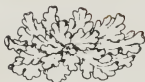




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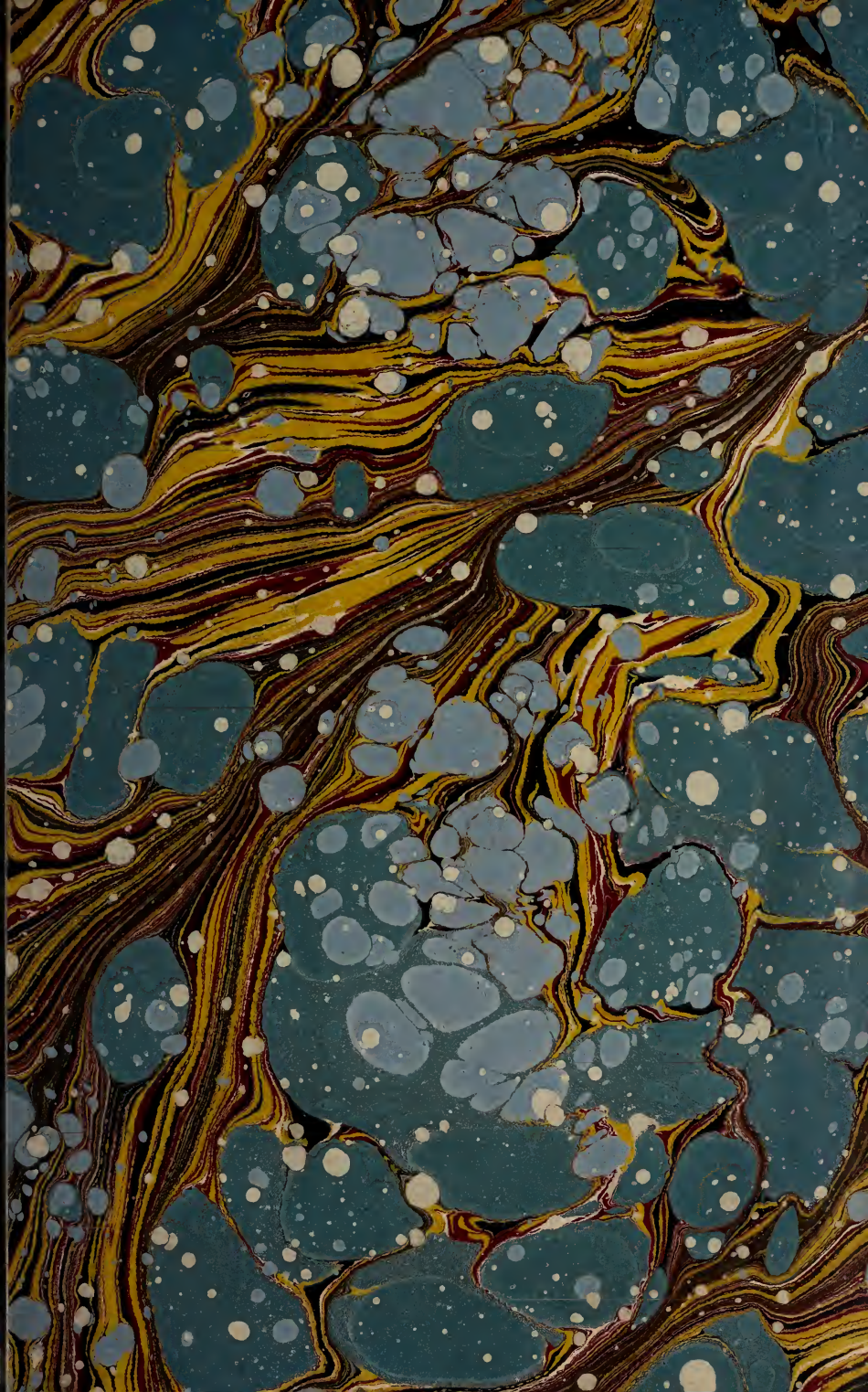
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A QUARTERLY RECORD OF
CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

EDITED BY M. C. COOKE, M.A., A.L.S.,

Author of "Handbook of British Fungi," "Illustrations of British Fungi," "Fungi, their uses," &c., "Rust, Smut, Mildew, and Mould," "British Fresh Water Algæ," "British Desmids," &c., &c.

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Grevillea,

A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

BRITISH PYRENOAMYCETES.

A preliminary list of known species.

BY G. MASSEE.

Sub-Ord. PYRENOAMYCETES.

Fam. 1. HYPOCREACEÆ, *De Not.* Simple or composite. Perithecia rather fleshy or waxy, membranaceous, brightly coloured, never carbonaceous. Stroma fleshy or waxy, rarely byssoid. Sporidia mostly hyaline, rarely brown.

Sub.-Fam. 1. HYPOCREOIDEÆ.

GEN. 1. **CLAVICEPS**, *Tul.* Stroma vertical, springing from a sclerotium. Sporidia filiform, hyaline.

1. *C. purpurea*, *Fr., Sacc. Syll.* 5005 ; *Hdbk.* 2324.

On *Secale cereale*. Scotland.

On *Triticum repens*. Cultivated. (Wils.).

On *Anthoxanthum odoratum*.

On *Nardus stricta*.

On *Aira cæspitosa*.

On *Holcus mollis*. Scotland, and cultivated.

On *Arrhenatherum avenaceum*.

On *Glyceria fluitans*. Scotland (Wils.), Maxwell Field ;
Burnt Ash Lane. (F. C.)

On *Dactylis glomerata*. Cultivated.

On *Festuca elatior*.

On *Lolium perenne*.

On *Molinia cærulea*. Cultivated. (F. C.)

Ergot on *Triticum saluum*, *Triticum repens*. *Secale cereale*, *Hordeum distichum*, *Nardus stricta*, *Anthoxanthum odoratum*, *Alopecurus pratensis*, *Alopecurus agrestis*, *Phalaris arundinacea*, *Phlæum pratense*, *ira Acæspitosa*, *Aira flexuosa*, *Holcus mollis*, *Holcus lanatus*, *Arrhenatherum avenaceum*, *Poa pratensis*, *Poa annua*, *Glyceria fluitans*, *Dactylis glomerata*, *Festuca elatior*,

Festuca pratensis, *Lolium perenne*, *Lolium temulentum*, *Brachypodium sylvaticum*.

2. *C. microcephala*, *Tul.*, *Sacc. Syll.* 5006; *Hdbk.* 2325.
On *Anthoxanthum* and *Holcus lanatus*. Scotland.
On *Phragmites communis*. Cultivated. (C. B. P.)
3. *C. nigricans*, *Tul.*, *Sacc. Syll.* 5007.
Ergot only found in Britain, on *Eleocharis*. Wandsworth Common.
4. *C. Wilsoni*, *Cke.*, *Grev.* xii, 77.
On *Glyceria*. Cultivated. Aberdeen. (Wils.)

GEN. 2. **CORDYCEPS**, *Fries*. Stroma vertical, entomogenous, rarely mycogenous, clavate, sporidia filiform, breaking up into joints, hyaline.

A. ENTOMOGENÆ.

* *Stroma simple*, heads rounded.

1. *C. entomorrhiza* (*Dicks.*), *Sacc. Syll.* 5012; *Hdbk.* 2317.
On dead larvæ and pupæ of moths, underground. Codrington, North Wootton, Castle Howard.
var. gracilis, *Grev.*, *Sacc. Syll.* 5001; *Hdbk.* 2318.
On the ground in moist places on larvæ. Scotland.
2. *C. myrmecophila*, *Ces.*, *Sacc. Syll.* 5010; *Hdbk.* 2320;
Grev. iii, 126.
On an *Ichneumon*. Leigh Wood.

** *Stroma simple*, heads clavate.

3. *C. sphecephila*, *Kl.*, *Sacc. Syll.* 5015; *Gard. Chron.*
Conidia only. (W. G. Smith.)
4. *C. pistillariæformis*, *B. & Br.*, *Sacc. Syll.* 5019; *Hdbk.* 2323.
On *Cocci* upon wych elm twigs. Batheaston.
5. *C. militaris*, *Linn.*, *Sacc. Syll.* 5031; *Hdbk.* 2319.
On pupæ of moths buried in the ground. Common.

*** *Perithecia scattered*, scarcely capitate.

6. *C. sphingum*, *Tul.*, *Sac. Syll.* 5033; *Grev.* vi, 126.
Conidia on moths. (R. McLachlan.)

B. MYCOGENÆ.

7. *C. ophioglossoides*, *Ehr.*, *Sacc. Syll.* 5038; *Hdbk.* 6321.
On *Elaphomyces muricatus*. Local.
8. *C. capitata*, *Holms.*, *Sacc. Syll.* 5039; *Hdbk.* 2322.
On *Elaphomyces granulatus*. Local.

GEN. 3. **EPICHLÖE**, *Fries*. Stroma sessile, effused, usually surrounding the culms of grasses. Sporidia filiform.

1. *E. typhina* (*P.*), *Sacc. Syll.* 5057; *Hdbk.* 2326.
On living grasses. Common.

GEN. 4. **HYPOCREA**, *Fries*. Perithecia immersed in a pulvinate or effused, almost superficial stroma.

A. **PODOCROA**. *Stroma vertically elongated*.

1. *H. alutacea*, *P.*, *Sacc. Syll.* 4882 ; *Hdbk.* 2332.
On the ground. Swanage, Hereford.

B. **EUHYPOCREA**. *Stroma pulvinate, &c., Sporidia didymous*.

* *Sporidia hyaline*.

2. *H. rufa* (*P.*), *Sacc. Syll.* 4834 ; *Hdbk.* 2328.
On branches. Downton, Epping Forest, Weybridge, Glamis.
3. *H. tremelloides*, *Sch.*, *Sacc. Syll.* 4839 ; *Grev.* viii, 104.
On wood. Hereford.
4. *H. rigens*, *Fr.*, *Sacc. Syll.* 4844 ; *Grev.* viii, 104.
On branches. Brandon.
5. *H. contorta*, *Schw.*, *Sacc. Syll.* 4859 ; *Grev.* vii, 77 ; iv, 123.
On oak. Foxley Woods.
6. *H. argillacea*, *Plow.*, *Grev.* xiii, 79.
On rotten wood. Dersingham. (C. B. P.)
7. *H. strobilina*, *Plow.*, *Grev.* xiii, 79.
On cones of spruce fir. Hereford. (F. Renny.)
8. *H. splendens*, *Plow.*, *Grev.* xiii, 79.
On laurel. Leicestershire. (T. Howse.)

** *Sporidia coloured*.

9. *H. gelatinosa*, *Tode.*, *Sacc. Syll.* 4850 ; *Hdbk.* 2327.
On rotten wood. Dinmore, Appin.
10. *H. dacrymycella*, *C. & Pl.*, *Grev.* xii, 100 (= xiii, 79. *viscidula*.)
Brandon.
11. *H. aureoviridis*, *Pl. & C.*, *Sacc. Syll.* 4853 ; *Grev.* viii, 104.
On oak. North Wootton.

b. *Stroma effused*.

12. *H. citrina* (*P.*), *Sacc. Syll.* 4875 ; *Hdbk.* 2331.
On ground, &c. Appin.
13. *H. fungicola*, *Karst.* ; *Grev.* viii, 104 ; *Sacc. Syll.* 4876.
On *Polyporus*. Darnaway Forest.
14. *H. delicatula*, *Tul.*, *Sacc. Syll.* 4877 ; *Hdbk.* 2332.
On fir trunk. Wilts, Hereford.
15. *H. lactea*, *Fr.*, *Sacc. Syll.* 4878 ; *Grev.* x, 70.
On *Polyporus medulla-panis*. Castle Rising.
16. *H. farinosa*, *B. & Br.*, *Sacc. Syll.* 4879 ; *Hdbk.* 2334.
On branches. Norths, Chester, Batheaston, Glamis.

d. *Stroma obsolete*.

17. *H. inclusa*, *B. and Br.*, *Sacc. Syll.* 4895 ; *Hdbk.* 2335.
In *Tuber puberulum*. Hanham (Wilts), Bristol.

D. SELINIA. *Stroma verrucæform. Sporidia simple, hyaline.*

18. *H. pulchra* (Wint.), *Sacc. Syll.* 4586; *Grev.* vii, 78; iv, 123.

On cow dung. Shrewsbury, Terrington.

E. HYPOCREOPSIS. *Stroma lobate. Sporidia uniseptate, hyaline.*

19. *H. riccioidea* (Bolt.), *Sacc. Syll.* 6173; *Hdbk.* 2329.

On willow. Halifax, Carlisle, Glamis.

F. BROOMELLA. *Sporidia fusoid, two or more septate.*

20. *H. vitalbæ*, *B. & Br.*, *Sacc. Syll.* 4987; *Hdbk.* 2330.

On *Clematis vitalba*. Batheaston.

GEN. 5. **POLYSTIGMA**, *Pers.*—*Stroma* effused, tawny or red, growing on leaves.

1. *P. rubrum*, *Pers.*, *Sacc. Syll.* 4587; *Hdbk.* 2410.

On living leaves of various species of *Prunus*. Common.

2. *P. fulvum*, *D. C.*, *Sacc. Syll.* 4588; *Hdbk.* 2411.

On living leaves of *Prunus padus*. Scotland.

Sub.-Fam. II. NECTRIÆ.

GEN. 1. **SPHÆROSTILBE** (*Tul.*)—*Perithecia* as in *Nectria*, but seated at the base, or in company with vertically elongated conidia-bearers.

1. *S. aurantiaca*, *Tul.*, *Sacc. Syll.* 4810; *Grev.* x, 70.

On elm. Brandon.

GEN. 2. **NECTRIA**, *Fries.*—*Perithecia* free, cæspitose, sometimes seated on conidia-bearing stroma. *Sporidia* oblong.

A. EU-NECTRIELLA. *Sporidia* continuous.

** *Chilonectria.* *Asci* polysporous.

1. *N. cucurbitula*, *Curr.*, *Sacc. Syll.* 4574; *Hdbk.* 2349.

On branches.

** *Aponectria.*

2. *N. inaurata*, *B. & Br.*, *Sacc. Syll.* 4826; *Hdbk.* 2352.

On dead holly. Bath, Forden, Shrewsbury.

B. Sporidia uniseptate.

* *Asci* octosporous.

3. *N. cinnabarina*, *Tode.*, *Sacc. Syll.* 4662; *Hdbk.* 2345.

On dead branches. Common.

4. *N. ribis*, *Tode.*, *Sacc. Syll.* 4663; *Grev.* viii, 105.

On species of *Ribes*.

5. *N. punicea*, *Kze.*, *Sacc. Syll.* 4664; *Hdbk.* 2347.

On *Rhamnus frangula*. Highgate, Lynn.

6. *N. sinopica*, *Fr.*, *Sacc. Syll.* 4666; *Hdbk.* 2350.

On shoots of ivy. King's Cliffe.

7. *N. coccinea*, *P.*, *Sacc. Syll.* 4670 ; *Hdbk.* 2348.
On dead branches.
8. *N. Desmazierii*, *Not.*, *Sacc. Syll.* 4672 ; *Mag. Zool. Bot.* i, 48, t. 3, f. 6.
On box twigs. Apethorpe.
9. *N. ditissima*, *Tul.*, *Sacc. Syll.* 4671 ; *Grev.* viii, 105.
On beech bark.
10. *N. ochracea*, *Grev.*, *Sacc. Syll.* 4689 ; *Hdbk.* 2345.
On beech. Durham, Highgate, near Bath, Scotland.
11. *N. aquifolii*, *Fr.*, *Sacc. Syll.* 4693 ; *Hdbk.* 2351.
On dead holly: Apethorpe, Scarborough.

LEPIDONECTRIA.

12. *N. Ralfsii*, *B. & Br.*, *Sacc. Syll.* 4767 ; *Hdbk.* 2353.
On furze, &c. Penzance, Coed Coch.
13. *N. mammoidea*, *Plow.*, *Sacc. Syll.* 4774 ; *Grev.* vii. 78, iii. 126.
On stumps and dead stems of *Ulex europæus*. North Wootton, Scarborough.

C. CALONECTRIA. Sporidia multiseptate.

14. *N. citrino-aurantia*, *Lac.*, *Sacc. Syll.* 4950 ; *Grev.* vii, 78.
On dead branches of willow.
- * * * *Sporidia muriform.*
15. *N. Lamyi*, *Desm.*, *Sacc. Syll.* 4990 ; *Grev.* x, 70.
On *Berberis vulgaris*. King's Lynn.

GEN. 3. **HYPOMYCES**, *Fries.*—Subiculum byssoid, velvety, growing on fungi.

* *Peckiella. Sporidia continuous.*

1. *H. viridis*, *A. & S.*, *Sacc. Syll.* 4633 ; *Grev.* x, 47.
On various Agarics, especially *Lactarii*. South Wootton.
2. *H. Tulasneanus*, *Plow.*, *Sacc. Syll.* 4634 ; *Hdbk.* 2339 ; *Grev.* xi, 46.
On species of *Boletus*. Laxton, Mattishall.
3. *H. violaceus*, *Fr.*, *Sacc. Syll.* 4637 ; *Grev.* xi, 49.
On *Æthidium septicum* (*Fuligo varians*). Cawdor Castle.
4. *H. ater*, *Fr.*, *Grev.* xii. 80, xiii. 47.
On small undetermined agarics. Carlisle. (Dr. Carlyle.)

** *Eu-hypomyces. Sporidia uniseptate.*

A. MYCOGENÆ.

5. *H. asterophorus*, *Tul.*, *Sacc. Syll.* 4611 ; *Grev.* xi, 6.
On *Nyctalis parasitica*. Norfolk.
6. *H. chrysospermus*, *Tul.*, *Sacc. Syll.* 4614 ; *Grev.* xi, 4.
On various species of *Boletus*, &c. Coed Coch, Kew, Forres, N.B.

7. *H. lateritius*, *Fr.*, *Sacc. Syll.* 4615 ; *Hdbk.* 2341 ; *Grev.* xi, 41.
On the hymenium of *Lactarius deliciosus*. Hereford, Coed Coch, Jedburgh.
8. *H. aureonitens*, *Tul.*, *Sacc. Syll.* 4616 ; *Grev.* xi, 49.
On *Stereum hirsutum*. Pwlltyrochon Wood, North Wales.
9. *H. rosellus*, *A. & S.*, *Sacc. Syll.* 4617 ; *Hdbk.* 2338 ; *Grev.* xi, 43.
On decaying fungi, *Stereum hirsutum* most frequently ; also on the ground where fungi have decayed. Not uncommon.
10. *H. Broomeanus*, *Tul.*, *Sacc. Syll.* 4620 ; *Hdbk.* 2340 ; *Grev.* xi, 48.
On *Polyporus annosus*. Batheaston, Castle Rising.
11. *H. ochraceus*, *P.*, *Sacc. Syll.* 4621 ; *Hdbk.* 2336 ; *Grev.* xi, 44.
On species of *Russula*, &c. Scotland.
12. *H. aurantius*, *Pers.*, *Sacc. Syll.* 4622 ; *Hdbk.* 2337 ; *Grev.* xi, 44.
On various species of *Polyporus* and *Agaricus*. King's Lynn, Scarborough, Scotland, King's Cliffe, Bodelwyddan, Twycross.
13. *H. fulgens*, *Fr.*, *Sacc. Syll.* 4623.
On *Polyporus*. Batheaston, Gopsal. (Herb. Berk.)
14. *H. Berkleyanus*, *Plow. & C.*, *Sacc. Syll.* 4625 ; *Grev.* xi, 49.
On dead *Stereum hirsutum*. Downton.
On dead wood covered by some *Corticium*. Sandringham.
15. *H. candicans*, *Plow.*, *Sacc. Syll.* 4626 ; *Grev.* x. 70, xi. 50.
On some *Myxogaster*. Leziate, Bathford Down.
16. *H. torminosus*, *Mont.*, *Sacc. Syll.* 4628 ; *Hdbk.* 2342 ; *Grev.* xi, 42.
On the hymenium of *Lactarius torminosus*. King's Cliffe, Dinmore.

B. TERRIGENÆ, lignicolæ.

17. *H. terrestris*, *Plow. & Boud.*, *Sacc. Syll.* 4624 ; *Grev.* xi, 47.
On the ground near where the conidiiferous agaric has decayed. North Wootton. (C. B. P.)
Conidia most frequently on *Lactarius rufus*.
Species of which the asci are unknown.
18. *H. Linkii*, *Tul.*, *Sacc. Syll.* 4651 ; *Grev.* xi, 50.
Conidia only, on *Agaricus rubescens*.
On the stem of a decaying *Boletus*. North Wootton.
19. *H. cervinus*, *Tul.*, *Sacc. Syll.* 4653 ; *Grev.* xi, 51.
Conidia only, on *Morchella esculenta*. Castle Rising.
On *Peziza acetabulum*.
On *Peziza macropus*. Sufton Court, Hereford.
20. *H. Baryanus*, *Tul.*, *Sacc. Syll.* 4657.
On *Nyctalis parasitica*. Solihull. (W. B. G.)

21. *H. tuberosus*, *Tul.*, *Sacc. Syll.* 4658; *Grev.* xi, 2.
On *Lactarius*. Hereford.
22. *H. miliarius*, *Tul.*, *Sacc. Syll.* 4659; *Grev.* xi, 2.
On *Russula*. Hereford.

GEN. 4. **ELEUTHEROMYCES**, *Fckl.*—Perithecia cylindrically awl-shaped, somewhat diaphanous.

1. *E. subulatus*, *Tode*, *Sacc. Syll.* 4578; *Hdbk.* 1238.
On hard, blackened *Agarics*. Twycross, &c.
2. *E. longisporus*, *Plow.*, *Grev.* xiii, 78.
On remains of some *Myxogaster*. King's Lynn.

GEN. 5. **BYSSONECTRIA**, *Karst.*—Stroma byssoid, perithecia somewhat superficial, crowded.

A. Sporidia hyaline.

** *Hyphonectria. Sporidia uniseptate.*

1. *B. epigæa*, *Cke.*, *Sacc. Syll.* 4765; *Grev.* viii, 10.
On the ground. Penecuik, N.B.

GEN. 6. **OOMYCES**, *B. & Br.*—Perithecia contained in a polished, coloured sac. Sporidia filiform, hyaline.

1. *O. carneo-albus*, *Lib.*, *Sacc. Syll.* 5004; *Hdbk.* 2343.
On leaves of *Aira cæspitosa*. Spye Park, Batheaston, Carlisle.

GEN. 7. **DIALONECTRIA**, *Sacc.*—Perithecia free, superficial, gregarious or scattered, fleshy, smooth, brightly coloured.

