *Lælia albida*, (CERTIFICATE awarded.)

From Mr. Goode, Gardener to Mrs. Lawrence, F. H. S., a very beautiful specimen of *Oncidium leucochilum*, with handsome plants of *Epidendrum nutans*, *Zygopetalum Mackaii*, *Acacia platyptera*, (BANKSIAN MEDAL awarded for the former.)

From Mr. Pawley, of the White Hart Hotel, Bromley, Kent, four well grown plants, in pots, of *Epiphyllum truncatum*. (BANKSIAN MEDAL awarded.)

From Mr. Carson, Gardener to W. G. Farmer Esq., of Non-such Park, Surrey, a fine plant of *Gesnera Zebrina*. (CERTIFICATE awarded.)

From Mr. Tant, Gardener to Ebenezer Johnstone Esq., of Hanger Lane, Stamford Hill, a box of *Chrysanthemum* Flowers.

From John Allnutt, Esq. F. H. S., some cut *Camellia* Flowers.

From some person unknown, a *Cuscuta* and a species of *Banisteria*.

From Mr. Goodbrand, Gardener to George Crawshay, Esq., of Colney Hatch, ten bunches of *Black Hamburgh Grapes*, the average weight of each being 1 lb. 3 oz., cut from the same house as the six bunches shewn at the previous Meeting. In the same Vinery 250 bunches in perfect condition were still remaining; being grown without fire heat, which was only applied to keep out damp.

From Mr. Fleming, Gardener to the Duke of Sutherland, at Trentham, an *Enville Pine Apple*, weighing 3 lb. 14 oz.

From Mr. Charles Judd, Gardener to George Knott, Esq., F.H.S., a remarkably fine *Providence Pine Apple*, weighing 8 lbs., with an *Antigua ditto*, weighing 4 lbs., (BANKSIAN MEDAL awarded for the Providence.)

From Mr. Charles Spong, Gardener to Robert Gordon, Esq., F.H.S., two *Apples* unnamed, each weighing about 20 oz., with some *Seedling Apples*, called the *Hermitage Pippin*.

From — Hodges, Esq., of Hemsted Park, two fine specimens of the *Uvedale's St. Germain Pear*, each weighing 2 lbs. 8 oz.

From Mr. James Stewart, Gardener to W. Bagge, Esq., M.P., of Stradsett Park, Norfolk, a brace of *Cucumbers*, called the *Ringleader*, grown in Pots in a Pine pit according to Ayres' system.

From the Garden of the Society were a collection of plants, containing *Stanhopea saccata*, *Oncidium ornithorhynchum*, *Zygopetalum intermedium*, *Brassavola nodosa*, *Epiphyllum truncatum*, *Primula sinensis*, and *Helleborus orientalis*, with a variety of *Chrysanthemums*. The fruit from the Garden consisted of the following *Pears*: *Bergamotte Cadet*, which continues to ripen in

succession for a long time from the same tree; *Winter Nelis*, *Vicar of Winkfield*, *Beurré Diel*, *Chaumontel*, *St. Germain*, *Passe Colmar*, and the *Virgouleuse*, the flesh of which is more yellow than that, of perhaps, any other Pear; it is used for grafting as an intermediate stock between the Quince and other varieties of the Pear that do not take well upon the Quince; with the *Court of Wick*, *Dutch Mignonne*, *Pennington's Seedling*, *Braddick's Non-pareil*, and several other *Apples*.

The following Presents were announced :

The Botanical Register for December, from the Publishers.

Baxter's British Flowering Plants, Nos. 123 and 124, from the Editor.

The Florist's Journal, Nos. 35, 36 and 37, from the Editor.

Introduction a une Flore analytique et descriptive des environs de Paris, suivie d'un Catalogue raisonné des plantes Vasculaires de cette region, Par. E. Cosson, E. Germain, et A. Weddell, from A. Weddell, M.D.

The Floricultural Cabinet, Nos. 116, 117 and 118, from the Editor, Mr. Jos. Harrison.

The Athenæum for October, from the Editor.

PROCEEDINGS
OF THE
HORTICULTURAL SOCIETY OF LONDON,
1843.

No XXI.

January 2, 1843.

GARDEN COMMITTEE.

The following reports were read.

Hothouse Department.—Some experiments with *Hydrangeas* have now produced results which enable me to communicate to the committee the fact that *alum* dissolved in water, or reduced to powder and mixed with the soil, has the property of changing the colour of the flowers from their natural pink to blue. Other substances may possibly do so as well as alum, and therefore without a careful analysis of those soils which are generally used to produce the blue colour, it will be impossible to say whether it is alum in them which produces the effect or not. It is however more than probable that that is the cause. Oxide of iron is generally supposed to produce the blue colour, but I have not been able to detect the slightest tinge when that was used; on the contrary I thought it produced a deeper red.

I should add that the idea of applying alum did not originate with me; that substance is recommended in several works on gardening, but its effects seemed to want confirmation.

R. Fortune, *Superintendent*.

Hardy Department.—In the spring when the *Armerias* and *Statices* commenced growing, some plants were watered with a

solution of *Muriate of Lime* in the proportions of $\frac{1}{2}$ oz. and 1 oz. to 2 gallons of water. This produced no perceptible difference between the growth of the plants so treated and others of the same kinds, standing in the same pit to which had been applied *Muriate of Lime*. Some plants of *Spiræa fissa*, *Armeria*, *Petunias*, and *Verbenas* had the same solution given them freely, but without the slightest change in their growth being produced.

Nitrate of Soda, in the proportions of $\frac{1}{2}$ oz. and 1 oz. to eight gallons of water, improved the growth of *Armerias* and broad leaved and shrubby *Statices*, but it rather injured the small leaved species. The strongest solution appeared best for the *Armerias*, and most injurious to the *Statices*. A solution of *Nitrate of Soda* of the same strength, proved very beneficial to fresh sown seeds just as germination commenced, and caused many kinds to vegetate much quicker than they otherwise would have done. The seedlings also grew much more rapidly afterwards. This salt has no effect after the first application, except when it is used too strong the second time; in that case it much injures plants, especially if they are in pots. A strong dose does more injury upon the second application than the first, although a month or two should have elapsed. If *Nitrate of Soda* is applied to sickly plants it invariably proves fatal, whether the solutions are weak or strong; but plants in the open border will bear it if twice as strong as those in pots. When applied to plants in rapid vegetation, it stops their growth immediately, and if too strong, causes the leaves to curl and die at the edge. But after these first effects are overcome flowers appear in more profusion. On the contrary, if applied just before the commencement of growth it produces rapid growth and less bloom. *Nitrate of Soda* should never be used to plants which are liable to damp off in winter, for it absorbs moisture in damp weather; it is however a mistake to suppose that when applied in summer to plants in pots it keeps the soil moist; this happens only when the air is saturated with moisture; at other times the nitrated soil is as dry as any other.

Woolwich Humus.—A substance dug up in large quantities when excavating the docks, and apparently composed of ancient leaves and branches, proves to be excellent material for mixing with the ordinary soil, and for growing nearly all kinds of plants in pots. Coniferous plants, *Verbenas*, and several kinds of hardy and half hardy shrubs, annuals and bulbs were made the subject of experiment, and in all cases grew vigorously. When turned out of their pots their roots were found clinging to any lumps of the *Humus* which were left unbroken; after being exposed for some time this *humus* makes an excellent substitute for leaf mould.

The *short grass*, leaves, and other refuse of the Flower garden, if collected into a heap, sprinkled with Ammoniacal liquor, and afterwards covered over with common soil, become, at the end of three or four months, a manure of great excellence. It should however at that time be turned and well mixed. A very small quantity of Ammoniacal liquor diluted with four parts of water is required, and no more is used than is just sufficient to damp the substance. In preparing this kind of manure, care must be taken not to make the heap either broad or high; for if that is done it heats violently and becomes of little value.

George Gordon, *Superintendent*.

Orchard and Kitchen Garden Department.—The *Sahibee Grape* from the Deccan, received from Col. Sykes has fruited. It is of medium size both as regards the bunches and berries; the latter are oval, yellowish, with tender flesh, which is sugary but not particularly high-flavoured. It however deserves further trial, especially as the vine appears to have an early habit of vegetation, the buds expanding before any other under the same circumstances; and it may therefore prove to be adapted for early forcing.

Guano applied to Turnips, in the early part of the season, although used at the rate of 10 lb. to 84 sq. yds. produced no evident effect, owing, doubtless, to the dryness of the weather. The same remark applies to *Daniell's manure*.

Nitrate of Soda at the rate of 8 lbs. to 50 sq. yds. for Cauli-flowers, has produced a good growth; as is also the case with Brocoli, and Brussels sprouts on an East border, manured with it at the rate of 40 lbs. to 300 sq. yds.; the soil being a yellow loam.

Woolwich Humus applied at the rate of 8 barrow loads to 33 sq. yds. for Brocoli and Savoys, has produced a better growth than where no manure was employed.

Some of the *Pear trees* obtained from M. Jamin of Paris have fruited. Of these the *Beurré de Flandres* is the *Beurré Rance*; *Poiré Melon de Kops*, and *Beurré Incomparable* prove to be the same as *Beurré Diel*; *Doyenné d'Hiver Nouveau* appears to be identical with the *Easter Beurré*; the *Beurré Spence*, so much sought after, is nothing but the *Bezi de Montigny* an old and inferior sort; so that the true kind, so highly spoken of by Van Mons, still remains a desideratum.

The *Suffolk Thorn*, which possesses the flavour of Gansell's Bergamot, is likely to be an excellent standard pear; it appears to be hardy and a good bearer.

Among the new or little known Pears that have fruited this season, the best is the *Rondelet*, originally received by the Society

from M. Rutteau of Tournay. This fruit is middle-sized, of a very handsome oblate form, as much so as the Autumn Bergamot, the rich flavour of which it seems to combine with that of the White Doyenné. Perfectly ripened on a standard, and when just passing beyond its ultimate period of maturity, it partakes of the rich and peculiar aroma of the Seckel. Its season is October.

As a very late Plum, the *Saint Martin's Quetsche* will prove a valuable acquisition. It remained on the tree at least three weeks later than Coe's Golden Drop, and, notwithstanding the unusually sharp frosts, proved very rich from a standard, on which it bears abundantly. The fruit is of medium size, of an ovate or somewhat cordate form, yellow with some ferruginous specks. The tree was received from M. Fischer of Gottingen.

The *Chinese Cabbage*, or *Pe-tsai*, sown on the 20th August, on a South border, attained a tolerable size, without running to seed, as it always does when grown in summer. Autumn appears therefore to be the proper season for growing it; and the soil cannot be too rich. It is not very tender; having in the above mentioned situation withstood 10 or 12° of frost.

The ripening of *Grapes on walls under glass copings*, and sashes placed in front, has been greatly interfered with by the check which vegetation received from the early and unusually sharp frosts. Below narrow glass copings on a wall, the Royal Muscadine ripened however very well with a remarkably fine bloom, such as cannot be acquired by those fully exposed. Sashes placed against a garden wall, so as to be nearly close at top, but open and supported on posts at bottom, did not appear to be productive of advantage. The temperature during the day was generally higher on the open wall than under the glass sashes; in June, July, and August the thermometer fully exposed rose frequently to upwards of 110° Fah., whilst under the sashes it remained at from 90° to 98°. At night the temperature averaged about a degree higher under the glass during the warm months of June, July and August; but in September it was 4° higher. Some White Frontignan Grapes were tolerably well ripened on the lower part of the wall, with sashes placed in front and resting on the ground, the ends being made close.

The *Bassano Beet*, which forms like a Turnip above ground, and is said to be good in a young state, is likely to prove of importance as an object adapted to field culture, in thinner land than would be suitable for Mangold Wurtzel.

The following Tables give the result of some experiments with the *Potato*. Thirty whole tubers of the Bread-fruit Potato, selected as nearly equal as possible, each averaging $6\frac{1}{2}$ oz., were planted, April 28th, singly in the centre of a square yard

in the *Experimental Garden*. The manures and results are here arranged in the order of greatest amount of produce.

Substances.	Applied at rate per acre.	Total produce.	Small.	Total small deducted.
		lbs. oz.	lbs. oz.	lbs. oz.
Salt Cake	2 cwt. 96 lb.	17 1	0 0	17 1
Salt Cake	1 cwt. 48 lb.	15 0	1 2	13 14
Bone-dust	76 bush. 2 gal.	11 10	1 5	10 5
Daniell's Manure, new sort . .	20 bush.	11 9	0 7	11 2
Rotten Dung	5 tons.	11 8	0 6	11 2
Sal-ammoniac	1 cwt. 48 lb.	11 5	0 8	10 13
Night-soil	5 tons.	11 3	0 5	10 14
Daniell's Manure, old sort . .	20 bush.	10 15	1 0	9 15
Epsom Salts	1 cwt. 48 lb.	10 7	0 8	9 15
Putrid Urine fixed with Sulph. iron	800 gal.	10 5	2 2	8 3
Night-soil disinfected with bleach- ing powder and sulph. acid .	5 tons.	10 4	0 15	9 5
Guano	16 cwt. 27 lb.	10 3	0 13	9 6
Night-soil disinfected with sulph. acid	5 tons.	9 14	0 0	9 14
Nitrate Soda, and Salt Cake . .	80 lbs. each.	9 13	0 6	9 7
Epsom Salts	2 cwt. 96 lb.	9 12	0 7	9 5
Gas-water, fixed with sulph. acid	800 gallons.	9 7	0 11	8 12
Sulphur	2 cwt. 78 lb.	9 1	0 0	9 1
Nitrate Soda and Salt cake in equal quantities	[each. 1 cwt. 48 lb.	9 3	0 5	8 14
Nitrate Soda	1 cwt. 48 lb.	9 0	0 5	8 11
Gas-water, fixed with Muriat. acid	800 gallons.	8 7	0 2	8 5
Gypsum	2 cwt. 78 lb.	8 4	0 4	8 0
(NOTHING) . . . . .	. . . . .	8 0	0 13	7 3
Night-soil disinfected with bleach- ing powder and sulph. iron .	5 tons.	7 15	0 13	7 2
Sulphate of Iron	1 cwt. 48 lb.	7 13	0 13	7 0
Nitrate of Soda	2 cwt. 96 lb.	7 9	0 13	6 12
Night-soil disinfected with bleach- ing powder	5 tons.	7 5	0 2	7 3
Gas-water	800 gallons.	6 2	0 12	5 6
Gas-water disinfected with Nitric acid	800 gallons.	6 2	0 12	5 6
Putrid Urine	800 gallons.	5 9	0 3	5 6
Gas-water fixed with Phosph. acid	800 gallons.	5 5	0 8	4 13

The preceding Substances were applied in the same manner in the *Kitchen Garden*; but with different results. Those obtained in the Exp. Garden are however most to be depended on; for the soil in the *Kitchen Garden* was unfavourable for a fair

growth owing to its stiffer nature, and the dry weather rendering it too hard after having been previously sodden with wet. This was the case to such a degree as to counteract the effects of manures, generally, to a considerable extent; but probably according to their nature, in an unequal ratio.

Substances.	Applied at rate per acre.	Total produce.	Small.	Total small deducted.
		lbs. oz.	lbs. oz.	lbs. oz.
Epsom Salts	1 cwt. 48 lb.	8 3	0 1	8 2
Rotten dung	5 tons.	7 11	0 7	7 4
Nitrate of Soda and Salt Cake, each	1 cwt. 48 lb.	7 9	0 2	7 7
Sal-ammoniac	1 cwt. 48 lb.	7 7	0 6	7 1
Daniell's Manure, new sort . .	20 bush.	7 4	0 3	7 1
Sulphate of Iron	1 cwt. 48 lb.	7 1	0 2	6 15
Sulphur	2 cwt. 78 lb.	6 12	0 5	6 7
Nitrate of Soda	1 cwt. 48 lb.	6 0	0 14	5 2
Salt Cake	2 cwt. 96 lb.	5 15	0 9	5 6
Daniell's Manure, old sort . .	20 bush.	5 12	0 0	5 12
Guanó	16 cwt. 27 lb.	5 9	0 1	5 8
Bone Dust	76 bush. 2 gal.	5 3	0 1	5 2
Gypsum	2 cwt. 78 lb.	5 3	0 6	4 13
(NOTHING)		4 14	0 10	4 4
Epsom Salts	2 cwt. 96 lb.	4 11	0 2	4 9
Night-soil disinfected with Sulph. acid	5 tons.	4 5	0 5	4 0
Night-soil disinfected with bleach- ing powder	5 tons.	4 3	0 0	4 3
Nitrate of Soda and Salt Cake, each	80 lbs.	4 2	0 9	3 9
Gas-water	800 gal.	3 15	0 5	3 10
Night-soil disinfected with bleach- ing powder and Sulph. acid . .	5 tons.	3 14	0 2	3 12
Nitrate of Soda	2 cwt. 96 lb.	3 14	0 1	3 13
Night-soil disinfected with Sul- phate of Iron	5 tons.	3 12	0 4	3 8
Putrid Urine fixed with sulphate of Iron	800 gal.	3 5	0 0	3 5
Salt Cake	1 cwt. 48 lb.	3 5	1 0	2 5
Gas-water fixed with Muriatic acid	800 gal.	3 4	0 2	3 2
Putrid Urine	800 gal.	2 11	0 3	2 8
Gas-water fixed with Phosphoric acid	800 gal.	2 2	0 5	1 13
Gas-water fixed with Nitric acid	800 gal.	2 1	0 5	1 12

Among the sets planted in the Kitchen Garden, those manured with Night-soil, and Gas-water fixed with sulph. acid proved false sorts.

It thus appears that in the Experimental Garden, Salt cake, at the rate of 2 cwt. 96 lbs. per acre, gives more than double the amount of produce as compared with that obtained where no manure was applied. It falls back in the Kitchen garden set of experiments; but in this, Nitrate of Soda and Salt cake are only the third from the top; and it may be further observed that where the Nitrate of Soda and Salt cake were there applied, there was a large proportion of small potatoes, and it may therefore be inferred that these had been produced late in the season, and that the effect of the substances had not till then been in full operation. It is also necessary to observe, that although sets may be selected as nearly equal as possible, yet some will always push stronger in the first instance than others, and thus obtain an advantage independent of other circumstances.

The *Flat-stemmed White Celery* (Wrench), proves to be a very distinct sort, of compact growth, not tall, but sending up a good heart; and standing the winter better than other varieties of White Celery. It is not the same as Seymour's Superb White, as some have supposed it to be.

The *Beet-root* received from Cabul proves to be the Common Mangold Würzel.

Salt applied at the rate of $\frac{1}{2}$ lb. to every 20 feet of rows of Celery, has not produced any decided difference in growth; but being rather late before the experiment was commenced the trial requires to be repeated. In the mean time the knowledge that the Celery plants are not injured by salt is something gained; 20 feet of one row had a pound applied in the form of a strong solution, and the plants did not suffer.

R. Thompson, *Superintendent*.

January 7, 1843.

ORDINARY MEETING.

The following were elected Fellows of the Society:

Miss Horrocks, of Dunchattan, Glasgow.

Mr. Robt. Cooper, Sion Nursery, Croydon. -

John French, Esq., Stockwell Place, Surrey.

A Paper was read from Mr. P. Walker, Gardener to R. W. Grenfill, Esq., of Maesteg, near Swansea, upon a method of heating Houses by Steam. Instead of heating water in large

pipes, by means of smaller ones conveying steam and traversing them longitudinally, it was proposed to introduce the end only of a steam pipe into that of a large water pipe, which is continued round the house. The steam is generated in a boiler, and is thus, by pressure, made to heat the water in the pipes to any required temperature. It may also be thrown into the atmosphere, in any quantity, by means of a small perforated pipe running along the top of the water-pipe. To prevent obstruction of heat, the steam-pipe is to be isolated upon wooden sleepers, and to be inclosed in a tunnel of the same material.

The following were the principal subjects of exhibition :

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., a remarkably well grown specimen of *Euphorbia jacquini-flora*, with plants of *Gesnera zebrina*, *Epacris impressa*, *Correa longiflora* and several others. (BANKSIAN MEDAL awarded for the *Euphorbia*.)

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., a highly beautiful specimen of *Dendrobium nobile*, with well grown plants of *Lælia albida*, *Lælia anceps*, *Peristeria guttata*, *Clerodendron splendens*, *Manettia bicolor*, and cut flowers of *Spermodictium azureum* and *Astrapæa Wallichii*. (KNIGHTIAN MEDAL awarded for the *Dendrobium*.)

From Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., cut flowers of *Orchidaceous plants*, amongst which was an exceedingly fine and dark variety of *Stanhopea Wardii*, *Zygopetalum ostratum*, *Brassavola tuberculata*, *Myanthus cristatus*, a variety of *Lælia anceps*, and *Dendrobium tetragonum*. (CERTIFICATE awarded for the *Stanhopea*.)