A. NECTRIELLA. Sporidia continuous.

1. *D. furfurella*, *B. & Br.*, *Sacc. Syll.* 4568; *Grev.* vii, 78.
(= *Keithii*, *B. & Br.*)
On dead cabbage. Forres, N.B.

B. EU-DIALONECTRIA. Sporidia uniseptate, hyaline.

2. *D. sanguinea*, *Fr.*, *Sacc. Syll.* 4721; *Hdbk.* 2360.
On wood, *Hypoxyla*, &c. Common.
3. *D. peziza*, *Tode*, *Sacc. Syll.* 4757; *Hdbk.* 2358.
On stumps. Not uncommon.
4. *D. dacrymycella*, *Nyl.*, *Sacc. Syll.* 4707; *Grev.* xiii, 78.
On *Angelica* stems. Bristol. (C. B.).
5. *D. Bloxami*, *B.*, *Sacc. Syll.* 4952; *Hdbk.* 2367.
On *Helianthus tuberosus*. Twycross.
6. *D. arenula*, *B. & Br.*, *Sacc. Syll.* 4716; *Hdbk.*
On *Aira cæspitosa*. Batheaston.
7. *D. graminicola*, *B. & Br.*, *Sacc. Syll.* 4717; *Hdbk.* 2366.
On *Aira cæspitosa*. Batheaston.
8. *D. episphæria*, *Tode*, *Sacc. Syll.* 4740; *Hdbk.* 2361.
On *Hypoxyla*, etc. Common.

9. *D. Purtoni*, *Grev.*, *Sacc. Syll.* 4741 ; *Hdbk.* 2362.
On *Valsa abietis*. Rosslyn.
10. *D. lichenicola*, *Ces.*, *Sacc. Syll.* 4745 ; *Grev.* vii, 78.
On *Peltigera canina*. Lynn.
11. *D. lecanodes*, *Ces.*, *Sacc. Syll.* ; *Grev.* vi, 25.
On *Peltigera canina*. Lynn.
12. *D. aurea*, *Grev.*, *Sacc. Syll.* 4750 ; *Grev.*
On dead holly. Hereford, East Farleigh, Scotland.
13. *D. affinis*, *Grev.*, *Sacc. Syll.* 4751 ; *Grev.* viii, 9.
On *Ephebe pubescens*. Appin.
14. *D. muscivora*, *B. & Br.*, *Sacc. Syll.* 4961 ; *Hdbk.* 2364.
On mosses. King's Cliffe.
15. *D. fibricola*, *Plow.*, *Sacc. Syll.* 4756 ; *Grev.* xiii, 78.
On rotten cord. King's Lynn.

D. CALONECTRIA. Sporidia oblong guttulate.

* *Sporidia 2-5 septate.*

16. *D. Leightoni*, *B. & Br.*, *Sacc. Syll.* 4940 ; *Grev.* i, 155.
On larch. Yorkshire.
17. *D. platasca*, *B.*, *Sacc. Syll.* 4951 ; *Hdbk.* 2359.
On touchwood. Rockingham Forest.
18. *D. ochraceo-pallida*, *B.*, *Sacc. Syll.* 4971 ; *Hdbk.* 2363.
On elm branches. Rockingham Forest, Mossburnford.
19. *D. erubescens*, *Desm.*, *Sacc. Syll.* 4944 ; *Grev.* x, 70.
On dead holly leaves. Clifton Down.
20. *D. helminthicola*, *B. & Br.*, *Sacc. Syll.* 4968 ; *Hdbk.* 2368.
Parasitic on a species of *Helminthosporium*. Batheaston, Forden, Somersetshire.

** *Sporidia 6-10 septate.*

21. *D. Plowrightiana*, *Sacc.*, *Sacc. Syll.* 4925 ; *Grev.* vii, 78.
On dead stems of *Arctium lappa*. Shrewsbury.

GEN. 8. **LASIONECTRIA**, *Sacc.*—Perithecia hairy.

a. *Notarisiella. Sporidia continuous.*

1. *L. rousselliana*, *M.*, *Sacc. Syll.* 4570 ; *Hdbk.* 2369.
On box leaves. Twycross, Dorking, Scotland.

b. *Lasionectria. Sporidia uniseptate.*

2. *L. fulva*, *Berk.*, *Sacc. Syll.* 4570 ; *Hdbk.* 2369. V.
On box leaves. Milton, Norths.
3. *L. flavida*, *Ca.*, *Sacc. Syll.* 4957 ; *Hdbk.* 2356.
On decayed stumps. Leigh Wood, Bristol.
On dead holly. Scarborough.
On bramble. Batheaston.
4. *L. funicola*, *Berk.*, *Sacc. Syll.* 4949 ; *Hdbk.* 2357.
On decayed rope. King's Cliffe.
5. *L. hirta*, *Blox.*, *Sacc. Syll.* 4932 ; *Hdbk.* 2354.
On old rails. Twycross, Gopsall, Highgate.

GEN. 9. **GIBBERELLA**, Sacc.—Perithecia smooth, superficial, blue or violet.

b. Genuina. Sporidia triseptate.

1. *G. pulcaris*, Fr., Sacc. Syll. 4973 ; Hdbk. 2344.
On elder, fig, willow, laburnum, cabbage, etc. Not uncommon.
2. *G. flacca*, Wallr., Sacc. Syll. 4976 ; Grev. vi, 25.
On branches of elder.
3. *G. Saubinetii*, Mont., Sacc. Syll. 4977.
On herb stems.
4. *G. cyanogena*, Desm., Sacc. Syll. 4978.
On cabbage stalks. Kew Gardens.

Sub-Fam. III. PSEUDONECTRIÆ.

GEN. 1. **MELANOSPORA**, Ca.—Perithecia simple, ostiolum subulately rostrate (or not rostrate), sometimes penicillate at the apex.

A. VITTADINULA. Subiculum none. Perithecia not rostrate. Sporidia continuous, brown.

1. *M. episphærium*, P. & P., Sacc. Syll. 4591 ; Grev. x, 71.
On *Hypomyces terrestris*. King's Lynn.

B. Perithecia rostrate.

a. Eu-Melanospora. Sporidia continuous.

2. *M. chionea*, Fr., Sacc. Syll. 4594 ; Grev. viii, 105.
On dead leaves of *Pinus sylvestris*. Grantown.
3. *M. Helvellæ*, Cke., Sacc. Syll. 4597 ; Grev. i, 175.
On *Peziza hemispherica*. Eastbourne.
4. *M. vervecina*, Desm., Sacc. Syll. 4595 ; Grev. viii, 105.
On rotten wood. Wiltshire, Clunhill.
5. *M. caprina*, Fr., Sacc. Syll. 4599 ; Hdbk. 2786.
On bark and twigs. Glamis, Carlisle.
6. *M. Zobelii*, Ca., Sacc. Syll. 4601 ; Hdbk. 2787.
On the hymenium of *Peziza sepulta*. (F. C.)
On truffles.
7. *M. parasitica*, Tul., Sacc. Syll. 4606 ; Grev. x, 71.
Parasitic on *Cordyceps militaris*. North Wootton.

GEN. 2. **ACROSPERMUM**, Tode.—Perithecia elongated or clavate, fleshy, or becoming horny. Sporidia filiform.

b. Eu-Acrospermum. Perithecia scattered.

1. *A. compressum*, Tode, Sacc. Syll. 5863 ; Hdbk. 1257.
On dead stems of umbellifers and other herbaceous plants.
King's Cliffe, Forden, Scotland, etc.
2. *A. graminum*, Lib., Sacc. Syll. 5865 ; Hdbk. 1258.
On dead grasses. Dartford.

INDEX LICHENUM BRITANNICORUM.

(According to the most recent Nylanderian Arrangement.)

BY THE REV. J. M. CROMBIE, F.L.S.

PART I.

FAMILY I. EPHEBACEI, Nyl.

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- Sp. 1 *G. velutinum* (*Ach.*), Nyl.
 2 *G. compactum* (*Ag.*), Nyl.

Genus II. SPILONEMA, Born.

- Sp. 1 *Sp. paradoxum*, Born.
 2 *Sp. revertens*, Nyl.
 3 *Sp. Scoticum*, Nyl.

Tribe II. **PYRENOPSEI**, Nyl.*Genus I. EUOPSIS*, Nyl.

- Sp. 1 *Eu. hæmalea* (*Smmrf.*), Nyl.
 2 *Eu. granatina* (*Smmrf.*), Nyl.

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- Sp. 1 *P. hæmatopis* (*Smmrf.*), Nyl.
 2 *P. fuscata*, Nyl.
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 5 *P. homœopsis*, Nyl.
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- Sp. 1 *E. pubescens* (*L.*), Nyl.

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- Sp. 1 *E. hispidula* (*Ach.*), Nyl.
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- Sp. 1 *M. argilospila*, Nyl.

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- Sp. 1 L. pygmæa (*Lghft.*), *Ag.*
 2 L. confinis (*Ach.*), *Ag.*

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- Sp. 1 L. Kenmorensis (*Holl.*), *Nyl.*

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- Sp. 1 Pt. pannariellum, *Nyl.*
 2 Pt. Lismorensis, *Cromb.*

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- Sp. 1 L. dendriscum, *Nyl.*

Tribe II. **COLLEMEI**, *Nyl.**Genus* I. SYNALISSA (*Fr.*), *Nyl.*

- Sp. 1 S. symphorea (*DC.*), *Nyl.*
 2 S. intricata (*Arn.*), *Nyl.*

Genus II. SCHIZOMA, *Nyl.*

- Sp. 1 S. lichinodeum, *Nyl.*

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- Sp. 1 C. chalazanum, *Ach.*
 2 C. chalazanodes, *Nyl.*
 3 C. myriococcum, *Ach.*
 4 C. confertum (*Ach.*), *Nyl.*

B. Eucollema, *Cromb.*a Stirps, *C. terrulenti.*

- 5 C. terrulentum, *Nyl.*

b Stirps, *C. verruciformis.*

- 6 C. ceraniscum, *Nyl.*

c Stirps, *C. auriculati.*

- 7 C. auriculatum, *Hffm.*
 * C. granosum (*Wulf.*), *Nyl.*
 8 C. furvum, *Ach.*

f. 1, tunæforme, *Ach.*

- 9 C. flaccidum, *Ach.*

d Stirps, *C. pulposi.*

- 10 C. pulposum (*Bernh.*), *Ach.*
 f. 1, compactum, *Ach.*

β. pulposulum, *Nyl.*

- 11 C. tenax (*Sw.*), *Ach.*

β. coronatum, *Kbr.*

- 12 C. glaucescens, *Hffm.*

- 13 *C. crispum* (*Huds.*), *Ach.*
 * *C. ceranoides* (*Borr.*), *Nyl.*
 f. 1, *cristatulum*, *Nyl.*
 14 *C. concinnum*, *Flot.*
 15 *C. cheileum*, *Ach.*
 f. 1, *nudum* (*Schær.*), *Nyl.*
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 e *Stirps*, *C. melæni.*
 16 *C. granuliferum*, *Nyl.*
 17 *C. melænum*, *Ach.*
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 2, *jacobæifolium* (*Schrank.*), *Ach.*
 3, *gyrosum*, *Ach.*
 * *C. hypergenum*, *Nyl.*
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 19 *C. polycarpon* (*Schær.*), *Kbr.*
 20 *C. Laureri* (*Fw.*, *Kbr.*).
 C. Synechoblastus (*Trevis.*)
 21 *C. nigrescens* (*Huds.*), *Ach.*
 22 *C. aggregatum* (*Ach.*), *Nyl.*
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- Sp. 1 *C. biatorinum*, *Nyl.*
 2 *C. microphyllum* (*Ach.*), *Nyl.*
 3 *C. fragile* (*Tayl.*), *Nyl.*
 4 *C. plicatile* (*Ach.*), *Nyl.*
 f. 1, *minus*, *Cromb.*
 2, *hydrocharum* (*Ach.*), *Nyl.*
 5 *C. fluviatile* (*Huds.*), *Nyl.*
 6 *C. glebulentum*, *Nyl.*
 7 *C. turgidum* (*Ach.*), *Nyl.*
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- * *Homodium*, *Nyl.*
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 2 *L. tenuissimum* (*Dcks.*), *Mudd.*
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 4 *L. subtile* (*Schrad.*), *Nyl.*
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 * *L. amphineum* (*Ach.*).
 5 *L. pusillum*, *Nyl.*
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- Sp. 7 *L. placodiellum*, *Nyl.*
 8 *L. microscopicum*, *Nyl.*
 9 *L. muscicola* (*Sw.*), *Fr.*
 * *Euleptogium*, *Cromb.*
 10 *L. lacerum* (*Sw.*), *Fr.*
 f. 1, *fimbriatum* (*Hffm.*), *Nyl.*
 * *L. pulvinatum* (*Hffm.*), *Kbr.*
 * *L. lophæum* (*Ach.*), *Kbr.*
 11 *L. sinuatum* (*Huds.*), *Kbr.*
 f. 1, *Pollinieri* (*Del.*), *Nyl.*
 β. *crenatum*, *Nyl.*
 12 *L. palmatum* (*Huds.*), *Mnt.*
 13 *L. tremelloides* (*L.*), *Fr.*
 f. 1, *pichneum* (*Ach.*), *Nyl.*
 * *Stephanophoron* (*Flot.*), *Nyl.*
 14 *L. ruginosum* (*Duf.*), *Nyl.*
 * *Mallotium*, *Ach.*
 15 *L. saturninum* (*Dcks.*), *Nyl.*
 16 *L. Hildenbrandii* (*Garov.*), *Nyl.*
 17 *L. Burgessii* (*Lghft.*), *Mudd.*

† *Genus.* DENDRISCAULON, *Nyl.*

- Sp. 1 *D. bolacinum* (*Ach.*).
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- Sp. 1 *C. Schæreri* (*Mass.*), *Nyl.*
 2 *C. lecanopsoides*, *Nyl.*
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 4 *C. Arnoldiana* (*Hepp.*), *Nyl.*
 5 *C. oblongans*, *Nyl.*
 6 *C. diffundens*, *Nyl.*
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- Sp. 1 *P. actinellum*, *Nyl.*

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- Sp. 1 *S. turbinata* (*Pers.*), *Fr.*
 2 *S. anglica*, *Nyl.*
 3 *S. microcephala* (*Tul.*), *Nyl.*
 4 *S. Kylemoriensis* (*Larb.*), *Cromb.*

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- Sp. 1 *C. trichiale*, *Ach.*

- Sp. * *C. cinereum* (*Pers.*), *Nyl.*
 * *C. stemoneum* (*Ach.*), *Nyl.*
 * *Eucalicium*, *Cromb.*
 a *Stirps, C. chrysocephali.*
 2 *C. chrysocephalum*, *Turn.*
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 3 *C. phæocephalum*, *Turn.*
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 5 *C. arenarium* (*Hampe.*), *Nyl.*
 6 *C. melanophæum*, *Ach.*
 β. *ferrugineum* (*T. & B.*), *Nyl.*
 * *C. brunneolum* (*Ach.*), *Nyl.*
 7 *C. elassosporum*, *Nyl.*
 b *Stirps, C. trachelini.*
 8 *C. hyperellum*, *Ach.*
 f. 1, *baliolum*, *Ach.*
 2, *viride* (*Pers.*), *Nyl.*
 9 *C. quercinum*, *Pers.*
 * *C. lenticulare* (*Ach.*), *Nyl.*
 f. 1, *chlorodes*, *Nyl.*
 * *C. curtiusculum*, *Nyl.*
 10 *C. pusillum*, *Flk.*
 11 *C. curtum*, *T. & B.*
 12 *C. trachelinum*, *Ach.*
 f. 1 *hemiphæum*, *Nyl.*
 β. *xylonellum* (*Ach.*), *Nyl.*
 13 *C. parietinum*, *Ach.*
 f. 1, *minutellum* (*Ach.*), *Nyl.*
 14 *C. populneum*, *De Brond.*
 15 *C. diploellum*, *Nyl.*
 16 *C. retinens*, *Nyl.*

Genus III. STENOCYBE, *Nyl.*

- Sp. 1 *St. euspora*, *Nyl.*
 2 *St. trajecta*, *Nyl.*
 3 *St. byssacea*, *Nyl.*

Genus IV. CONIOCYBE (*Ach.*), *Nyl.*

- Sp. 1 *C. furfuracea* (*L.*), *Ach.*
 f. 1, *fulva* (*L.*), *Fr.*
 2 *C. sulphurea* (*Retz.*), *Nyl.*
 3 *C. pallida* (*Pers.*), *Fr.*
 4 *C. hyalinella*, *Nyl.*

Genus V. TRACHYLIA (*Fr.*), *Nyl.*

- Sp. 1 *Tr. tigillaris* (*Ach.*), *Fr.*
 2 *Tr. tympanella* (*Ach.*), *Fr.*
 3 *Tr. stigonella* (*Ach.*), *Fr.*

Tribe II. **SPHÆROPHOREI**, *Nyl.**Genus* I. SPHÆROPHORON (*Pers.*), *Ach.*

- Sp. 1 *S. compressum*, *Ach.*
 2 *S. coralloides* (*Pers.*), *Ach.*
 f. 1, *congestum*, *Lamy.*
 3 *S. fragile* (*L.*), *Ach.*

Series II. **Cladodei**, *Nyl.*Tribe III. **BÆOMYCETEI**, *Nyl.**Genus* I. GOMPHILLUS, *Nyl.*

- Sp. 1 *G. calicioides* (*Del.*), *Nyl.*
 f. 1, *microcephalus* (*Tayl.*), *Nyl.*

Genus II. BÆOMYCES (*Pers.*), *Nyl.*A *Eubæomyces*, *Cromb.*

- Sp. 1 *B. rufus* (*Huds.*), *DC.*
 f. 1, *sessilis*, *Nyl.*
 β. *subsquamulosa*, *Nyl.*
 2 *B. placophyllus*, *Ach.*
 3 *B. roseus*, *Pers.*
 B. Icmadophila (*Trevis*).
 4 *B. æruginosus* (*Scop.*), *DC.*

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- Sp. 1 *P. cereolus* (*Ach.*), *Nyl.*
 2 *P. fibula* (*Tuck.*), *Nyl.*
 3 *P. strumaticum*, *Nyl.*

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- Sp. 1 *St. coralloides*, *Fr.*
 2 *St. Delisei*, *Bor.*
 3 *St. paschale* (*L.*), *Fr.*
 4 *St. evolutum*, *Græwe.*
 5 *St. tomentosum* (*Fr.*), *Th. Fr.*
 6 *St. alpinum* (*Laur.*), *Nyl.*
 7 *St. denudatum*, *Flk.*
 β. *pulvinatum* (*Schær.*), *Fw.*
 b *Stirps, St. condensati.*
 8 *St. condensatum*, *Hffm.*
 f. 1, *condyloideum* (*Ach.*), *Nyl.*
 9 *St. pileatum*, *Ach.*

† *Genus. LEPROCAULON*, *Nyl.*

- Sp. 1 *L. nanum* (*Ach.*), *Nyl.*

(To be continued.)

EXOTIC FUNGI.

(Continued from Vol. XIV., p. 130.)

AUSTRALASIA.

Polyporus (Spongiosi) hystriculus, Cooke.

Mesopus. Pileo lento, strigoso-hispido, atro-brunneo ($1\frac{1}{2}$ -2 in.) discoideo, convexo. Stipite crasso, abbreviato, centrali. Hymenio pallido. Poris elongatis, majusculis, angulatis, decurrentibus, dissepimentis tenuibus, dentatis laceratisve. Contexto albido.

On stumps. Melbourne, Australia (*Reader*, 13).

Rosellinia (Coniochaeta) Colensoi, Cooke.

Peritheciis aggregatis, superficialibus, subglobosis, setis rigidis fuscescentibus tectis, papillatis, ascis clavatis, octosporis. Sporidiis inordinatis, ellipticis, fuscis, continuis (0.025×0.011 mm.).

On dead wood. New Zealand (*Colenso*, 126).

Very much the habit and appearance of *Sphaeria canescens*.

Sphaerella Aristoteliae, Cooke.

Maculis epiphyllis, pallidis, orbicularibus, late fusco-cinctis. Peritheciis minutis, immersis, membranaceis, globoso-depressis, perforatis. Ascis clavatis, octosporis. Sporidiis cylindraco-ellipticis, utrinque rotundatis, uniseptatis, vix constrictis ($18-20 \times 4 \mu$).

On living leaves of *Aristotelia racemosa*. New Zealand (*Colenso*, 116).

Sphaerella (Sphaerulina) assurgens, Cooke.

Peritheciis sparsis, semi-immersis, globosis, demum subliberis, submembranaceis, atris, opacis, pertusis. Ascis clavatis, sessilibus, apapophysatis, octosporis. Sporidiis fuscoideis, triseptatis, hyalinis ($20-24 \times 4 \mu$).

On living fronds of *Trichomanes venosum*. New Zealand (*Colenso*, 200).

Patellaria torulispora, Phillips.

Crowded. Cups 1-3 mm. sessile, orbicular, hymenium plane, black or brownish black, margin slightly raised; asci cylindrical. Sporidia oblong, uniseptate, brown, readily dividing at the septum ($0.01 \times 0.04-0.05$ mm.) paraphyses filiform, stout, clavate and brown at the apices.

On dead bark. New Zealand (*Colenso*, 144).

The sporidia appear to be 16 in each ascus of subglobose form, owing to the division existing before they leave the ascus.

Berggrenia aurantiaca, Cke. var. **cyclospora**.

Sporidia globose (0.018 mm. diam.).

On the ground. New Zealand (*Colenso*, 266).

Helotium pseudo-ciliatum, *Phillips*.

Scattered. Cups 1-2 mm. broad, sessile, or substipitate, concave, reddish flesh colour, margin fringed with hair-like scales; asci cylindrically-clavate, 8-spored. Sporidia oblong-fusiform or clavate, sometimes bent, $0.2-0.25 \times 0.05-0.06$ mm., paraphyses filiform, slender.

On rotten wood. New Zealand (*Colenso*, 100, 380).

Helotium sordidum, *Phillips*.

Scattered. Cups 1-3 mm. broad, stipitate, concave, becoming plane, dirty brown, margin slightly paler, entire; stem stout, pallid, white and tomentose at the base; asci cylindrical, 8-spored. Sporidia elliptic, $0.07-0.09 \times 0.03-0.04$ mm., paraphyses not seen.

Under rotten wood. New Zealand (*Colenso*, 313).

Allied to *H. fibuliforme*, Fr., but differs in the size and shape of the sporidia.

Peziza (Dasy) nephrodigena, *Phillips*.

Crowded or scattered, sessile, globose, then hemispherical, at first clothed with a slender pubescence, then glabrous, white, waxy, firm, $0.2-0.4$ mm. diam.; hymenium concave, nut-brown, margin inflexed; asci clavate; sporidia oblong-fusiform, rounded at the ends, three septate, constricted at the septa, $0.12-0.15 \times 0.04-0.05$ mm., paraphyses not seen.