From Mr. Clarke, Gardener to William Block, Esq., Muswell Hill, Hornsey, a large Flower of *Camellia Donckelaeri*.

From Mr. Mountjoy, of Ealing, a branch of *Garrya elliptica*.

From Mr. Hally, of Blackheath, a Seedling *Camellia*, called *C. Hallyi*.

From Messrs. Lucombe, Pince, and Co., of Exeter, an exceedingly healthy little *Melastomaceous plant*, *Centrosema roseum*, lately introduced from Mexico. (BANKSIAN MEDAL awarded.)

From Edmund Johnstone, Esq., F.H.S., some cut *Camellia flowers*, with specimens of *Garrya elliptica* and *Acacia dealbata*.

From George Loddiges, Esq., F.H.S., a very fine cut specimen of *Epidendrum densiflorum*. (BANKSIAN MEDAL awarded.)

From Mr. Goodbrand, Gardener to George Crawshay, Esq., of Colney Hatch, twenty-five bunches of *Black Hamburgh Grapes*, similar to those exhibited at the two previous Meetings. It was stated that, in bringing these to perfection, not more than two sacks of house cinders had been burned during the season ; the

fire not having been lighted more than twenty or twenty-five times, and then only to keep out frost and excessive damp.

From Josiah Moorman, Esq., of No. 1, Portland Place, Clapham Road, fine specimens of *Easter Beurré*, *Beurré d'Aremberg*, *Jean de Witte*, *Passe Colmar*, *Nelis d'Hiver*, and *Glout Morceau Pears*, (CERTIFICATE awarded for the specimens of *Easter Beurré*.)

From Mr. James Hammond, of Fantaisie, Jersey, a seedling Apple, which is stated to "unite, more than any other, the properties of the Golden Pippin, and Nonpareil.—Like the former it may be eaten soon after it is gathered; whilst it will keep as long, or nearly as long as the latter; the fruit of 1841 having continued sound until the month of May following." The Fruit is about the size of a Nonpareil, roundish, tapering a little towards the eye; the latter is nearly closed by the segments of the calyx. The stalk is short and rather thick. The skin is of a reddish cinnamon coloured russet, to which thin pellicles of silvery gray are sometimes attached. The flesh is yellowish, crisp, juicy and rich.

From the Garden of the Society, was a collection of plants; including *Hoitzia mexicana*, *Acacia verniciflua*, *Euphorbia jacquiniiflora*, *Amaryllis aulica*, and *Helleborus olympicus*; with cut flowers of *Chimonanthus fragrans*, *Chimonanthus fragrans grandiflorus*, and *Garrya elliptica*. The Fruit consisted of *Rouse Lench*, *Beurré Rance*, *Poire d'Austrassie*, *Easter Beurré*, and *Ne plus Meuris Pears*, the latter irregular in form, although of good quality. Also the following Apples, *Beachamwell*, *Wheeler's Russet*, *Pomme Royale*, *Boston Russet*, which always proves well flavoured, *New Rock Pippin*, a firm fleshed, small, rich apple, *Pennington's Seedling*, a rich fruit, but much better after a moister summer than that of 1842; and the *Cockle Pippin*, which is much grown in Sussex as a good dessert apple, and keeps well.

February 7, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society :

Mrs. Alfred Hill, of Burnham Priory, near Maidenhead.

John Gray, Esq., of Greenock, N.B.

Richard Clewin Griffith, Esq., F.G.S., 10, Gower Street, Bedford Square.

The following were the principal subjects of Exhibition :

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., a collection of *Orchidaceous plants*, comprising very handsome specimens of *Dendrobium Wallishii*, *Phalænopsis amabilis*, and the rare *Huntleya violacea*, with several others. (KNIGHTIAN MEDAL awarded for the three above mentioned.)

From Messrs. Veitch, of Exeter, a plant of *Tropæolum azureum*, of a much deeper blue than the one exhibited at a previous meeting ; with *Stenorhynchus australis*, a terrestrial *Orchidaceous* plant.

From Mr. Edward Beck, Slate Works, Isleworth, a collection of plants in Slate boxes, consisting of a pretty *Seedling Erica*, 3 *Seedling Epacrises*, *Coronilla glauca*, and several *Hyacinths* ; all the plants being in excellent health, and proving the assertion—that plants will not succeed in a material which is not porous—to be unfounded.

From Mr. Lee, of Bradmore, Hammersmith, some well bloomed specimens of *Pelargonium album multiflorum*, and *P. Colleyanum*. (CERTIFICATE awarded for the former.)

From Mr. Gaines, of Battersea, six *Seedling Correas*, three *Cinerarias*, named *true blue*, *alba*, and *Lady of the Lake*, with a handsome plant of *Camellia tricolor*, and a *Seedling Camellia*. (CERTIFICATE awarded for *Camellia tricolor*.)

From Messrs. Chandler and Sons, 18 varieties of cut *Camellia* flowers.

From W. H. Story, Esq., of Isleworth, F.H.S., a plant of *Erica Sebania*.

From Mr. W. Appleby, Gardener to I. Dobinson, Esq., F.H.S., of Egham Lodge, Surrey, a *Seedling Cineraria*.

From Mr. James Cuthill, of Camberwell, Surrey, a *Seedling Camellia*.

From Sir George Staunton, Bart., F.H.S., specimens of the stems of the *Sugar Cane*, taken from plants growing 20 feet high in the conservatory at Leigh Park : they appeared to contain a great quantity of sugar.

From Mr. Andrew Toward, Gardener to H. R. H. the Duchess of Gloucester, at Bagshot Park, a *Leaf Fork*, having the prongs formed of the wood of the Locust tree and shod with iron ; it is found very useful in taking up leaves or any other light material.

From the Garden of the Society, a collection of *Plants*, amongst which were, *Dendrobium discolor*, *Scuticaria Steelii*, *Oncidium leucochilum*, *Lycaste lanipes*, a species lately introduced by Mr. Hartweg, *Spiranthes cerina* and *Acacia rubida* ; with cut flowers of *Chimonanthus fragrans*, *grandiflorus*, and *parviflorus*, the latter blooming later and possessed of more fragrance than either of the other varieties. The fruit from the Garden consisted of

Easter Beurré and *Beurré Rance Pears* : the latter from Standards the fruit of which has been good during the present season ; while that from walls with an east or west aspect has been very imperfect in quality, although of large size. Amongst the *Apples* were the *Boston Russet*, stated to be a good dessert apple, originally from America, and succeeding better in this climate than the *Newtown Pippin*, *New Rock Pippin*, *Scarlet Nonpareil*, *Sturmer Pippin*, which may be kept till Midsummer, and retains its brisk flavour till a late period in a superior degree, and the *Cornish Gilliflower* which is a rich flavoured apple, but rather a shy bearer. It is necessary to observe, in pruning this tree, that the fruit is borne chiefly at the extremities of the shoots.

The following presents were announced :

Botanical Register for February, from the Publishers.

Athenæum for January, from the Editor.

Paxton's Magazine of Botany for February, from the Editor.

Proceedings of the Royal Society Nos. 51, 52, 53, 54 and 55, and Transactions of the Society for 1842, Parts 1 and 2, from the Society.

The Ladies Flower Garden of Ornamental Perennials No. 14, from Mrs. Loudon.

The Illustrated Polytechnic Review, Nos. 1 to 5 inclusive, from the Editor.

February 21, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society :

M. Wolverly Attwood, Esq., Chairman of the General Steam Navigation Company, Gracechurch Street.

William Broadhurst, Esq., Barnes, Surrey.

Kensington Lewis, Esq., 18, Stratford Place, Oxford Street, and Worcester Park, near Kingston on Thames.

John Luscombe, Esq., Combe Royal, Kingsbridge, Devon.

The following were the principal subjects of Exhibition :

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., a collection of plants, containing *Calogyne barbata*, very beautiful specimens of *Epacris nivalis*, *E. impressa*, *Erica melanthera*, *Mirbelia floribunda*, and several others. (KNIGHTIAN MEDAL awarded.)

From Mr. Joseph Wells, Gardener to William Wells, Esq., F.H.S., a handsome *Seedling Epacris* raised from *E. impressa*, and a cut specimen of *Rhododendron arboreum album*.

From Messrs. Veitch and Son, of Exeter; a new *Passiflora*, raised from Brazilian seed and called *P. Actinia*.

From Mr. Redding, Gardener to Mrs. Marryat, F.H.S., a well bloomed *Seedling Rhododendron*, and a fine plant of *Banksia Cunninghami*. (CERTIFICATE awarded.)

From Mr. Clarke, Gardener to M. T. Smith, Esq., of Shirley Park, Croydon, a magnificent plant of *Leschenaultia formosa*, trained on an hemispherical trellis at least 2½ feet in diameter. (BANKSIAN MEDAL awarded.)

From Mr. Conway, Nurseryman, Old Brompton, cut flowers of a *Seedling Pelargonium*, called *Lanci*, said to be an excellent kind for forcing.

From Mr. Hally of Blackheath, some *Cut flowers of Camellias*.

From the Hon. William Strangways, F.H.S., of Abbotsbury, some *tree guards*, about 3 ft. high and 1½ ft. in diameter, *made of iron wire*; cut flowers of *Euphorbia characias*, *E. Veneta*, *E. Myrsinites*, and *Helleborus purpurascens*; all valuable for blooming early in favourable situations, and with the exception of *E. veneta*, perfectly hardy; with some *branches of Camellias* from different plants in the open border, one growing in loam and having the tips and margins of the leaves dried up; the other, in peat, and exhibiting the most perfect health.

From Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., very handsome cut specimens of *Dendrobium Paxtoni*, *D. nobile*, *Oncidium longifolium*, and a dark variety of *Cyrtorchilus maculatum*. (BANKSIAN MEDAL awarded.)

From Mr. Mylam, Gardener to Sigismund Rucker, Esq., F.H.S., an exceedingly fine cut specimen of *Oncidium Cavendishianum*, a pretty *new species of Dendrobium*, and *Lissochilus grandiflorus*, a terrestrial Orchidaceous plant of late introduction. (KNIGHTIAN MEDAL awarded.)

From Mr. Daniel Judd, of Southill Gardens, Biggleswade, three excellent *Cucumbers*, one called *Young's Champion*, the other, *Mills's Frame*, having been grown in a steep roofed house, according to Ayres' system. (CERTIFICATE awarded.)

From Sir Hesketh Fleetwood, Bart., F.H.S., some *Olives* grown in a conservatory upon plants imported from Italy fifteen years ago.

From Mr. John Rowell, Gardener to Claude George Thornton, Esq., F.H.S., a dish of *Filberts*, in an excellent state of preservation. This was effected by gathering them, when dry, towards the end of September, and spreading them thinly upon mats in an airy part of the fruit room, where they remained a fortnight,

after which they were placed in small open-worked hampers, a peck in each, and *not* pressed down. Towards the end of November, they were put into tubs or boxes upon cut straw, a thin layer of each until the boxes were full, being afterwards changed every three or four weeks. (CERTIFICATE awarded.)

From Josiah Moorman, Esq., of No. 1, Portland Place, Clapham Road, remarkably fine specimens of *Beurré d'Aremberg*, *Passe Colmar*, *Jeane de Witte*, *Ne Plus Meuris*, *Merveille d'Hiver*, *Beurré Rance* and *Easter Beurré Pears*, kept in a dark hayloft, (occasionally ventilated) and laid on horse hair. (CERTIFICATE awarded.)

From the Garden of the Society were a collection of *Orchidaceous and other plants*: amongst these were *Lycaste cruenta*, the rare *Huntleya violacea*, *Brassavola glauca*, *Begonia coccinea*, a newly introduced species with brilliant scarlet flowers; *Hakea acicularis*, *Mirbelia floribunda*, and a *Hybrid Rhododendron*, brought for the sake of exhibiting the effect of an overdose of Nitrate of Soda: this was apparent in the tips of the leaves assuming a withered appearance and in the flowers fading quickly after expansion.

The following Presents were announced:

Le Bon Jardinier for 1843, from M. Vilmorin, F.M.H.S.

Baxter's British Flowering Plants, Nos. 125 and 126, from the Editor.

Harrison's Floricultural Cabinet, No. 120, from the Editor.

A Refutation of Lt. Wellstead's attack upon Lord Valentia's (now Earl of Mountnorris) Work upon the Red Sea, from the author, Frederick Robinson, Esq., R.N.

March 7, 1843.

ORDINARY MEETING.

The following Candidates were elected Fellows of the Society:

The Rev. John Antrobus, Rectory, Leadenhall St., City.

Wade Brown Esq., Monckton Farleigh, Wilts.

George Green Esq., Aigburgh, Liverpool.

Mr. James Garaway, of the Durdham Down Nursery, Bristol.

The following objects were exhibited:

From Mr. Goode, Gardener, to Mrs. Lawrence, F.H.S. exceedingly fine specimens of *Burlingtonia rigida*, *Columnea scandens*, *Begonia coccinea*, *Æschynanthus maculatus*, and several other plants. (KNIGHTIAN MEDAL, awarded for the three former.)

From Mr. Smith, of Norbiton, Surrey, five beautiful *hybrid Rhododendrons* (raised between *R. Caucasicum* and the white variety of *arboreum*) called *Smithii varium*, and a small plant of *R. Rollisonii* which appears to be the Ceylon variety of *R. arboreum*. (BANKSIAN MEDAL awarded for the *hybrid Rhododendrons*.)

From Mr. Edward Beck, of the Slate works, Isleworth, very healthy plants of *Cytisus racemosus*, *Leschenaultia formosa*, *Erica transparens bicolor*, and three *Cinerarias* called *Hendersonii*, *Madonna*, and *Urania*; cultivated in slate pots, and exhibiting a further proof of the success with which plants may be grown in that material.

From Mr. Brazier, Gardener to W. H. Storey Esq., F.H.S., six plants of a handsome seedling *Epacris* called *coruscans*, and several other *hybrids*, named *sanguinea*, *rosea umbrata*, and *magniflora* with well bloomed specimens of *Erica Petiveriana bicolor*, *E. Ardens* and *E. vernix rubra*. (BANKSIAN MEDAL awarded for the *Epacrises*.)

From Mr. Gaines, of Battersea, a *Camellia* called *Henri*, another named *monstrosa*, and a seedling *Rhododendron*,

From Mr. Dennis, of King's Road, Chelsea, a *Persian Lilac* in full flower.

From Mr. Kynoch, Gardener to Alderman Copeland, F.H.S., two seedling *Epacrises*.

From Messrs. Veitch and Son, of Exeter, five blooms of a handsome *Camellia* called *pulcherrima*, imported several years since from the Continent.

From Mr. Conway, Nurseryman, Brompton, two plants of *Pelargonium Laneii*.

From Mr. Small, of Colnbrook, Bucks, a Seedling *Fuchsia*.

From Messrs. Rollison and Sons, of Tooting, a well grown plant of the beautiful *Cælogyne cristata*. (BANKSIAN MEDAL awarded.)

From Mr. M. Henderson, Gardener to Sir George Beaumont Bart., a *Queen Pine Apple*, weighing 3 lb. 10 oz.; swelled in a house which during the winter has never been kept higher than from 50° to 55° by night and from 60° to 65° by day, except under powerful sunshine.

From the Hon. William H. F. Strangways F.H.S., a dish of *Pine Golden Russet Apples* in a good state of preservation.

From Mr. James Stewart, Gardener, to William Bagge Esq., M.P. Stradsett Park, Downham, three *Cucumbers* called the *Ring-leader*.

From Mr. Dredge, of Wallington, Surrey, the root of a *Pear Tree* which had grown down a well to the length of 33 feet with scarcely any ramifications and resembled a small rope.

From Mr. Michael Martin, Thames Bank, Pimlico, a *bunch of fine Asparagus*.

From Mr. Harrison Scott, of No. 12, Charlton Street, New Road, *specimens of Scott's Improved Metal Pipes*.

From the Garden of the Society, were the following plants. *Oncidium cebolleta*, the large and small varieties of *O. ampliatum*, *O. leucochilum*, *O. altissimum*, *Dendrobium secundum*, *D. aggregatum*, and *Acacia Riceana*; with *Cuttings of the Royale Hâtive Plum*, an early purple sort of exceedingly rich flavour, and of the following *Pears*: *Knight's Monarch*, stated to be hardy and a good bearer, with rich and melting fruit which will keep till January; *Winter Crassane*, another hardy variety raised by Mr. Knight, with the flavour of the Old Crassane, and bearing most abundantly as a standard; *Vicar of Winkfield*, a large long somewhat tapering fruit, with melting and buttery flesh, keeping till January; the tree is vigorous and bears as a standard.

The following presents were announced:

The Athenæum for February, from the editor.

The Botanical Register for March from the publishers.

The Indian Hand Book of Gardening, or the Guide to the Management of the Kitchen, Fruit, and flower Garden in India, by G. T. F. Speede; from the author. (8vo. Calcutta 1842.)

Catalogue des plantes exposées les 26, 27, & 28, Fév. 1843 à l'exposition publique (48^{me}) de la Société d'Horticulture d'Anters; from the Society.

The Illustrated Polytechnic Review No. 9., from the editor.

March 21, 1843.

ORDINARY MEETING.

The following candidates were elected fellows of the Society:

Mr. W. H. Holmes, Nurseryman, Sudbury, Derbyshire.

Mr. William Edgecumbe Rendle, Union Road Nursery, Plymouth.

An extract from a letter, received by Lord Stanley from the Lieutenant Governor of the Falkland Islands, was read, containing an account of the Tussac grass which abounds there. It stated that seed of the Tussac grass had been sown in the Government garden at a little distance from the sea in good soil but different from that in which it grows naturally. The young plants had shot up, and seemed likely to prove that this grass may be cultivated in any soil, although it evidently preferred moist places and would probably require irrigation in a dry soil. In the Falklands it was found to flourish most vigorously in spots exposed to the sea

and in the rankest peat bogs where no other plant would thrive ; whence it was concluded that it would thrive well on the wild west coast of Ireland. So fond are Horses and Cattle of the herbage that their paths might be traced for several miles, leading from the interior towards those points on the sea coast on which the Tussac grew. It was recommended in cultivating this grass that the seed should be sown in patches, two feet apart, just below the surface of the ground, and afterwards thinned out, as the plants grow to the height of six or seven feet. It should not be grazed, but reaped or cut in bundles. When cut down, it quickly shoots up ; but even then it should not be grazed, as it is liable to be injured, particularly by pigs who tear it up to get at the sweet nut-like roots.

The following were the principal subjects of exhibition :

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., very well-grown specimens of *Phaius Wallichii*, *Burchellia capensis*, *Gnidia pinifolia*, *Erica bicolor*, and *Epacris impressa*. (KNIGHTIAN MEDAL awarded for the two former.)

From Mr. Beck, of Isleworth, a remarkably well-cultivated collection of plants in slate pots ; consisting of several *Cinerarias*, a Seedling *Calceolaria* and *Pelargonium*, beautiful specimens of *Leschenaultia formosa*, *Acacia armata* and *Cytisus racemosus*, with a neat kind of tray, made of slate, intended for the reception of plants in halls, verandahs, &c., and made water tight to prevent any inconvenience from the drainage of plants in such situations.

From Mr. Gaines, of Battersea, a very handsome Hybrid *Rhododendron*, called *Victoria Regina*, with two others named *Princess Royal* and *Prince of Wales* ; several *Cinerarias* and beautiful specimens of *Camellia Donckelaeri*, and another mottled kind called *Nicholsii*. (BANKSIAN MEDAL awarded for the two latter.)

From Mr. Smith, of Norbiton, Surrey, nine very pretty hybrid varieties of *Rhododendron* called *Smithii varium*, with plants of *R. Arboreum roseum* and *Azalea aurantia superba*.

From Mr. Joseph Wells, Gardener to William Wells Esq., F.H.S., two beautiful seedling *Azaleas*, bearing great resemblance to the yellow Chinese *Azalea* and raised from seed which was stated to be that of the Nepaul *Rhododendron arboreum*, with cut flowers of several handsome Hybrid *Rhododendrons*, *Camellias* and *Rhododendron arboreum album*. (BANKSIAN MEDAL awarded for the *Azaleas* and hybrid *Rhododendrons*.)

From Mr. W. Lee of Bradmore, Hammersmith, *Provence and Moss Roses*, growing together in one Pot.

From Mr. W. Appleby, Gardener to I. Dobinson Esq., F.H.S., of Egham Lodge, Surrey, a Seedling *Fuchsia* raised between *F. Cordifolia* and *Splendens* ; but not differing from the latter.

From the Hon. and Rev. the Dean of Manchester, a beautiful

Camellia called *foliolosa* and a species of *Muscari*, apparently *M. racemosa*, raised from seed gathered on the Durrand Pass near Meshed in Persia. (CERTIFICATE awarded for the *Camellia*.)

From Mr. Thomas Williams, of Oldford, near Birmingham, a cut specimen of *Cyrtopodium Andersonii*.