On fading fronds of *Nephrodium hispidum*. New Zealand (*Kirk*).

Monilia carbonaria, *Cooke*.

Cæspitulis compactis, pulvinatis, ellipticis, vel conflundo diffimibis, aurantiacis, vel aurantio-rubris (1 mm. ad 1 cm. diam.), hyphis repentibus, intricatis, septatis, dissilentibus, vage ramosis, conidiis globoso-ovalibus, primo concatenatis, dein liberis, lævibus, hyalinis, rubro-tinctis ($8-12 \mu$ diam.).

On burnt wood and stems. New Zealand (*Kirk*, 282).

Dimerosporium excelsum, *Cooke*.

Maculas radiantes, atras, orbiculatas, crustaceos in foliorum pag. inf. formans. Peritheciis subglobosis, membranaceo-carbonaceis (15 mm. diam.), in centro congestis. Ascis clavatis, sessilibus, basi angustato, octosporis. Sporidiis ellipticis, uni-septatis, medio leniter constrictis, utrinque rotundatis, hyalinis ($12 \times 4 \mu$).

On dead leaves of *Knightia excelsa*. New Zealand (*Colenso*, 213).

Phoma australis, *Cooke*.

Epiphylla, maculis fuscis, ellipticis, brunneo-cinctis, demum confluentibus. Peritheciis atris, punctiformibus, semi-immersis. Sporulis elongato-ellipticis, hyalinis, granulosis ($0.26-0.3 \times 0.06$ mm.) pedicellis brevibus.

On leaves of *Eucalyptus*, Melbourne, No. 8, 12. (*H. Watts*).

NEW GUINEA.

Phyllosticta papuensis, *Cooke*.

Epiphylla vel amphigena. Peritheciis gregariis, punctiformibus, semi-immersis, atris, nitidis, poro pertusis. Sporulis linearibus, rectis, hyalinis ($10 \times 1 \mu$).

On fading leaves of plant unknown (suffruticose). S. E. New Guinea (*Rev. S. Chalmers*).

COLUMBIA.

Uredo scabies, *Cooke*.

Epi-vel hypophylla. Maculis bullatis, irregularibus, linea nigra cinctis. Pustulis convexis, diu clausis, nitidis, demum fissuratis, in maculis sparsis vel concentricis dispositis. Sporis ovalibus vel turbinatis, breviter stipitatis, fuscis, episporio asperulo ($0.35-0.4 \times 0.28-0.3$ mm.).

On living leaves of *Vanilla*. Antioquia (*C. Patin*).

Appears to be very destructive to the *Vanilla* plants, and is regarded as a pest by the cultivators. The habit is peculiar and characteristic, giving the leaves a scabby appearance.

Glæosporium vanillæ, *Cooke*.

Epi-vel hypophyllum. Acervulis gregariis minutis, punctiformibus, epidermide nigrificata tectis; conidiis elongato-ellipticis, utrinque rotundatis, rectis, intus granulosis, $0.18-0.25 \times 0.05-0.06$ mm.

On fading leaves of *Vanilla*. Antioquia (*C. Patin*).

BRITISH SPHÆROPSIDÆ.

The following corrections and additions to be made to the list already published :—

Phoma ilicis, *Desm.* *Sacc. Syll.* 630.

On holly leaves. Three Shire Oak (W. B. G.).

114. **Phoma porphyrogona**, *Cooke*. (sub. **Phoma rubella**.)

On stems of *Umbelliferae*.

This name replaces that of *Phoma rubella*, *Cooke*, as the *Phoma rubella*, *Grove*, has priority.

Phoma rubella, *Grove. Journ. Bot.* XXIII., 162.

On stems of *Carduus*. Three Shire Oak (W. B. G.).

Phoma sanguinolenta, *Grove Journ. Bot.* XXIII., 162.

On stems of *Carduus*. Three Shire Oak (W. B. G.).

Phoma macrocarpa, *Trail. Scot. Naturalist*, July, 1886.

On *Mercurialis perennis*. Scotland.

Phoma galacis, *Cke. Grev.* XIV., 90.

On leaves of *Galax aphylla*. Kew.

Phyllosticta pentestemonis, Cke. *Grev.* XIV., 90.

On leaves of *Pentestemon grandiflorus*. Kew.

Septoria adoxæ, Fekl. *Sacc. Syll.* 2945.

On leaves of *Adoxa*. Forres.

Septoria dianthi, Desm. *Sacc. Syll.* 2796.

On leaves of *Dianthus* (W. B. G.).

Fam. 2. NECTRIOIDÆÆ.

After *Zythia* insert—

GEN. 2. **PSEUDODIPLODIA**, Karst. *Sacc. Syll.* III., 621.

Perithecia superficial, globular or oblong, waxy-fleshy, when moist dark-coloured, soon opening with a wide mouth. Sporules ellipsoid, uniseptate, dilute olivaceous.

Pseudodiplodia corticis, Grove. *Journ. Bot.* XXIV., 197.

On *Acer pseudoplatanus*. Sutton Coldfield (W. B. G.).

Pestalozzia longiseta, Speg. *Sacc. Syll.* 4115.

On *Azalea* leaves. Sutton (W. B. G.).

Pestalozzia fibricola, Grove. *Journ. Bot.* XXIV., 198, t. 266, f. 7.

On *Tilia*. Sutton (W. B. G.).

PRÆCURSORES AD MONOGRAPHIA POLY-PORORUM.

By M. C. COOKE.

(Continued from XIV., p. 115.)

The following diagnoses of species do not appear to have been published, as far as we have been able to ascertain. The types are in the Kew Herbarium :—

54. Polyporus (Lenti) Binnendykei, Kurz. in *Herb. Berk.* 2279.

Gregarius, testaceus. Pileo discoideo, striato, fibroso-lævi ad marginem longe piloso (villosociliato), coriaceo. Stipite tereti, solido, puberulo v tomentosulo, ad basim incrassatim dense tomentoso. Poris regularibus, magnis, hexagonis elongatisve, subquadratis, ore integro vel eroso-denticulato.

Ad lignum *Tectoniæ*. Java.

Pileus 1-1½ in.; stem 2 in. long, 1 line thick. Pores more distinctly quadrate than in other species in this section.

94. Polyporus (Melanopodes) glutinifer, Berk. in *Herb. No.* 2418.

Pileo carnosomolli, glutinoso, glabro, dimidiato, centro depresso, postice reticulato-rugoso, fusco, stipite laterali vel excentrico, abbreviato, æquali, vel deorsum attenuato, basi nigricante, contextu

albido. Tubulis elongatis ($\frac{1}{2}$ centim.); poris majusculis, irregularibus, angulatis (0.5-1 mm.), concoloribus.

Ad truncos (?). Mauritius.

Pileus 3in. broad; stem about 2in. long, $\frac{1}{2}$ in. thick. Whole plant glutinous when fresh.

182. Polyporus (Molli) sordidus, Cooke.

Pileo carnosomolli, firmo, pulvinato, postice attenuato, subtiliter velutino, sordide fuligineo, circa marginem glabrescente, contextu albo, subzonato, tubulis mediis (5 mm. long), poris albis, inæqualibus, angulatis (2.5-5 mm.) dissepimentis tenuibus, integris.

Ad truncos. United States (J. B. Ellis, 3796).

Pileus $1\frac{1}{2}$ -2in. diam; lin., or more, thick behind, sometimes sparsely imbricated, margin a little curved inwards.

221. Polyporus (Molli) argentatus, Cooke.

Pileo e carnosomolli lento coriaceo, appanato, conchiformi, lævi vel papillato, leniter sericeo, antice albo; postice cinereo-fusco; margine subacuto, saepe albido, leniter sulcato. Carne albo. Poris ablis æqualibus, rotundatis, mediis, dissepimentis incrassatis.—*P. Palliseri*, Grev. x. 98 (non Berk.).

Ad truncos. Victoria, Queensland.

Pileus 2-3 unc. latus, $\frac{1}{2}$ unc. crass.

251. Polyporus (Dichroi) Curreyanus, Berk. in Herb. No. 2820.

Effuso-reflexus, carnosolentus, subtiliter villosus, pallidus, azonus; poris mediis, rotundis, curtis, nigrescentibus, saepe hinc illic obsoletis ($\frac{1}{4}$ mm.).

Ad truncos. New Zealand.

Differs from *P. adustus* in becoming quite black.

280. Polyporus (Hispidi) spiculiferus, Cooke.

Pileo carnosomolli aquosemolli subpulvinato (1-2in.) fuligineo-nigrescente, lævi, sicco ruguloso, undique spiculis obtusis sparsis erectis ornato; carne pallido, tubulis elongatis (5-7 mm.), poris minutis, subæqualibus, dissepimentis tenuibus.

Ad truncos. North Gipps Land, Australia (Tisdall and Webb).

A very characteristic and singular species, somewhat resembling *Hydnum gelatinosum* in appearance.

288. Polyporus (Hispidi) Hobsoni, Berk. in Herb. 3987.

Pileo spongioso, molli, subpulvinato, brevi, albido, pallescente scruposo tomentoso, obtusi, contextu fibroso, pallido. Hymenio convexo, concolori. Poris magnis, angulatis (1-1 $\frac{1}{2}$ mm.); postice decurrentibus, dissepimentis tenuibus.—*Trametes Hobsoni*, Berk. in Herb. 3987.

Ad ligno emortuo. India (Bombay).

Pileus 1-1 $\frac{1}{2}$ in., and nearly as thick, irregular and deformed.

334. Polyporus (Lignescenti) Venezuelæ, Berk. & Curt.

Fusco-cervinus, subimbricatus. Pileo suberoso, dimidiato, convexo, subtiliter velutino, plerumque circiter marginem glabrato, azono, postice tuberculoso et obscuriori, margine acuto, hymenio

concavo, contextuque cervino pallido. Poris æqualibus, rotundis (0.2 mm.), dissepimentis rigidis.—*Herb. Berk.* No. 2694.

Ad truncos. Venezuela, Guiana.

Pileus 2-3 in. broad, somewhat like *P. plebius*, but darker, more tuberculose, and with larger pores.

355. *Fomes (Mes.) pullatus*, Berk.

Pileo orbiculari, rugoso, sulcato-zonato, primum glauco-albo, subtiliter velutino, demum brunneo; contextu molli, umbrino, hymenio plano, nigro, poris parvis subhexagonis, $\frac{1}{8}$ mm., stipite elongato, irregulari, pulverulento.—*Polyporus pullatus*, Berk. in *Herb.* 2340.

Ad terram. Hong-Kong.

Pileus $3\frac{1}{2}$ in.; stem 5 in. $\times$ $\frac{1}{2}$ in. thick.

395. *Fomes (Pleur) regulicolor*, Berk.

Pileo reniformi, convexo, sericeo, lævi, subzonato, purpureo-fusco, margine obscuriori, subacuto. Stipite laterali, ascendente, contorto vel difformi, velutino, fusco. Hymenio fusco. Poris æqualibus, minutis, rotundis ($\frac{1}{8}$ mm.).—*Polyporus regulicolor*, Berk. in *Herb.* No. 2420.

On decaying roots. Cuba (944).

Pileus 1-1 $\frac{1}{2}$ in. broad; stem 3 in. long, $\frac{1}{4}$ in. thick, slightly attenuated upwards.

500. *Fomes (Impoliti) contrarius*, Berk. & Curt.

Pileo subzonato, vertice affixo, vel subimbricato (3-5 unc. lat.) brunneo, primo ochraceo, dein obscuriori, concentrice leniter sulcato-depresso, tenui, rigido, tomentoso, demum glabrescente; contextu tenui, lignicolori, fibroso-radiato. Tubulis contextu æqualibus. Poris minutis, regularibus, rotundatis ($\frac{1}{8}$ mm.), hymenio albo, demum argenteo-griseo.—*Herb. Berk.* No. 2634.

Ad truncos. Cuba (938, 946).

More tomentose and zoned than *Fomes hemileucus*, B.

450. *Fomes (Fomentarii) badius*, Berk. in *Herb. Kew.*

Pileo lignoso, pulvinate, crasso, 2-3-ies, concentrice sulcato, glabro, crustaceo-laccato, intus rigido, badio-ferrugineo, margine rotundato, pallidiore, tubulis elongatis, compactis, stratosi, poris æqualibus, rotundato-angulatis ($\frac{1}{3}$ mm. diam.)

Ad truncos. Arctic America (Dr. Richardson).

It is doubtful whether this can be maintained as a distinct species.

514. *Fomes (Impoliti) caryophylleus*, Cke.

Totus rufo-brunneus, caryophyllaceus. Pileo suberoso, conchato, subtenui, leniter concentrice sulcato, velutino, intus concolori. Hymenio concavo, margine acuto; poris regulariter rotundatis, minutis ($\frac{1}{8}$ mm. diam.).

Ad truncos. Brazil (Glaziou, 14432).

528. *Fomes (Impoliti) Curreyi*, Berk. in *Herb.*

Pileo rigido, suberoso-coriaceo, dimidiato, reniformi, radiato-strigoso, subscruposo, brunneo, concentrice zonis elevatis rugoso, contextu fusco. Hymenio tabacino, poris rotundatis, regularibus ($\frac{1}{4}$ mm. diam.), dissepimentis crassiusculis.

Polyporus xerophyllaceus, Curr. Linn. Trans., Ser. 2, Vol. i, p. 120 (not Berk.).

Ad truncos. Andaman Islands, Perak, Australia.

Without the numerous dark, concentric zones of *P. xerophyllaceus*, Berk.; thicker, and of a more tawny colour. Pores twice as large, and habit coarser, and very different.

552. *Fomes (Lævigati) oblinitus*, Berk. Herb. Kew.

Pileo suberoso-lignoso, convexo-applanato, reniformi, glabro, sublævi; zonis inconspicuis concentricis variegato, rufo-brunneo; margine obtuso, subtus sterili, contextu ligni-colori; poris minutis, subrotundis, æqualibus ($\frac{1}{5}$ mm. diam.), ochraceo-pallidis.

Ad truncos. Mauritius, Australia.

Pileus 2-3 in. diam., $\frac{1}{2}$ - $\frac{3}{4}$ in. thick behind, sometimes almost laccate.

558. *Fomes (Lævigati) semi-laccatus*, Berk. in Herb.

= *Polyporus zonalis*, var. *semi-laccatus*, Berk. in *Linnean Journal*, Vol. XVI., p. 46.

569. *Fomes (Resup.) tropicalis*, Cke. Grev. XIII. 32.

Effusus, crassus, induratus (10-20 unc. long, 3-4 unc. lat.); margine atro, sterili, contextu fusco. Hymenio pallido, poris obliquis, plerumque stratosi, regularibus, rotundatis ($\frac{1}{4}$ - $\frac{1}{5}$ mm. diam.), dissepimentis crassiusculis, rigidis.

On logs. Demerara.

Resembling some forms of *Fomes obliquus*, often one inch in thickness, and extending to three or four feet in length.

604. *Polystictus (Disci) siennæcolor*, Berk.

Pileo coriaceo, plano, zonato-sulcato, rufo-brunneo (siennæcolori), glabro. Stipite brevissimo, laterali, discoideo, concolori. Poris minutissimis, rotundis, punctiformibus, pallidis.—*Polyporus siennæcolor*, Berk. in Herb. 2379.*

Ad truncos. Ceylon, Brazil.

About the same size as *P. flabelliformis*, but smooth and of one colour.

620. *Polystictus (Disci) caryophyllaceus*, Berk. & Curt.

Pileo membranaceo, applanato, cuneiformi, postice in stipitem attenuato, lævi, glabro, caryophyllaceo vel purpureo-atro, margine acuto, serrulato, pallidior. Stipite tenui, fusco, cylindrico, ad basim disciformi. Poris curtis, æqualibus, subrotundis, prope marginem obsoletis.—*Polyporus caryophyllaceus*, B. & C. in Herb. No. 2407.

Ad truncos. Venezuela.

A small species, but little exceeding an inch in length, of which the stem occupies one-third.

675. *Polystictus (Prolif.) Kurzianus*, Cooke.

Pileo ochraceo-albo, membranaceo-coriaceo, conchiformi, tenui, reniformi, convexo, postice imbricato, pubescente, glabrescente, zonis concentricis angustis obscurioribus notato, stipite brevissimo, disciformi. Hymenio contextuque concolori. Poris irregularibus,

angulatis, acie acutis, dentatis ($\frac{1}{4}$ mm. lat., $\frac{1}{2}$ mm. long).—*Polyporus submembranaceus*, Berk. in Herb. No. 2796.

Ad truncos. Java.

Resembling *P. Nilgherrensis*, M.

683. Polystictus (Prolificantes) exiguis, Cooke.

Pusillus, pileo membranaceo, triquetro, pallido cervino, postice in stipite brevi, tenui (vel obsoleto) producti, supra radiato fibroso-hirsuto; margine tenui, inciso-lobato, hymenio albo, tubulis elongatis, poris rotundis, æqualibus, dissepimentis tenuibus, integris, sæpe dentatis.

Amongst moss on stumps. New Zealand.

Pileus 3-5 mm., scarcely more; stem sometimes 2-3 mm., sometimes none; pores $\frac{1}{6}$ mm.

689. Polystictus (Prolif.) nebularis, Cooke.

Pileo coriaceo, tenui, reniformi vel conchiformi, effuso-reflexo, e pubescente sericeo griseo, zonato, zonis fuscis cœruleisque alternatis, contextu griseo, poris curtis, angulatis, æqualibus ($\frac{1}{5}$ mm.), concoloribus, dissepimentis tenuibus.—*Polyporus (Ino.) nebularis*, Cooke in Herb. Kewensis.

Ad truncos. Brazil (Glaziou 14435).

700. Polystictus (Funales) Fergussoni, Berk.

Pileo pulvinato, spongioso, strigoso, umbrino, contextu radiante, fibroso, concolori. Hymenio pallido umbrino, subplano, poris rotundatis (0.3 mm.), æqualibus, dissepimentis rigidis, subacutis.—*Trametes Fergussoni*, Berk. in Herb. 3016.

Ad truncos. Natal.

Pileus 2-lin., very obscurely zoned.

759. Polystictus (Stuposi) Ecklonii, Berk.

Pileo coriaceo-stuposo, tenui, effuso-reflexo, sub-reniformi, tabacino, azono, strigoso-hirsuto, margine acuto, hymenio contextuque concolori. Poris curtis, magnis ($\frac{1}{2}$ mm.), subrotundatis, acie acutis, denticulatis.—*Polyporus Ecklonii*, Berk. in Herb. No. 2697.

Ad ramulos. South Africa (Ecklon and Zeyher).

Pileus 1-2 inches broad, thin and flexible, clove-brown.

774. Polystictus (Coriacei) rufopictus, B. & C.

Pileo coriaceo, subtenui, rigido, applanato, lævigato, nitido, flavido-fusco, primo radiato-strigoso sericeove, zonis angustis concentricis rufis variegato, contextu hymenioque pallido. Poris minutissimis, rotundatis, æqualibus, integris ($\frac{1}{6}$ mm.).—*Polyporus rufopictus*, B. & Curt. Herb. No. 2755.

Ad ramulos. Cuba (No. 940).

Resembling superficially some forms of *P. versicolor*, but hymenium darker, and pores very much smaller.

854. Polystictus (Scortei) cupreo-vinosus, Berk. in Herb. No. 2720.

Ad truncos. Panure (Spruce).

We find it impossible to separate this, even as a variety, from *P. cupreo-roseus*. It is probable that the name originated in a

mere slip of the pen, as the species was not described with the rest of Spruce's Amazonian Fungi.

864. Polystictus (Lutescentes) neaniscus, Berk.

Pileo coriaceo, tenui, rigido, velutino, applanato-depresso, reniformi, brunneo, zonis concentricis obscurioribus vel purpureis variegato, contextu porisque minutis, rotundis ($\frac{1}{5}$ mm.), pallide fuscis.—*Polyporus neaniscus*, Berk. in Herb. Kewensis.

Ad truncos. Locality unknown.

Size and habit of *P. versicolor*.

866. Polystictus (Lutes.) Gerardi, Berk. & Cooke.

Pileo suberoso-coriaceo, plano, effuso-reflexo, subvelutino, gilvo, leniter concentrice sulcato, margine acuto, contextu porisque subrotundis, demum angulatis, æqualibus ($\frac{1}{4}$ mm.), fusco-flavidis, dissepimentis tenuibus.—*Polyporus Gerardi*, Berk. & Cooke in Herb. No. 2780.

Ad truncos. Amazons (Gerard, 181).

Suspiciously resembling some forms of *P. occidentalis*, of which it is probably a variety.

886. Polystictus (Lutes.) purpureo-fuscus, Cooke.

Purpureo-fuscus. Pileo dimidiato (3.4 unc.) coriaceo, concentrice sulcato, nitido, glabrato, margine tenui, contextu fibroso-spongioso, olivaceo-fusco, poris regularibus, rotundatis, minutissimis, rigidis, olivaceo-fuscis.

On logs of *Carya*. S. Carolina, U.S. (Rav. 3034).

945. Polystictus (Subresup.) placentaformis, Berk.

Pileo discoideo (1 unc.), margine reflexo, fusco, strigoso. Poris majusculis ($\frac{1}{2}$ –1 mm. diam.), angulatis irregularibus, plerumque acie dentatis, pallidis.—*Polyporus placentaformis*, Berk. in Herb. No. 2945.

Ad ramulos Populos. Carlton, British North America, 1858.

966. Poria (Moll.) hypolateritia, Berk.

Effusa, mollis, albido-pallida, irregularis, substrato lateritio oriunda; poris subæqualibus, minutis, rotundatis, dissepimentis tenuibus.—*Polyporus hypolateritius*, Berk. in Herb. No. 2856.

Ad ligno. India.

974. Poria (Moll.) fuscomarginata, Berk.

Orbicularis, elliptica vel confluens, adnata, ochraceo-pallida, margine tenui, membranaceo, sterili, fusco, poris minutis, rotundatis, æqualibus, centro tubulis elongatis, peripherico curtissimis, dein obsoletis, dissepimentis tenuibus.—*Polyporus fuscomarginatus*, Berk. in Herb. No. 2857.

Ad ligno. United States (Rhode Island).

981. Poria (Moll.) phlebiæformis, Berk.

Orbicularis, arcte adnatus, aurantius, sicco aurantio-fulvus (circ. 1 unc.), margine radiato, tenui, striato, sterili; poris subrotundatis, minimis, dissepimentis tenuibus.—*Polyporus phlebiæformis*, Berk. in Herb. No. 2833.