From Messrs. Davies and Co., of Wavertree, near Liverpool, a very handsome *Seedling Camellia*. (CERTIFICATE awarded.)

From Mr. James Pamplin, Nurseryman, Walthamstow, a *Seedling Cineraria*, called *Royal purple*.

From Mr. Hally, Nurseryman, Blackheath, a large plant of the *Monarch Camellia*.

From Mr. Richard Ayres, of Chicksands Priory, Bedfordshire, a brace of *Ayres' Pot forcing Cucumbers*.

From Sir John T. Tyrrell, Bart., F.H.S, four very fine *Lettuces*, (CERTIFICATE awarded.)

From the Garden of the Society a collection of plants ; amongst which were, *Spiranthes orchoides*, *Acanthophippium bicolor*, *Phajus bicolor*, *Leptotes bicolor*, *Boronia anemonefolia*, *Euphorbia splendens*, *Acacia mucronata*, and *A. hispidissima*. Cuttings of the following *Pears* and *Apple* were distributed : *Comte de Lamy*, called also *Marie Louise the 2nd.*, *Beurré Curté*, and *Dingler* a middle-sized roundish-obovate fruit, very sugary and rich, ripening in October ; *Eyewood*, middle-sized, roundish or somewhat oblate, buttery and rich, ripening in October and November ; A vigorous and hardy variety raised by the late Mr. Knight ; *Thompson's*, middle-sized, obovate, exceedingly rich, its sugary quality resembling that of the *Passe Colmar* ; fit for use in November. Also *Pearson's Plate Apple*, which obtained its name from the circumstance of a piece of plate having been presented to Mr. Pearson, a nurseryman in Nottingham, by whom it was first exhibited ; it is an exceedingly handsome, rich dessert apple, in quality nearly equal to the *Golden Harvey*, but somewhat larger in size, and a better bearer ; fit for use from December till March.

The following presents were announced :

Comptes rendus hebdomadaires des séances de l'Académie des Sciences a Paris, Nos. 24. to 26 1^{re} semestre and Nos. 1 to 26 2^{me} semestre 1842., from the Academy.

The Floricultural Cabinet, No. 120, from the Editor.

The 11th. Annual Report of the Royal Horticultural Society of Cornwall, 1843, from the Society.

Transactions of the Agricultural Society of Vienna, Vol. II. part 2. from the Society.

The Illustrated Polytechnic Review, No. 10. from the Editor.

Beschreibung des Verfahrens bey Ausübung der Reihencultur, nach John Georg. Hölbling's Ackerbau-Systeme.

No. XXI.

B

An Engraved Portrait of the late Augustin Pyramus De Candolle, Professor of Botany, at Geneva, F. M. H. S., From M. Alphonse De Candolle.

April 4, 1843.

ORDINARY MEETING.

The following gentlemen were elected Fellows of the Society :

Rev. George Cuddington Bethune, B.D. Rector of North Crawley, Sussex.

Gilbert Finlay Girdwood, Esq., 177, Maida Hill.

A paper from Capt. Dwyer, Commandant of the Island of Ascension, was read ; being a statement of the success attending the cultivation of certain annuals and vegetables in that Island. From this it appears that owing to the "black winds" to which the island is subjected, certain kinds of vegetables will not succeed. Amongst the Peas which stand the climate are the *Pois nain de Hollande* and *Nain vert petit* : the *Versailles*, *Sugar*, and *Alphonzo Cos* lettuces, *Batavian Endive*, *Portuguese Cabbage* and *Vegetable Marrow*, also thrive. It was noticed as somewhat remarkable that those annuals flourished best which had been introduced from the North West parts of America and from other comparatively cool climates : of these were *Nemophila insignis* and *atomaria*, *Campanula Lorei*, *Lupinus Hartwegii* and *polyphyllus*, and *Erysimum Perofskianum*.

A Paper, accompanied by a model, was also read, from Mr. T. Torbrön of S, Queen's Buildings, Knightsbridge, relative to a new mode of arranging sashes upon the roof of forcing and other houses ; so that when air is admitted, the light may not be intercepted by one sash overlaying the other. This is effected by the roof being formed of three sashes, the two lower (supposing the roof to be fifteen feet wide) being each six feet long, and the uppermost three feet ; the rafters being continued at the same angle for a short space over the back wall of the house. When air is admitted the lowermost sash slides downwards, the middle one either remains stationary or is moved up or down as may be required ; the upper one, by means of a pulley affixed to the back wall, is drawn upwards along the projecting rafters ; or, by having the sash secured at the back by hinges, it is raised vertically by iron rods to the desired height.

The following were the principal subjects of exhibition :

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., a collection of plants, comprising an extremely beautiful specimen of *Erica transparens*, very handsome plants of *Dendrobium densiflorum* and *Æschynanthus maculatus*, *Camellia elegans*, *Cytisus filipes*, and several others. (KNIGHTIAN MEDAL awarded for the three former.)

From Mr. W. Lee, Bradmore, Hammersmith, numerous forcing *Pelargoniums*, consisting of *Admiral Napier*, *Collyanum*, *General Washington* and *Album multiflorum*.

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., exceedingly well cultivated specimens of *Erica aristata* and *Tropæolum tricolorum*, with two other *Heaths*. (KNIGHTIAN MEDAL awarded for the two former.)

From the Very Rev. Dr. Thomas Garnier, Dean of Winchester, a collection of cut flowers, comprising *Magnolia purpurea*, *conspicua*, *gracilis*, and *Soulangeana*; *Rhododendron campanulatum*, and a beautiful *Scarlet hybrid Rhododendron*. (CERTIFICATE awarded for the latter.)

From Mr. Clarke, Gardener, to William Block, Esq., of Muswell Hill, a collection of plants amongst which were good specimens of *Maxillaria Harrisoni*, *Azalea purpurea plena*, *Leschenaultia formosa*, *Erica Rubrocalyx*, and *Polygala oppositifolia*. (CERTIFICATE awarded for the three former.)

From Mr. Hugh Low, of Clapton Nursery, a pretty species of *Pultenæa*, raised from Swan River, and a handsome *Bossiæa*, also introduced from the same colony, with a *Seedling Epacris* and a good *Seedling Camellia*. (BANKSIAN MEDAL awarded for the *Pultenæa* and *Bossiæa*.)

From John Allnutt Esq., F.H.S., a beautiful seedling white *Camellia*, called *C. Allnuttii alba*, *C. ochroleuca* and *speciosa*, with several pretty *Ericas* and a box of cut *Camellia* flowers. (CERTIFICATE awarded for *Camellia Allnuttii alba*.)

From Charles B. Warner Esq., F.H.S., a well grown specimen of the beautiful *Dendrobium pulchellum*, and a plant of *Epimedium macranthum*. (BANKSIAN MEDAL awarded for the former.)

From Mr. Conway, Nurseryman, Old Brompton, Five *Seedling Azaleas*, and several plants of *Pelargonium Lanei*.

From Mr. J. Thomson, Florist, Hammersmith, several *Seedling Cinerarias*.

From Mr. Jackson, Nurseryman, Kingston, a very beautiful plant of *Erica trossula*, with *E. physodes*, *transparens* and *Cushiniana* and *Cytisus filipes*. (CERTIFICATE awarded for *Erica trossula*.)

From Mr. Beetz, of Isleworth, a pretty seedling *Calceolaria*, called *Premier*.

From His Grace the Duke of Devonshire, a fine plant of *Cynlidium Detoniæ*, a species lately introduced from the E. Indies.

From Mrs. Wray, of Oakfield, near Cheltenham, a magnificent cluster of the flowers of *Beaumontia grandiflora*. (BANKSIAN MEDAL awarded.)

From Messrs. Paul and Son, of Cheshunt, a singular Seedling *Cineraria*, showing a disposition to quill, in having the purple rays of the flower drawn together at some distance from their bases and thus forming a tube presenting a silvery appearance; also a handsome collection of cut *Rose blooms*. (CERTIFICATES awarded both to the *Cineraria* and *Roses*.)

From Messrs. Lane and Son, of Great Berkhamstead, Herts. a well grown collection of *Roses in pots*, two boxes of *Rose blooms* and a plant of the double white Chinese *Prunrose*. (BANKSIAN MEDAL awarded for the *Roses in pots*.)

From Messrs. Rivers, of Sawbridgeworth, Herts., a very good collection of *Rose blooms*. (CERTIFICATE awarded.)

From Lady Rendlesham of Bushey Grove, Herts., a dish of *Oranges* grown in a *Greenhouse*.

From Mr. Charles Ewing, Gardener to Owen Fuller Meyrick, Esq., F.H.S., of Bodorgan Hall, Anglesea, a dish of good forced *Cherries*. (CERTIFICATE awarded.)

From Charles B. Warner, Esq., F.H.S., Two *Madras Citrons*.

From Mr. Stephen Hooker, F.H.S., specimens of the *Cobtree Green Apple* or *Gosberry Pippin*, and *Scarlet Nonpareil*.

From the Garden of the Society a large collection of plants, comprising *Deudorhium Heyneanum*, a beautiful white flowering species lately introduced; *Cyrtopodium punctatum*, *Cyrtocentrum flavescens*, *Epidendrum Stamfordianum* and *aurantiacum*, *Bifrenaria aurantiaca*, *Acacia alata* and a new *Spiræa*, called *lanceolata*.

The following Presents were announced.

Baxter's British Flowering plants, No. 127. from the Editor.

The Floricultural Cabinet, No. 122. from Mr. Joseph Harrison.

The Botanical Register for April, from the Publishers.

The Athenæum for the month of March, from the Editor.

April 6, 1843.

GARDEN COMMITTEE.

Orchard and Kitchen Garden Department.—*Chappell's New Cream Broccoli* proves to be an excellent variety, larger than the *Portsmouth* and of a whiter colour.

The *New Victoria Broccoli*, from Messrs. Wrench, proves to be also a good variety, resembling the preceding.

Whilst these are admitted to be improved varieties, still as a late Broccoli, *Knight's Protecting* should not be lost sight of — on the contrary it possesses properties which highly entitle it to recommendation. These are a peculiar twist of the inner leaves by which they protect the heart; and it forms a *curd* as white as that of a Cauliflower.

Robert Thompson, *Superintendent*.

Hardy Department.—Shrubby *Calceolarias* and other plants potted in pure *Woolwich Humus*, root and grow remarkably well in it, even better than in the ordinary rich compost used for such plants.

Mixing a small portion of *Bone dust* with the soil, in which various kinds of plants have been potted, has proved very beneficial and caused them to become very strong and healthy. This has been particularly the case with a plant of *Tropaeolum tricolorum*, and it is probable, that by using *Bone dust* mixed with the soil in proper proportions, plants may be grown in much smaller *Pots* than usual, and that they will not want to be shifted so often as at present. *Bone dust* seems a favourite substance with all plants that I have tried.

The *artificial manures* applied (on the squares of grass) in the spring (March 1st.) have a very beneficial effect as compared with the same, when applied in the Autumn, (Oct. 21st.) some producing hardly any effect when applied in the Autumn, while the same applied in the Spring produce great good; this is particularly the case with Nitrate of Soda. Moreover, caustic manures, when applied in the Spring injure the sward for only a short time, while the same applied in the Autumn produce more permanent injury and the sward takes a longer time to recover; this is the case with Ammoniacal Liquor.

George Gordon, *Superintendent*.

Hothouse Department.—The vapour of Turpentine has been tried to destroy the *Scale insect* on plants, but without success, for in 5 cases out of 6 the plants were affected before the insects. The scales most abundant here consist of three species, viz. a small round white, an oblong transparent and a hemispherical brown kind. The plants experimented on were enclosed in a box in which a small basin was placed, containing the liquid. Among those subjected to this treatment were *Bossnea prostrata* and *Euphorbia Jacquiniflora*. The former infested with the small round white, was exposed to the vapour for 19 hours without injurious effects, and a few of the scales appeared dead or in a languid state. In three days afterwards it was exposed for 24 hours when the points of the shoots began to drop, but the scale underwent no further visible change, and in a few weeks

became as fresh as before. The *Euphorbia* infested with the oblong transparent scale, was enclosed for 4 days. In the course of the first night its leaves became pale, and the scarlet petal-like bracts almost black, decay gradually taking place till at last the leaves dropped off; while the scale remained apparently uninjured. The hemispherical brown scale seems to be of the same nature.

James Donald, *Superintendent*, pro temp.

April 18, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society ;

The Right Hon. Lady Dover, Dover House, Whitehall, and Roehampton, Surrey.

James Henry Holler Atkinson, Esq., of Angerton, near Morpeth, and 12, Clarendon Hotel, Bond Street, London.

John Francis Buller Esq., 62, Upper Seymour Street.

The following were the principal subjects of Exhibition ;

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., a collection of plants containing a magnificent specimen of *Dendrobium aggregatum*, also *Cattleya Skinneri*, *Combretum macranthum* and *Lalage hoveaefolia*; likewise *Cyrtorchilum hastatum*, and *Saccolabium micranthum*. (KNIGHTIAN MEDAL awarded for the first four.)

From Messrs. Veitch and Co., of Exeter, a plant of *Cyrtopodium punctatum*.

From Messrs. Lucombe, Pince and Co. of Exeter, a plant of *Epidendrum aurantiacum*.

From Sigismund Rucker Esq., F.H.S., a well bloomed plant of *Chysis bractescens* and a specimen of *Epidendrum Stamfordianum*. (BANKSIAN MEDAL awarded for the *Chysis*.)

From Mr. Charles Adam, Gardener to Mrs. Morris, Retreat, Battersea, a fine plant of *Maxillaria aromatica*, *Epidendrum alceifolium* and *crassifolium*. (BANKSIAN MEDAL awarded for the two former.)

From C. B. Warner, Esq., F.H.S., a plant of the beautiful *Epidendrum bicornutum*.

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., twelve fine seedling *Calceolarias*, among which was one of great beauty called *Eclipse*, also four seedling *Cinerarias*. (CERTIFICATE awarded for *Eclipse*.)

From Messrs. Lane and Son, of Great Berkhamstead, Herts, two Seedling *Cinerarias*, a well cultivated collection of *Roses* in pots, amongst which was a beautiful specimen of *Perpetual Albert* and a collection of *Cut Rose blooms*. (CERTIFICATE awarded for the collection in pots.)

From Mr. Smith, of Kingston, Surrey, a plant of *Azalea mirabilis* and *phænicea alba*, with seven seedling varieties of *Azalea*.

From Mr. Hogan, Gardener to Henry Pownall, Esq., F.H.S., a white *Banksian Rose*, *Azalea phænicea*, and *Fuchsia cordata*, also a fine plant of *Erica australis*, seven feet high and covered with bloom. (CERTIFICATE awarded for the latter.)

From Messrs Chandler and Sons, of Vauxhall, a fine plant of *Rhododendron purpureum maculatum* and a plant of *Trillium grandiflorum*. (CERTIFICATE awarded for the former.)

From Messrs. J. H. Lee, Nurserymen, Hammersmith, two plants of a beautiful *Scarlet Hybrid Rhododendron*, called *Mars*, and a white Hybrid one called *Venus*, also a variety of *Camellia japonica* imported from Spain, and cut flowers of *Ribes Beatonii*, a hybrid between *R. sanguineum* and *R. aureum*. (BANKSIAN MEDAL awarded for *Rhododendron Mars*.)

From Mr. Clarke, Gardener to W. Block, Esq., of Muswell Hill, an exceedingly fine specimen of *Epacris Grandiflora*, with *Rhododendron Smithii*, *Templetonia Glauca* and *Tropæolum Jarrattii*, (BANKSIAN MEDAL awarded for the *Epacris*.)

From Mr. Feran, Gardener to Lucy Lady Rendlesham, plants of *Erica micans* and *ovata*, also *Correa speciosa*, *Kennedya dilatata*, a *Lemon tree* bearing fruit, and a dish of handsome *Oranges* grown in a greenhouse.

From Mr. Gaines, of Battersea, two *Hybrid Rhododendrons* and a *Seedling Cineraria* called *Ne plus ultra*.

From Mr. Carsons, Gardener to W. F. G. Farmer, Esq., of Nonsuch Park, Surrey, a plant of a *Seedling Cineraria*.

From the Very Rev. the Dean of Manchester, cut Flowers of a seedling *Camellia* called *lysantha*. (CERTIFICATE awarded.)

From Mr. Kinghorn, Gardener to Alexander Murray, Esq., M. P., F. H. S., a *Seedling Calceolaria*, named *Candidate*.

From Mr. Conway, Nurseryman, Old Brompton, a *Seedling Azalea*.

From Mr. Hugh Low, of Clapton Nursery, a bright carmine coloured *Seedling Camellia*, named *Lowii*. (CERTIFICATE awarded.)

From Mr. Henry Groom F. H. S., a plant of *Bossiaë eriocarpa*.

From Mr. Doran, Gardener to Thomas Hawes, Esq., of Lavender Hill, three magnificent specimens of *Hydrangeas*, with pale blue trusses nearly a foot in diameter, and leaves nine inches long by eight inches wide; also a leath' of *Cucumbers*. (CERTIFICATE awarded for the *Hydrangeas*.)

From William Bromley Esq., F.H.S., cut flowers of *Camellias*, from a plant that has been growing against a north wall for four years without protection.

From Mr. Hutchinson, Gardener to E. J. Shirley, Esq., M.P. a dozen very fine *Peaches*, from trees grown in pots in a Pine stove ; a letter, which accompanied the fruit, stated that the plants were introduced into the stove on Nov. 23 and that owing to the mildness of the weather, the temperature for the first week was kept at 55° without much fire ; it was afterwards kept as near 60° as could be conveniently done, and when the sun shone, air was sparingly admitted on account of the Pines. During March, after the fruit was set, the temperature ranged by day from 80° to 85° ; but when the *Peaches* were stoved, the house was kept very warm, and ranged by day from 90° to 100°, and even 105° ; but never higher than 60° or 62° by night. At this season, water was abundantly supplied to the roots, and the trees were syringed overhead with tepid water every morning. The soil used was light sandy loam and decayed sheep's dung, and the plants were shifted annually. Some of the trees were 16 years old, and showed signs of improvement, instead of having become weaker under this treatment. The number of fruit on eight trees was stated to be thirteen dozen. (KNIGHTIAN MEDAL awarded.)

From Robert Wrench, Esq., a dozen handsome fruit of the *Hoary Morning Apple*.

From Mrs. Lavater, Retreat, Bath Place, Deptford Lane, Peckham, the fruit of the *Dion edule*, a small *Cycadaceous plant*, from which a sort of Arrow Root is prepared in Mexico.

From Messrs. Stephenson and Co., of 61 Gracechurch Street, one of their improved *double Cylindrical Boilers* for a hot water apparatus.

From the Gardens of the Society were plants of *Epidendrum primulinum*, *Cattleya Skinneri*, and *Oncidium ascendens* ; also *Gesnera Suttonii*, *Acacia marginata*, *Diosma capitata*, *Grenvillea longifolia* and a species of *Arbutus* found in Mexico, by Mr. Hartweg ; likewise three *Cinerarias* and cut flowers of *Rhododendron augustum*, *Berberis Aquifolium* and three other species of *Berberis*.

The following Presents were announced :

Fourth Report of the Agriculture of Massachusetts, 8vo. Boston, 1841. from John Tappan, Esq., 4, Fitzroy Square,

Horticultural Essays, Part. I. being the papers read at the Meetings of the Regent's Park Gardeners Society for mutual Instruction.

The Gardener and practical Florist, Vol. I. from the Publisher, 1843.

Eloge Historique de Pyramus de Candolle par M. Flourens Sec. perpetuel de l'Academie Royale des Sciences à Paris, from the Academy.

May 1, 1843.

ANNIVERSARY MEETING.

The following Fellows of the Society, viz. :

The Earl of Auckland.
Sir P. G. Egerton, Bart.,
Robert Hutton, Esq.,

were elected new Members of the Council in the room of

Sir W. J. Hooker.
J. Rogers, Esq.,
J. R. Gowen, Esq.

The following Fellows of the Society were re-elected Officers for the ensuing year, viz.

The Duke of Devonshire, President.
Thomas Edgar, Esq., Treasurer,
Alexander Henderson, M.D., Secretary

The Auditors presented the following report :

We, the Auditors, beg leave to Report to the General Meeting of the Horticultural Society of London, on this the Thirty-fourth Anniversary, that we have examined the Accounts for the past year, and have found the Vouchers correspond with the Books.

We annex an abstract of Receipts, Disbursements, and Liabilities, and are glad to point attention to an increase in the Receipts from the Garden Exhibitions, as compared with the preceding year, nearly equal to the deficiency in receipts from subscriptions ; which it is hoped, may, by a system of collection more in compliance with the Bye Laws, be brought up to the former amount, the number of subscribers being on the increase.

The Auditors recommend that such regulations be made as will prevent all Fellows who have not paid their Subscription for the previous year, enjoying any of their privileges till such arrears be paid. They trust that by the adoption of this recommendation, the Council will be enabled to diminish the debt, and

place the Society in a situation to promote still more extensively its valuable and important objects.