Ad ligno mucido. Cuba (939)

982. *Poria* (Moll.) *tegillaris*, Berk.

Effusa, indeterminata, tenuissima, flavo-fuscescens, substrato obsoleto; poris æqualibus, rotundatis, minimis, dissepimentis tenuibus.—*Polyporus tegillaris*, Berk. in Herb. No. 2855.

Ad ligno. Carolina, U.S., No. 4769.

Reduced to a mere porous stratum following the inequalities of the wood.

1001. *Poria* (Moll.) *Salleana*, Berk.

Effusus, membranaceus, margine pallido, lanoso-fibroso, sterili, hymenio fumoso-fuligineo, vel cinereo, poris brevibus, rotundo-angulatis, subæqualibus, minimis, dissepimentis tenuibus, integris.—*Polyporus Salleanus*, Berk. in Herb. No. 2826.

On charred wood. Cordova (Sallé).

1007. *Poria* (Moll.) *gallogrisea*, Berk.

Effusa, tenuis, indeterminata, griseo-cinerea, margine tenuiore, arcte adnato, pallidiore, subtomentoso, poris majusculis, rotundato-angulatis, dissepimentis acutis, integris. *Polyporus gallogriseus*, Berk. in Herb. No. 2863.

Ad ligno carioso. India (Neilgherries).

1022. *Poria* (Moll.) *Carteri*, Berk.

Ferruginosus, effusus, tenuissimus, lævis, margine vix strigoso, tubulis curtis, poris punctiformibus, rotundatis, æqualibus, minutissimis, dissepimentis crassiusculis.—*Polyporus Carteri*, Berk. in Herb. No. 2806.

Ad truncos. Bombay, 1862 (H. J. Carter).

Pores much smaller than any other of the ferruginous species.

1025. *Poria* (Moll.) *geogena*, Berk. & Curt.

Effusus, tenuis, mollis, irregularibus, pallidus, demum umbrinus, immarginatus, poris minutissimis, vix visibilis, rotundatis, dissepimentis tenuibus.—*Polyporus geogenus*, B. & C. in Herb. Berk. 2827.

On naked ground. Venezuela.

Pores scarce visible under a lens.

1027. *Poria* (Moll.) *rufitincta*, B. & C. in Herb. Kew.

Ad truncos. Cuba.

Never described. Does not appear to differ from *P. ferruginosus* except in the minute, regular, round pores.

1039. *Poria* (Vapor.) *pinguedinea* (Gaill.).

Polyporus (Res.) *pinguedineus*, Gaill. in Herb. Desm.; in Herb. Berk., ex Desmazières, No. 2888. *Polyporus heteroporus*, Pers. in Litt.

Ad truncos.

We fail to find any description of this. It has large, very irregular, often oblique pores, and is wholly whitish.

1041. *Poria* (Vapor.) *flavipora*, B. & Curt.

Effusa, indeterminata, tenuis, alutaceo, v. ochraceo-flavida, margine radiante, tenuiore, albido; poris inæqualibus, minimis, angulatis, confluentibusque, dissepimentis tenuibus, acutis.—*Polyporus flaviporus*, Berk. & Curt. in Herb. Berk. No. 2839.

Ad cortices, ligno, &c. Venezuela.

Appearance of very thin forms of *P. vaporarius*.

1047. *Poria* (Vapor.) *auricoma*, Lev.

Polyporus auricomus, Lev. in Herb. Berk. 2838.

Ad cortice. Marquesas.

We find no description of this. It is very like *P. aneirinus*, but specimen too small and imperfect for diagnosis.

1051. *Poria* (Vapor.) *membranicincta*, Berk.

Effusa, tenuis, ochraceo-pallida, strato membranaceo pallidiore enata, margine lato, sterili, poris plerumque obliquis, mediis, subæqualibus, angulatis, dissepimentis tenuibus.—*Polyporus membranicinctus*, Berk. in Herb. No. 2909.

Ad ligno emortuos. Tasmania, 1379.

Pores often in patches, leaving spots of the membrane naked.

1067. *Poria* (Moll.) *porriginosa*, Berk.

Irregulariter effusa, immarginata, tenuis, pallido-rosea, poris valde irregularibus, inæqualibus, lacunosis lacunæ-angulatis, vel rotundatis, demum confluentibus, dissepimentis tenuissimis.—*Polyporus porriginosus*, Berk. in Herb. No. 2934.

On the ground? Bombay.

The very thin dissepiments break away in drying and leave large naked, rounded lacunæ in the hymenium.

1090. *Poria* (Rigidi) *Beaumontii*, B. & C.

Effusa, adnata, crassiuscula, ochraceo-pallida, margine angusto subtomentoso, poris majusculis, subæqualibus, rotundo-angulatis, dissepimentis acie acutis, integris.—*Polyporus Beaumontii*, Berk. & Curt. in Herb. Berk. No. 2919.

Ad ligno. Alabama, U.S.

1092. *Poria* (Rigidi) *holoxantha*, B. & Cooke.

Orbicularis, dein confluent effusaque, ochraceo-pallida, adnata, subrigida, poris majusculis, subæqualibus, rotundatis, dissepimentis tenuibus, margine acutis.—*Polyporus holoxanthus*, Berk. and Cooke in Rav. Amer. Fungi No. 213-214, Herb. Berk. No. 2848.

Ad cortices *Quercus* et *Myricæ*. Georgia, U.S. (Rav. 2402-2494).

Pores smaller than in *P. omæma*. Some of these American species are doubtfully distinct.

1093. *Poria* (Rigidi) *omæma*, Berk.

Effusa, ochraceo-alba, rigida, e mycelio tomentosa albida constipata, subtus villosa; poris mediis ($\frac{2}{5}$ - $\frac{1}{3}$ mm.), angulatis, integris, plerumque obliquis.—*Polyporus omæmus*, Berk. in Herb. No. 2837, *P. radula*, Rav. Amer. Exs. No. 107.

Ad truncos. Pini, S. Carolina.

1094. *Poria* (Rigidi) *tomentocincta*, B. & Rav.

Effusa, adnata, subrigida, ochraceo-pallida, margine subtomentoso, poris majusculis, rotundatis, æqualibus, dissepimentis crassiusculis, acutis.—*Polyporus tomentocinctus*, Berk. and Rav. in Herb. Berk. 2858.

Ad cortices *Quercus*. Carolina, U.S. (Rav. 1771).

1096. *Poria (Rigidi) subaurantia*, Berk.

Effusa, subrigida, secernibilis, ochracea demum aurantio, maculata-margine tenuiore, sterili, poris majusculis, rotundatis, subæqualibus, dissepimentis tenuibus, acutis, integris.—*Polyporus subaurantius*, Berk. in Herb. No. 2859.

Ad cortices. Carolina, U.S. (2500).

1104. *Poria (Rigidi) hyperboræa*, Berk. Herb. Kew.

Ad truncos. British North America (Dr. Richardson).

This also is a very doubtful species, not apparently described. There is but a single specimen, which apparently is the resupinate condition of *Polystictus*, and probably *P. hirsutus* or *P. velutinus*.

1130. *Poria (Retic) Cincinnati*, Berk.

Effusa, ochraceo-pallida, tenuis, subtomentosa, margine extremo elevato, poris magnis, concavis, inæqualibus, rotundato-angulatis, dissepimentis brevibus, obtusis, hinc illic suppressis.—*Polyporus Cincinnati*, Berk in Herb. No. 2920.

Ad cortices. Cincinnati, U.S. (Lea 230).

1131. *Poria (Retic) porotheloides*, B. & C.

Alba, effusa, membranacea, subtus fuscescens, adnata, margine sublibero, plerumque sterili, poris brevissimis, hinc illic obsoletis, angulatis, inæqualibus, pallidis, dissepimentis venulosis.—*Polyporus porotheloides*, Berk. & Curt. in Herb. Berk. No. 2889.

Ad cortices, &c. Venezuela.

Pores in some parts reduced to almost inappreciable depressions, sterile portions albo-tomentose.

ENCHIRIDION FUNGORUM.*

We are glad to meet with our friend, and in one instance coadjutor, Dr. Quelet, in type again; and we congratulate him on the production of this work, almost uniform in size and style with the “*Clavis Hymenomycetum*.” Unfortunately, those congratulations cannot proceed much further, for, in our opinion, the interminable alterations and sweeping revolution that he has made throughout cannot claim our sympathy, and must render his labour practically useless; for no one would think of passing through an entire course of education in order to comprehend and use it. To explain the extent of these alterations is hardly possible; the genera are altered, the sequence is changed, and the whole scheme of the Hymenomycetes reduced to a delightful chaos. In the first place, the *Hymenomycetes* become transformed into *Gymnobasidii* and the *Agaricini* into *Polyphyllei*. Here we encounter the following genera in succession: *Amnita*, *Lepiota*, *Gyrophila* (which includes *Armillaria*, *Tricholoma*, in part, and the other part as *Gymnoloma*, as subgenera), *Omphalia* (which includes *Clitocybe*), *Collybia*, *Mycena*, *Omphalina* (most of the old subgenus *Omphalia*), *Calathinus* (which represents part of *Pleurotus*), and *Hygrophorus*, which completes the *Leucospori*. Further on in the work, after

* *Enchiridion Fungorum* in “*Europa media et præsertim in Gallia vigentium*,” scripsit, L. Quelet. Lutetia, 1886.

the coloured-spored genera are disposed of, we come back to the *Leucospori* again under the designation of *Asterospori*, and here we encounter *Lactarius* and *Russula*. Then commences a new tribe, with a more coriaceous substance and tougher gills, under the designation of *Lenti*, where we have *Cantharellus*, *Xerotus*, *Dictyolus* (a mixture of *Xerotus* and *Cantharellus*), *Arrhenia*, and *Nyctalis*. These five genera form the plicate section, followed by the lamellate section, which includes *Marasmius*, *Pleurotus*, *Lentinus*, and *Panus*. Another tribe, called *Suberei*, includes *Lenzites* and *Schizophyllum*. Thus much will show how the genera and subgenera are disposed of. But if we attempt to analyse each of these new genera to ascertain how they are made up, we shall find in too many cases fearful changes which are wholly incomprehensible. So that, altogether, in the majority of instances, without the slightest index to specific names, it will be found that, in using this volume as a "Field Book," one may walk a mile or two before he discovers the location of any particular species. Talk of puzzles, difficult groups, the mysteries of the *Cortinari*, &c., these are minor troubles as compared with obtaining a complete mastery of "Enchiridion Fungorum." We commenced with congratulating our friend with being at work again, and, in conclusion, we will again congratulate him on having produced an elaborate Handbook of Fungi which is a marvel of topsy-turvyism that no fellow can understand, much less make any use of. We hope that no Mycologist will ever be tempted to take this "Handbook" into a lonely wood with him, unless his pockets are otherwise well fortified, and he has a trusty and cheerful companion. If known at all in the next generation, it will be as one of the "curiosities of scientific literature."

NEW BRITISH FUNGI.

By M. C. COOKE.

(Continued from Vol. XIV., p. 133.)

Russula (Furcatæ) olivascens, *Fr. Hym. Eur.*, 441.

Pileus everywhere fleshy, flattened, umbilicate, olivaceous, the disc becoming yellow, margin even, stem firm, even, white, gills attenuated behind, crowded, almost equal, white, becoming yellowish; spores ochraceous.

Amongst grass. Pleasure Grounds, Kew, August, 1886 (G. M.).

Russula (Fragiles) ochracea, *Fr. Hym. Eur.*, 453.

Mild. Pileus fleshy, soft, plane, then depressed, with a thin viscid cuticle, shining, margin thin, sulcate, flesh ochraceous, stem spongy, stuffed, soft, striate, gills reaching the stem, broad, scarcely crowded, ochraceous as well as the stem.—*Kromb.*, t. 68, f. 9, 10.

Amongst grass. Pleasure Grounds, Kew (G. M.), Aug., 1886.

Pileus ochraceous, about 3 inches broad, disc a little darker.

Russula purpurea, *Gillet Hymen.*, ser. XI, pl. x.

Rather mild. Pileus viscid; cuticle separable; stem stuffed, striate; margin even; gills free, white, unchangeable; a few of them furcate.

Under trees. Pleasure Grounds, Kew, Sept., 1885.

We have seen no description of this species, but our specimens agree exactly with Gillet's figures.

Boletus rubinus, *Smith, Journ. Bot.*, 1868. *Fr. Hym. Eur.*, 504.

This pretty little species has been rather plentiful, during the early part of August, in the pleasure grounds at Kew. The peculiar rosy-red of the hymenium is very characteristic.

Boletus cruentus, *Vent. Mic.*, t. 43, f. 3, 4. *Fr. Hym. Eur.*, 507.

Pileus convex then plane, smooth, at length rugulose, gilvous; stem thick, rather bulbous, attenuated downwards into a rooting base, and upwards into the pileus; flesh yellowish, turning blood-red, especially about the top of the stem when cut; pileus also stained red where touched or bruised. Tubes adnate, pores small, simple, yellow. Odour foetid.

Under beech. Kew Gardens (G. M.), August, 1886.

Pileus about three inches broad, stem four inches long, one inch thick, yellowish, clad with small tomentose scales, not unlike *B. duriusculus*. Although the pileus is at first rather velvety, it becomes nearly smooth, and despite its foetid odour, which is not mentioned by Venturi, we consider this a form of his species.

Æcidium Glaucis, *Dozy. & Molk. Tidschr. v. Nat. Gesch.*, xii, p. 16. *Rabh. Krypt. Flora (Winter)*, i., 262. *Kunze Fungi Exs.*, No. 51. *Rabh. Fung. Eur.*, 1599. *Thumen Mycoth.*, 1021.

Spores polygonal, colourless, $16-24 \mu \times 14-20 \mu$.

On *Glaux maritima*. Paull, near Hull. July, 1886 (E. A. Peak).

ANNUAL FORAYS.—We are informed that the Cryptogamic Society of Scotland will hold its annual meeting this year at Aberdeen, under the presidency of Professor J. W. H. Trail, on the 1st of September; that the Leeds Naturalist Society will devote a week to Fungus excursions during the last week in September, ending on Saturday, October the 2nd; the Hackney Natural History Society taking a day in Epping Forest about the 25th of September. The Woolhope Club has arranged for the Hereford meeting in the week commencing on Monday, Oct. 4th, the Foray day and annual dinner being fixed for Thursday, Oct. 7th. As at present informed we anticipate that the Essex Field Club will devote two days to excursions in Epping Forest after the close of the Hereford meeting. Suggestions have been made for similar meetings in connection with a Society at Tunbridge Wells and the Hertfordshire Natural History Society, but no dates have transpired. Although the French Cryptogamists have made no announcement for this year, it has been intimated that they purpose inviting English Mycologists to a series of excursions to be held in some week during the autumn of 1887.

BRITISH DESMIDS.*

Three parts of this work have now appeared, and it is hoped will be continued monthly, until complete; uniform in size and style to the "British Fresh-Water Algæ," of which it may be regarded as a continuation. No apology is required for the publication of a work so much demanded, as nothing of the kind has been attempted since the year 1848, except the "American Desmids," by the Rev. F. Wolle, which does not entirely fill the vacant place. It would be unbecoming in us to venture any expression of opinion on a subject from which we are precluded by personal prejudice and self-interest, which, however, need not hinder us from a reference to facts, leaving the criticism to others. This is the third time which the present work has been prepared for the press during the past four or five years. In the first and second instance it was made ready at the instigation of a publisher, who intended immediately to issue it on his own responsibility, but in both cases a collapse occurred, which put an end to all business, before the publication commenced. The greater part of the work being done, including the plates, it was consequently the cause of some annoyance to the author to find that twice he had wasted some months of continuous labour without result, and determined him upon waiting no longer on the pleasure of others, but at once to issue it at his own risk, although all the plates had to be redrawn from a much larger page, in order to make them uniform with the "Fresh-Water Algæ." This statement will show that the intention to produce such a work extends backwards for at least five years, and was not suggested by the announcement of any other work on the same subject, and its publication was determined upon, and made public, before any intimation that any similar volume was projected had reached us. Therefore no idea of competition could have been present, as we were undoubtedly in possession of the field, and had accepted the names of subscribers fully three years ago.

Personally feeling no ambition to abandon the illustration of Fungi in favour of Algæ, and scarcely any inclination to add to our responsibilities, we should have been glad to have left this work in other hands, had we known of any definite intention in other quarters to proceed with it, before we had advanced so far, and committed ourselves to its execution. With this explanation we submit the first three parts to the judgment of our supporters, and all who are interested in British Cryptogamic Botany.

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Grevillea,

A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

BRITISH PYRENOAMYCETES.

A preliminary list of known species.

BY G. MASSÉE.

(Continued from p. 9.)

Fam. 2. **XYLARIÆ**. Composite. Perithecia carbonaceous, immersed in a multiform stroma. Sporidia brown.

GEN. 1. **XYLARIA**, *Hill*. Stroma erect, branched, clavate or filiform, with perithecia somewhat immersed.

A. **XYLOGLOSSA**. *Club everywhere fertile, stem smooth.*

a. *Capitulum clavate, stem thin, elongated.*

1. *X. scotica*, *Cooke, Sacc. Syll.* 1202 ; *Grev.* iv, 112.

On the ground. Meiklour, Perth, N.B.

2. *X. tortuosa*, *Sow., Sacc. Syll.* 1208 ; *Grev.* viii, 10.

On the ground. Mead Place, London, S.E.

b. *Capitulum subclavate, stem thick, shortened, or obsolete.*

3. *X. polymorpha*, *Grev., Sacc. Syll.* 1150.

On old stumps. Common.

B. **XYLOCORYNE**. *Club everywhere fertile, stem villous.*

4. *X. corniformis*, *Mont., Sacc. Syll.* 1239 ; *Hdbk.* 2373.

On fallen branches. Speke Hall, Lancashire.

C. **XYLOSTYLA**. *Club sterile at the apex, stem smooth.*

5. *X. digitata*, *Fr., Sacc. Syll.* 1283 ; *Hdbk.* 2372.

On stumps, &c. Common.

6. *X. bulbosa*, *Pers., Sacc. Syll.* 1285 ; *Hdbk.* 2377.

Amongst fir leaves. Bath, Lucknam, and Rushton, Wilts.
(C. E. B.)

7. *X. vaporaria*, *Berk., Sacc. Syll.* 1292 ; *Hdbk.* 2378.

On *Sclerotium* found in a mushroom bed. Cornwall. Cultivated. (F. C.)

8. *X. filiformis*, *Fr., Sacc. Syll.* 1296.

On dead leaves.

D. Xylo-dactyla. Club sterile at the apex, stem hairy.

9. *X. carpophila*, Fr., *Sacc. Syll.* 1270 ; *Hdbk.* 2375.
On beech mast. Common.
10. *X. hypoxylon*, Fr., *Sacc. Syll.*, 1260 ; *Hdbk.* 2374.
On stumps, &c. Common.
11. *X. pedunculata*, Fr., *Sacc. Syll.* 1259 ; *Hdbk.* 2376.
On soil, often growing from dung. King's Cliffe.
12. *X. Tulasnei*, Nke., *Sacc. Syll.* 1265 ; *Grev.* vii, 79.

GEN. 2. **THAMNOMYCES**, Ehrh. Stroma erect or filiform. Perithecia superficial, lax.

1. *T. hippotrichoides*, Sow., *Sacc. Syll.* 1303 ; *Hdbk.* 2380.
On an old sack. Wisbech.
On matting, &c. Bungay.
On cocoanut fibres. Scarborough.

GEN. 3. **PORONIA**, Fr. Stroma cup-shaped, stipitate.

1. *P. punctata* (Linn.) *Sacc. Syll.* 1321 ; *Hdbk.* 2379.
On horse and cow dung. Barmouth, Albury, &c.

GEN. 4. **USTULINA**, Tul. Stroma pulvinate, repand, thick, somewhat hollow when old.

1. *U. vulgaris*, Tul., *Sacc. Syll.* 1328 ; *Hdbk.* 2381.
On rotten trunks. Common.

GEN. 5. **NUMMULARIA**, Tul. Stroma discoid or cup-shaped, adnate, marginate.

1. *N. lutea*, A. & S., *Sacc. Syll.* 1528.
On *Salix*, *Alnus*, *Corylus*, &c. King's Lynn.
2. *N. succenturiata*, Tode., *Sacc. Syll.* 1527.
On oak and maple.
3. *N. gigas*, Plow., *Grev.* viii, p. 106, t. 130, f. 3 ; *Sacc. Syll.* 1531.
On *Betula*. Ringstead Downs.
4. *N. Bulliardi*, Tul., *Sacc. Syll.* 1524 ; *Hdbk.* 2395.
On wood and bark.

GEN. 6. **DALDINIA**, De Not. Stroma nearly spherical, with a carbonaceous bark, becoming black, internally fibrous and concentrically zoned.

1. *D. concentrica* (Bolt.), *Sacc. Syll.* 1515, 2384.
On old ash trees, and burnt furze stems. Common.

GEN. 7. **HYPOXYLON**. Stroma effused or somewhat globose, solid ; perithecia innate in the stroma, almost without necks.

A. **SPHEROXYLON**. Stroma superficial, globose or subglobose.

a. Stroma coloured, not black.

1. *H. coccineum*, Bull., *Sacc. Syll.* 1333 ; *Hdbk.* 2385.
On beech, &c. Common.

2. *H. argillaceum*, *Pers.*, *Sacc. Syll.* 1337 ; *Hdbk.* 2389.
On dead ash branches. Apethorpe, Weybridge, Batheaston,
North Wootton.
3. *H. fuscum*, *Pers.*, *Sacc. Syll.* 1368 ; *Hdbk.* 2390.
On hawthorn, hazel, &c. Common.
b. Stroma black.
4. *H. multiforme*, *Fr.*, *Sacc. Syll.* 1376 ; *Hdbk.* 2386.
On birch. Common.
5. *H. majusculum*, *Cke.*, *Sacc. Syll.* 1369 ; *Grev.* vii, 80.
On rotten wood. Apethorpe, Norths.
6. *H. cohærens*, *Pers.*, *Sacc. Syll.* 1370 ; *Hdbk.* 2388.
On dead branches of beech, &c. Darenth, Downton.
- B. CLITOXYLON.* *Stroma pulvinate, more or less convex, not effused.*
7. *H. marginatum*, *Schw.*, *Sacc. Syll.* 1414 ; *Hdbk.* 2387.
On dead wood. Chatsworth, Glamis.
C. PLACOXYLON. *Stroma broadly effused.*
a. Stroma coloured, not black.
8. *H. atropurpureum*, *Fr.*, *Sacc. Syll.* 1433 ; *Hdbk.* 2392.
On rotten wood. Appin, Bishop's Wood.
9. *H. rubiginosum*, *Pers.*, *Sacc. Syll.* 1434 ; *Hdbk.* 2391.
On decorticated trunks and branches. Norths.
10. *H. miniatum*, *Cke.*, *Sacc. Syll.* 1432 ; *Grev.* vii, 80.
On decorticated wood. Shere.
b. Stroma black.
11. *H. serpens*, *Pers.*, *Sacc. Syll.* 1448 ; *Hdbk.* 2393.
On dead elder, beech, &c. King's Cliffe, East Bergholt,
Epping.
- D. ENDOXYLON.* *Stroma more or less immersed in the matrix.*
12. *H. udum*, *Pers.*, *Sacc. Syll.* 1485 ; *Hdbk.* 2394.
On rotten branches. King's Cliffe, Wothorpe, Weybridge,
Maxwell's Fields, Kidbrooke.
13. *H. semi-immersum*, *Nke.*, *Sacc. Syll.* 1487.
On rotten wood, not uncommon.

Fam. 3. DOTHIDEACEÆ, *Fr.*

Sub.-Fam. I. DOTHIDEOIDEI.

GEN. 1. **PHYLLACHORA**, *Fekl.* Stroma somewhat clypeate or shortly effused, for the most part growing on leaves.

Sub-Gen. EUPHYLLACHORA. Stroma shortly effused, usually epiphyllous.

a. Sporidia continuous, hyaline.

1. *P. ulmi* (*Duv.*), *Sacc. Syll.* 5091 ; *Hdbk.* 2412.
On elm leaves. Common.

2. *P. trifolii*, Pers., Sacc. Syll. 5184 ; Hdbk. 2416.
On living clover leaves. Common.
3. *P. heraclei*, Fr., Sacc. Syll., 5123 ; Hdbk. 2414.
On living leaves of *Heracleum spondylium*. Forden.
4. *P. graminis*, P., Sacc. Syll. 5132. Hdbk., 2418.
On half-dead leaves of grass. Common.
5. *P. epityphæ*, Cke., Sacc. Syll. 5143 ; Grev. vii, 79.
On stem of *Typha*. King's Lynn.
6. *P. junci*, Fr., Sacc. Syll. 5144 ; Hdbk. 2417.
On stems of rushes. Common.
7. *P. caricis*, Fr., Sacc. Syll. 5242 ; Hdbk. 2419.
On leaves of *Carices*. Forfarshire, Swanscombe Marshes.
8. *P. pteridis*, Reb., Sacc. Syll., 5153 ; Hdbk. 2421.
On fronds of *Pteris aquilina*. Darenth, Scotland, Wakefield.

b. Sporidia unknown.

9. *P. angelicæ*, Fr., Sacc. Syll. 5193 ; Grev. vii, 79.
On leaves of *Angelica*.
10. *P. podagrariæ* (Roth.), Sacc. Syll. 5194 ; Hdbk. 2415.
On living leaves of *Ægopodium podagraria*.

C. DOTHIDEA. Sporidia uniseptate, hyaline.

11. *P. betulina*, Fr., Sacc. Syll. 5256 ; Hdbk. 2413.
On living leaves of *Betula nana*. Scotland.
On *Betula alba*.

GEN. 2. **DOTHIDEA**, Fries. Stroma erumpent, pulvinate.

A. BAGNISIELLA. Sporidia continuous, hyaline.

1. *D. rhamni*, Mont., Grev. xiii, 66.
On bark of *Rhamnus*. Highgate Wood.

B. PLOWRIGHTIA. Sporidia uniseptate, hyaline.

2. *D. ribesia*, Pers., Sacc. Syll. 5285 ; Hdbk. 2424.
On dry branches of gooseberry and red currant. Common.

C. EUDOTHIDEA. Sporidia uniseptate, brown.

3. *D. sambuci*, Pers., Sacc. Syll. 5296 ; Grev. vii, 79.
On dead branches of elder.
4. *D. tetraspora*, B. & Br., Sacc. Syll. 5299 ; Hdbk. 2422.
On dead twigs of *Daphne laureola* and *Ulex*. Mossburnford. Hereford.
5. *D. frangulæ*, Fekl., Sacc. Syll. 5302 ; Grev. viii, 106.
On dead branches of *Rhamnus frangula*. Shrewsbury.

GEN. 3. **HOMOSTEGIA**, Fekl. Parasitic stroma nearly plane, or hemispherical, very fragile.

* *Sporidia 3 septe.*

1. *H. Piggotii*, B. & Br., Sacc. Syll. 5338 ; Hdbk. 2428.
Parasitic on *Parmelia saxatilis*. Llyn Cae. Cader Idris.

* *Sporidia multiseptate.*

2. *H. nigerrima*, *B. & Br.*, *Sacc. Syll.* 3838; *Grev.* xiii, 62.
Parasitic on species of *Diatrype*. Gopsall, Bath, Twycross,
Forden.

GEN. 4. **RHOPOGRAPHUS**, *Nitke*. Stroma linear.* *SCHIRRHIA*, *Nitke*. *Sporidia uniseptate, hyaline.*

1. *R. rimosa*, *A. & S.*, *Sacc. Syll.* 5280; *Grev.* viii, 106.
On *Phragmites communis*. Castle Rising.
2. *R. depauperata*, *Desm.*, *Sacc. Syll.* 5281; *Grev.* viii, 106.
On stems of reed. Castle Rising.

* *GENUINA*. *Sporidia 3-5 septate.*

3. *R. filicinus*, *Fr.*, *Sacc. Syll.* 5334; *Hdbk.* 2427.
On stems of *Pteris aquilina*. Common.

Sub-Fam. II. *RHYTISMOIDEI*.

GEN. 1. **RHYTISMA**, *Fries*. Stroma flattened, discoid or effused, multilocular, at first closed, at length splitting.

1. *R. maximum*, *Fr. Syst. Myc.* ii, 566; *Hdbk.* 2276.
On willow branches. King's Cliffe, Hinton, Cambridge.
2. *R. acerinum*, *Pers. Syn.* 104; *Hdbk.* 2279.
On leaves of sycamore and maple. Common.
3. *R. punctatum*, *Fr. Syst. Myc.* ii, 569; *Hdbk.* 2280.
On sycamore and maple leaves.
4. *R. salicinum*, *Fr. Syst. Myc.* ii, 568; *Hdbk.* 2278.
On willow leaves. Common.
5. *R. andromedæ*, *Fr. Syst. Myc.* ii, 567; *Hdbk.* 2277.
On living leaves of *Andromeda polifolia*. Cheshire, Yaxley, Hunts, Dundee.
6. *R. urticæ*, *Fr. Syst. Myc.* ii, 570; *Hdbk.* 2281.
On nettle stems. Apethorpe, King's Cliffe, Dundee.
7. *R. empetri*, *White, Ann. N.H.* No. 1650; *Grev.* v, 64.
On *Empetrum nigrum*. Rannoch, Perthshire.

Sub-Fam. III. *STIGMATEOIDÆ*.

Perithecia more or less distinct, for the most part simple and superficial.

GEN. 1. **HYPOSPILA**, *Fr.* Perithecia more or less distinct, immersed in a pseudo-stroma, and growing on leaves.

1. *H. bifrons*, *D.C.*, *Sacc. Syll.* 3535; *Hdbk.* 2799.
On dry oak leaves. Shere, Surrey.
2. *H. immunda*, *Fckl.*, *Sacc. Syll.* 3536; *Hdbk.* 2803.
On the under surface of oak leaves. Shere, Surrey.
3. *H. viburni*, *Buck.*, *Grev.* xii, 44.
On dead leaves of *Viburnum lantana*. Bristol.

GEN. 2. **STIGMATEA**, *Fr.* Perithecia rather prominent, of a rather thick substance. Ostiolum minute.

* *EUSTIGMATEA. Sporidia uniseptate.*

1. *S. Nicholsoni*, *Cke., Sacc. Syll.* 6073; *Grev.* xi, 16.
On leaves of Portugal laurel. Newcastle, Co. Tipperary.
2. *S. Robertiani*, *Fr., Sacc. Syll.* 2105; *Hdbk.* 2794.
On green leaves of *Geranium Robertianum*. Common.
3. *S. geranii*, *Fr., Sacc. Syll.* 2106; *Hdbk.* 2792.
On leaves of *Geranium sylvaticum*. Hawthornden, near Edinburgh, Forden.
4. *S. ranunculi*, *Fr., Sacc. Syll.* 2109; *Hdbk.* 2793.
On leaves of *Ranunculi*. Berwick, Forden.

* *Doubtful species.*

5. *S. ostruthii*, *Fr., Sacc. Syll.* 2124; *Hdbk.* 2776.
On leaves of *Angelica sylvestris*. Hampstead, Forden, King's Cliffe, Kirby, Suffolk. Common.
6. *S. ægopodii*, *Fr., Sacc. Syll.* 2125.
On leaves of gout weed. Common.

Phyllachora angelicæ and *P. podagrariæ* are probably the same things as the above.

Fam. 4. **MELOGRAMMÆ**, *Ntke.* Perithecia formed from the stroma, or confluent therewith, nearly free at the apex, usually destitute of a neck.

GEN. 1. **BOTRYOSPHERIA**, *De Not.* Perithecia erumpent or superficial, united at the base in a stroma, cæspitose or confluent.

* *Sporidia continuous, hyaline.*

1. *B. advena*, *Ces., Sacc. Syll.* 1767; *Hdbk.* 2423.
On beech. Jedburgh.
2. *B. dothidea*, *M. & N. (= Rosæ, Fr.). Sacc. Syll.* 1776; *Hdbk.* 2425.
On living rose stems. Penzance, Norfolk, &c.

GEN. 2. **ENDOTHIA**, *Fr.* Stroma as in *Diatrype*, saffron yellow, perithecia immersed, becoming black.

* *Sporidia uniseptate, hyaline.*

1. *E. gyrosa*, *Schw., Sacc. Syll.* 2342; *Hdbk.* 2408.
On bark. New Forest.

GEN. 3. **FUCKELIA**, *N.* Stroma erumpent, subglobose, or pulvinate, resembling *Hypoxyylon*, perithecia immersed in the periphery.

* *Sporidia continuous, brown.*

1. *F. gastrina*, *Fr., Sacc. Syll.* 1129; *Hdbk.* 2409.
On dead poplar branches. Shrewsbury (Leighton).
On dead elm. Pentrick, Gopsall.
2. *F. Plowrightii*, *Nsl., Sacc. Syll.* 1134.
On *Ulex europæus*. Hereford, Penzance.

GEN. 4. **MELOGRAMMA**, *Fr.* Stroma erumpent or superficial, subglobose, pulvinate or somewhat effused, perithecia aggregated in clusters, for the most part immersed in a stroma and rather prominent.

* **VALSARIA**. *Sporidia uniseptate*, brown.

1. *M. rubricosa*, *Fr.*, *Sacc. Syll.* 2814 ; *Grev.* iv, 25.
On dead bark. Ringstead.

* *Sporidia triseptate*, brown.

2. *M. vagans*, *Not.*, *Sacc. Syll.* 3381 ; *Hdbk.* 2405.
On hornbeam bark. Rudloe, Oundle.
3. *M. homalea*, *Fr.*, *Sacc. Syll.* 3956 ; *Hdbk.* 2406.
On dead bark of sycamore.

** **THYRIDARIA**. *Sporidia multiseptate*.

4. *M. rubro-notata*, *B.*, *Sacc. Syll.* 3367 ; *Hdbk.* 2407.
On dead wood and bark of elm. King's Cliffe.

NEW BRITISH FUNGI.

By M. C. COOKE.

(Continued from p. 29.)

Agaricus (Tricholoma) russula, *Schæff. Icon.*, t. 58.

Pileus fleshy, convex, then depressed, obtuse, granulate, viscid, rosy flesh colour; stem solid, firm, nearly equal, rosy, squamulose at the apex; gills rounded, then decurrent, rather distant, white, a little spotted with red. Taste mild.—*Fr. Hym. Eur.*, 52.

Under trees. Arboretum, Kew, Oct., 1886. (G. Masee).

Pileus 3-4 in. Stem 3 in.; $\frac{3}{4}$ in. thick. Spores elliptical; $10 \times 5 \mu$. Quite distinct from *Hygrophorus erubescens*, with which it is often confounded. Has superficially very much the habit and appearance of some species of *Russula*.

Agaricus (Tricholoma) pes-capræ, *Fr. Hym. Eur.*, 68.

Pileus fleshy, thin, conical, then expanded, umbonate, fragile, unequal, grey, then dusky, smooth, margin cracked, at length splitting; stem solid, equal (or attenuated at the base), smooth; gills emarginate, broad, crowded, then rather distant, white then cinereous.

var. **multiformis**, *Schæff. Icon.*, t. 14.

Cæspitose, sometimes confluent at the base, margin involute, entire.

Under trees. Kew Gardens, Oct., 1886. (G.M.).

Agaricus (Collybia) fodiens, *Kalch. Icon.*, t. 36, f. 2.

Pileus fleshy, firm, convex, obtuse, margin inflexed (2-3 in.), even, smooth, flesh colour, becoming yellowish, darker and gilvous in the centre. Stem hollow, tough, somewhat ventricose, often longitudinally costate (2 in. long, 5-6 lines thick), attenuated into

a rooting base of equal length, or longer, deeply immersed in the ground, smooth, white. Gills rounded, emarginate, crowded, narrow, yellowish white.

On grass borders. Alresford, Hants. (Rev. W. L. W. Eyre.)

Allied to *Ag. maculatus*.

Agaricus (Collybia) prolixus, *Fl. Dan.*, t. 1608.

Pileus fleshy, convex, then flattened, gibbous, large, even, smooth; stem solid, rather stout, nearly equal, abrupt at the base, sulcate, brick red; gills free, crowded, quite entire, white, unspotted.—*Fries. Hym. Eur.*, 113.

Amongst dead leaves, &c. Kew Gardens, Oct., 1886. (G. M.)

Pileus 2-3 in. Stem 4 in. long; $\frac{1}{2}$ in. thick.

Agaricus (Pleurotus) ostreatus, *Fr.* var. **columbinus**, *Bresadola*.

Pileus fleshy, irregular, subrotund, margin involute, plano-convex, gibbous then umbilicate, margin pigeon-coloured blue, centre rather flesh colour, becoming yellowish, smooth (6-10 cm.), umbo or umbilicus whitish pilose, stem excentric, lateral, strigose, variable in length (to $1\frac{1}{2}$ cm. thick). Flesh white. Gills crowded, broad, attenuato-decurrent, anastomosing behind, glaucous, edge entire, or delicately fimbriate under a lens. Spores hyaline, ovate oblong, trinucleate (10-12 μ).—*Pleurotus columbinus*, *Quelet*, in *Bresadola Fungi Tridentini*, t. vi.

On stumps. Kew Gardens. (G. Massee).

Agaricus (Nolanea) nigripes, *Trog. in Flora*, 1834, p. 527.

Pileus submembranaceous, conical then campanulate, obtuse, without striæ, sprinkled with paler flocci, fuscous; stem fistulose, twisted, smooth, black; gills nearly free, thin, ventricose, yellow becoming flesh colour.—*Fr. Hym. Eur.* p. 207.

Amongst moss in swamp. Watford. Nov., 1886.

Stem tough, 4-5 in. long. Pileus $1\frac{1}{2}$ in. broad. Odour of putrid fish. Allied to *Ag. pisciodorus*.

Agaricus (Naucoria) festivus, *Fr. Hym. Eur.*, 253.

Pileus fleshy, convex, somewhat gibbous, even, glutinous, commonly olive-brown, dirty whitish when dry; stem hollow, a little rooting, variously coloured; gills free, ventricose, crowded, becoming ferruginous.—*Bres. Fungi Trident.*, t. 22.

Amongst grass. Carshalton, Sept., 1886. (G. M.)

Stem 2 in. or more long; 2-4 lines thick. Pileus 1-2 in. broad.

Agaricus (Inocybe) perlatus, *Cooke sp. nov.*

Pileus fleshy, convex, then expanded, broadly umbonate, longitudinally fibrous (3-4 in. diam.), with darker fibrils, fuscous, margin paler, incurved, disc dark bistre, nearly black. Stem solid, equal, straight or curved, sometimes twisted (3-4 in. $\times$ $\frac{3}{4}$ in.), striate, dark below when old, pallid and mealy above, flesh dirty white; gills adnexed, somewhat rounded behind, rather broad, pallid, then umber. Spores elliptical, smooth, rather irregular.

On the ground. Epping Forest; near Oxford.

Pileus 3-4 in. Stem 4 in. long, $\frac{1}{2}$ - $\frac{3}{4}$ in. thick. Allied to *Ag. fibrosus*.

Agaricus (Psalliota) sagatus, *Fr. Hym. Eur.*, 281.

Pileus rather fleshy, convexo-plane, even, smooth, fulvous, rather shining; stem hollow, equal, ring *distant, spreading*; gills free, ventricose, umber.

Under beech. Kew Gardens, Oct. 1886. (G. M.)

Stem 2 in. long, 3 lines thick. Pileus 2 in. broad.

Agaricus (Psathyra) gyroflexus, *Fries Hym. Eur.*, 305.

Pileus membranaceous, conical-campanulate, *striate*, atomate, growing pallid; stem slender, *flexuous*, silky and shining, white; gills adnexed, crowded, soft, grey, becoming purplish.

Amongst grass. Scarborough. (G. Masee.)

Stem 2 in. long, 1 line thick. Pileus 5 lines (or more) broad, grey, with a rufescent disc. Subcæspitose.

Coprinus tardus, *Karst. Symb. Myc. Fenn. VI.*, 20.

Pileus fleshy, thin, fragile, ovoid, then campanulate, sulcate or broadly striate, quite smooth, bay, then growing pallid (3-6 cm. broad and high). Stem fistulose, somewhat bent, equal, finely striate about the apex, rather downy, white (6-9 cm. high, 5 mm. thick). Gills adnate, crowded, very narrow (2 mm.), narrowed outwards, whitish, then brownish, at length black. Spores ovoid, rather angular, unequal-sided, fuscous ($12-18 \times 7-9 \mu$). Inodorous, cæspitose.—*Karsten Icon. Sel. Hym. Fenn.*, p. 10, t. 5, f. 19.

On the ground. Kew Gardens, Oct., 1886. (G. M.)

Hygrophorus pudorinus, *Fr. Hym. Eur.*, 407.

Pileus fleshy, convex, then depressed, even, smooth, flesh colour; stem solid, firm, white, *narrowed at the apex*, rough, with white points; gills thick, distant, white.—*Gonn. & Rabh.*, t. 11, f. 3.

In woods. Near Coventry. (Rev. F. C. O. Adams.)

Lactarius helvus, *Fries Hym. Eur.*, 433.

Pileus fleshy, fragile, convex, then plane or depressed, subumbonate, dry, silky, then floccose-squamulose and cracked, pale brick-red, growing pallid; stem stuffed, then hollow, *pruinat* or *pubescent*; gills decurrent, thin, crowded, whitish, then ochraceous; milk sparse, rather acrid, white.

On swampy ground. Near Carlisle, Sept., 1886.

Lactarius micicarius, *Batsch. Elen.*, f. 69.

Dusky ferruginous. Pileus plane, then infundibuliform, margin unequally sinuate, lobes convex, pulvinate; stem opaque, more or less dark in colour, hollow, substance soft and dry. Gills rather broad, dusky ochre. Milk limpid, like serum. Odour of bugs.

On the ground. Haywood Forest, Oct., 1886.

Considered by Fries as intermediate between *L. subdulcis* and *L. camphoratus*, perhaps a variety of the latter.

Lactarius subumbonatus, *Lindg. in Bot. Not.*, 1845.

Pileus fleshy, thin, convex, then depressed, rather umbonate, *rugose*, punctate, *dark cinnamon*, without zones, at length undulated, repand, *flesh grey then yellowish*. Stem stuffed, rufescent;

gills adnate, flesh colour, then rufescent. Milk watery white.—*Fr. Hym. Eur.*, 437.

On the ground. Chingford, Epping Forest, Sept., 1886.

Odour fœtid when old.

Russula albo-nigra, *Krombh.*, p. 27, t. 70, f. 16, 17.

Pileus fleshy, convexo-plane, depressed in the centre, at length infundibuliform, *viscid*, whitish, *smoky about the margin*, flesh white, becoming *blackish* when broken, stem *solid, stout*, fuscous then blackish, gills decurrent, crowded, unequal, dusky whitish.—*Fries Hym. Eur.*, 440.

In grassy places. Kew. (G. M.)

Probably only a variety of *R. adusta*.

Russula densifolia, *Secr. Mycog.*, 1., 476.

Pileus fleshy, compact, convex, then depressed, margin inflexed, smooth, not striate, whitish, becoming fuliginous, grey or brownish, and blackened in the centre. Stem short, cylindrical, smooth, a little pruinose, whitish, then grey, and at length blackish. Substance white, reddish on exposure to the air, and at length black. Gills adnate-decurrent, unequal, thin, white or with a rosy tint.

On the ground. Kew Gardens. (G. M.)

It resembles *R. nigricans*, but differs in being smaller, the gills thinner, and more numerous. Sometimes confounded with *R. adusta*, from which it differs in the flesh turning red on exposure, probably only a variety of the latter.

Russula mustelina, *Fr. Hym. Eur.*, 441.

Pileus equally fleshy, firm, convex, then depressed, opaque, margin reflexed, even; stem solid, firm, pallid; gills *rounded-adnexed, crowded, connected*, white, a few dimidiate.—*Krombh.*, t. 61, f. 8, 9.

Under horse chestnut trees. Kew Gardens, Oct., 1886. (G. M.)

Russula expallens, *Gillet Champ., France, ser. VII.*

Pileus fleshy, firm, convex, more or less depressed, viscid when moist, bright purple, purple black in the centre (6-8 cm. broad), when growing old this colour disappears, except on the disc; the cuticle is separable; flesh purplish underneath; stem cylindrical, firm, equal, or a little thickened towards the base, purplish, with a mealy bloom (5-8 cm. long, 2 cm. thick); gills pale yellow, forked at the base, widening outwards.

Under trees. Kew Gardens. (G. Massee.)

Differs from *R. drimeia*, Cke., in the white spores, yellowish flesh, different coloured gills and pruinose stem, and it is less intensely acid. The former species has been found again this year in Arboretum, Kew Gardens, and near Carlisle.

Russula azurea, *Bresadola Fungi Trid.*, t. 24.

Pileus fleshy, convex, then flattened or depressed, soon dry, even, then minutely granulose; margin scarcely striate when old, blue grey (amæne cœruleus?); margin sometimes lilac, growing pale; cuticle separable (4-6 cm. broad). Stem white, ventricose or clavate at the base, smooth, rather rugulose, firm, spongy within,

rather hollow when old (4-5 cm. long, 10-15 mm. thick). Flesh white, *mild*. Gills crowded, equal, rarely with dimidiate intermixed, attenuated behind and adnexed, white, unchanging. Spores subglobose, echinulate $9 \times 8 \mu$.