It appears that there are upon the books of the Society 275 Fellows who have compounded for their Annual Subscriptions, and 983 contributing Fellows.

The arrears from the latter amount to . . .	£ 3750	1	0
Do. by Executors of Deceased Fellows,			
and Fellows who have withdrawn. . . .	2349	9	6
Do. for Transactions and Fruit Catalogues			
sold. Rent of apartments let off, packages,			
Fruit, &c.,	667	4	6
	<hr/>		
	£ 6766	15	0
	<hr/>		

The expenditure for Repairs and Improvements to the Buildings at the Garden has been considerable, notwithstanding which the debt of the Society has been reduced by the sum of £708..10s..4d., leaving the present debt as follows :—viz.

Bonded Debt	£9050	0	0
Open Accounts	3515	9	10
	<hr/>		
Making together	£12,565	9	10

The Auditors also remark with satisfaction the additional outlay occasioned by despatching a Collector to China, an expenditure which they consider promises to be highly conducive to the objects for which the Society was originally constituted.

21, REGENT STREET.
April 24th, 1843.

A. PEYTON PHELPS.
R. HUTTON.
GEORGE BAIN.
W. H. STORY.
R. S. MOUNTJOY.
ROBERT OSBORN.
JOHN SICH.

May 2, 1843.

ORDINARY MEETING.

The following Gentlemen were elected Fellows of the Society :

Lord Beauvale,

John Taber, Esq., of Herne Hill, and 39, Crutched Friars.

Francis Huthwaite, Esq., Army and Navy Club, London.

A paper was read from Mr. Feran, Gardener to S. Majoribanks Esq., M.P., Watford, Herts, regarding some fine oranges which were exhibited on a former occasion. The tree which produced them was described as small, and as having been much neglected for a considerable time ; lately, however, it was potted anew in a compost of loam, cow dung, horse droppings, and road scrapings, and kept in a common Greenhouse, where it has borne 53 excellent fruit as the result. The cause of the fruit's superiority in flavour was not accounted for ; it was possibly owing to the variety being a particularly good one, or to some peculiarity of treatment yet unexplained.

The following were the principal subjects of Exhibition :

From Mr. Goode, Gardener to Mrs. Lawrence, F.H.S., a very handsome specimen of *Chorozema glycinifolia*, and two Seedling *Azaleas*, one called *Speciosissima*, with immense crimson flowers, richly spotted in the upper petals ; the other *Conspicua purpurea*, equally large, of a darker tint, less spotted, and not so well formed ; also a variety of *Oncidium papilio*, the pretty *Cytisus filipes*, and *Podolobium trilobatum*. (BANKSIAN MEDAL awarded for *Azalea speciosissima* and the *Chorozema*.)

From Mr. Wood, Nurseryman, Biggin Hill, near the Beulah Spa, Norwood, Surrey, 27 species in pots of Rock plants. Among them was *Bellis variegata*, *Stachys corsica*, *Linaria Hepaticæfolia*, *Rubus arcticus*, and *Myosotis alba* ; also *Erinus alpinus*, *Gnaphalium dioicum*, the delicate *Cypripedium spectabile*, and *Veronica repens*, two or three species of *Saxifrage* and *Thyme*, with the variegated *Arabis* and others. (CERTIFICATE awarded.)

From Mr. Gaines, of Battersea, a collection of *Ixias*. (BANKSIAN MEDAL awarded.)

From Messrs. Veitch and Son, of Exeter, a specimen of *Houlletia Brocklehurstiana* and a new Brazilian Gesneraceous plant : a dwarf Stove shrub, like a *Columnea*, but apparently a species

of *Hypocyrtia*, with curious scarlet flowers. (BANKSIAN MEDAL awarded for the former.)

From the Honourable and Very Revd. the Dean of Manchester, some seedling *Rhododendrons* and *Azaleas*; the first was *R. Seymouri* obtained from seed of *Rhodora canadensis* impregnated by *Azalea pontica*. Another was raised between *R. ponticum*, and *R. Dauricum atrovirens*. Also 3 seedling *Rhododendrons* from *R. ponticum* and *Azalea pontica*, together with a specimen of *Azalea pontica* impregnated with *A. sinensis*.

From Mr. Cockburn, Gardener to the Earl of Mansfield, Caen Wood, Highgate, a number of plants, among which was a tall specimen of *Acacia verticillata*, also *Gompholobium ericoides*, *Philibertia grandiflora*, *Chorozema spinosum*, *cordifolium*, *varium* and *Henchmanni* with several others. (CERTIFICATE awarded for the *Chorozemas*.)

From Mr. Clarke, Gardener to William Block, Esq., of Muswell Hill, plants of *Erica Hartnelli* and *Fulgida*, also *Chorozema Henchmanni* and *Æschynanthus ramosissimus*. (CERTIFICATE awarded for the *Erica Hartnelli*, and *Chorozema*.)

From Mr. Harding, Gardener to the Rev. F. Beadon, a plant of the *Double Yellow Oxalis*, received from Madeira.

From Mr. Cunningham, Gardener to G. Atkins, Esq., of Twickenham, a plant of a seedling *Calceolaria* named *Earl of Galloway*.

From Mr. Davy, Gardener to George Smith, Esq., of Colney Hatch, a seedling *Cineraria*, named *Pulcherrima*, with intense purplish crimson blossoms.

From E. D. Davenport, Esq., F.H.S., a cut specimen of *Sutherlandia frutescens*.

From Mr. Bedford, Gardener to Mr. C. Abbott, Market Gardener, Edmonton, a punnet of *Black Hamburg Grapes*.

From Mr. Beck, of Isleworth, a round tin pan called a *Saveall*, divisible in the middle, and having a cavity in the centre for the purpose of admitting pots, intended to economise tobacco water; when this is applied to plants, for the purpose of destroying Aphides, it is generally wasted, and a great superfluous expenditure is thus incurred: by the present contrivance the plants may be syringed or sprinkled, and the whole of the fluid will be caught again, to be strained for further use.

From the Garden of the Society were plants of *Cattleya Forbesii*, and *intermedia*, the large variety of *Oncidium ampliatum*, also *Epidendrum primulinum*, *Gloxinia caulescens*, and a hairy variety of *Acacia pulchella*, likewise two plants of *Chorozema varium nanum* one of *Azalea indica alba*, and *phænicea*, and a new herbaceous perennial called *Echium petraeum* with showy pink and blue flowers.

The following presents were announced :

The Athenæum for the month of April, from the editor.

The Ladies' Flower Garden of Ornamental Perennials, No. 17, from Mrs. Loudon.

The Botanical Register for May, from the publishers.

Archives du Muséum d'Histoire Naturelle, T. 3. Liv. 1. and 2, from the Academy of Sciences at Paris.

Agricultural Chemistry rendered simple for practical purposes. Illustrated with notes, by Thomas George Tutley, Ph. D., Parts 1, 2, 3, 4, from the author.

May 13, 1843.

EXHIBITION AT THE GARDEN.

The weather upon this occasion was singularly propitious, and owing to the previous rains, the vegetation in the garden was in a state of the richest luxuriance; the number of visitors amounted to 4800, exclusive of Exhibitors.

The award was as follows :

GOLD KNIGHTIAN MEDAL.

1. To Mr. Goode, Gardener to Mrs. Lawrence, F. H. S., for a collection of forty Stove and Greenhouse plants.
2. To the same, for six species of Exotic Orchidaceæ.
3. To Mr. E. Davis, for a miscellaneous collection of Fruit.

GOLD BANKSIAN MEDAL.

1. To Mr. Frazer, for a collection of forty Stove and Greenhouse plants.
2. To Mr. John Green, Gardener to Sir E. Antrobus, Bart., F. H. S., for a collection of twenty Stove and Greenhouse plants.
3. To Mr. Joseph Goode, Gardener to Mrs. Lawrence, F. H. S., for a collection of Stove and Greenhouse Climbers.
4. To the same, for twenty varieties of Cape Heaths.
5. To Mr. John Green, for twelve Greenhouse Azaleas.
6. To Mr. Mylam, Gardener to S. Rucker, Esq., F. H. S. for six species of Exotic Orchidaceæ.
7. To Mr. Bruin, Gardener to R. Gunter, Esq., F. H. S. for a miscellaneous collection of Fruit.

8. To Mr. Beck, of the Slate Works, Isleworth, F.H.S., for twelve varieties of *Pelargonium* in pots of twenty-four to the cast.

SILVER GILT MEDAL.

1. To Mr. Catleugh of Hans Street, Chelsea, for twelve varieties of *Pelargonium*, in pots of twenty-four to the cast.
2. To Mr. Cock, of Chiswick, for twelve varieties of *Pelargonium* in pots of twelve to the cast.
3. To Mr. Catleugh, for twelve varieties of *Pelargonium* in pots of twelve to the cast.
4. To Mr. Hunt, Gardener to Miss Traill, F. H. S., for a collection of twenty Stove and Greenhouse plants.
5. To Mr. Bruce, Gardener to Boyd Miller, Esq., for a collection of six species of Stove and Greenhouse plants.
6. To Mr. G. Clarke, Gardener to M. T. Smith, Esq., F. H. S., for a collection of Stove and Greenhouse Climbers.
7. To Mr. Goode, for a specimen of *Pimelea spectabilis*.
8. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for a specimen of *Leschenaultia grandiflora*.
9. To Messrs. Lucombe and Pince for a specimen of *Cyrtoceras reflexa*.
10. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for a collection of six species of Cape Heaths.
11. To Mr. Falconer, for a collection of twelve Greenhouse Azaleas.
12. To Mr. Milne, Gardener to C. S. Chauncey, Esq., F. H. S., for a collection of twenty-five Roses in pots.
13. To Messrs. Lane of Great Berkhamstead for a collection of twenty-five Roses in pots.
14. To Mr. W. Hunt, for a collection of six species of Exotic Orchidaceæ.
15. To George Barker, Esq., F. H. S., for a specimen of *Peristeria Humboldtii*.
16. To Mr. John Dodds, Gardener to Sir George Warrender, Bart., F. H. S., for Grapes.
17. To Mr. J. Davis, of East Barnet, for Grapes.
18. To Mr. R. Braid, Gardener to Henry Perkins, Esq., F.H.S., for Pine Apples.
19. To Mr. J. Burr, Gardener to H. Preston, Esq., F.H.S., for Pine Apples.

LARGE SILVER MEDAL.

1. To Mr. E. Bell, of Chelsea Hospital, for twelve *Pelargoniums*, in pots of twenty-four to the cast.

2. To the same, for twelve *Pelargoniums*, in pots of twelve to the cast.
3. To Mr. Gaines, of Battersea, for twelve *Pelargoniums*, in pots of twenty-four to the cast.
4. To the same, for twelve *Pelargoniums*, in pots of twelve to the cast.
5. To Mr. George Stanley, Gardener to H. Berens, Esq., F.H.S., for six Herbaceous *Calceolarias*, in pots of twelve to the cast.
6. To Mr. Beck, of the Slate Works, Isleworth, for six Shrubby *Calceolarias*, in pots of twelve to the cast.
7. To Mr. Pawley, of Bromley, for a collection of six Stove and Greenhouse plants.
8. To Messrs. Lucombe and Pince, of Exeter, for *Achimenes Grandiflora*.
9. To Messrs. Veitch, of Exeter, for *Eriostemon buxifolium*.
10. To Mr. John Green, for six species of Cape Heaths.
11. To Mr. Brazier, Gardener to W. H. Story, Esq., F.H.S., for six species of Cape Heaths.
12. To Mr. Dawson, of Brixton Hill, for six species of Cape Heaths.
13. To Mr. Smith, of Norbiton Nursery, Kingston, for twelve Greenhouse *Azaleas*.
14. To Mr. Beck, of the Slate Works, Isleworth, for twenty-five *Roses* in pots.
15. To Mr. Catleugh, of Chelsea, for twenty-five *Roses* in pots.
16. To Mr. W. Gunner, Gardener to Sir G. Larpent, Bart., F.H.S., for *Dendrobium densiflorum*.
17. To Mr. W. Hardie, Gardener to J. Jarrett, Esq., F.H.S., for *Doryanthes excelsa*.
18. To Messrs. Lucombe and Pince, of Exeter, for *Acrophyllum venosum*.
19. To Mr. E. Davis, Gardener to Abel Smith, Esq., Woodhall, Ware, Herts, for *Grapes*.
20. To Mr. Chapman, of South Lambeth, for *Grapes*.
21. To Mr. J. Davis, of East Barnet, for *Pine Apples*.

SILVER KNIGHTIAN MEDAL.

1. To Mr. Watt, Gardener to E. Snell, Esq., of Eccleston Bridge, Pimlico, for twelve *Pelargoniums* in pots of twelve to the cast.
2. To Mr. John Green, for six Herbaceous *Calceolarias*, in pots of twelve to the cast.

3. To Mr. Catleugh, of Chelsea, for six Herbaceous Calceolarias, in pots of twelve to the cast.
4. To Mr. Gaines, of Battersea, for Shrubby Calceolarias, in pots of twelve to the cast.
5. To Mr. Catleugh, for a collection of twelve Fuchsias.
6. To Mr. G. Clarke, Gardener to M. T. Smith, Esq., for six Stove and Greenhouse plants.
7. To Mr. Bruce, Gardener to Boyd Miller, Esq., for six varieties of Cape Heaths.
8. To Mr. Smith, of Norbiton, Surrey, for *Rhododendron chrysolectron*.
9. To Mr. Joseph Goode, for *Tropæolum azureum*.
10. To G. Barker, Esq., F.H.S., for a specimen of *Cynoches pentadactylon*.
11. To Mr. Thomas Ann, Gardener to J. H. Vivian, Esq., M.P., F.H.S., for Grapes.
12. To Mr. Tillery, Gardener to His Grace the Duke of Portland, for Peaches and Nectarines.
13. To Mr. S. Snow, Gardener to the Earl De Grey, for Strawberries (British Queen.)
14. To Mr. I. Gadd, of Betchworth, near Dorking, for Cantaloupe Melons.
15. To Mr. Mitchell, of Kemp Town, Brighton, for Grapes.

SILVER BANKSIAN MEDAL.

1. To Mr. Bromley, Gardener to Miss Anderdon, for twelve *Pelargoniums*, in pots of twelve to the cast.
2. To Mr. Cockburn, F.H.S., Gardener to the Earl of Mansfield, for six *Pelargoniums*, in pots of eight to the cast.
3. To Mr. Beck, of the Slate Works, Isleworth, for six Herbaceous Calceolarias, in pots of twelve to the cast.
4. To Mr. Catleugh, for six Shrubby Calceolarias, in pots of twelve to the cast.
5. To Mr. Hogan, Gardener to H. Pownall, Esq., F.H.S., for a collection of six Stove and Greenhouse plants.
6. To Mr. M. Clark, Gardener to W. Block, Esq., for a collection of six Stove and Greenhouse plants.
7. To Mr. Joseph Goode, for a specimen of *Gloxinia macrophylla variegata*.
8. To Mr. Joseph Goode, for a specimen of *Begonia coccinea*.
9. To Mr. John Green, for a specimen of *Siphocampylus betulifolius*.

10. To Mr. William Smith, of Norbiton, for a specimen of *Rhododendron decorum*.
11. To Mr. G. Stanley, Gardener to H. Berens, Esq., F.H.S., for a specimen of *Zichya inophylla*.
12. To Messrs. Lane and Co., for fifty varieties of Roses, in pots.
13. To Mr. W. Hardie, Gardener to J. Jarrett, Esq., F.H.S., for Melons.
14. To Richard Brook, Esq., F.H.S., for a collection of fourteen sorts of Apples and Pears.
15. To Mr. W. Davis, of Isleworth, for Strawberries.
16. To Mr. Baldwin, of Turnham Green, for a collection of Apples and Pears.
17. To Mr. Hutchison, Gardener to E. J. Shirley, Esq., M.P., of Ealington Park, for Peaches and Nectarines.

THE CERTIFICATE OF MERIT.

1. To Mr. Clark, Gardener to W. Block, Esq., for Tall Cacti in flower.
2. To Mr. J. Goode, for Tall Cacti in flower.
3. To Mr. John Green, for *Manettia bicolor*.
4. To Mr. James Hayes, Gardener to G. Hanson, Esq., of High Beech, for *Aotus lanigera*.
5. To Mr. Kyle, Gardener to Robert Barclay, Esq., of Leyton, for a species of *Bossiæa*.
6. To Mr. R. Jones, Gardener to Sir Moore Disney, F.H.S., for *Azalea indica alba*.
7. To Mr. Gaines, for *Ixias*.
8. To J. Allnutt, Esq., F.H.S., for a specimen of *Erica depressa*.
9. To Mr. Wood, of Norwood, for a collection of forty-eight Rock plants.
10. To Mr. Beck, of Isleworth, for a *Pelargonium* (Susanna.)
11. To Mr. Beck, of Isleworth, for a *Pelargonium* (Zanzummim.)
12. To Mr. Standish, of Bagshot, for two *Calceolarias* (Duchess of Gloucester and Surprize.)
13. To Mr. I. Moss, Gardener to J. Taylor, Esq., F.H.S., for Citrons.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitions.	MEDALS AWARDED.						
		Gold Knightian.	Gold Banksian.	Large Silver Gilt.	Large Silver.	Silver Knightian.	Silver Banksian.	Certificate.
Pelargoniums, collections of 12, in pots of 24 to a cast - - -	4	—	1	1	2	—	—	—
Ditto - - - Ditto, in pots of 12 to a cast - - -	6	—	—	2	2	1	1	—
Ditto, collections of 6, in pots of 8 to a cast - - -	1	—	—	—	—	—	1	—
Roses, in pots, collections of 25 -	4	—	—	2	2	—	—	—
Ditto, in bunches, 50 varieties -	1	—	—	—	—	—	1	—
Heaths, collections of 20 - -	1	—	1	—	—	—	—	—
Ditto, collections of 6 - - -	5	—	—	1	3	1	—	—
Herbaceous Calceolarias collections of 6 - - -	4	—	—	—	1	2	1	—
Shrubby Ditto - - - Ditto - - -	3	—	—	—	1	1	1	—
Carnations - - - -	1	—	—	—	—	—	—	—
Piccotees - - - -	1	—	—	—	—	—	—	—
Stove or Greenhouse plants, collections of 40 - - -	2	1	1	—	—	—	—	—
Ditto - Ditto - collections of 20 -	2	—	1	1	—	—	—	—
Ditto - Ditto - collections of 6 -	5	—	—	1	1	1	2	—
Greenhouse Azaleas, 12 varieties -	3	—	1	1	1	—	—	—
Collections of stove and Greenhouse climbers - - -	3	—	1	1	—	—	—	—
Orchidaceæ, collections of 6 -	3	1	1	1	—	—	—	—
Ditto, single specimens - - -	4	—	—	1	1	1	—	—
Tall Cacti in flower - - -	2	—	—	—	—	—	—	2
Fuchsias, collections of 12 -	1	—	—	—	—	1	—	—
Single specimens of new or rare ornamental plants - - -	23	—	—	3	3	2	4	3
Miscellaneous plants - - -	18	—	—	—	1	—	—	4
Seedling Flowerist's flowers -	34	—	—	—	—	—	—	3
Miscellaneous collections of fruit -	4	1	1	—	—	—	—	—
Grapes - - - -	10	—	—	2	2	2	—	—
Pine Apples - - - -	5	—	—	2	1	—	—	—
Peaches or Nectarines six specimens -	2	—	—	—	—	1	1	—
Miscellaneous Fruit - - -	22	—	—	—	—	2	4	1
Total.	174	3	8	19	21	15	17	13

June 6, 1843.

ORDINARY MEETING.

The following Candidates were elected Fellows of the Society:

Viscount Howick, M.P., 6, Suffolk Street, and Datchett Lawn, Windsor.

Lord Farnham, Farnham, Cavan, Ireland, and Mivart's Hotel.

Charles Francis Bamford, Esq., Kings Bench Walk, Inner Temple, London.

William Curling, Esq., Hitchen, Herts.

Henry M'Kellar, Esq., Wandsworth Lodge, Upper Tooting, Surrey,

Mr. Glendinning, Chiswick.

A Paper from Captain Hall, Berwick-upon-Tweed, was read, relating to a new vegetable, which it is considered easy to acclimate in the Southern parts of England, and for which the climate of Britain is thought peculiarly suitable.