On the ground, under trees. Kew Gardens. Edible.

Russula elegans, *Bresadola Fungi Trident*, t. 25.

Pileus fleshy, thin, convex, then somewhat depressed; margin when old tuberculose-striate, *viscid*, bright rosy flesh-colour, soon tinged with ochre in the circumference, wholly densely granulate (3-5 cm. broad). Stem spongy, stuffed, then hollow, thickened at the base, white, afterwards ochraceous below, rather rugulose (3-5 cm. long, 1 cm. thick). Flesh white, ochrey when old, *acid*. Gills attenuated behind, adnexed, or slightly rounded, much crowded, equal, rarely a little furcate, whitish, with age becoming ochraceous orange. Spores spherical, echinulate ($8-10 \mu$ diam.).

On the ground. Kew Gardens. (G. M.).

Russula serotina, *Quelet Soc. Bot. Fr.*, 1878, p. 289, t. 3, f. 11.

Pileus globose, a little flattened (2-3 cm.), purplish-bistre or olive. pruinose with white; margin lilac, with the extreme edge whitish. Stem wrinkled, mealy. Flesh tough, white, and peppery. Gills eroded, white, with a tinge of yellow. Spores ovoid, rough (7μ dim.).

Under beech. Arboretum, Kew, Oct., 1886. (G. M.).

Boletus fulvidus, *Fries Hym. Eur.*, 517.

Pileus convexo-plane, rigid, as well as the stem, which is stuffed, then hollow, equal, firm, even, *smooth*, *shining*, *growing dusky*; flesh white, then yellowish; tubes free, elongated; pores white, then lemon-yellow.

Under trees. Arboretum, Kew, Sept., 1886. (G. M.).

Lasiosphæria sulphurella, *Sacc. Syll.*, II., 202.

Perithecia gregarious, adnato-superficial, globose then conoid ($\frac{1}{2}-\frac{2}{3}$ mm. diam.), clad with a sulphur-coloured velvety down; ostiola short, papillate, black; texture cellular, yellow, then greenish, denser, radiating and smoky at the ostiolum; asci cylindrical, shortly stipitate ($180 \times 16-10 \mu$), octosporous. Sporidia vermicular, curved ($60 \times 4-5 \mu$), rounded at the ends, with a filiform appendage ($25-30 \mu$ long), 4-5 nucleate, hyaline, rarely inflated at the apex.

On decorticated wood. Kew Gardens, Aug., 1886. (G. M.).

Allied to *L. ovina*, from which it differs chiefly in the sulphury colour of the downy coating.

Epicoccum diversisporum, *Preuss. Linn.*, xxv., 740.

Minute, gregarious, seated on rosy spots, stroma globose, dark purple, purple within, irregularly cellular, vesiculose; conidia crowded, variable in size, some tetrahedral, others rounded, not reticulated, verrucose, brown; verrucæ darker, pedicels white.—*Sacc. Syll.*, iv., 741.

On leaves of reeds, &c. River side, Kew. (G. M.).

Spores $6-9 \mu$ diam.

INDEX LICHENUM BRITANNICORUM.

(According to the most recent Nylanderian Arrangement.)

BY THE REV. J. M. CROMBIE, F.L.S.

PART I. *(Continued)*.Tribe VI. **CLADONIEI**, *Nyl.**Genus* I. PYCNOTHELIA (*Ach.*), *Duf.*

- Sp. 1 *P. papillaria* (*Ehrh.*), *Duf.*
 f. 1, molariformis (*Hffm.*), *Nyl.*
 2 *P. apoda*, *Nyl.*

Genus II. CLADONIA (*Hill*), *Nyl.*

A Phæocarpæ.

a. Macrophyllinæ.

- Sp. 1 *Cl. endiviæfolia* (*Dcks.*), *Fr.*
 2 *Cl. alcicornis* (*Lghft.*), *Flk.*
 f. 1, gracilescens, *Cromb.*
 3 *Cl. firma*, *Nyl.*

b Microphyllinæ.

† *Scyphiphoræ.*

- 4 *Cl. pyxidata* (*L.*), *Fr.*
 f. 1, lophyra (*Ach.*), *Cöem.*
 2, epiphylla (*Ach.*), *Nyl.*
 β. pocillum (*Ach.*), *Fr.*
 γ. chlorophæa, *Flk.*
 f. 1, lepidophora, *Flk.*
 2, myriocarpa, *Cöem.*
 5 *Cl. leptophylla* (*Ach.*), *Flk.*
 6 *Cl. pityrea*, *Flk.*
 f. 1, hololepis, *Flk.*
 7 *Cl. acuminata* (*Ach.*), *Norrl.*
 8 *Cl. Lamarckii* (*Del.*), *Nyl.*
 β. Isignyii (*Del.*), *Nyl.*
 9 *Cl. cariosa*, *Flk.*
 10 *Cl. fimbriata*, *Hffm.*
 f. 1, denticulata, *Flk.*
 2, pterygota, *Flk.*
 3, conista (*Ach.*), *Nyl.*
 β. tubæformis (*Hffm.*), *Fr.*
 f. 1, exigua (*Huds.*), *Cromb.*
 2, macra (*Ach.*), *Cromb.*
 γ. carneopallida (*Flk.*), *Nyl.*
 * *Cl. fibula* (*Ach.*), *Nyl.*
 f. 1, abortiva (*Flk.*), *Cromb.*
 β. subcornuta, *Nyl.*
 f. 1, nemoxyna (*Ach.*), *Nyl.*

- 2, tortuosa (*Del.*), *Nyl.*
 γ. radiata (*Schreb.*), *Nyl.*
 11 Cl. gracilis (*L.*), *Hffm.*
 f. 1, abortiva, *Schær.*
 2, aspera, *Flk.*
 β. hybrida (*Hffm.*), *Schær.*
 * Cl. gracillima, *Norrl.*
 12 Cl. cornuta (*L.*), *Fr.*
 f. 1, clavulus, *Fr.*
 13 Cl. ochrochlora, *Flk.*
 f. 1, ceratodes, *Flk.*
 14 Cl. verticillata (*Hffm.*), *Flk.*
 f. 1, laciniolata, *Nyl.*
 15 Cl. cervicornis (*Ach.*), *Schær.*
 f. 1, stipata, *Nyl.*
 16 Cl. sobolifera (*Del.*), *Nyl.*
 17 Cl. macrophylla (*Schær.*), *Nyl.*
 18 Cl. degenerans, *Flk.*
 f. 1, haplolea (*Ach.*), *Flk.*
 2, granulifera, *Cromb.*
 3, pleolepidea, *Nyl.*
 β. anomæa (*Ach.*), *Flk.*
 * Cl. trachyna (*Ach.*), *Nyl.*
 f. 1, subfurcata, *Nyl.*
 ** Cl. coralloidea (*Ach.*), *Nyl.*
 19 Cl. lepidota (*Ach.*), f. hypophylla, *Nyl.*
 †† *Ascyphæ.*
 20 Cl. turgida (*Ehrh.*), *Hffm.*
 21 Cl. furcata, *Hffm.*
 f. 1, exilis, *Mudd.*
 β. corymbosa, *Ach.*
 γ. spinosa (*Huds.*), *Hook.*
 * Cl. racemosa (*Hffm.*), *Nyl.*
 f. 1, recurva (*Hffm.*), *Nyl.*
 2, palamæa (*Ach.*), *Nyl.*
 22 Cl. pungens (*Ach.*), *Flk.*
 f. 1, nivea (*Ach.*), *Kbr.*
 2, foliosa, *Flk.*
 * Cl. muricata (*Del.*), *Cromb.*
 23 Cl. crispata (*Ach.*), *Nyl.*
 * Cl. furcatiformis, *Nyl.*
 24 Cl. cenotea (*Ach.*), *Schær.*
 β. glauca (*Flk.*), *Nyl.*
 25 Cl. scabriuscula (*Del.*), *Nyl.*
 26 Cl. squamosa, *Hffm.*
 f. 1, ventricosa, *Fr.*
 2, cucullata (*Del.*), *Nyl.*
 * Cl. adspersa (*Flk.*), *Nyl.*
 27 Cl. subsquamosa, *Nyl.*
 f. 1, tumida, *Cromb.*

- 28 *Cl. asperella* (*Flk.*), *Cromb.*
 f. 1, *polychonia* (*Flk.*), *Cromb.*
 29 *Cl. cæspiticia*, *Flk.*
 30 *Cl. delicata* (*Ehrh.*), *Flk.*
- B *Erythrocarpæ.*
 31 *Cl. coccifera* (*L.*), *Schær.*
 f. 1, *asotea*, *Ach.*
 2, *cornucopioides*, *Ach.*
 β. *incrassata* (*Flk.*), *Fr. fil.*
 * *Cl. pleurota* (*Flk.*), *Cromb.*
 32 *Cl. bellidiflora* (*Ach.*), *Schær.*
 f. 1, *gracilentia* (*Ach.*), *Nyl.*
 β. *Hookeri* (*Tuck.*), *Nyl.*
 33 *Cl. deformis* (*L.*), *Hffm.*
 f. 1, *gonecha* (*Ach.*), *Nyl.*
 2, *pulvinata* (*Ach.*), *Nyl.*
 34 *Cl. digitata* (*L.*), *Hffm.*
 f. 1, *brachytes* (*Ach.*), *Nyl.*
 2, *monstrosa* (*Ach.*), *Nyl.*
 35 *Cl. macilentia* (*Ehrh.*) *Hffm.*
 f. 1, *styracella* (*Ach.*), *Nyl.*
 2, *clavata* (*Ach.*), *Fr.*
 3, *scolecina* (*Ach.*), *Nyl.*
 β. *scabrosa* (*Mudd.*), *Nyl.*
 f. 1, *intumescens*, *Cromb.*
 γ. *coronata* (*Ach.*), *Nyl.*
 f. 1, *ventricosa* (*Huds.*), *Cromb.*
 2, *carcata* (*Ach.*), *Nyl.*
 δ. *ostreata*, *Nyl.*
 36 *Cl. bacillaris* (*Ach.*), *Nyl.*
 f. 1, *pityropoda*, *Nyl.*
 β. *subcoronata*, *Nyl.*
 37 *Cl. Flörkeana*, *Fr.*
 f. 1, *trachypoda*, *Nyl.*

Genus III. CLADINA, Nyl.

- Sp. 1 *Cl. rangiferina* (*L.*), *Nyl.*
 f. 1, *gigantea* *Bory.*, *Nyl.*
 2 *Cl. sylvatica* (*Hffm.*), *Nyl.*
 f. 1, *tenuis*, *Lamy.*
 2, *lacerata* (*Del.*), *Nyl.*
 3, *grandis* (*Flk.*), *Cromb.*
 4, *portentosa* (*Duf.*), *Leight.*
 β. *alpestris* (*L.*), *Nyl.*
 f. 1, *pumila* (*Ach.*), *Leight.*
 3 *Cl. uncialis* (*L.*), *Nyl.*
 f. 1, *bolacina* (*Ach.*), *Cromb.*
 2, *adunca* (*Ach.*), *Cromb.*

- 3, obtusata (*Ach.*), *Nyl.*
 4, turgescens (*Fr.*), *Cromb.*
 4 *Cl. amaurocraea* (*Flk.*), *Nyl.*
 * *Cl. destrieta*, *Nyl.*

Series III. **Ramalodei**, *Nyl.*

Tribe VII. **ROCCELLEI**, *Nyl.*

Genus I. **ROCCELLA**, *D'C.*

- Sp. 1 *R. phycopsis*, *Ach.*
 2 *R. fuciformis* (*L.*), *Ach.*
 f. 1, *tenuior*, *Nyl.*

Tribe VIII. **SIPHULEI**, *Nyl.*

Genus I. **THAMNOLIA**, *Ach.*

- Sp. 1 *Th. vermicularis* (*Sw.*), *Schær.*
 β. *taurica* (*Wulf.*), *Schær.*

Tribe IX. **RAMALINEI**, *Nyl.*

Genus I. **RAMALINA**, *Ach.*

- a. *Stirps*, *R. gracilis*.
 Sp. 1 *R. thrausta* (*Ach.*), *Nyl.*
 b. *Stirps*, *R. fraxineæ*.
 2 *R. calicaris* (*Hffm.*), *Nyl.*
 β. *subampliata*, *Nyl.*
 γ. *subfastigiata*, *Nyl.*
 3 *R. farinacea* (*L.*), *Ach.*
 f. 1, *pendulina*, *Ach.*
 2, *phalerata*, *Ach.*
 * *R. intermedia* (*Del.*), *Nyl.*
 4 *R. fraxinea* (*L.*), *Ach.*
 β. *ampliata*, *Ach.*
 f. 1, *monophylla*, *Cromb.*
 γ. *caliciformis*, *Nyl.*
 5 *R. fastigiata* (*Pers.*), *Ach.*
 f. 1, *minutula* (*Ach.*), *Fr. fil.*
 6 *R. polymorpha*, *Ach.*
 β. *emplecta*, *Ach.*
 * *R. capitata* (*Ach.*), *Nyl.*
 7 *R. pollinaria* (*Westr.*), *Ach.*
 f. 1, *humilis*, *Ach.*
 c. *Stirps*, *R. maciformis*.
 8 *R. evernioides*, *Nyl.*
 f. 1, *monophylla*, *Cromb.*
 d. *Stirps*, *R. scopulorum*.
 9 *R. scopulorum* (*Retz.*), *Ach.*
 β. *incrassata*, *Nyl.*
 10 *R. subfarinacea*, *Nyl.*

- 11 *R. cuspidata* (*Ach.*), *Nyl.*
 f. minor, *Nyl.*
 β. crassa (*Del.*), *Nyl.*
 * *R. breviuscula*, *Nyl.*
 f. 1, gracilescens, *Cromb.*
- 12 *R. Curnowii*, *Cromb.*
- 13 *R. geniculata*, *Tayl.*
- 14 *R. minuscula*, *Nyl.*

Tribe X. **USNEI**, *Nyl.*

Genus I. **USNEA** (*Dill.*), *Ach.*

- Sp. 1 *U. florida* (*L.*), *Ach.*
- 2 *U. hirta* (*L.*), *Nyl.*
- 3 *U. dasypoga* (*Ach.*), *Nyl.*
 β. plicata (*Ach.*), *Nyl.*
 γ. scabrata, *Nyl.*
- 4 *U. ceratina* (*Ach.*), *Nyl.*
 β. scabrosa, *Ach.*
 f. 1, ferruginascens, *Cromb.*
- 5 *U. articulata* (*L.*), *Kbr.*
 f. 1, intestiniformis, *Ach.*

Tribe XI. **ALECTORIEI**, *Nyl.*

Genus I. **ALECTORIA** (*Ach.*), *Nyl.*

- a. *Stirps, A. ochrolencæ.*
- Sp. 1 *A. ochroleuca* (*Ehrh.*), *Nyl.*
 b. *Stirps, A. jubatæ.*
- 2 *A. divergens* (*Ach.*), *Nyl.*
- 3 *A. nigricans* (*Ach.*), *Nyl.*
- 4 *A. jubata* (*L.*), *Nyl.*
 β. lanestris, *Ach.*
 f. 1, tenerrima, *Cromb.*
 * *A. chalybeiformis*, *L.*
 * *A. subcana*, *Nyl.*
- 5 *A. implexa* (*Hffm.*), *Nyl.*
- 6 *A. bicolor* (*Ehrh.*), *Nyl.*

Tribe XII. **CETRARIEI**, *Nyl.*

Genus I. **CETRARIA** (*Ach.*), *Nyl.*

- Sp. 1 *C. Islandica*, *L.*
 f. 1, platyna (*Ach.*), *Nyl.*
- 2 *C. crispa* (*Ach.*), *Nyl.*
 f. 1, subtubulosa (*Fr.*), *Nyl.*
- 3 *C. hiascens* (*Fr.*), *Fr. fil.*
- 4 *C. aculeata* (*Schreb.*), *Fr.*
 f. 1, hispida (*Lghft.*), *Cromb.*
 2, *acanthella* (*Ach.*), *Nyl.*
- 5 *C. odontella*, *Ach.*

*Genus II. PLATYSMA (Hffm.), Nyl.*a. Stirps, *Pl. nivalis*.Sp. 1 *Pl. nivale (L.), Nyl.*2 *Pl. cucullatum (Bell.), Nyl.*b. Stirps, *Pl. sæpincolæ*.3 *Pl. sæpincola (Ehrh.), Nyl.*4 *Pl. ulophylla (Ach.), Nyl.*5 *Pl. diffusum (Webr.), Nyl.*6 *Pl. Fahlunense (L.), Nyl.*7 *Pl. polyschizum, Nyl.*c. Stirps, *Pl. commixti*.8 *Pl. commixtum, Nyl.*d. Stirps, *Pl. juniperini*.f. 1, *tenuisectum (Fr. fil.), Cromb.*9 *Pl. juniperinum (L.), Nyl.** *Pl. pinastri (Scop.), Nyl.*e. Stirps, *Pl. glauci*.10 *Pl. glaucum (L.), Nyl.*f. 1, *fallax, (Webr.), Nyl.*2, *coralloideum (Wallr.), Leight.*3, *ampullaceum (L.), Hffm.*4, *tenuisectum, Cromb.*11 *Pl. lacunosum (Ach.), Nyl.**(To be continued.)*

HANDBOOK OF BIRMINGHAM.

This Handbook, prepared for the members of the British Association by a local committee, is a step in the right direction. Part V. is devoted to Botany, under the general superintendence of W. Mathews, M.A. The list of Flowering Plants and Ferns compiled by J. E. Bagnall, A.L.S., as also that of the Mosses, Hepaticæ, and Lichens, the Algæ by A. W. Wills, and the Fungi by W. B. Grove, B.A. Although we cannot admire the plan adopted for the Flowering Plants, the list is the most complete of the noteworthy plants. The other sections are starved out for lack of space. Nevertheless the idea is a good one, and there is no reason why, in similar attempts, more complete lists should not be given, exclusive perhaps of the generally distributed species which are found all over the islands. We have been assured that the individual authors of the several communications are not responsible for their bareness. Fourteen small sized pages for all the Cryptogamia, including introductory matter, is a ridiculously small space, unless it be taken into account what an enormous field the whole "Handbook" was designed to cover, of Topography, Education, Art Manufactures, Archæology, Geology, Petrography, Zoology, Botany, and an Appendix of Sundries, to be included in less than 400 of 12mo pages.

PRÆCURSORES AD MONOGRAPHIA POLYPORORUM.

By M. C. COOKE.

(Concluded from p. 27.)

The following additions and corrections should be made to the preceding lists, and a compressed synonymy is appended, in so far as it may be available for practical purposes. An extended and complete synonymy would involve considerable labour, which could scarcely be justified. As some of the species are distributed through the genera without our having seen authentic specimens, and on the faith of the descriptions, their position is subject to consideration. An arrangement of such an extent as this attempt could hardly be expected to attain perfection, which can only be secured by the co-operation of many minds.

* *Species Transferred.*

- 78 Polyporus glomeratus, *Peck*, to be struck out; see *Polystictus radiatus*, No. 747.
 82 Is *P. abortivus*, *Peck* = *P. distortus*, *Schwz*, No. 158.
 127 Polyporus sanguineus, *Fr.*, should be transferred to *Polystictus*, No. 663.
 148 Polyporus Beatiei, *Bann.*, is probably the same as *P. Berkeleyi*, *Fr.* No. 154.
 189 Polyporus molliusculus, *Berk.*, should be placed in *Stuposi*, No. 717.
 259 var. isabellinus, *Schw.*, is probably rather a variety of *P. adustus*, *Fr.*
 402 Fomes anthracophilus, *Cke.*, should stand as *Polyporus anthracophilus*, *Cke.* No. 165.
 470 Add to *Fomes marmoratus*, *B. & C.*, *Proc. Amer. Acad. Sci.* iv. 122.
 764 *Polystictus Lindbladii*, *Berk.*, should be deleted here, and stand as *Poria Lindbladii*, *B.* No. 1008.
 924 *Polystictus tenuis*, *Link.*, add. *Berl. Mag. Ges. Nat. Freunde* iii. 1809, vii. (1816), p. 25.
 231 Probably *P. dryophilus*, *Berk.*, should be transferred to *Suberosi*, No. 302.*

** *Species to be added.*

- 78 Polyporus megaloporus, *Mont. Syll.* p. 155.
 99* Polyporus Beccarianus, *Ces. Myc. Born.* 4.
 127 Polyporus hypomelanus, *Berk. in Herb.* No 2663.
 174* Polyporus maculatus, *Peck 26th Report N.Y. Mus.* 69.
 190* Polyporus cerebrinus, *B. & Br. Ann. Nat. Hist.* No. 1800.
 205* Polyporus vivax, *Berk. Hook. Journ.* 1862, 140.
 209* Polyporus delectans, *Peck 26th Report N.Y. Mus.*
 229* Polyporus aurantiacus, *Peck 26th Report N.Y. Mus.* 69.
 239 } The identity of *P. gilvus*, *Schw.*, and *P. scruposus*, *Fr.*,
 240 } must be left to individual judgment.

- 320* *Polyporus detritus*, *Berk. Hook. Journ.* 1846, 197.
 322* *Polyporus Holmiensis*, *Fr. Hym. Eur.* 544.
Polyporus cadaverinus, *Fr. Hym. Eur.* 544.
 324* *Polyporus imberbis* (*Bull.*), *Fr. Hym. Eur.* 544.
Polyporus heteroclitus (*Bolt.*), *Fr. Hym. Eur.* 544.
 386* *Fomes pes-simiæ*, *Berk. Hook. Journ.* 1856, 194.
 390* *Fomes pala*, *Lev. Ann. Sci. Nat.* 1844, 183.
 395* *Fomes coffeatus*, *Berk. Ann. Nat. Hist.* 1839, 385.
 398* *Fomes conglobatus*, *Berk. Hook. Journ.* 1845, 303 ?
 415* *Fomes cinnamomeus* (*Trog.*), *Fr. Hym. Eur.* 561.
 431* *Fomes fraxinophilus*, *Peck Bot. Gaz.* 1872, p. 43.
 Authentic specimens prove that it can be no form of
F. fraxineus, No. 541.
 440* *Fomes cremorinus*, *Ces. Myc. Born.* 5.
 445* *Fomes piceus*, *Ces. Myc. Born.* 5.
 476* *Fomes holomelanus*, *Berk. in Herb.* No. 2605.
 512* *Fomes lineato-scaber*, *Berk. Linn. Trans.* (n.s.) ii. p. 59.
 529* *Fomes melanoporoides*, *Ces. Myc. Born.* 6.
 536* *Fomes compressus*, *Berk. Hook. Journ.* 1845, 53.
 566* *Fomes spongiosus*, *Pers. Syn.* 543.
 572* *Fomes tenax*, *Lev. Ann. Sci. Nat.* 1863, 295.
Fomes epimiltinus, *B. & Br. Linn. Journ.* xiv. 54.
 599* *Polystictus eriopus*, *Ces. Myc. Born.* 5.
 604* *Polystictus apophysatus*, *Rostk. Poly.* 27, t. 4.
 675* *Polystictus dædalea*, *Schwein. (ubi?) in Herb. Berk.*
 692* *Polystictus venetus*, *Sacc. Myc. Ven.* 52, t. 7, f. 4-6.
 806* *Polystictus Parishii*, *Berk. in Herb.* No. 2593.
 854* *Polystictus vinosus*, *Berk. Ann. Nat. Hist.* 1852, 195.
 888* *Polystictus cæsiellus*, *Ces. Myc. Born.* 6.
 940* *Polystictus Fendzleri*, *Berk. Linn. Journ.* x. 317; if not
 identical with *P. undatus*, *Pers.*
 1039* *Poria tulipifera*, *Schwz. Syn. Car.* No. 935.

127. *Polyporus hypomelanus*, *Berk. in Herb.* No. 2663.

Pileo reniformi vel suborbiculari, lævi, glabro, rufo-ochraceo (1 in. diam.). Stipite abbreviato vel obsoleto, sæpe vertice affixo. Substantia pallido, tenui, hymenio atro, poris mediis ($\frac{1}{3}$ mm.) angularibus, subæqualibus.

On trunks. Grey River; New Zealand.

476* *Fomes holomelanus*, *Berk. in Herb.* No. 2605.

Pileo minuto ($\frac{1}{2}$ - $\frac{3}{4}$ in. diam.), duro, ungulato, atro, glabro, leniter concentrice sulcato, plerumque radiato-rugoso; contextu fulvo-ferrugineo, tubulis elongatis, poris pallido-umbrinis, minutis.

On trunks. Panuré (Spruce).

806* *Polystictus Parishii*, *Berk. in Herb.* No. 2593.

Pileo coriaceo, tenui, reniformi, vel semiorbiculari, glabrescente, pallide cinereo, zonis purpureis concentrice ornato (2 in. diam.), contextu albo, margine acuto, subtus sterili, poris rotundatis, minimis, æqualibus.

On trunks. Moulmein.

* * *Species doubtful, or of uncertain place.*

- Polyporus acerinus, *Opiz. Seznam*, 137.
 „ byssinus, *Pers. Myc. Eur.* ii. 122.
 „ brunneus, *Schwein. (ubi?) in Herb. Berk.*
 „ canalium, *Lour. Coch.* ii. 693, *Fr. S. M.* i. 352.
 „ cephalotes, *Pers. Myc. Eur.* ii. 118.
 „ cerasi, *Rostk. Poly.* t. 61.
 „ citrinellus, *Berk. & Curt. in Curt. Cat.*
 „ citromallus, *B. & Curt. in Herb.* 2534 (*Cuba*), too imperfect for description.
 „ cribrosus, *Pers. Myc. Eur.* ii. 96.
 „ decrescens, *Zoll. Arch. Neerl. Ind.* i. 387.
 „ dispar, *Kalch. in Grev.* x. 101.
 „ echinatus, *Pers. Myc. Eur.* ii. 162.
 „ encephalum, *Hoffm. Veg. Subter.*
 „ foliaceus, *Pers. Myc. Eur.* ii. 121.
 „ furcatus, *Jungh. Fl. Java* 69 (? *Fomes*).
 „ Gordoni, *B. & Br. in Herb.* 2380 (abnormal).
 „ hæmatinus, *Berk. in Herb.* 2517 (*India*) insufficient.
 „ hepatitis, *B. & C. in Herb.* 2406 (*Venezuela*), nearly destroyed by insects.
 „ Humboldtii, *Pers. Myc. Eur.* ii. 120.
 „ incompletus, *Ces. Myc. Born.* 5.
 „ insularis, *Pers. Myc. Eur.* ii. 113.
 „ laburni, *Opiz. Seznam.* 136.
 „ latus, *Fr. Syst. Myc.* i. 384.
 „ luteoporus, *Opiz. Lotus.* 1855, 87.
 „ minimus, *Jungh. Fl. Java* 64 (*Laschia?*).
 „ Notarisii, *Berk. in Herb.* 2918 = *P. reticulatus*, *De Not. vix Fries.*
 „ odontoporus, *Kalch (ubi?) Poria, in herb.* 2929.
 „ ostrea, *Pers. Myc. Eur.* ii. 119.
 „ oxyporus, *Sauter in Hedwigia* 1876, 150.
 „ palmatus, *Sauter in Hedwigia* 1876, 151.
 „ pellucidus, *Fr. Syst. Myc.* i. 352.
 „ planus, *Wallr. Fl. Germ.* ii. 602.
 „ polychrous, *Ces. Myc. Born.* 5, including several species
 „ polystictus, *Pers. Myc. Eur.* ii. 111.
 „ pustulosus, *Zoll. Arch. Neerl. Ind.* i. 387.
 „ ruber, *Pers. Myc. Eur.* ii. 43.
 „ Scopolii, *Pers. Myc. Eur.* ii. 120.
 „ scutatus, *Pers. Myc. Eur.* ii. 85.
 „ semipellucidus, *Zoll. Arch. Neerl. Ind.* ii. 291.
 „ Steinheilianus, *Berk. & Lev. Ann. Sci. Nat.* 1846 (*fide Streinz Nomenclator*).
 „ stenoloma, *Kalch. & McOw. (ubi?)*.
 „ strobiliformis, *Fr. Syst. Myc.* i. 352.
 „ turritus, *Pers. Myc. Eur.* ii. 117.
 „ versipellis, *Pers. Myc. Eur.* ii. 96.

Polyporus vilis, *Ces. Myc. Born.* 6 (exolete).

„ *voluta*, *Pers. Myc. Eur.* ii. 119.

„ *Zeyheri*, *Berk. in Herb.* 2776 (insufficient).

*** *Some synonyms.*

aculeatus, *Mont. Ann. Sci. Nat.* 1840, 205 = *Hexagona*.

agariceus, *Berk. Ann. Nat. Hist.* x. 371 = *arcularius*, *Fr.* 47.

agilis, *Viviani t.* 57 = *virellus*, *Fr.* 20.

albellus, *Peck 30th Report p.* 45 = *betulinus*, *Fr.* 304.

albido-fuscus, *Secr. Myc. Suis.* iii. 67 = *petaloides*, *Fr.* 120.

albidus, *Sow. Fung. t.* 226 = *cæsius*, *Fr.* 204.

albidus, *Wahl. Fl. Lapp.* 531 = *pallescent*, *Fr.* 210.

albus, *Bolt. Fung. t.* 78 = *salignus*, *Fr.* 322.

alutaceus, *Rostk. t.* 27 = *destructor*, *Fr.* 211.

alveolarius, *Rostk. xxviii. t.* 15 = *arcularius*, *Fr.* ? 47.

amaricans, *Pers. Syn.* 531 = *imbricatus*, *Fr.* 175.

angulatus, *Pers. Myc. Eur.* ii. 72 = *zonatus*, *Fr.* 791.

anisopilus, *Lev. Ann. Sci. Nat.* 1844, 191 = *pubescens*, *Fr.* 291.

annosus, *Fr. Elen.* 106 = *roburneus*, *Fr.* 473.

annulatus, *Jungh. Fl. Java* 53 = *annularis*, *Fr.* 122.

antilopum, *Kalch. in Grev.* = *vibecinus*, *Fr.* 118.

apalus, *Berk. Hook. Journ.* 1843, 635 = *flexipes*, *Fr.* 55.

argenteus, *Ehr. Bor. p.* 27 = *adustus*, *Fr.* 253.

argyraceus, *Pers. Myc. Eur.* ii. 73 = *versicolor*, *Fr.* 770.

armeniacus, *Berk. Eng. Fl. v.* 147 = *amorphus*, *Fr.* 260.

Armitii, *Muell & Kalch. Grev. x.* 94 = *stipitarius*, *Fr.* 64.

artemidorus, *Lenz. f.* 43 = *confluens*, *Fr.* 145.

aurantiacus, *Rostk. iv. t.* 58 = *spongiosus*, *Fr.* 566.*

aurantius, *Schæff. t.* 108, 110 = *confluens*, *Fr.* 145.

aurantius, *Trog. Flora* 1852, 354 = *confluens*, *Fr.* 145.

aureolus, *Pers. Myc. Eur.* ii. 60 = *amorphus*, *Fr.* 260.

aurora, *Ces. Myc. Born.* 5, potius *Trametes*.

badius, *Weinm. Ross.* 311 = *varius*, *Fr.* 90.

balsamiferæ, *Klot. Linn.* 1833 = *biformis*, *Fr.* 714.

Barteri, *Berk. in Herb.* = variety of *biformis*, *Fr.*

Beyrichii, *Fr. Linn. v.* 578 = *Trametes*.

bibulus, *Pers. Myc. Eur.* 135 = *medulla-panis*, *Fr.* 956.

Boltoni, *Rostk. xxviii. t.* 24 = *varius*, *Fr.* 99.

bombycinus, *Wirtg. Flora* 1835 = *Wirtgeni*, *Fr.* 1016.

botulatus, *Secr. Myc. Suis.* iii. 80 = *fulvus*, *Fr.* 474.

Boucheanus, *Fr. Epicr.* 438 = *Favolus*.

Brisbanensis, *Berk. & Br.* = *Trametes ochroleucus*, *B.*

brumalis, *Rostk. iv. t.* 5 = *ciliatus*, *Fr.* 49.

brunneo leucus, *Berk. Hook. Journ. v.* 4 = *brunneo albus*, *Fr.* 804.

brunneus, *Pers. Myc. Eur.* ii. 95 = *violaceus*, *Fr.* ? 1071.

byssina, *Secr. Myc. Suis.* iii. 175 = *reticulata*, *Fr.* 1120.

calceolus, *Bull. Champ. t.* 360 = *elegans*, *Fr.* 101.

candidus, *Pers. Myc. Eur. t.* 15, f. 2 = *chioneus*, *Fr.* 209.

captiosus, *Mont. Ann. Sci. Nat.* 1847, 170 = *Trametes*.

carneofulvus, *Berk. in Novæ Symb.* 52 = *omalopilus*, *Mont.* 562.

- carolinensis, *Berk. Hook. Journ.* 1849 = *biformis*, *Fr.* 714.
 carpineus, *Sow. Fung.* t. 231 = *adustus*, *Fr.* var. 253.
 castaneus, *Rostk.* iv. t. 47 = *fuscatus*, *Fr.* 771.
 caudicinus, *Scop. Carn.* ii. 469 = *sulfureus*, *Fr.* 171.
 cellaris, *Lib. Crypt. Exs.* = *vaporaria*, *Fr.* 1033.
 cellulosus, *Wahlbg. Suec.* ii. 961 = *vulgaris*, *Fr.* 946.
 ceratoniae, *Fr. Hym. Eur.* 552 = *sulfureus*, *Fr.* 171.
 cervino-plumbeus, *Jungh. Fl. Java* 61 = *Hexagona*.
 cervinus, *Pers. Myc. Eur.* ii. 87 = *Trametes mollis*, *Fr.*
 cinereo-lutescens, *Pers. Myc. Eur.* ii. 205 = *ravidus*, *Fr.* 709.
 cinereus, *Lev. Ann. Sci. Nat.* 1846, 140 = *cinerellus*, *Cke.* 777.
 citrinus, *Pers. Syn.* 524 = *sulfureus*, *Fr.* 171.
 cladonia, *Berk. Hook. Journ.* 1845, 61 = *bulbipes*, *Fr.* 584.
 cochlear, *Nees. Acta. Cur.* xiii. t. 6 = *amboinensis*, *Fr.* 373.
 colliculosus, *Pers. Myc. Eur.* ii. 163 = *tuberculosis*, *Fr.* 962.
 collybioides, *Kalch. Grev.* x. 94 = *alveolarius*, *Fr.* 56.
 concentricus, *Schum. Saell.* ii. 387 = *adustus*, *Fr.* 253.
 conchatus, *Quel. Jura* t. 17, f. 5 = *pectinatus*, *Klot.* 516.
 conchifer, *Schw. Syn. Car.* 918 = *virgineus*, *Fr.* 642.
 confluens, *Rostk.* iv. t. 34 = *resinosus*, *Fr.* 295.
 confluens, *Schum. Saell.* 378 = *perennis*, *Fr.* 581.
 connatus, *Schwz. Amer. Bor.* 330 = *parvulus*, *Kl.* 586.
 cordovensis, *Berk. in Herb.* 2417 = *Favolus rhipidium*, *B.*
 coriaceus, *Bull. Champ.* t. 28 = *perennis*, *Fr.* 581.
 corium *Kunze. (ubi?) in herb. Berk.* = *ferruginosa*, *Fr.* 1111.
 coronatus, *Rostk.* xxviii. t. 27 = *Boucheanus*, *Fr.*
 corrugatus, *Pers. in Freyc. Voy.* 172 = *scabrosus*, *Fr.* 423.
 crassipes, *Curr. Linn. Trans.* 1876, 122 = *xanthopus*, *Fr.* 602.
 cristatus, *Schæff. Ic.* t. 316, 317 = *lobatus*, *Fr.* 156.
 cristula (*Klot.*) *Ann. Nat. Hist.* 1839, 387 = *cinnabarinus*, *Fr.* 742.
 croceus, *Karst. Fin. Poly.* 39 = *contiguus*, *Fr.* 1113.
 croceus, *Schw. Syn. Car.* 70 = *crocipora*, *B. & C.* 978.
 cruentus, *Pers. Myc. Eur.* ii. t. 16, f. 4 = *incarnatus*, *Fr.* 1065.
 cupreo-nitens, *Kalch. Myc. Univ.* 1702 = *xanthopus*, *Fr.* 602.
 curtipes, *B. & C. Hook. Journ.* 1849, 235 = *Favolus*.
 cuticularis, *Wahlbg. Suec.* 1998 = *vulpinus*, *Fr.* 754.
 cyathoides, *Quel. Jura* 253 = *vernalis*, *Fr.* 43.
 dædaleoides, *Berk. Ann. Nat. Hist.* iii. 325 = *Dædalea*.
 debilis, *Wallr. Fl. Germ.* ii. 60 = *brumalis*, *Fr.* 31.
 dermatodes, *Lev. Voy. Bon.* t. 138; *potius* = *Hexagona sericea*.
 dilatatus, *Berk. Hook. Journ.* 1846 = *Adami*, *Berk.* 607.
 dilutus, *Berk. in Herb.* No. 2443 = *variety of Nilgherrensis*.
 dimorphus, *Cooke Grev.* xiii. 1 = *hemicapnodes*, *B. & Br.* 102.
 dolosus, *Pers. Myc. Eur.* ii. 77 = *abietinus*, *Fr.* 813.
 dryadeus, *Schwz. Amer. Bor.* 147 = *scruposus*, *Fr.* 240.
 dryadeus, *Rostk.* xxvii. t. 9 = *applanatus*, *Fr.* 453.
 dualis, *Peck 30th Report* 44 = *circinatus*, *Fr.* 573.
 dubius, *Jungh. in Herb. Lugd.* = *australis*, *Fr.* 451.
 eburneus, *Wallr. Fl. Germ.* = *osseus*, *Fr.*
 elegans, *Bolt. Fung.* t. 76 = *giganteus*, *Fr.* 153.

- elegans, *Trog. Flora* 1832, 593 = varius, *Fr.* 99.
 emerici, *Berk. Grev.* x. 96 = grammocephalus, *B.* 132.
 epigæa, *Lenz.* p. 62 = Schweinitzii, *Fr.* 76.
 epiphyllus, *Pers. Obs.* ii. 15 = molluscus, *Fr.* 947.
 epixanthus, *Rostk. Poly.* t. 30 = alutaceus, *Fr.* 185.
 exasperatus, *Schrad. Spic.* 153 = arcularius, *Fr.* 47.
 fagineus, *Schrad. Spic.* 161 = albus, *Fr.* 241.
 fasciculatus, *Schrad. Spic.* 154 = brumalis, *Fr.* 31.
 favularis, *Fr. Novæ Symb.* 34 = Favolus.
 favus, *Bull. Champ.* t. 421 = *Trametes gallica*, *Fr.*
Feathermanni, *Rav. Fun. Amer.* = *Trametes*.
 ferreus, *Pers. Myc. Eur.* ii. 89 = floccosus, *Fr.* 1017.
 ferrugineus, *Jungh. in Herb. Ludg.* = Hasskarlii, *Lev.* 889.
 ferruginosus, *Rostk. Poly.* xxvii. t. 6 = umbrinus, *Fr.* 1026.
 fibrillosus, *Karst. Fin. Poly.* 30 = vulpinus, *Fr.* 754.
 fibroso-radians, *Mont. in litt.* = mutabilis, *B.* 609.
 fimbriatus, *Bull. Champ.* t. 254 = pictus, *Fr.* 582.
 flabelliformis, *Pers. Myc. Eur.* ii. 53 = squamosus, *Fr.* 87.
 flabelliformis, *Schæff. Ic.* t. 113 = cristatus, *Fr.* 144.
 flavescens, *Rostk. Poly.* xxviii. t. 23 = melanopus, *Fr.* 90.
 flavus, *Jungh. Fl. Java* 46 = *Irpex flavus*, *Kl.*
 flavus, *Karst. Finn. Poly.* p. 40 = var. of vulgaris, *Fr.* 946.
 folicola, *B. & C. Linn. Journ.* x. 305 = parvulus, *Kl.* 586.
 foliaceus, *Jungh. in Herb.* = elongatus, *B.* 672.
 fornicatus, *Fr. Epic.* 443 = amboinensis, *Fr.* 373.
 Friburgensis, *Humb. Frib.* 112 = *Trametes odorata*, *Fr.*
 frondosus, *Schrad. Spic.* 21 = intybaceus, *Fr.* 143.
 frustulatus, *Pers. Myc. Eur.* ii. 91 = serialis, *Fr.* 716.
 fugax, *Pers. Ic. Pict.* t. 16 = reticulatus, *Fr.* 1120.
 fulvus, *Schæff. Ic.* t. 262 = pinicola, *Fr.* 412.
 fumosogriseus, *C. & E. Grev.* ix. 103 = adustus, *Fr.* 253.
 fusco-albus, *Jungh. Fl. Java* 52 = Junghuhnii, *Fr.*
 fusco-badius, *Pers. Frey. Voy.* 172 = scabrosus, *Fr.* 423.
 fusco-gilvus, *Schwz.* see *Berk.* = radiatus, *Fr.* 747.
 fusco-purpureus (*Pers.*) *Fr. Epic.* 465 = *Trametes badia*.
 fuscus, *Pers. Syn.* 527 = resinosus, *Fr.* 295.
 gallicus, *Fr. Syst. Myc.* i. 345 = *Trametes gallica*, *Fr.*
 gausapatus, *B. & R. in Herb. Berk.* 2696 = *Trametes*.
 gibbosa, *Wahlbg. Ups. sec. Fries* = borealis, *Fr.* 286.
 gibbosus, *Nees. Acta. Cur.* xiii. t. 5 = amboinensis, *Fr.* 373.
 giganteus, *Fl. Dan.* t. 1793 = intybaceus, *Fr.* 143.
 giganteus, *Harz.* t. 32 = squamosus, *Fr.* 87.
 gilvus, *Mont. nec. Fries* = scruposus, *Fr.* 240.
 glomeratus, *Peck 24th Report* 78 = radiatus, *Fr.* 747.
 gonoporus, *Jungh. in Herb. Ludg.* = Persoonii, *Fr.* 850.
 gracilis, *Klot. Ann. Nat. Hist.* 1839 = flexipes, *Fr.* 55.
 hæmatoides, *Rostk.* iv. t. 62 = rufus, *Fr.* 997.
 Halesiæ, *B. & C. Grev.* i. 52 = amorphus, *Fr.* 260.
 helvolus, *Fr. Nova Symb.* 63 = *Trametes*.
 Herbergii, *Rostk. Poly.* xxix. t. 18 = cuticularis, *Bull.* 263.

- heteroclitus, *Sow. Fung.* t. 367 = ravidus, *Fr.* 709.
 hexagonoides, *Fr.* = *Trametes*.
 hispidioides, *Peck 23rd Report* p. 21 = cuticularis, *Bull.* 263.
 hispidus, *Rostk. Poly.* t. 31 = vulpinus, *Fr.* 754.
 Hodgkinsoniæ, *Kalch. Grev.* x. 96 = elongatus, *B.* 672.
 holoporus, *Pers. Myc. Eur.* ii. 107, t. 6, f. 3, 4 = xanthus, *Fr.* 1060.
 hydnoides, *Fr. Elen.* i. 107 = *Trametes*.
 igniarius, *Bolt. Fung.* t. 80 = cinnamomeus, *Fr.* 415.*
 igniarius, *Fl. Dan.* t. 953 = pinicola, *Fr.* 412.
 impuber, *Sow. Fung.* t. 195 = gilvus, *Schw.* 239.
 incanus, *Lev. Ann. Sci. Nat.* 1846, 130 = *Trametes*.
 incarnatus, *Schum. Fl. Saell.* ii. 391 = abietinus, *Fr.* 813.
 incertus, *Curr. Linn. Trans.* 1876, 123 = *Trametes*.
 incertus, *Pers. Myc. Eur.* 377 = vaporaria, *Fr.* 1033.
 inconspicuus, *Miq. Bull. Neerl.* 1839, 454 = Hostmanni, *B.* 658.
 incrustans, *Pers. Myc. Eur.* i. 94 = obliquus, *Fr.* 568.
 indigestus, *Berk. in Herb.* = *Trametes scleromyces*, *Berk. & Warm.*
 informis, *Cum. Acta. Taurin.* = lobatus, *Fr.* 156.
 infundibuliformis, *Pers. Syn.* 526 = melanopus, *Fr.* 90.
 infundibuliformis, *Rostk.* t. 27 = Rostkovii, *Fr.* 93.
 intermedius, *Rostk. Poly.* iv., t. 33 = arcularius, *Fr.* ? 47.
 intybaceus, *Berk. Hook. Journ.* i. 149 = cichoraceus, *B.* 892.
 irregularis, *Sow.* t. 423 = amorphus, *Fr.* 260.
 irpex, *Schulz. in Fries* = Schulzeri, *Fr.* 315.
 irregularis, *Sow. Fung.* t. 423 = amorphus, *Fr.* 260.
 isabellinus, *Schwz. Amer. Bor.* 899 = adustus, *Fr.* 253.
 isidioides, *Berk. Hook. Journ.* 1843, 515 = var. scruposus, *Fr.* 240.
 japonicus, *Thunb. Fl. Jap.* t. 39 = amboinensis, *Fr.* 373.
 juglandis, *Pers. Myc. Eur.* ii. 53 = squamosus, *Fr.* 87.
 juglandis, *Schæff. Icon.* t. 101, 102 = squamosus, *Fr.* 87.
 Katui, *Ehr. Hor. Phys.* f. 12 = xanthopus, *Fr.* 602.
 Klotschii, *Berk. Ann. Nat. Hist.* iii. 383 = Hexagona.
 labyrinthicus, *Mont. in Herb.* = *Irpex maximus*, *Fr.*
 labyrinthicus, *Weinm. Ross.* 313 = Weinmanni, *Fr.* 277.
 laccatus, *Pers. Myc. Eur.* ii. 64 = lucidus, *Fr.* 374.
 laceratus, *Curt. in Sillim. Journ.* = pergamenus, *Fr.* 727.
 lævis, *Pers. Myc. Eur.* ii. 68 = imberbis, *Fr.* 324.*
 lanatus, *Fr. Nova Symb.* 74 = *Trametes*.
 laricis, *Jacq. Misc.* t. 20 = officinalis, *Fr.* 307.
 Laurencii, *Berk. Fl. Tasm.* 254 = rubiginosus, *Berk.*
 leptopus, *Pers. Freyc. Voy.* 169, t. 2, f. 2 = umbraculum, *Fr.* 378.
 leucoporus, *Holms. Otis.* t. 30 = perennis, *Fr.* 581.
 lignescens, *Fr. Nova Symb.* 42 = lignosus, *Kl.* 329.
 lilacinus, *Schw. Syn. Car.* 942 = purpurens, *Fr.* 1072.
 lingua, *Nees. Acta. Cur.* xiii. t. 3 = amboinensis, *Fr.* 373.
 Lundii, *Mont. Cuba* 393 = rigidus, *B.* 860.
 macer, *Somm. Lapp.* 279 = vaporarius, *Fr.* 1033.