The plant is a variety of some species of *Amaranthus*, possibly oleraceus, and is markedly distinguished by the milk white appearance of its stem, branches, and leaf stalks. As its excellence depends on the succulency and tenderness of its nature, it requires to be grown rapidly, so as to be fit for use at the age of a month or so; and this is effected by a rich light soil, abundance of moisture, and a high temperature; the latter may be carried occasionally as high as 90° in the day, and regulated at from 70° to 75° at night. It is rather impatient of much light. In India it is grown to the greatest perfection during the rainy season, towards the end of June. A common Melon frame is recommended to grow it in; and the plants grow from a foot to a foot and a half high. The seeds should be sown in rather shallow rich earth, and the part of the fermenting materials beneath the soil should be in a partially decomposed state, that the roots may penetrate into them. The plants may be pricked out when young at six inches apart, and require a slight shading in bright weather. The early part of the year is preferred for growing it. It is used as a vegetable in two ways. First, the leaves are plucked and dressed like spinach, when they are considered not inferior to those of any similar plant. Second, the stems, and side branches, being the white parts of the plant, are separated from each other, cut into proper lengths, boiled, and placed on toast, like *Asparagus*, and eaten with meat, either with butter, sauce, or gravy. They are very like *Asparagus* or *Seakale*.

The following were the principal subjects of exhibition :

From George Loddiges, Esq., F.H.S., beautiful specimens of *Cirrhopetalum Cumingii* and *Cypripedium barbatum*, two elegant and rare Orchidaceous plants. (KNIGHTIAN MEDAL awarded.)

From Mr. Robert Errington, Gardener to Sir Philip G. Egerton, Bart., F.H.S., a pretty plant of *Oncidium flexuosum*, also cut flowers of *Dendrobium Calceolaria*, and a variety of *Cattleya Mossiæ*, and *Maxillaria tenuifolia*.

From C. B. Warner, Esq., F.H.S., good specimens of *Saccolabium guttatum* and *Cattleya Mossiæ*; also an ornamental wire basket, made of iron, and coated with zinc by the electro process. The object is to avoid paint, which soon peels off in hothouses, and to prevent rust. The coat of zincing is said to be about equal to four coats of paint.

From Messrs. Hugh Low, of Clapton, Cut flowers of *Hydrangea japonica*, this being the first time any of the species existing in that part of the world, have been flowered in Britain. It is likely to prove quite hardy, and an interesting shrub, also *Cluytia pulchella*, from the Swan River. (KNIGHTIAN MEDAL awarded for the *Hydrangea*.)

From Mr. T. Rivers, Jun., of Sawbridgeworth, a collection of *Azaleas* and *Rhododendrons*, among which a large variety of *R. marginum* with very numerous and dark spottings.

From George Sandeman, Esq., of Highbury, two well grown specimens of *Diosma ericoides*. (CERTIFICATE awarded.)

From Mr. William Young, of Milford Nursery, Godalmin, a yellow flowered new species of *Sempervivum*, called *S. Youngianum*.

From Mr. William Brazier, Gardener to William Henry Story, Esq., F.H.S., a seedling variety of *Erica vestita*, called *Grandiflora albida*, with which there was a collection of seedlings from the same species, a number of beautiful plants, varieties of *E. ventricosa* with *E. Cavendishiana*, and a lovely specimen of *E. perspicuana*. (BANKSIAN MEDAL awarded for the former.)

From Messrs. Chandler and Sons., of Vauxhall a *Verbena* named *V. atrosanguinea*, and a well bloomed specimen in a pot of *Lilium eximium*, also flowers of *Seedling Pelargoniums*, raised by Chandler and Sons, and a flower of a *Seedling Papava*, between *bracteatum* and *orientale*. (CERTIFICATE awarded for the two former.)

From Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., E.H.S., *Royal George Peaches* and *Elrue Nectarines*.

From Mr. Atlee, Gardener to Henry Beaufoy, Esq., of South Lambeth, excellent *Black Hamburgh Grapes*, (each bunch varying from 1½ lbs. to 2 lbs. (BANKSIAN MEDAL awarded)

From the Garden of the Society were plants of ; *Oncidium flexuosum*, *Wentworthianum* and *leucochilum*, also *Epidendrum radiatum*, specimens of *Echeveria secunda*, a very curious Orchidaceous plant, *Serapias longipetala*, and various other plants, among which was a very fine *Campanula grandis*.

The following presents were announced :

The Floricultural Cabinet, for May and June, from Mr. Joseph Harrison.

The Botanical Register, for June, from the Publishers.

The Journal of the Royal Geographical Society of London, Vol. 12., part 2. from the Society.

The Ladies Flower Garden of Ormamental Perennials, No. 18. from Mrs. Loudon.

The Athenæum for the month of May, from the Editor.

Acta Academiæ Naturæ curiosorum, Vol. 18, Supp. 2. and Vol 19. Pars 2. from the Academy.

Annales des Sciences Physiques et Naturelles d'Agriculture et d'industrie publiées par La Soc. Royale d'Agriculture, &c. de Lyon, 3^{me} 4^{me} 5^{me} 6^{me} Livs. Tome 3., from the Society.

June 17, 1843.

EXHIBITION AT THE GARDEN.

The day was exceedingly fine, but not oppressively warm ; the lawns dry, yet beautifully green, and all vegetation, owing to the late rains, richly luxuriant. More than 11,060, visitors were present exclusive of exhibitors.

The award was as follows :

GOLD KNIGHTIAN MEDAL.

1. To Mr. John Green, Gardener to Sir Edmund Antrobus, Bart., F. H. S., for a collection of forty Stove and Greenhouse plants.
2. To Mr. J. Goode, Gardener to Mrs. Lawrence, F. H. S., for a collection of forty Stove and Greenhouse plants.
3. To Mr. Paxton, Gardener to His Grace the Duke of Devonshire, K. G., for a collection of Exotic Orchidaceæ.
4. To Mr. Mylam, Gardener to S. Rucker, Esq., F. H. S., for a collection of Exotic Orchidaceæ.
5. To Mr. Moffatt, Gardener to His Grace the Duke of Newcastle, for a miscellaneous collection of Fruit.

GOLD BANKSIAN MEDAL.

1. To Mr. John Dobson, Gardener to Mr. Beck of Isleworth, F. H. S., for twelve varieties of Pelargonium, in pots of twenty-four to the cast.
2. To Mr. Catleugh, of Hans Street, Chelsea, for twelve varieties of Pelargonium, in pots of twenty-four to the cast.
3. To Mr. J. Goode, for twenty varieties of Cape Heaths.
4. To the same, for a collection of Exotic Orchidaceæ.
5. To Messrs. Lane, of Great Berkhamstead, for a collection of twenty-five Roses, in pots.
6. To Messrs. Lucombe and Pince, of Exeter, for a collection of twenty-one Seedling Heaths.
7. To Messrs. Rollison, of Tooting, for a collection of Exotic Orchidaceæ.
8. To Mr. Spencer, Gardener to the Marquess of Lansdowne, K. G., F.H.S., for a miscellaneous collection of Fruit.
9. To Mr. J. Davis, of East Barnet, for a miscellaneous collection of Fruit.

SILVER GILT MEDAL.

1. To Mr. Gaines, of Battersea, for twelve varieties of Pelargonium, in pots of twenty-four to the cast.
2. To Mr. I. Parker, Gardener to J. H. Oughton, Esq., Roehampton, for twelve varieties of Pelargonium, in pots of twelve to the cast.
3. To Mr. Catleugh, of Hans Street, Chelsea, for twelve varieties of Pelargonium, in pots of twelve to the cast.
4. To Mr. Redding, Gardener to Mrs. Marryat, F. H. S., for a collection of forty Stove and Greenhouse plants.
5. To Mr. Pawley, of the White Hart Inn, Bromley, Kent, for a collection of twenty Stove and Greenhouse plants.
6. To Mr. Hunt, Gardener to Miss Traill, F. H. S., for a collection of six Stove and Greenhouse plants.
7. To the same, for six species of Cape Heaths.
8. To Mr. Joseph Goode, for a collection of Stove and Greenhouse Climbers.
9. To Mr. John Green, for a collection of twenty species of Cape Heaths.
10. To Mr. Brazier, Gardener to W. H. Story, Esq., F. H. S., for six species of Cape Heath.
11. To Mr. J. Smith, Gardener at the Royal Botanic Garden, Kew, for *Achimenes multiflora*.
12. To Mr. Mylam, Gardener to S. Rucker, Esq., F. H. S., for *Nepenthes ampullacea*.
13. To the same, for *Aerides odoratum*.

14. To Mr. John Brewster, Gardener to Mrs. Wray, F. H. S., for *Barkeria spectabilis*.
15. To Mr. T. Insley, Gardener to G. Barker, Esq., F. H. S., for a collection of Exotic Orchidaceæ.
16. To Mr. R. Atlee, Gardener to H. Beaufoy, Esq., South Lambeth, for Grapes.
17. To Mr. J. Davis, of East Barnet, for Grapes.
18. To Mr. I. Wharton, Gardener to Miss Whitehead, of Bath, for Pine Apples.

LARGE SILVER MEDAL.

1. To Mr. Gaines, of Battersea, for twelve varieties of *Pelargonium*, in pots of twelve to the cast.
2. To Mr. Hunt, Gardener to Miss Traill, F. H. S., for twelve varieties of *Pelargonium*, in pots of twelve to the cast.
3. To Mr. W. Bourne, Gardener to the Hon. Sir E. Paget, Chelsea Hospital, for six varieties of *Pelargonium*, in pots of eight to the cast.
4. To Mr. Dobson, Gardener to Mr. Beck of the Slate Works, Isleworth, F. H. S., for six Shrubby *Calceolarias*, in pots of twelve to the cast.
5. To the same for six Herbaceous *Calceolarias*, in pots of twelve to the cast.
6. To Mr. Gaines, for six Shrubby *Calceolarias*, in pots of twelve to the cast.
7. To Messrs. Lane and Son, for twelve varieties of *Fuchsia*.
8. To Mr. Falconer, Gardener to Archdale Palmer, Esq., for a collection of six species of Stove and Greenhouse Plants.
9. To Mr. Bruce, Gardener to Boyd Miller, Esq., for a collection of six species of Stove and Greenhouse plants.
10. To Messrs. Lucombe and Pince, of Exeter, for *Statice macrophylla*.
11. To the same, for *Luxemburgia ciliosa*.
12. To Mr. W. Redding, for *Acrophyllum venosum*.
13. To Mr. J. Smith, for *Luxemburgia ciliosa*.
14. To Mr. T. Jackson, F. H. S., for twenty varieties of Cape Heath.
15. To Mr. F. Fraser of Leyton, Essex, for twenty varieties of Cape Heaths.
16. To Mr. G. Clark, Gardener to M. T. Smith, Esq., F. H. S., for six varieties of Cape Heaths.
17. To Mr. James Falconer, for a collection of Tall Cacti in flower.
18. To Mr. A. Milne, Gardener to C. S. Chauncey, Esq., F. H. S., for a collection of Roses in fifty varieties.

19. To Messrs. Paul and Son, of Cheshunt, for a collection of Roses in fifty varieties.
20. To Messrs. Veitch and Son, of Exeter, for *Oncidium Lancéanum*.
21. To Mr. M. Henderson, Gardener to Sir George Beaumont, Bart. for a miscellaneous collection of Fruit.
22. To the same, for Pine Apples.
23. To Mr. Bruin, Gardener to R. Gunter, Esq., F. H. S., for a miscellaneous collection of Fruit.
24. To Mr. E. Davis, Gardener to Abel Smith, Esq., F.H.S., for Grapes.
25. To the same, for Pine Apples.
26. To Mr. Chapman, of South Lambeth, for Grapes.
27. To J. G. Fuller, Esq. F.H.S., for Pine Apples.

SILVER KNIGHTIAN MEDAL.

1. To Mr. Hunt, Gardener to Miss Traill, F.H.S., for twelve varieties of *Pelargonium*, in pots of twenty-four to the cast.
2. To Mr. Catleugh, for six Herbaceous *Calceolarias*, in pots of twelve to the cast.
3. To the same, for six Shrubby *Calceolarias*, in pots of twelve to the cast.
4. To Mr. G. Stanly, Gardener to H. Berens, Esq. F.H.S., for six Shrubby *Calceolarias*, in pots of twelve to the cast.
5. To Mr. John Trevers, of East Lane, Walworth, for a collection of twenty-four varieties of Pinks.
6. To Mr. Norman, of Woolwich, for a collection of twenty-four varieties of Pinks.
7. To Mr. Catleugh, for twelve varieties of *Fuchsia*.
8. To E. Foster Esq., Clewer, near Windsor, for a Seedling *Pelargonium* (*Phaon*).
9. To Mr. G. Clarke, for a collection of Six species of Stove and Greenhouse plants.
10. To Mr John Green, for *Stigmaphyllon ciliatum*.
11. To Mr. James Dawson, Brixton Hill, for *Erica pulverulenta*.
12. To Messrs. Beck and Co., 67, Strand, for *Martynia fragrans*.
13. To Mr. Pawley, of Bromley, for six species of Cape Heaths.
14. To Mr. Bruce, for six species of Cape Heaths.
15. To the same, for a collection of Tall Cacti in flower.
16. To A. Rowland Esq., F.H.S., for 50 varieties of Roses.
17. To Mr. H. Cobbett, of Horsell, near Woking, for 50 varieties of Roses.
18. To Messrs. Lucombe and Pince, of Exeter, for *Vanda teres*.
19. To F. G. Cox, Esq., of Cedar Lodge, Stockwell, for *Phalænopsis amabilis*.

20. To Mr. R. Poole, Leyton, Essex, for *Pimelea decussata*.
21. To Messrs. Lockhart and Co., for a collection of *Ranunculuses*.
22. To Mr. Brazier, Gardener to W. H. Story Esq., F.H.S., for eight Hybrid Heaths.
23. To Mr Joseph Davey, Gardener to George Smith, Esq., F.H.S. for Grapes.
24. To Mr. J. Fish, Gardener to H. Oddie Esq., for Pine Apples.
25. To Mr. H. M'Onach, Gardener to E. Vines, Esq., F.H.S., for Pine Apples.
26. To Mr. Spencer, Gardener to the Marquess of Lansdowne, K.G., F.H.S., for Nectarines.
27. To Mr Fish, Gardener to Colonel Sowerby, F.H.S., Putteridgebury, Luton, for Peaches.
28. To Mr. S. M. Carson, Gardener to W. F. G. Farmer, Esq., F.H.S, for two Melons (Oliver's Green flesh.)

SILVER BANKSIAN MEDAL.

1. To Mr. Bell, of Chelsea Hospital, for six varieties of *Pelargonium*, in pots of twelve to the cast.
2. To Mr. Gaines, of Battersea, for six Herbaceous *Calceolarias*, in pots of twelve to the cast.
3. To Mr. John Neville, of Peckham, for a collection of twenty-four varieties of Pinks.
4. To Mr. R. Henbrey, of Croydon, for a collection of twenty-four varieties of Pinks.
5. To E. Foster, Esq., of Clewer, near Windsor, for a seedling *Pelargonium* (Duke of Devonshire.)
6. To the same, for a second seedling *Pelargonium* (Robustum.)
7. To Mr. Fraser, for a collection of Six Stove and Greenhouse plants.
8. To Mr. Brazier, for *Erica splendens*.
9. To Mr. Lee, F.H.S., for *Aquilegia Skinneri*.
10. To Messrs. Lucombe and Pince, of Exeter, for *Siphocampylus betulæfolius*.
11. To the same, for *Ozothamnus thyrsoides*.
12. To Messrs Rollisson, of Tooting, for *Kalmia latifolia buxifolia*.
13. To Mr. W. Dennis, of King's Road, Chelsea, for a collection of 50 varieties of Roses.
14. To Mr. Laing, of Twickenham, for a collection of 50 varieties of Roses.
15. To Mr. Insleay, Gardener to Geo. Barker, Esq., F.H.S., for *Mormodes luxatum*.
16. To Messrs. Tyso, of Wallingford, for *Ranunculuses*.

17. To Mr. H. Baile, of Covent Garden, for Globe Scarlet Pelargoniums.
18. To Mr. W. Salter, Gardener to J. M. Yeeles, Esq., of Bath, for *Erica tricolor*.
19. To Mr. R. Mountjoy, F.H.S., for *Stylidium fasciculatum*.
20. To Mr. F. Fraser, for *Epacris grandiflora*.
21. To Mr. G. Wortley, Gardener to I. F. Maubert, Esq., F.H.S., for Grapes.
22. To Mr. Roberts, Gardener to M. Wilson Esq., Skipton, for Grapes.
23. To Mr. Mitchell, Gardener to Lord Vernon, F.H.S., for Peaches and Nectarines.
24. To Mr. Pedrick, Gardener to H. Pownall Esq., F.H.S., for Peaches and Nectarines.
25. To Mr. Foggo, Gardener to the Marquess of Abercorn, for Peaches.
26. To Mr. H. Bance, Gardener to Dr. Tarleton, of Chelsfield, Kent, for six Melons.

THE CERTIFICATE OF MERIT.

1. To Mr. Ingram, of Southampton, for a Pelargonium (Corinthian.)
2. To Mr. John Standish, of Bagshot, for a *Calceolaria* (Illuminator.)
3. To Mr. J. Neville, of Peckham, for a Pink (Brilliant.)
4. To Mr. G. Piper, Gardener to R. Whilley Esq., of Blackheath Park, for a *Cineraria* (Princess Royal.)
5. To Mr. E. P. Lyne, of Plymouth, for a Pelargonium (Princess Alice)
6. To Messrs. Lee and Co., for a species of *Lathyrus*, from Texas.
7. To Messrs. Lucombe and Pince, for *Gompholobium polymorphum*.
8. To Mr Joseph Goode, for *Helichrysum retortum*.
9. To the same, for a specimen of *Gloxinia maxima alba*.
10. To Mr. Edmonds, for *Peristeria pendula*.
11. To Mr. Hopgood, of Bayswater, for *Sollya linearis*.
12. To Mr. John Trevers, of East Lane, Walworth, for *Ranunculuses*.
13. To Mr. J. Bruce, for *Aphelexis sesamoides*.
14. To Mr. Hunt, for a specimen of *Oncidium microchilum*.

The result of this award as compared with the objects exhibited is shown by the following table.

	Number of Exhibitions	MEDALS AWARDED.						
		Gold Knightian.	Gold Banksian.	Large Silver Gilt.	Large Silver.	Silver Knightian.	Silver Banksian.	Certificate.
Pelargoniums, collections of 12, in pots of 24 to a cast - - -	4	—	2	1	—	1	—	—
Ditto - - - - Ditto, in pots of 12 to a cast - - - -	4	—	—	2	2	—	—	—
Ditto - - - - collections of 6, in pots of 8 to a cast - - - -	2	—	—	—	1	—	1	—
Roses, in pots, collections of 25 - -	2	—	1	—	—	—	—	—
Ditto, in bunches, collections of 50 -	6	—	—	—	2	2	2	—
Cape Heaths, collections of 20 - -	4	—	1	1	2	—	—	—
Ditto, collections of 6 - - - -	5	—	—	2	1	2	—	—
Herbaceous Calceolarias, collections of 6 - - - -	3	—	—	—	1	1	1	—
Shrubby - Ditto - - Ditto - -	4	—	—	—	2	2	—	—
Pinks, collections of 24 - - - -	5	—	—	—	—	2	2	—
Stove or Greenhouse plants, collections of 40 - - - -	3	2	—	1	—	—	—	—
Ditto Ditto - - - collections of 20 -	1	—	—	1	—	—	—	—
Ditto Ditto - - - collections of 6 -	5	—	—	1	2	1	1	—
Collections of Stove or Greenhouse climbers - - - -	1	—	—	1	—	—	—	—
Orchidaceæ collections of 6 - - -	5	2	2	1	—	—	—	—
Ditto - - in single specimens - -	9	—	—	2	1	2	1	2
Tall Cacti in flower - - - -	3	—	—	—	1	1	—	—
Fuchsias, collections of 12 - - -	2	—	—	—	1	1	—	—
Single specimens of new or rare ornamental plants - - -	25	—	—	2	4	3	5	3
Miscellaneous plants - - - -	21	—	1	—	—	3	5	4
Seedling Florist's flowers - - -	39	—	—	—	—	1	2	5
Miscellaneous collections of Fruit -	6	1	2	—	2	—	—	—
Grapes - - - - -	11	—	—	2	2	1	2	—
Pine Apples - - - - -	7	—	—	1	3	2	—	—
Peaches or Nectarines six specimens	10	—	—	—	—	2	3	—
Miscellaneous Fruit - - - -	13	—	—	—	—	1	1	—
Total.	198	5	9	18	27	28	26	14

July 4, 1843.

ORDINARY MEETING.

The following Candidates were elected Fellows of the Society :

Captain Du Cane, R. N., Braxted Lodge, Essex, and 38, Half Moon Street.

T. Twisden Hodges, Esq., Sandgate.

Marmaduke Salvin, Esq., Burn Hall, Durham.

The following were the principal subjects exhibited.

From Mr. Paxton, F. H. S., Gardener to His Grace the Duke of Devonshire, F. H. S., a fine plant of *Dendrobium formosum*, a rare Indian species, with very large white flowers that have a blotch of orange on the lip. (KNIGHTIAN MEDAL awarded.)

From Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F. H. S., an excellent specimen of a dense flowered variety of *Saccolabium guttatum*, with good plants of *Oncidium pulcinatum*, and a variety of *Epidendrum variegatum*. (BANKSIAN MEDAL awarded for the former.)

From Mr. Mountjoy, F. H. S., of Ealing, a plant of *Achimenes grandiflora*.

From Mr. Hugh Low, of Clapton, a yellow variety of the old, but scarce *Amaryllis adrena*, from Chili, collected in the vallies of the Andes near Coquimbo ; also a good specimen of *Drosera macrophylla*, from Swan River.

From Mr. Field, Gardener to Stephen Winkworth Silver, Esq., F. H. S., a *Seedling Passion Flower*, between *P. Loudoni* and *P. Princeps*, partaking of the character of each, yet distinct from both ; also two *Seedling Pelargoniums*. (CERTIFICATE awarded for the former.)

From Mr. Rivers, of Sawbridgeworth, a collection of *Moss Roses*, among which were *Princess Royal* and *Celim*, two new and very dark varieties.

From Mr. Stephen Hooker, F. H. S., a collection of *Seedling Roses*.

From D. D. Alves, Esq., F. H. S., two specimens of *Sugar Cane*, from St. Vincent, shewing the effect of the application of crushed bones and farm-yard manure to the land in which they were growing. It is now being found out by planters that some kind of manure is necessary to the Sugar Cane, and experiments are being made on the relative benefits of the different sorts in use.

From Messrs. Elkington and Co., specimens of *leaves* coated with copper, by the Electrotpe process, shewing that the natural leaves of plants may now be plated over with silver or other metals for personal ornament or house decoration.

From C. B. Warner, Esq., F.H.S., an *Iron Wire Basket*, coppered by the Electrotpe process. It is considered preferable, in point of appearance, to that covered with zinc, in a similar manner, which was presented to the last meeting.

From Mr. Myatt, of Deptford, a punnet of his new *Deptford Pine Strawberry*. (BANKSIAN MEDAL awarded.)

From the Garden of the Society, a collection of plants, including *Achimenes longiflora*, *A. rosea*, *A. grandiflora*, *Cynoches chlorochilon*, *Galeandra Baueri*, *Oncidium Wentworthianum*, *O. Lanceanum*, *Acropera Loddigesii*, a fine *Clematis Sieboldii* and other plants; also cut flowers of *Stranvasia glaucescens*, *Paeonia albiflora fragrans*, and *P. Humei*.

The following presents were announced.

The Ladies' Flower Garden of Ornamental Perennials, No. 19, from Mrs. Loudon.

Floricultural Cabinet for July, from Mr. Joseph Harrison.

Journal of the Royal Agricultural Society of England, vol. 4, part 1, from the Society.

The Botanical Register for July, from the Publishers.

La Pomone Française, 2^{me} edit. from the Author, Le Comte Lelieur, F. M. H. S. (Paris 1842.)

An Inaugural Lecture on Botany, read in King's College, London, May 8, 1843, by Edward Forbes, F. L. S. &c. Professor, from the author.

Enumeratio II. Plantarum Novarum a Cl. Schrenk Lectarum, from the Author, October, 1842.

A Catalogue of Sicilian Plants, with some Remarks on the Geography, Geology and Vegetation of Sicily, by John Hogg, Esq., F. R. S., &c. from the Author, London, 1842.

Proceedings of the Geological Society, No. 92, Title and Index to vol. 3, and List of the Members, March 1, 1843, from the Society; also Nos. 109 to 119 inclusive, with Report of the Council and Auditors at Annual General Meeting, April 29, 1843, and List of Members, May 1842.

Transactions of the American Philosophical Society, vol. 8, (N. S.) parts 2 and 3, and Proceedings of the Society, Nos. 24 and 25, from the Society at Philadelphia.

July 12, 1843.

EXHIBITION AT THE GARDEN.

The weather on this occasion was very propitious, for, besides the wind being northerly, the sky was a good deal clouded during the afternoon, which prevented the heat being so oppressive as it often is in July. The number of visitors amounted to 7560, exclusive of Exhibitors.

The award was as follows :

GOLD KNIGHTIAN MEDAL.

1. To Mr. J. Goode, Gardener to Mrs. Lawrence, F. H. S., for a collection of forty Stove and Greenhouse plants.
2. To Mr. Mylam, Gardener to S. Rucker, Esq. jun., F. H. S., for a collection of Exotic Orchidaceæ.
3. To Mr. J. Spencer, Gardener to the Marquess of Lansdowne, K.G., F. H. S., for a miscellaneous collection of Fruit.

GOLD BANKSIAN MEDAL.

1. To Mr. J. Goode, Gardener to Mrs. Lawrence, F. H. S., for six Exotic Orchidaceæ.
2. To Mr. R. Staines, 10, Middlesex Place, New Road, for Pelargoniums, in pots of twenty-four to the cast.
3. To Mr. John Green, Gardener to Sir Edmund Antrobus, Bart., F.H.S., for twenty Stove and Greenhouse plants.
4. To Mr. J. Goode, Gardener to Mrs. Lawrence, F.H.S., for twenty Cape Heaths.
5. To Mr. Jackson, of Kingston, for the same.

SILVER GILT MEDAL.

1. To Mr. W. Cock, Chiswick, for twelve new varieties of Pelargoniums, in pots of twenty-four to the cast.
2. To Mr. Catleugh, of Hans Street, Chelsea, for the same.
3. To Mr. W. Cock, Chiswick, for twelve old varieties of Pelargoniums, in pots of twelve to the cast.
4. To Mr. Gaines, of Battersea for the same.
5. To Mr. Fraser, Nurseryman, of Leyton, Essex, for a collection of six species of Stove and Greenhouse plants.
6. To Mr. G. Clarke, Gardener to M. T. Smith, Esq., F.H.S., of Shirley Park, Croydon, for the same.
7. To Mr. J. Goode, Gardener to Mrs. Lawrence, F.H.S., for *Medinilla erythrophylla*.
8. To Mr. G. Clarke, Gardener to M. T. Smith, Esq., F.H.S., of Shirley Park, Croydon, for six varieties of Cape Heaths.

9. To Mr. J. W. Dawson, of Brixton, for the same.
10. To Messrs. Rollisson, of Tooting, for a collection of Exotic Orchidaceæ.
11. To Mr. Falconer, Gardener to Archdale Palmer, Esq., F.H.S. for *Renanthera coccinea*.
12. To Mr. Roberts, Gardener to M. Wilson, Esq., of Eshton Hall, Skipton, Yorkshire, for Grapes.
13. To Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., for the same.
14. To Mr. John Bell, of Norwich, for the same.
15. To Mr. Spencer, Gardener to the Marquess of Lansdowne, K.G., F.H.S., for Pine Apples.
16. To Mr. B. Fielder, Gardener to William Linwood, Esq., F.H.S., for the same.

LARGE SILVER MEDAL.

1. To Mr J. Dobson, Gardener to Mr. Beck, of Isleworth, F.H.S., for twelve new varieties of *Pelargonium*, in pots of twenty-four to the cast.
2. To Mr. Gaines, of Battersea, for the same.
3. To Mr. Catleugh, of Hans Street, Chelsea, for twelve old varieties of *Pelargonium*, in pots of twelve to the cast.
4. To Mr. J. Smith, of Park Place, Walworth, for a collection of twenty-four varieties of Carnations.
5. To Messrs. Norman, of Woolwich, for the same.
6. To Messrs. Norman, of Woolwich, for a collection of twenty-four varieties of *Piccotees*.
7. To G. Edmonds, Esq., of Wandsworth Road, for the same.
8. To Mr. Gaines, of Battersea, for twelve varieties of *Fuchsia*.
9. To Mr. Pawley, of the White Hart Hotel, Bromley, Kent, for a collection of six Stove and Greenhouse plants.
10. To Mr. Bruce, Gardener to Boyd Miller, Esq., for the same.
11. To Mr. J. Goode, Gardener to Mrs. Lawrence, F. H. S., for *Lemonia spectabilis*.
12. To Messrs. Veitch and Co, of Exeter, for *Rondeletia longiflora*.
13. To Mr. J. Green, for six varieties of Cape Heaths.
14. To Mr. Pawley, of Bromley, for the same.
15. To Alexander Rowland, Esq. F. H. S., for a collection of twenty five Roses, in pots.
16. To Mr. R. H. Betteridge, Milton Hill, Abingdon, for a collection of Roses in fifty varieties.
17. To Messrs. Lane and Son, of Great Berkhamstead, for the same.
18. To Mr. S. Carson, Gardener to W. F. G. Farmer, Esq., F. H. S., for a collection of Exotic Orchidaceæ.

19. To Mr. Mylam, Gardener to S. Rucker, Esq., F. H. S., for *Miltonia spectabilis*.
20. To Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., for a miscellaneous collection of Fruit.
21. To Mr. E. Davis, Gardener to Abel Smith, Esq., F. H. S., for Grapes.
22. To Mr. J. Hardie, Gardener to J. B. Daubuz, Esq., F. H. S., for Grapes.
23. To Mr. E. Mitchell, of Kemp Town, Brighton, for Grapes.
24. To Mr. M'Ewen, Gardener to Col. Wyndham, of Petworth, for Pine Apples.
25. To Mr. A. Parsons, Gardener to A. George, Esq., of Enfield, Middlesex, for the same.
26. To Mr. Brewin, Gardener to R. Gunter, Esq., F. H. S., for the same.

THE SILVER KNIGHTIAN MEDAL.

1. To Mr. J. Parker, Gardener to J. H. Oughton Esq., of Southampton, for twelve old varieties of *Pelargonium*, in pots of twelve to the cast.
2. To Mr. J. T. Wilmer, King's Road, Chelsea, for twenty-four varieties of Carnations.
3. To the same, for twenty-four varieties of Piccotees.
4. To T. Barnard, Esq., of Park Terrace, Brixton, for the same.
5. To Mr. Brown, of Slough, for twenty-four varieties of Pinks.
6. To Messrs. Lane and Son, of Great Berkhamstead, for twelve varieties of Fuchsias.
7. To Messrs. F. and A. Smith, of Dalston, for the same.
8. To Mr. Fraser, for the same.
9. To Messrs. Veitch and Co., of Exeter, for a new *Canavalia*.
10. To the same for *Echites atropurpurea*.
11. To Mr. Mountjoy, F. H. S., for *Lilium excelsum*.
12. To Mr. J. Goode, for *Nematanthus longipes*.
13. To Mr. A. Milne, Gardener to C. S. Chauncey, Esq., F. H. S., for Moss Roses, in twelve varieties.
14. To Mr. T. Rivers, F. H. S., for the same.
15. To Messrs. Lane and Son, for the same.
16. To Mr. A. Milne, for a collection of Roses, in fifty varieties.
17. To Mr. Rivers, for the same.
18. To Mr. Hooker, of Brenchley, for the same.
19. To Mr. W. T. Buttery, Gardener to F. R. Symons, Esq., of Norbiton Park, Kingston, for a collection of Roses, in twenty-five varieties.
20. To Mr. Edmonds, Gardener to His Grace the Duke of Devonshire, K. G., at Chiswick House, for a collection of *Orchidaceæ*.

21. To Mr. Mountjoy, F.H.S., for twelve plants of *Lilium eximium*.
22. To Messrs. Rollisson, of Tooting, for *Erica pulverulenta*.
23. To Mr. Fraser, for *Crocea saligna*.
24. To Mr. G. Clarke, for *Leschenaultia formosa*.
25. To Mr. Roberts, Gardener to Matthew Wilson, Esq., for a Miscellaneous collection of Fruit.
26. To Mr. Sellers, Gardener to L. V. Watkins, Esq., F.H.S., for the same.
27. To Mr. R. Jones, Gardener to Sir Moore Disney, K.C.B., F.H.S., for the same.
28. To Mr. Chapman, of South Lambeth, for the same.
29. To Messrs. Gunter, and Co., Berkeley Square, for Pine-apples.
30. To Mr. J. Murray, Gardener to the Marquess of Bath, for the same.
31. To Mr. Stewart, Gardener at Stradsett Park, near Downham, for Nectarines.
32. To J. Castell, Esq., of Shepherd's Bush, for Cherries.
33. To Mr. H. Meyers, Market Gardener, Brentford, for the same.

THE SILVER BANKSIAN MEDAL.

1. To Mr. J. Dobson, Gardener to Mr. Beck, for six Herbaceous Calceolarias.
2. To Mr. Gaines, of Battersea, for six Shrubby Calceolarias.
3. To Mr. Catleugh, of Hans Street, Chelsea, for twelve varieties of Fuchsia.
4. To Messrs. Brown and Attwell, of Uxbridge, for twenty-four varieties of Pinks.
5. To Messrs. Veitch and Co., for *Alstrœmeria nemorosa*.
6. To the same, for *Gesnera polyantha*.
7. To Mr. Dodd, Gardener to Col. Baker, F.H.S., for *Barringtonia speciosa*.
8. To Messrs. Lucombe and Pince, of Exeter, for *Boronia viminea*.
9. To Mr. J. Best, Gardener to A. Parker, Esq., of Merton, for *Schizanthus candidus*.
10. To Alexander Rowland, Esq., F.H.S., for Moss Roses, in twelve varieties.
11. To Mr. Hooker, for the same.
12. To Mr. Keir, Gardener to W. M. Coulthurst, Esq., F.H.S., for a collection of Roses, in fifty varieties.
13. To Messrs. Paul and Co., for the same.
14. To Mr. H. Cobbett, Nurseryman, of Horsell, near Woking, for the same.
15. To Mr. H. Collison, of Bath, for a collection of Roses in twenty-five varieties.

16. To Mr. R. Laing, Nurseryman, Twickenham, for the same.
17. To Mr. Falconer, for *Leschenaultia formosa*.
18. To Mr. J. Goode, for *Clerodendron squamatum*.
19. To Messrs. Black, and Co., for *Scyphanthus elegans*.
20. To Mr. G. Clarke, for *Pimelea decussata*.
21. To Richard Thompson, Esq., Stansty-hall Wrexham, for Grapes.
22. To Mr. R. Atlee, Gardener to H. Beaufoy, Esq. of South Lambeth, for the same.
23. To Mr. James Godfrey, Gardener to the Earl of Limerick, for the same.
24. To Mr. R. Reid, Gardener to — Clarke Esq., of Noblethorpe, Yorkshire, for a Pine-apple.
25. To Mr. Collins, Gardener to E. H. Chapman, Esq., of Harringay House, Hornsey, for Peaches.
26. To Mr. J. Elliot, Gardener to J. B. Boothby, Esq., F.H.S., for Cherries.
27. To Mr. C. Barker, Gardener to the Rev. T. Thurlow, F.H.S., for a specimen of *Musa Cavendishii*.

THE CERTIFICATE OF MERIT.

1. To Mr. Whomes, Gardener to E. Foster, Esq., of Clewer, near Windsor, for a Seedling *Pelargonium* (Psyche.)
2. To Messrs. Lucombe and Pince for a Seedling *Fuchsia* (*Exoniensis*.)
3. To G. Edmonds, Esq., of the Wandsworth Road, for a Seedling *Piccotee* (Ada.)
4. To Messrs. Black and Gower, of Bayswater, for a new variety of *Clintonia*.
5. To Mr. Pawley for *Scyphanthus elegans*.
6. To Mr. J. Dobson, for *Achimenes rosea*.
7. To Mr. Cobbett, of Horsell, near Woking, for Moss Roses, in twelve varieties.
8. To Mr. T. Cripps, of Tunbridge Wells, for a collection of Roses, in fifty varieties.
9. To Mr. S. Burnett, of High Street, Bath, for a collection of Roses, in twenty-five varieties.
10. To Mr. T. Jackson, F.H.S., for a collection of twelve *Gloxinias*.
11. To Mr. Hayes, of High Beech, for *Sollya linearis*.
12. To Mr. Bruce, Gardener to Boyd Miller, Esq., for *Erica viridiflora*.
13. To Mr. James Lane, Gardener to J. H. Palmer, Esq., F. H. S., for *Gloxinia Menziesii*.

	Number of Exhibitions.	MEDALS AWARDED.						
		Gold Knightian.	Gold Banksian.	Large Silver Gilt.	Large Silver.	Silver Knightian.	Silver Banksian.	Certificate.
Pelargoniums, collections of 12 in pots of 24 to a cast - - -	5	—	1	2	2	—	—	—
Ditto, - - - Ditto, in pots of 12 to a cast - - -	4	—	—	2	1	1	—	—
Roses, in Pots, collections of 25 -	1	—	—	—	1	—	—	—
Moss Roses in bunches collections of 12	8	—	—	—	—	3	2	1
Other Roses Ditto collections of 50	10	—	—	—	2	3	3	1
Ditto . . . Ditto collections of 25	4	—	—	—	—	1	2	1
Cape Heaths collections of 20	2	—	2	—	—	—	—	—
Ditto collections of 6	4	—	—	2	2	—	—	—
Herbaceous Calceolarias collections of 6 - - -	1	—	—	—	—	—	1	—
Shrubby - - - Ditto - - - Ditto	1	—	—	—	—	—	1	—
Carnations 24 blooms - - -	3	—	—	—	2	1	—	—
Picotees Ditto - - -	5	—	—	—	2	2	—	—
Pinks - Ditto - - -	4	—	—	—	—	1	1	—
Stove or Greenhouse plants collections of 40 - - -	1	1	—	—	—	—	—	—
Ditto collections of 20 - - -	1	—	1	—	—	—	—	—
Ditto collections of 6 - - -	4	—	—	2	2	—	—	—
Orchidaceæ, collections of 6 - -	5	1	1	1	1	1	—	—
Ditto, Single specimens - - -	2	—	—	1	1	—	—	—
Fuchsias, collections of 12 - -	6	—	—	—	1	3	1	—
Single specimens of new or rare ornamental plants - - -	30	—	—	1	2	4	5	3
Miscellaneous plants - - -	23	—	—	—	—	4	4	4
Seedling Florist's flowers - -	17	—	—	—	—	—	—	3
Miscellaneous collection of Fruit	6	1	—	—	1	4	—	—
Grapes - - -	19	—	—	3	3	—	3	—
Pine Apples - - -	11	—	—	2	3	2	1	—
Peaches or Nectarines, 6 specimens	3	—	—	—	—	1	1	—
Miscellaneous Fruit - - -	18	—	—	—	—	2	2	—
Total	198	3	5	16	26	33	27	13

August, 1, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society ;
George Banks, Esq., St. Katherine's, Doncaster.

Charles R. Colville, Esq., M. P., Lullington, Derbyshire.

John Godfrey Dyne, Esq., Bolton House, Turnham Green.

Patrick P. Fitzpatrick, Esq., Bognor, Sussex.

Thomas L. Hodges, Esq., R. N.

William Shaw, Esq., Wycombe Lodge, Camden Villas, Kensington,

Edward Steer, Esq., Hamburgh.

Joseph Tatham, Esq., 10, Lincoln's Inn New Square.

Robert Newman Hunt, Esq., 26, Upper Harley Street.

A paper from the Comte Lelieur, respecting Strawberries, was read; it stated, that, in addition to the usual distinctive characters by which Strawberries are recognised, several others might be added, viz. 1. The age at which each variety, raised from a runner, bears fruit; 2. The age at which each kind arrives at the maximum of its production; 3. How many years the same plant will continue in good bearing; and 4. What varieties will bear two crops in the same season: thus, for instance, Keen's Seedling and the British Queen will, if planted in the open border after being forced, grow luxuriantly, and produce a second crop more abundant than the first; whilst the Elton, under similar treatment, throws out nothing but runners. These three sorts, after being forced, make extraordinary growth towards the end of the season, and bear a great quantity of fine fruit for several succeeding years. Comte Lelieur was of opinion that it would be useful to select a certain number of plants of each of the best varieties after forcing, and to plant them in the open border, in order to ascertain which kinds will produce a second crop; and that it was a good plan, before turning them out of the pots, to withhold water entirely for a short time, in order that they may be excited into new growth by repeated waterings. The writer also observed that the temperature of Pine Stoves was too warm for Strawberries, when first placed in heat, to bring them forward; that the flowers of these plants, particularly of those kinds which throw out an abundance of foliage before blooming, should be brought on gradually. Thus, for instance, the Elton is barren, while Keen's Seedling succeeds in a rather high temperature, provided the house is kept cool until the fruit is set.

A paper, from Mr. Dunsford, of Capesthorpe Gardens, near Congleton, Cheshire, upon the cultivation of the Pine Apple, was also read. This was accompanied by the plan of a pit now in use there, differing but slightly in external appearance from M'Phail's. The interior of the pit, within the inner walls, is filled up with brick rubbish, so as to form a solid mass, and when level, the whole is covered with flat tiles or slates, upon which nine-inch draining-tiles are laid across the bed, com-

mencing just above the front flue, and these are in their turn covered with flat tiles. The draining-tiles convey the heat over the whole surface of the bed, so that a regular bottom heat of 95° can be maintained. The depth of the pit from the glass to the tiles is 4½ feet at the back, and 4 feet in front. In such a construction, and cultivated upon the system recommended at p. 174 of "The Gardener's Chronicle," the writer states, that, by the aid of dung heat, every amateur and gardener may grow Pines with as little trouble and expense as Cucumbers or Melons. A Providence Pine, weighing 7 lbs. 1 oz., grown under similar treatment, also accompanied the communication.

The following were the principal subjects of Exhibition ;

From Mr. Joseph Goode, Gardener to Mrs. Lawrence, F.H.S., a beautiful specimen of *Erica infundibuliformis*, and *E. Parmentieri rosea* ; also *Stanhopea graveolens*, and a good specimen of *S. insignis*, likewise *Sophronitis pterocarpa*, *Oncidium crispum*, *Achimenes grandiflora*, *A. multiflora*, and a good plant of *Cattleya Mossiae*. (KNIGHTIAN MEDAL awarded for the four last.)

From Mr. S. Gad, Gardener to Thomas J. Lenox, Esq., F.H.S., a magnificent specimen of *Gloriosa superba*, having more than twenty of its singular orange and vermilion flowers expanded at one time. (KNIGHTIAN MEDAL awarded.)

From Mr. Cuthill, Florist, Camberwell, an exceedingly well grown plant of *Lisianthus Russellianus*, a basket of flowers of a clove-scented Seedling Carnation, called *Prince of Denmark*, and a *Beechwood Melon*. (CERTIFICATE awarded for the former.)

From Messrs. Youell and Co., of Great Yarmouth Nursery, cut blooms of nineteen varieties of *Fuchsias*, comprising some fine kinds ; also good specimens of the *Fastolff Raspberry*. (CERTIFICATE awarded for the latter.)

From Mr. Mountjoy, of Ealing, a very pretty Hybrid *Gloxinia*, between *Sinningia guttata* and *G. rubra*. (CERTIFICATE awarded.)

From Mr. Smith, of Dalston Nursery, four Seedling *Fuchsias*, named *F. venusta*, *Venus victrix*, *Vesta*, and *gigantea*, a very large variety.

From Messrs. Goode, Florists, Ponders End, Middlesex, a plant of *Erica Massoni*.

From Mr. Hally, of Blackheath a plant of *Gaultheria hispida*.

From Messrs. Chandler and Sons, Vauxhall, a good plant of *Fuchsia St. Clare*, also *F. excelsa*, *F. Brewsterii* and a well-grown plant of *F. Chandlerii*, likewise *Verbena Fowleana* ; cut blooms of several fine varieties of *Verbena*, and some cut flowers of *Mari-golds*. (CERTIFICATE awarded for the first mentioned plant.)

From Alexander Rowland, Esq. F.H.S., two boxes of cut *Rose blooms*, comprising some fine varieties.

From W. Hasledine Pepys, Esq. F.H.S., *Lupines*, shewing the

effect upon them of different soils. One planted on the 26th of April, when weighing 2.6 grains, in soil composed in 100 parts; of Silica 75, Alumina 15, and Carbonate of Lime 10, was watered with 3 oz. 5 dr. of distilled water, and afterwards with half an ounce of the same every day. On the 30th of July it was in a dying state and weighed 42.5 grains. Another planted on the 8th of May, in peat and loam, and weighing 2.6 grains, was watered in the usual way and weighed on the 30th of July 192.5 grains. Both plants were grown in glass pots. The experiment was made to ascertain how far it is possible to make plants grow without those elementary substances usually considered as forming their food.

From Mr. Spencer, Gardener to the Marquess of Lansdowne, Bowood Park, a handsome *Queen Pine Apple*, weighing 5 lbs. 12 oz. (BANKSIAN MEDAL awarded.)

From Mr. W. Dunsford, Gardener to J. D. Davenport, Esq., Capesthorpe Gardens, near Congleton, Cheshire, a *Pine Apple*, weighing 7 lbs. 1 oz.

From Mr. Jones, Gardener to the Baron Dimsdale, of Camfield Place, near Hatfield, Herts., a fine specimen of the *Cayenne Pine Apple* on a plant. (CERTIFICATE awarded.)

From Mr. G. Fleming, Gardener to His Grace the Duke of Sutherland, at Trentham, an extremely fine specimen of the *Hoosainee Melon*, weighing 10 lbs., it had been grown upon a plant situated in a Fig-house, being placed in a small pit, to keep it from interfering with the roots of the figs. (BANKSIAN MEDAL awarded.)

From Mr. Jones, Gardener to Sir Moore Disney, F. H. S., good bunches of *Black Hamburgh* and *White Frontignan Grapes*.

From Mr. Bruce, Gardener to Boyd Miller, Esq. of Merton, a *Syon Hybrid Cucumber*, exhibiting a natural graft, formed by the adhesion of the leaf-stalk to the side of the fruit; this kind is stated to be invaluable as a ridge Cucumber in a cold wet season like the present, producing an abundance of fine clean fruit, whereas the common hardy ridge sort, on the same bed, has been so much affected with canker as to be entirely useless.

From the Garden of the Society, a collection of plants, including *Catasetum laminatum*, *Huntleya violacea*, the beautiful *Phaius albus*, *Crinum erubescens major*, *Clerodendrum speciosissimum*, *Achimenes longiflora*, *A. rosea*, and *A. multiflora*, likewise *Niphaea oblonga*, *Isomeris arborea*, and several other plants; also cut flowers of *Ceanothus azureus*, a pale variety of the same, and *C. pallidus*, all capable of standing the winter, except in severe seasons, with a collection of *Verbenas*. There were, also, four plants of the common *Hydrangea*, each of which had been treated in a different manner, to find out, if possible, what ingredient it was in the soil that changed the flowers from pink

to blue. No. 1, treated in the usual way, was by far the most healthy plant, and bore pink flowers; 2, to which half an ounce of Phosphate of Iron had been given, was evidently in an unhealthy condition, the flower being pink, small, and having with the leaves a yellowish tint; 3, treated with half an ounce of Caustic Potash, bore small and pale pink flowers; while 4, to which half an ounce of Alum had been given, produced blue flowers; the dose had, however, been too strong, as was shown by the weak condition of the plant and the small size of the flowers; nevertheless, it proved to a certainty that Alum will produce the desired effect.

The following Presents were announced :

Flora Batava, Nos. 127 and 128, from H. M. the King of Holland.

Baxter's British Flowering Plants, No. 128, from the Editor.

The Address to the Anniversary Meeting of the Royal Geographical Society, May 22, 1843, by W. R. Hamilton, Esq., President, from the Society.

The Botanical Register, for August, from the Publishers.

Transactions of the Royal Agricultural Society of Vienna, (N. S.) Vol. 12, Part 1, from the Society.

The Athenæum, for June, from the Editor.

The Florists' Journal, No. 46, from the Editor.

August 15, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society :

Sir Henry Willoughby, Bart., 63, Brook Street, and Balden House, Oxfordshire.

The Hon. Gustavus F. Hamilton, Burwarton, Bridgenorth, Salop.

General Caulfield, 60, Grosvenor Street.

James Archer, Esq. M.P., 2, Blandford Square, and the Heath, near Ludlow.

John Broadhurst, Esq., Hereford Street.

Peter Rolt, Esq., 72, Cornhill, and 23, Hyde Park Gardens.

Robert James Thompson, Esq., Round Coppice, near Uxbridge.

The following were the principal subjects exhibited :

From Mr. John Robertson, Gardener to Mrs. Lawrence, F.H.S., good specimens of *Brassia brachiata*, and *Galeandra Baueri*, also *Peristeria Barkeri*, and a well grown plant of *Erica Hendersonii*. (BANKSIAN MEDAL awarded for the two former.)

From Mr. Errington, Gardener to Sir Philip G. Egerton, Bart., F.H.S., beautiful cut specimens of *Cattleya intermedia*, and *crispa*, also leaves of *Rhododendron ferrugineum* the undersides of which were covered with galls similar to the Oak Apple, a disease not uncommon upon this species and produced by the puncture of some insect. (CERTIFICATE awarded for the *Cattleya crispa*.)

From Mr. Dean, Gardener to James Bateman, Esq., F.H.S., a collection of handsome Orchidaceous flowers, comprising a beautiful variety of *Oncidium Lanceanum*, a richly coloured *Vanda Roxburghii*, *Brassia brachiata*, a spike of *Cynoches Egertonianum*, which attracted attention from its having been produced by the selfsame pseudo-bulb which last year bore a spike of *C. ventricosum*, likewise cut flowers of *Phaius albus* and a small species of a *Camarotis*. (BANKSIAN MEDAL awarded for the two former.)

From Messrs. Lucombe, Pince and Co., blooms of their beautiful *Fuchsia Exoniensis*.

From Mr. Standish, Nurseryman of Bagshot, four hybrid *Fuchsias*, which he stated to have been obtained in the following manner. Having raised in 1842 from *F. formosa elegans*, fertilized with the pollen of *F. corymbiflora*, some pretty seedlings, these again seeded freely without assistance, and gave rise to the present plants, which showed that this tribe, instead of degenerating like *Calceolarias*, and many Florists' flowers, if not crossed, improved considerably. The seedlings were named *Attractor*, *Colossus*, *President*, and *Candidate*.

From Mr. Henry Groom, F.H.S., of Clapham Rise, several exceedingly vigorous plants of the highly beautiful *Lilium lancifolium punctatum*.

From Mr. Mountjoy, of Ealing, F.H.S., cut flowers of a new beautiful vermilion and yellow *Gladiolus*, called *Glory of Ghent*, *Gloxinia carnea*, and a sample of "Improved" Taylor's Windsor Beans. (CERTIFICATE awarded for the former.)

From Mr. Cuthill, of Camberwell, four fine plants of *Lisianthus Russellianus*, and a *Beechwood melon*.

From Mr. Robert Cooper, of Sion Nursery, Croydon, Surrey, a white variety of *Mesembryanthemum tricolor*.

From Mr. Epps, of Tunbridge Road, Maidstone, a plant of his seedling *Fuchsia*, called *Monarch*.

From Mr. Henderson, Gardener to Sir George Beaumont, Bart., six well swelled *Queen Pine apples*, weighing 3 lb. 6 oz.; 3 lb. 7 oz., 4 lb., 4 lb. 5 oz., 3 lb. 11 oz., and 3 lb. 4 oz.; they were stated to have been cut indiscriminately as they ripened.

From Mr. Eyre, Gardener to R. W. Barchard, Esq., F.H.S., two *Moscow Queen Pine apples*, weighing 3 lb. 3 oz., and 3 lb. 9 oz., one particularly well swelled. (CERTIFICATE awarded.)

From Mr. C. Barker, Gardener to the Rev. Thomas Thurlow,

two *Candahar* melons, also a brace of *Barker's White Spine* Cucumber, from plants grown in pots. (CERTIFICATE awarded for the larger of the melons.)

From Mr. Wortley, Gardener to F. Maubert, Esq., F.H.S., an exceedingly fine looking *Scarlet netted Cantaloup* melon.

From Mr. Robert Fish, Gardener to Colonel Sowerby, F.H.S., half a dozen very fine *Peaches*, from standard trees grown in the centre of a house, upon the rafters of which vines are trained. (BANKSIAN MEDAL awarded.)

From Henry Webb, Esq., of No. 22, Sackville Street, Piccadilly, a handsome collection of dried Ferns, from *Madeira*, beautifully prepared and arranged.

From the Garden of the Society were plants of *Gongora maculata*, *Oncidium microchilon*, a dingy brown species from Guatemala; *Cynoches ventricosum*, and *Cattleya intermedia*; also *Turnera elegans*, *Achimenes multiflora*, *A. coccinea*, *Tigridia conchiflora*, *Angelonia Gardneriana*, *Salvia hians*, *Zephyranthes grandiflora*, cut flowers of *Gladiolus psittacinus*, *Acanthus mollis*, and a collection of *Verbenas*.

The following Presents were announced :

The Ladies' Flower Garden of Ornamental Perennials, No. 20, from Mrs. Loudon.

The Athenaeum, for July, from the Editor.

Parson's Magazine of Botany, for August, from the Editor.

The Transactions of the Microscopical Society of London, Vol. I. Part 1. from the Society.

Transactions of the Linnean Society, Vol. 19, Part 2, and *Proceedings of the Society*, Nos. 15, 16, 17, and 18, from the Society.

The Journal of the Bombay Branch Royal Asiatic Society, No. 3, January, 1842, from the Society.

Annales des Sciences Physiques et Naturelles d'Agriculture et d'Industrie, T. 4, from the Royal Society of Agriculture at Lyons.

September, 5, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society :

Robert Osborne, Esq., Berwick Lodge, Henbury, near Bristol.
W. Ellis, Esq., M.P., 30, Cadogan Place, and Ponsbourne Park, Herts.

The following were the principal subjects of exhibition :

From Mr. John Robertson, Gardener to Mrs. Lawrence, F.H.S.,

beautiful plants of *Stanhopea graveolens*, *Lilium lancifolium rubrum*, *Lilium lancifolium album*, and *speciosum*, *Catasetum Russellianum*, *Oncidium microchilum* and *Maxillaria Deppei*. (KNIGHTIAN MEDAL awarded for the two former.)

From Sigismund Rucker, Esq., F.H.S., a fine plant of a most beautiful new variety of *Miltonia candida*, and a cut flower of a very curious and rather handsome *Govenia*. (BANKSIAN MEDAL awarded for the first of these.)

From Messrs. Veitch and Son, Exeter, cut specimens of *Echites splendens*, a species of *Allamanda*, and a beautiful small plant of a *Verticordia*, said to be *grandiflora*; but appearing to be only *cathartica*. (CERTIFICATE awarded for the latter.)

From Mr. Trenfield, of Lee, Kent, some *Seedling Verbenas*, and a *Seedling hybrid Gloxinia* with pink flowers.

From Mr. Henry Groom, of Clapham Rise, exceedingly well grown plants of *Lilium lancifolium album*, and *lancifolium roseum*, varying from 5 to 5½ feet in height, and producing 7 and 8 stems from each pot. (KNIGHTIAN MEDAL awarded.)

From Mr. Henderson, F.H.S., a plant of *Stanhopea Wardii*, and a new species of *Achimenes* named *A. hirsuta*.

From Mr. Pawley, White Hart Inn, Bromley, Kent, cut flowers of two new *Seedling Fuchsias*.

From Mr. Atlee, Gardener to Henry Beaufoy, Esq., South Lambeth, some very fine Peaches, consisting of *Violette hâtive*, *Noblesse*, *Millet's Mignonne*, *Padley's Mignonne*, *Red Magdalen*, and *Kensington*; also specimens of the *Violette hâtive*, and *Old Newington*, *Nectarines*, with some good bunches of unnamed *Grapes*. (CERTIFICATE awarded.)

From Mr. M. Henderson, Gardener to Sir George Beaumont, Bart., five fine bunches of the *Muscat of Alexandria Grapes*, weighing respectively 2 lb. 3 oz., 2 lb. 2 oz., 2 lb. 12 oz., 1 lb. 13 oz., 1 lb. 13 oz.

From Mr. Elridge, Gardener to G. H. Ward, Esq., F.H.S., a bunch of unnamed *Grapes* imported from Paris in 1839, somewhat resembling in appearance the *Black morocco*.

From Mr. Trinder, of Forest Hill, Peckham Rye, a new variety of *Pine Apple*, weighing 2½ lb.

From Mr. Fraser, Gardener to Sir Charles Sullivan, Bart., F.H.S., two *hybrid Persian melons*, two *Citrons*, and some well swelled and beautifully coloured *Noblesse Peaches*, produced by a tree 16 years of age, which had been removed two years ago from a south to a west aspect, since which period the fruit has been much finer than previously. Mr. Fraser is of opinion that all Peach trees of any size are improved by being occasionally removed and properly transplanted. (CERTIFICATE awarded for the Peaches.)

From Mr. Jones, Gardener to Sir Moore Disney, F.H.S., some excellent specimens of *Noblesse* and *Grosse Mignonne* Peaches. (CERTIFICATE awarded for the former.)

From the Garden of the Society, a collection of plants, including *Peristeria Barkeri*, *Bolbophyllum Careyianum*, *Achimenes coccinea*, and *longiflora*, *Babingtonia Camphorosmæ*, cut flowers of *Lupinus semperflorens* sent by Mr. Hartweg, and two other plants; likewise specimens of *George the Fourth Peach*, *Imperatrice Nectarine*, and *Nectarine Plum*, a good bearer even in September when Plums are generally scarce.

The following presents were announced :

The Ladies' Flower Garden, No. 21, from Mrs. Loudon.

The Athenæum, for August, from the Editor.

Transactions of the Royal Society of Edinburgh, Vol. 15, Part 3, from the Society.

Proceedings of Ditto, Nos. 21 and 22, from the Do.

Proceedings of the Geological Society of London, Vol. 4, Part 1, from the Society.

The Botanical Register, for September, from the Publisher.

September 19, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society :

The Rev. Robert C. Jenkins, 10, Heathfield Terrace, Turnham Green.

Mr. J. Backhouse, Jun. York.

Christopher R. Read, Esq., Holliport, near Maidenhead.

Mr. William Youell, Great Yarmouth Nursery.

And as a Foreign Corresponding Member,

William Henry Read, Esq., Singapore.

The following were the principal subjects of exhibition :

From Mr. Ivery, Nurseryman, Peckham, a new *Seedling Fuchsia*, called *Pride of Peckham*.

From R. W. Barchard, Esq., F.H.S., a plant of *Hæmanthus toxicarius*.

From Mr. Mills, F.H.S., of Gunnersbury Park, Ealing, Middlesex, a *Cucumber*, named *Jewess*, an early forcing kind measuring in length $24\frac{1}{2}$ in. and $3\frac{1}{2}$ in. in diameter; the vine on which it grew was $3\frac{3}{4}$ in. in circumference immediately above ground.

From Mr. Dawson, 17, Abbey Road, St. John's Wood, two curious specimens of monstrous *Pears*.

From Mr. Fleming, Gardener to His Grace the Duke of Sutherland, at Trentham Park, three *Persian melons*, weighing respectively 8 lb. 8 oz., 10 lb. 5 oz., and 8 lb. 15 oz. (BANKSIAN MEDAL awarded.)

From Mr. M. Busby, Gardener, Titness Park, Sunning Hill, Berks, a beautiful large green fleshed *Wellington melon*, weighing 6 lb. 5 oz., also a *Scarlet fleshed* variety, weighing 3 lb. 2 oz. (CERTIFICATE awarded for the former.)

From Mr. Fish, Gardener to Thomas Sowerby, Esq. F.H.S., Putteridge Bury, Luton, a dish of *Keen's Seedling Strawberries*, highly coloured and of excellent quality, being the second crop which was gathered from plants that had been forced in spring. (CERTIFICATE awarded.)

From Mr. Henderson, Gardener to Sir George Beaumont, Bart., a *Globe Pine Apple*, weighing 5 lb. 5 oz. (CERTIFICATE awarded.)

From Mr. Saul, Gardener to the Earl Fortescue, F.H.S. Castle Hill, Devonshire, a very handsome *Queen Pine Apple*, weighing 4 lb.

From Richard Brook, Esq., F.H.S., a bunch of *Muscat of Alexandria Grapes*.

From the Garden of the Society were plants of *Begonia Evansiana*, *Mandevilla suaveolens*, *Chironia frutescens*, *Babingtonia Camphorosmæ*, and a *Hymenocallis* sent from Jamaica by Mr. Hartweg; also *Brassavola venosa*, *Comarostaphylis arbutoides*, and *Fuchsia Standishii*, with cut flowers of *Lupinus semperflorens*, and a dish of *Late Admirable Peaches*.

The following presents were announced :

Verhandlungen des Vereins zur Beförderung des Garten und Feldbaues, Vol. 2, Part 1, Weissensee, 1841.

The Florists' Journal, No. 47, from the Editor.

The Pharmaceutical Journal and Transactions, Vol. 3, No. 3, from the Editor.

Archives du Museum d'Histoire Naturelle, T. 2, Liv. 4., T. 3. Liv. 3. from the Museum, at Paris.

October 3, 1843.

ORDINARY MEETING.

The following Candidates were elected Fellows of the Society :

William Aldam, Esq., M.P., Leeds.

William Ainslie, Esq., Wood Hill, Ripley, Surrey.

The Rt. Hon. William, Earl of Mansfield, Kenwood, Hampstead, Middlesex.

The following were the principal subjects of exhibition :

From Messrs. Rollisson and Sons, of Tooting Nursery, a pretty plant of *Cypripedium purpuratum*, a particularly well grown specimen of *Sobralia sessilis*, and a good plant of the showy *Renanthera coccinea*, also beautiful specimens of *Miltonia candida*, *M. Clowesii*, and *Sarcanthus pallidus*. (KNIGHTIAN MEDAL awarded for the three first.)

From Mr. Quesnel, of Harre, cut flowers of the very pretty *Epidendrum dichromum*, from Pernambuco.

From Mr. Appleby, Gardener to Thomas Brocklehurst, Esq., F.H.S., cut specimens of *Odontoglossum grande*, a dark rather fragrant variety of *Oncidium Lanceanum*, and a fine spike of *Cattleya crispa*; also *Miltonia Clowesii*, *Acanthophippium bicolor*, being the second time of flowering this season, a species of *Epidendrum*, a supposed variety of *Oncidium trulliferum* imported from the Brazils, *Huntleya violacea*, *Cattleya Loddigesii*, *Maxillaria Deppei*, and *M. macrophylla*; the latter is a desirable species on account of its long season of flowering; the plant from which this specimen was cut had been in flower six months. (BANKSIAN MEDAL awarded for the three first.)

From Mr. Cuthill, of Camberwell, a pretty plant of *Lisianthus Russellianus*.

From Mr. Carton, Gardener to His Grace the Duke of Northumberland, a very remarkable cut specimen of *Elate sylvestris*, bearing a multitude of very pretty, oblong, orange coloured berries, with a curious flat, strong, and tough, peduncle.

From Mr. Robertson, Gardener to Mrs. Lawrence, F.H.S., exceedingly pretty plants of *Rodriguezia recurva*, and *Griffinia hyacinthina*, *Oncidium Harrisonii*, *Maxillaria Rollisonii*, good plants of *Lælia Lawrenceana*, *Ismene flava*, *Pancretium amazzum*, *Witsenia corymbosa*, *Hiipeastrum aulicum*, and a plant of *Oncidium Suttonii*. (KNIGHTIAN MEDAL, awarded for the two former.)

From Messrs. Lane and Sons, of Great Berkhamstead, Herts, a collection of named *Roses*. (CERTIFICATE awarded.)

From Mr. G. Shiells, Gardener to Lord Blantyre, of Erskine House, near Glasgow, two bunches of *Black Hamburgh Grapes*, weighing 1 lb. 7 oz., and 1 lb. 8 oz., that had been grown on a flued wall in the open air, where, notwithstanding the unpropitious weather in spring and in the early part of summer, they had swelled and had become well-coloured. Mr. Shiells states that the vines produce an abundant crop, and ripen their fruit in good time.

From Mr. Markham, Gardener to the Hon. R. H. Clive, M.P., F.H.S., two excellent bunches of *Black Hamburgh Grapes*, weigh-

ing 1 lb. 4 oz., and 1 lb. 2 oz.; also a handsome fruit of the *Antigua Pine Apple* weighing 5 lb. 12 oz., and two *Queen Pine Apples*, weighing 3 lb. 5 oz., and 3 lb. 6 oz. (BANKSIAN MEDAL awarded for the *Grapes* and *Antigua Pine Apple*.)

From Benjamin Maund, Esq., of Bromsgrove, Worcestershire, specimens of *Grapes* grown on a wall protected by a glass case, which is fixed close to the face of the wall with a hole in the end to allow the vine to pass through without being bruised. The bunches although beautifully coloured, were not large, but those unprotected in this manner were very small and bad.

From Mr. A. Scott, Gardener to Sir George Staunton, Bart., at Leigh Park, near Havant, a bunch of *Bananas* weighing upwards of 129 lb. (BANKSIAN MEDAL awarded.)

From Mrs. Mason, of Copt Hewick, near Ripon, a curious specimen of a *Trumpet Gourd*, measuring 4 ft. 2 in. long.

From G. Tradescant Lay, Esq., Interpreter to Her Majesty's Mission, China, a fruit of the *Hung-Kwo* or *Shan Le*, the Red fruit or wild Apple of the Chinese, which appears to be a kind of *Cratægus*. It is stated by Mr. Lay that the pulp is made into red translucent cakes, which are very pleasantly tasted, and may be eaten freely without fear of indigestion, flatulency or fulness. The fruit is reputed medicinal by the Chinese in bowel complaints among children.

From Mr. Green, of Turnham Green, excellent fruit of *Williams's Bon Chretien Pear*, grafted on the *Catillac*; also two *Catillac Pears*, grown on a branch which was allowed to remain on the tree. Mr. Green stated that the tree was formerly a *Catillac*, and that it grew very vigorously, but did not bear well; the fruit was also small and cracked, in consequence of which the tree was headed back and grafted with *Williams's Bon Chretien*, which has always produced fine fruit ever since it came into bearing. The branch producing the two *Catillacs* sent had borne abundantly, and the fruit was even of finer quality than it was before the other sort was worked upon the tree.

From Samuel Solly, Esq., F.H.S., specimens of an apple called *Normanton Wonder*, that had been kept 12 months in good condition.

From the Garden of the Society were plants of *Oncidium recurvum*, and *sanguineum*, the beautiful *Miltonia candida*, *Brassavola tenosa*, *Gloriosa superba*, *Gesnera longifolia*, and *Sedum Sieboldii*, also specimens of *Pears*, consisting of *Louise Bonne*, (of Jersey) a most excellent Pear, *Poire Figue*, *Autumn Bergamot* and *Ambrosia*, *Aston Town*, which although not large, is an excellent standard pear, bears well, and has something of the Crassane flavour, together with specimens of *Flemish Beauty*, *Belle et Bonne*.

and the *Wormsley Pippin*, an excellent sort for kitchen use, and though rather large, likewise a good early dessert apple.

The following presents were announced :

The London Physiological Journal, Vol. 1, No. 1, from the Editor.

The Botanical Register, for October, from the Publishers.

The Ladies' Flower Garden of Ornamental Perennials, No. 22, from the Editor, Mrs. Loudon.

October 17, 1843.

ORDINARY MEETING.

The following were the principal subjects of exhibition :

From Messrs Lucombe, Pince and Co., of Exeter, an excellent plant of *Cymbidium giganteum*, and a long yellow flowered *Lobelia*. (BANKSIAN MEDAL awarded for the former.)

From the Rev. G. C. Rashleigh, of Hyde Lodge, Winchester, an *Anthocercis ilicifolia*, raised from seed sent from Swan River.

From Mr. J. W. Dawson, of Brixton Hill, Surrey, a well grown plant of *Erica Banksii*. (CERTIFICATE awarded.)

From Mr. John Robertson, Gardener to Mrs. Lawrence, F.H.S., plants of *Erica hyemalis* and *Solandra*, a fine specimen of *Zygopetalum rostratum*, the curious *Polystachya macrantha*, *Saccolabium denticulatum*, *Oncidium Suttonii*, and *O. ciliatum*, *Galeandra Baueri*, and *Tetranema Mexicanum*, that *Hippeastrum aulicum*, and a well grown plant of *Sedum Sieboldii*. (BANKSIAN MEDAL awarded.)

From Messrs. Veitch and Son, of Exeter, a specimen of *Dolichos purpureus*.

From Mr. J. Murray, Gardener to the Marquess of Bath, a remarkably handsome well swelled *Queen Pine Apple* weighing 6 $\frac{1}{4}$ lb. (BANKSIAN MEDAL awarded.)

From Mr. James Roberts, Gardener to Matthew Wilson, Esq., of Eshton Hall, Skipton, two magnificent bunches of *Muscat Grapes*, weighing 2 lb. 2 oz., and 2 lb. 9 oz., also a very large bunch of the *White Nice*, weighing 5 lb. 7 oz. (KNIGHTIAN MEDAL awarded.)

From Mr. Thomas Latter, Gardener to Capt. Aplin, of Melton Lodge, Woodbridge, Suffolk, two bunches of *Black Hamburgh Grapes*, weighing 2 lb., and 1 lb. 15 oz., also two excellent bunches of *Muscat Grapes*, weighing 1 lb. 14 oz., and 1 lb. 10 oz. (BANKSIAN MEDAL awarded for the *Muscats*.)

From Mr. Scott, Gardener to Sir George Staunton, Bart., F.H.S., fruit of the *Purple Guava* or *Psidium Cattleianum*, from a plant which had produced fruit in abundance since June; also fruit of the *Passiflora quadrangularis*, weighing 3 lb., together with fruit of the *Akee tree*, or *Blighia sapida*, and of the *Laurel leaved Granadilla* or *Water Lemon*, the *Pomme de Liane* of the French; this is a native of the West Indies, its fruit is acid to the taste and agreeable in hot countries. (CERTIFICATE awarded for the *Blighia sapida*.)

From John Beadnell, Esq., F.H.S., a beautiful new *Seedling Pear*, resembling that called the *Trout* or *Forelle*, with white spots upon a brown ground. It was stated to be perfectly hardy and proved of first rate quality. (BANKSIAN MEDAL awarded.)

From Mr. Osborn, of Fulham, a cut specimen from North America of *Shepherdia argentea*, with clusters of pretty dark red berries; the tree from which this specimen was taken was stated to be 25 feet high, and about the same in breadth, quite covered with fruit; it never bears fruit in this country, because all the plants here are male. When the females shall have been procured from North America, they will prove valuable hardy shrubs.

From the Garden of the Society, were plants of *Fuchsia Chandlerii* and *racemiflora*, a species of *Cestrum* with bright orange flowers, that had been imported from Guatemala by Mr. Skinner, *Miltonia candida*, *Oncidium sanguineum*, *Fabiana imbricata*, *Mathernia incisa*, *Phyllocladus asplenifolius*, *Berberis actinacantha*, and *Fuchsia globosa*. The last five had been placed in Brown's patent pots, with double sides, about the beginning of June, and had been fully exposed to the sun, along with other plants in the common pots. They were perfectly green and healthy and had never lost a leaf. The principal advantage in double pots is that plants placed in them in very hot weather, and fully exposed to the sun, only require watering, on an average, once, where those in the common pots require it three times; there must not, however, be any water admitted into the cavity in the sides of the pots, as from their porous nature, the water passes through and keeps the soil too damp. They seem to answer for all kinds of plants very well, but require more drainage than the common pots, in order to guard against excess of moisture. From the same collection were likewise the following Pears, viz., *Flemish Beauty*, *Louise Bonne* (of Jersey), *Belle et Bonne*, *Styrian*, *Sæckel*, *Urbaniste* and various others, with specimens of the *Wormsley Pippin Apple*, *King of the Pippins* and several other apples among which was the *Mère de Ménage*, a large firm kitchen apple, of a singular milk white colour.

The following presents were announced :

Osservazioni sopra due insetti nocivi, from the author, Dr. Carlo Passerini, Svo. (Florence, 1840.)

Notizie relative a tre specie d'insetti nocivi all'ulivo, from the author, Dr. Passerini, (Florence, 1843.)

Osservazione sulle larve, ninfe, e abutidine della Scolia flavifrons, from the author, Dr. Passerini, (Pisa, 1840.)

Continuazione delle Osservazione sulle larve di Scolia flavifrons, from the author, Dr. Passerini, (Florence, 1841.)

Notizie sulla Moltiplicazione in Firenze negli anni, 1837, 8, 9, dell' uccello Americano Parvaria cucullata, from the author, Dr. Carlo Passerini, (Florence, 1841.)

November 7, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society :

Mr. John Bagster, Old Windsor, Berks.

Mr. Hosea Waterer, Knaphill, Chobham, Surrey.

The following were the principal subjects exhibited :

From Mr. Robertson, Gardener to Mrs. Lawrence, F.H.S., a well grown plant of *Gesnera zebrina*, and a fine specimen of *Epiphyllum truncatum violaceum*, which was nearly 3 feet high ; it was exceedingly handsome, from its pyramidal form ; the which was effected by grafting it on *Cereus speciosissimus*, inserting the longest scions at the bottom, the shortest ones at the top, and filling up the intermediate space in the form of a regular pyramid ; also plants of *Dendrobium denudans*, *Myanthus barbatus*, *Epidendrum viscosum*, and *Oncidium Pinellianum*, with good plants of *Cattleya labiata* and *Mormodes aromaticum*. (BANKSIAN MEDAL awarded for the two first.)

From Charles B. Warner, Esq., F.H.S., a plant of *Oncidium Crispum*.

From Messrs. Chandler and Son, of Vauxhall, blooms of 36 varieties of *Chrysanthemum*.

From Mr. Catleugh, of Hans Street, Sloane Street, Chelsea, a collection of 42 varieties of *Chrysanthemum* in pots.

From Mr. Bruce, Gardener to Boyd Miller, Esq., of Collyer's Wood, Mitcham, a specimen of *Clerodendrum nutans*.

From Mr. Murray, Gardener to the Marquess of Bath, F.H.S., two very handsome *Queen Pine Apples*, weighing 5 lb. 4 oz., and 5 lb. 9 oz. (BANKSIAN MEDAL awarded.)

From Mr. Trinder, Forest Hill, Beckenham, Kent, three *Pine Apples*, weighing respectively 2 lb. 12 oz., 3 lb., and 3 lb. 4 oz.

From Mr. Henry Kenny, Gardener to Viscount Maynard, Easton Lodge, Dunmow, Essex, specimens of *Cassaba*, *Pearson's Green fleshed*, and *Netted green fleshed melons*.

From Mr. John Robson, Gardener to W. Gambier, Esq., of Sacombe Park, Ware, Herts., a dish of good late *Peaches*.

From Mr. Elridge, Gardener to G. H. Ward, Esq., F.H.S., two bunches of *Grapes*, weighing 1 lb. 4 oz., and 1 lb. 3 oz.; these were said to have been brought from Paris in 1840 under the French name of *Raisin Monstre*; they much resembled the *Gros Ribier du Maroc* and required as much heat as was given to *Muscats* to bring them to perfection.

From the Garden of the Society, were *Berberis tenuifolia* and ten varieties of *Chrysanthemum*, which, from having had abundance of light and air, were finely coloured; also a collection of *Pears*, including *Urbaniste*, *Gansel's Bergamot*, *Marie Louise* and various others, with the following *Apples*, viz. *Golden Reinette*, *Margil*, *Loan's Pearmain*, *Birmingham Pippin*, *Tower of Glammis*, a very excellent kitchen apple, and *Orack Elma*, a Persian Apple; the tinge of red in the latter is different from that seen in European Apples, the flavour somewhat resembles that of the *French Calville*.

The following Presents were announced;

The Botanical Register, for November, from the Publishers.

The Florist's Journal, No. 49, from the Editor.

The Floricultural Cabinet, for November, from Mr. Jos. Harrison.

The Athenæum, for October, from the Editor.

Flora Batava, Nos. 129 and 130, from His Majesty the King of Holland.

December, 5, 1843.

ORDINARY MEETING.

The following candidates were elected Fellows of the Society:

Sir John William Lubbock, Bart., St. James's Place, and High Elms, Farnborough, Kent.

The Earl of Zetland, Arlington Street; Aske Hall, Richmond, and Upleatham, Guisborough, Yorkshire, and Kerse House, Falkirk, N.B.

A paper was read respecting the cultivation of *Oxalis Deppei*.

A specimen of Whitney's (of Shrewsbury) protecting material was also shown to the meeting, with two specimens of a similar kind, that might be used for the same purpose, from Halifax; the latter, however, were not so transparent as the former, which admits nearly as much light as ground glass, and promises to be very useful, in many instances, where much light is not required. One great advantage is its cheapness; a sash that would cost twelve or thirteen shillings to be glazed in the usual way, may be covered with this material for the trifling expense of nine or ten pence. It is impervious to water, and will be useful in gardens for many purposes. The material is common calico, painted over with a fluid, the composition of which is not known, but is sold in bottles, and may be easily applied by means of a painter's brush.

The following were the principal subjects exhibited:

From Mr. John Robertson, Gardener to Mrs. Lawrence, F.H.S., a pretty specimen of *Stenorrhynchus speciosus*, and *Dendrobium denudans*, with small white blossoms, *Odontoglossum grande*, *Epidendrum Skinneri*, *Cypripedium venustum*, *Lycaste Skinneri*, *Rodriguesia secunda*, *Epidendrum viscosum*, *Lælia albida*, *Maxillaria cucullata*, and another species with small brown flowers, with plants of *Erica Sebana lutea* and *E. Lamberti rosea*. (BANKSIAN MEDAL awarded for the first four plants.)

From F. Cox, Esq., of Stockwell, plants of *Cattleya guttata*, and the old *Cymbidium sinense* with fragrant blossoms; also *Lycaste Skinneri*, a pretty species from Guatemala, and *Oncidium bicallosum*.

From Mr. William Brazier, Gardener to W. H. Story, Esq., F.H.S., a hybrid specimen of *Epacris variegata*.

From John Allnutt, Esq., F. H. S., a plant of *Camellia Donkelaaræi*; two plants of *Erica caffra* and two particularly well grown specimens of *E. hyemalis*. (CERTIFICATE awarded for the latter.)

From Mr. Wright, of East Place, Hackney, a collection of cut flowers of *Chrysanthemum*, among which were some excellent blooms. (CERTIFICATE awarded.)

From Mr. Green, Gardener to Sir Edmund Antrobus, Bart., F. H. S., a plant of *Amaryllis aulica*, with large scarlet flowers, and one of *A. calyptrata*, with light green blossoms.

From Mrs. Cockburn of Brixton Hill, Surrey, two Portuguese specimens of *Turk's Cap Gourds*.

From Mr. James Stewart, of Stradsett Park, two specimens of "Ringleader" Cucumber; one of these had been watered with Nitrate of Soda, and the other had been grown in loam mixed

with powdered Charcoal; although both the same variety they had a very different appearance, one was prickly and the other nearly smooth: with the exception of these substances, they were treated in other respects in the usual way.

From William Rashleigh, Esq., F.H.S., fruit of the *Benthamia fragifera*. This is a handsome evergreen shrub, and produces large reddish fruit in Autumn, something like that of an *Arbutus*. It is not hardy except in the warmest parts of England.

From George Crawshay, Esq., of Colney Hatch, specimens of large fine looking *Beurré Diel Pears*, and a basket of *Black Hamburgh Grapes*, that had been grown without fire-heat in a vinery; these were good bunches with well swelled berries.

From Josiah Moorman, Esq., of Portland Place, Clapham Road, six good specimens of the *Marie Louise Pear*.

From Mr. Robert Buck, of Blackheath Gardens, a *Seedling Pear*, No. 15.

From J. A. Beaumont, Esq., West Hill, Wandsworth, good specimens of *Blenheim Pippin* and *Reinette du Canada Apples*.

From Mr. Thomas Moffatt, Gardener to His Grace the Duke of Newcastle, a *Cayenne Pine Apple*, weighing 3 lbs. 13 oz., also bunches of *St. Peter's*, *Muscat*, *Syrian* and *Muscadine Grapes*, with three bunches of *Black Hamburgh*, and one of a black grape, said to be a variety of the *Burgundy*.

From Mr. John Wilmot, of Isleworth, three smooth-leaved *Cayenne Pine Apples*, weighing 7 lbs., 6 lbs. 3 oz., and 5 lbs. 11 oz.; the first of these was a handsome well swelled fruit. (BANKSIAN MEDAL awarded for the first of these.)

From Mr. Mc. Onach, Gardener to Edward Vines, Esq., of Caversham, Reading, five *Queen Pine Apples*, weighing respectively, 3 lbs., 3 lbs. 12 oz., 3 lbs., 14 oz., 3 lbs., 7 oz. and 3 lbs. 10 oz.

From the Garden of the Society, was a plant of *Epiphyllum truncatum*, and a collection of *Chrysanthemums*; six of these were watered with superphosphate of Lime, in the proportion of a quarter of a pound to a gallon of water, for each plant. In the course of three weeks after its application, the leaves had acquired a very dark green; so apparent was the effect produced on the plants, that a stranger could have selected those that had been watered with this from a collection of 150, among which they were growing, without any other mark or distinction. This substance seems to have a beneficial effect upon most plants, and unlike some other artificial manures. it may be applied in different proportions, without the least risk of injury.

The following *Pears* were also sent from the Garden, viz. *Beurré Diel*, *Beurré d'Aremberg*, *Glout Morceau*, *Passe Colmar* and others, likewise the following *Apples*, *Waltham Abbey Seed-*

ling, *Blenheim Pippin*, *Claygate Pearmain* and various others, among which were *Hubbard's Pearmain*, which is an excellent late dessert Apple ; its merits are not generally known ; it is a Norfolk sort, very hardy and an abundant bearer.

The following Presents were announced ;

A Treatise on the Culture of the Pine Apple, by Thomas Torbrön, from the Author.

London Nuisances and their Remedies, No. 1, from the Author, Mr. A. Booth.

The Botanical Register, for December, from the Publishers.

The Florist's Journal, Nos. 50 and 51, from the Editor.

The Athenæum, for November, from the Editor.

Abhandlungen der Mathematisch-Physikal Classe der Koeniglich Bayerischen Akademie der Wissenschaften, 4to. Munich, 1843.

Bulletin der Koenigl. Akad. der Wissenschaften, Nos. 1 to 55.

Akademischer Almanach auf das Jahr, 1843, from the Royal Bavarian Academy at Munich.