- Macowani, *Kalch. Grev.* x. 54 = dichrous, *Fr.* 959.
 macrotrems, *Jungh. (fide Leveille)* = Hexagona Molkenboeri,
Lev.
 macrotis, *Berk. in Herb.* = platotis, *B. & Br.* 133.
 malacoderma, *Fr. in Herb. Berk.* = occidentalis, *Kl.* 859.
 Marchionicus, *Lev. Ann. Sci. Nat.* 1846, 300 = Trametes.
 marginatus, *Pers. Syn.* 534 = pinicola, *Fr.* 412.
 medulla panis, *Secr. Myc. Suis.* iii. 108 = obducens, *Fr.* 973.
 mellinus, *Pers. Myc. Eur.* ii. 96 = sinuosus, *Fr.* 1086.
 meloleucus, *Berk. in Herb.* 2521 = albo-stygius, *B.*
 menandianus, *Mont. Syll.* 165 = pergamenus, *Fr.* 727.
 merismoides, *Corda in Sturm.* = applanatus, *Fr.* 453.
 mesentericus, *Schæff. Icon.* t. 267 = giganteus, *Fr.* 153.
 Micheneri, *Berk. in Herb.* = benzoinus, *Fr.* 296.
 micromegas, *Mont. Syll.* 157 = zonalis, *B.* 326.
 minimus, *Jungh. Fl. Java* 64 = Laschia?
 minimus, *Rav. Grev.* i. 65 = elachista, *B.* 948.
 Miquelii, *Mont. Ann. Sci. Nat.* 1845, 357 = Hexagona.
 mollis, *A. & S. Consp.* 247 = Weinmanni, *Fr.* 277.
 mollis, *A. & S. var. β.* = fragilis, *Fr.* 198.
 mollis, *Rostk. Poly.* iv. t. 25 = erubescens, *Fr.* 298.
 mollis, *Somm. Lapp.* 271 = Trametes.
 monochrous, *Mont. Syll.* 163 = languidus, *Fr.* 383.
 mons-veneris, *Jungh. Fl. Java* 61 = leoninus, *Fr.* 694.
 Moritzianus, *Lev. Ann. Sci. Nat.* 1846, 130 = Trametes.
 morosus, *Kalch. Bot. Zeit.* = benzoinus, *Fr.* 296.
 mucidus, *Scop. Ann. Hist.* iv. 149 = alligatus, *Fr.* 176.
 Muelleri, *Kalch. Grev.* x. t. 145 = grammocephalus, *B.* 132.
 multicolor, *Schæff. Icon.* t. 269 = zonatus, *Fr.* 791.
 murinus, *Nees. sec. Fries.* = fascidulus, *Fr.* 60.
 murinus, *Lev. Ann. Sci. Nat.* 1844, 185 = brunneolus, *B.* 648.
 murinus, *Kalch. in Grev.* = glirinus, *K.* 793.
 murinus, *Rostk.* iv. t. 57 = subspadiceus, *Fr.* 1081.
 nidulans, *Secr. Myc. Suis.* iii. = lutescens, *Fr.* 855.
 nigricans, *Lasch. Rabh. Exs.* 15 = velutinus, *Fr.* 785.
 nigripes, *Wallr. Fl. Germ.* iv. 598 = picipes, *Fr.* 97.
 nigro-purpurascens, *Schw. Amer. Bor.* 360 = dichrous, *Fr.* 239.
 Niskiensi, *Pers. Myc. Eur.* ii. 93 = incarnatus, *Fr.* 1065.
 nitens, *Batsch.* f. 225 = lucidus, *Fr.* 374.
 nitidus, *A. & S. Consp.* 258 = amorphus, *Fr.* 260.
 non-scriptus, *Berk. in Herb.* = Guilfoylei, *B.* 106.
 novæ-angliæ, *B. & C. Grev.* i. 51 = fulvus, *Fr.* 474.
 nummularius, *Schrad. Spic.* 152 = elegans, *Fr.* 101.
 oblectus (Berk.), *Fr. Noræ Sym.* = bulbipes, *Fr.* 584.
 obliquatus, *Bull. Champ.* t. 459 = lucidus, *Fr.* 374.
 obtusus, *Pers. Obs.* ii. 4 = igniarius, *Fr.* 469.
 ochraceus, *Pers. Syn.* 539 = zonatus, *Fr.* 791.
 odoratus, *Fr. Syst. Myc.* i. 373 = Trametes.
 pachypus, *Pers. Myc. Eur.* ii. 47 = politus, *Fr.* 21.
 pachyus, *Rostk. Poly.* xxvii. t. 5 = contiguus, *Fr.* ? 1113.

- paleaceus, *Fr. Epicr.* 471 = *Trametes*.
 pallescens, *Schrad. Spic.* 134 = *leucocephalus*, *Fr.* 61.
 pandani, *Fr. Epic.* 469 = *coccineus*, *Fr.* 554.
 Panurensis, *Berk. in Herb.* = *detritus*, *B.*
 pelleporus, *Bull. Champ.* t. 501, f. 2 = *adustus*, *Fr.* 253.
 pelloporus, *Secr. Myc. Suis.* ii. 126 = *dichrous*, *Fr.* 259.
 pelloporus, *Sow. Fungi* t. 230 = *pallescens*, *Fr.* 210.
 pellitus, *Meyer Fl. Esseq.* 304 = *Trametes fibrosa*, *Fr.*
 perdurans, *Kalch. Grev.* ix. 1 = *bulbipes*, *Fr.* 584.
 pertusus, *Pers. Myc. Eur.* ii. 103 = *corticola*, *Fr.* 1085.
 Philippinensis, *Berk. Hook. Journ.* 1842, 148 = *Favolus*.
 pithyus, *Chaill. sec. Streinz.* = *borealis*, *Fr.* 286.
 pisochapani, *Nees. Rumph. Amb.* vi., t. 576 = *amboinensis*, *Fr.*
 373.
 platyporus, *Pers. Syn.* 521 = *squamosus*, *Fr.* 87.
 plicatus, *Pers. Myc. Eur.* ii. 212 = *salicinus*, *Fr.* 484.
 polycephalus, *Pers. Syn.* 519 = *umbellatus*, *Fr.* 140.
 polygrammus, *Mont. Cuba* 379 = *Hexagona*.
 polymorphus, *Hoffm. Crypt. Subt.* 3, t. 1 = *Trametes odorata*,
Fr.
 polyporus, *Bull. Champ.* t. 469 = *fuliginus*, *Fr.* 24.
 pomaceus, *Pers. Myc. Eur.* ii. 84 = *igniarius*, *Fr.* 469.
 populinus, *Schulz.* = *vulpinus*, *Fr.* 754.
 populneus, *Poll. Pl. Ver.* 34 = *castaneus*, *S.*
 proboscideus, *Jungh. (fide Leveille)* = *notopus*, *Lev.* 636.
 proteus, *Kalch. Grev.* x. 102 = *proteiformis*, *Cke.* 725.
 pseudo-boletus, *Jacq. Austr.* 26, t. 41 = *lucidus*, *Fr.* 374.
 pseudo-igniarius, *Bull. Champ.* t. 458 = *dryadeus*, *Fr.* 293.
 pseudo-pergamenus, *Thum. Myc. Univ.* = *pergamenus*, *Fr.* 727.
 pulvinatus, *Wahlbg. Suec.* ii. 957 = *spumeus*, *Fr.* 285.
 purgans, *Pers. Syn.* 531 = *officinalis*, *Fr.* 307.
 purpureus, *Rostk. Poly.* xxvii. t. 3 = *violaceus*, *Fr.* 1071.
 pusillus, *Schrad. Spic.* 152 = *brumalis*, *Fr.* 31.
 racodioides, *Pers. Myc. Eur.* ii. 113 = *bombycinus*, *Fr.*? 1045.
 ramosissimus, *Secr. Myc. Suis.* iii. 56 = *intybaceus*, *Fr.* 143.
 ramosissimus, *Scop. Carn.* ii. 470 = *umbellatus*, *Fr.* 140.
 ramosus, *Bull. Champ.* t. 418 = *imbricatus*, *Fr.* 175.
 Ravenalii, *B. & C. Grev.* i. 38 = *dealbatus*, *Rav.* 610.
 recurvus, *Berk. in Herb.* = *inflexibilis*, *B.* 515.
 resupinatus, *Bolt. Fung.* t. 165 = *resupinate Fomes?*
 reniformis, *Morgan Bot. Gaz.* 1882, 136 = *incrassatus*, *B.* 565.
 resupinatus, *Sow. Fungi* t. 424 = *Doedalea latissima*, *Fr.*
 rhabarbarinus, *Berk. Ann. Nat. Hist.* 1839, 388 = *senex*, *N.* 399.
 rhipidium, *Berk. Lond. Journ.* 1847, 319 = *Favolus*.
 rhombiporus, *Pers. Myc. Eur.* ii. 211 = *arcularius*, *Fr.* 47.
 ribesius, *Pers. Myc. Eur.* ii. 80 = *ribis*, *Fr.* 482.
 rosamala, *Jungh. (fide Leveille)* = *rhodophæus*, *Lev.* 447.
 rosarum, *Weinm. Ross.* 319 = *candidus*, *Fr.* 159.
 roseoporis, *Rostk. Poly.* xxvii. t. 12 = *amorphus*, *Fr.* 260.
 rubella, *Pers. Obs.* i. 14 = *mollis*, *Fr.* 205.

- rubescens, *A. & S. Consp.* t. 11, f. 2 = *Trametes*.
 rubiginosus, *Schrad. Spic.* 168 = *resinosus*, *Fr.* 295.
 rubriporus, *Quel. Soc. Bot. Fr.* = *fusco-purpureus*, *Boud* 483.
 rudis, *Lev. Ann. Sci. Nat.* 1846, 133 = *subfulvus*, *Cke.* 887.
 rufescens, *Rostk. Poly.* iv. t. 7 = *tomentosus*, *Fr.* 574.
 rufolateritius, *Kalch. Grev.* x. 104 = *epilintea*, *B.* 986.
 rugosus, *Sow. Fung.* t. 422 = *alligatus*, *Fr.* 176.
 rugosus, *Trog. Schw.* 401 = *corrugis*, *Fr.* 767.
 rugulosus, *Lasch. Rabh. F. Eur.* 16 = *velutinus*, *Fr.* 785.
 russiceps, *B. & Br. Ceylon Fungi*, 449 = *grammocephalus*, *B.* 132.
 rutilans, *Rostk. Poly.* t. 36 = *testaceus*, *Fr.* 186.
 saccharinus, *B. & C. in Herb.* = *lacteus*, *Fr.* 178.
 sagræanus, *Mont. Cuba* t. xvi. f. 4 = *Trametes*.
 salebrosus, *Lasch. Rabh. Hb. Myc.* 1666 = *nodulosus*, *Fr.* 748.
 salicinus, *Bull. Champ.* t. 433, f. 1 = *albus*, *Fr.* 241.
 scalaris, *Pers. Myc. Eur.* ii. 90 = *serialis*, *Fr.* 716.
 scobinaceus, *Cum. Acta. Taur.* = *pescaprae*, *Fr.* 9.
 scobinaceus, *Berk. in Herb.* = variety of *Hodgkinsoniæ*, *K.* 672.
 scoticus, *Klot. Eng. Fl.* v. 142 = *annosus*, *Fr.* 533.
 scutiger, *Kalch. Enum.* = *Kalchbrenneri*, *Fr.* 579.
 scutiger, *Fr. Elen.* i. 73 = *Hexagona*.
 sebaceus, *Leyss Syn. Fung.* 543 = *destructor*, *Fr.* 211.
 selectus, *Karst. Not. Fenn.* = *flavus*, *Karst.*
 semiovatus, *Schæff. Icon.* t. 270 = *pinicola*, *Fr.* 412.
 semipatera, *Pers.* = *lucidus*, *Fr.* 374.
 serialis, *Rostk. Poly.* t. 49 = *zonatus*, *Fr.* 791.
 sericeo-hirsutus, *Klot. Linn.* viii. 483 = *Hexagona*.
 serpentarius, *Pers. Myc. Eur.* ii. 82 = *annosus*, *Fr.* 533.
 sinensis, *Fr. Syst. Myc.* i. 345 = *Trametes*.
 sistotrema, *A. & S. Consp.* 243 = *Schweinitzii*, *Fr.* 76.
 sordidus, *Berk. Fr. Novæ Symb.* 64 = *sordidulus*, *B.* 744.
 spectabilis, *Fr. Novæ Symb.* 32 = var. *Schweinitzii*, *Fr.* 76.
 spumeus, *Fl. Dan.* t. 1794 = *epileucus*, *Fr.* 183.
 splendens, *Peck 26th Report* 68 = *oblectans*, *B.* 583.
 stalactites, *Hoffm. Veg. Crypt.* ii. t. 7 = *roseus*, *Fr.* 495.
 strigosus, *Schulz. Starg.* No. 1413 = *vulpinus*, *Fr.* 754.
 subcinereus, *Berk. Ann. Nat. Hist.* 1839, 391 = *adustus*, *Fr.* 253.
 suberosus, *Batsch. Elen.* f. 226 = *adustus*, *Fr.* 253.
 suberosus, *Bolt. Fun.* t. 162 = *Trametes odora*, *Fr.*
 suberosus, *Bull. Champ.* t. 482 = *nidulans*, *Fr.* 229.
 suberosus, *Linn. Suec.* No. 1253 = *betulinus*, *Fr.* 304.
 suberosus, *Sow. Fung.* t. 288 = *cytisinus*, *B.* 408.
 suberosus, *Wahlbg. Ups.* 457 = *spumeus*, *Fr.* 285.
 suberosus, *Krombh.* t. 48, f. 11-14 = *quercinus*, *Fr.* 303.
 submembranaceus, *Berk. in Herb.* 2796 = *Kurzianus*, *Cke.* 675.
 subpileatus, *Weinm. Ross.* 332 = *annosus*, *Fr.* 533.
 subpulverulentus, *B. & C. Linn. Journ.* x. 306 = *Favolus*
 rhipidium, *B.*
 subsquamosus, *Secr. Myc. Suis.* iii. 58 = *crestatus*, *Fr.* 144.
 substrictus, *Bolt. Fun.* t. 270 = *fuscidulus*, *Fr.* 60.

- substrigosus, *Berk. in Herb.* = occidentalis, *Fr.* 859.
 subtomentosus, *Bolt. Fun.* t. 87 = perennis, *Fr.* 581.
 surinamensis *Mont. Ann. Sci. Nat.* xx. 363 = tephropora, *M.* 1003.
 sutorius, *Scop. Ann. Bot.* iv. 149 = betulinus, *Fr.* 304.
 tabulæformis, *Berk. Hook. Journ.* 1845, 302 = Schweinitzii, *Fr.* 76.
 taurinus, *Pers. Myc. Eur.* ii. 37 = viscosus, *Fr.* 18.
 tegularis, *Lev. Ann. Sci. Nat.* 1846, 131 = *Trametes*.
 tenuis, *Berk. Ann. Nat. Hist.* iii. 382 = *Hexagona*.
 terrestris, *Sow. Fungi* t. 387, f. 5 = bombycinus, *Fr.* 1045.
 Teysmanni, *Berk. in Herb.* = affinis, *N.* 619.
 Todari, *Inz. Sic.* t. 2 = sulfureus, *Fr.* 171.
 tornatus, *Pers. Freyc. Voy.* 173 = australis, *Fr.* 451.
 trachypus, *Rostk. Poly.* xxviii. t. 14 = brumalis, *Fr.* var. ? 31.
 tristis, *Lev. Ann. Sci. Nat.* 1846, 126 = *Trametes*.
 tuberculosus, *Jungh. (fide Leveille)* = trachoides, *Lev.* 434.
 umbellatus, *Viviani* t. 28 = Barrelieri, *Fr.* 139.
 umbilicatus, *Jungh. Fl. Java* = arcularius, *Fr.* 47.
 umbrinus, *Pers. Myc. Eur.* ii. 93 = obliquus, *Fr.* 568.
 ungulatus, *Bull. Champ.* t. 491 = fomentarius, *Fr.* 466.
 valenzuelianus, *Mont. Cub.* t. 15, f. 4 = supinus, *Fr.* 564.
 variegatus, *Schæff. Icon.* t. 263 = versicolor, *Fr.* 770.
 velutinus, *Sow. Fung.* t. 345 = hispidus, *Fr.* 265.
 velutinus, *Fl. Dan.* t. 1138 = resinosus, *Fr.* 295.
 versipellis, *B. & C. in Herb.* No. 2547 = versicutis, *B. & C.* 200.
 versiporus, *Pers. Myc. Eur.* ii. 105 = vaporarius, *Fr.* 1033.
 vesparius, *Berk. Ann. Nat. Hist.* iii. 323 = *Hexagona* Gunnii, *B.* Wightii, *Klot. Linn.* vii. 200 = *Hexagona*.
 xalapensis, *Curt. Sillim. Journ.* 1850 = elongatus, *Fr.* 672.
 xanthus, *Schwein. Amer. Bor.* 424 = pulchella, *Schw.* 1091.
 xerophyllaceus, *Currey Linn. Trans.* = Curreyi, *B.* 528.
 xylostromeus, *Pers. Myc. Eur.* ii. 112 = vitreus, *Fr.* 959.
 Zollingerianus, *Lev. Ann. Sci. Nat.* 1846, 131 = *Trametes*.

FUNGUS FORAYS, 1886.

HACKNEY NATURAL HISTORY SOCIETY.—Although the annual Fungus Foray of this Society is but a half-day excursion, it is customary for some of the most energetic members to proceed to Epping Forest by an early train and make up a whole day. On Saturday, September 18th, this course was pursued, and although the number of excursionists was more limited than usual, every effort was made to compensate for the remarkable dearth of fungi by close and persistent searching. Something like sixty species were all that could be found and recorded, and in some cases these were represented by only a single specimen. What additions were made to the records of the Forest Fungi were in nearly every case amongst the smaller fungi, other than Hymenomycetes. Agarics

were so scarce that not a single specimen of *Agaricus* (*Armillaria*) *melleus* could be found, although it is often so common as to be almost a nuisance; and the equally common *Agaricus* (*Clitocybe*) *laccatus* was represented by one solitary specimen. None of the excursionists present could remember any previous instance in which the Forest was so bare of fungi during the month of September.

HERTFORDSHIRE NATURAL HISTORY SOCIETY.—The day appointed for this Foray, November 6th, in Berry Grove Wood and Heart's Spring Wood, was one of continuous rain, as well as the day previous; hence the excursion was practically a failure.

CRYPTOGAMIC SOCIETY OF SCOTLAND.—The annual conference, held this year at Aberdeen, was presided over by Professor J. W. H. Trail, and commenced on Wednesday, 29th September, by an excursion to Monymusk, and continued in the evening by business meetings and a public meeting, at which the President delivered his annual address. On Thursday the excursion was made to Drum Woods, which concluded in the evening by the annual dinner at the Douglas Hotel. On Friday, 1st October, an excursion was arranged for Kingcausie Woods. A brief report of the meetings was communicated to the "Gardener's Chronicle," from which it would appear that although the intercourse between the mycologists north and south of the Tweed was an agreeable one, there were no startling scientific results and no long record of interesting additions to the "Fungus Flora."

CARLISLE.—While the Cryptogamic Society was holding its meetings at Aberdeen a private investigation of some of the country around Carlisle revealed the fact that *Lactarius helvus*, Fr., was growing in some abundance in a boggy wood some four miles distant from the city.

WOOLHOPE FIELD CLUB, HEREFORD.—The Foray this year was pervaded by a general feeling of depression, consequent on the remembrance of the severe loss which the Club had sustained since the meeting of last year in the death of Dr. Bull. A considerable number of mycologists met as usual, but the enthusiasm was damped by the unfavourable weather and the scarcity of fungi. The Tuesday excursion, October 5th, was to Whitfield, which the Club had not visited for some years. Nothing worthy of special note was found during the day, but sufficient to employ the evening in examination and discussion. Wednesday was devoted to the woods around Belmont—new ground to the Club—but not very successfully this year. Thursday, the Club Foray day, was given to the old grounds of Haywood Forest, but as the rain was almost incessant, with little result. The dinner in the evening was more limited in number of visitors than it has been for many years. An address by M. C. Cooke on the event of the day; the character and influence of the late Dr. Bull on mycology; a paper by the Rev. J. E. Vize on modes of mounting for the microscope; and one by the Rev. Augustin Ley, on Welsh Highland Floras in relation to the new Herefordshire Flora, brought the proceedings practically to a close. The illness of the President, Mr.

Piper, caused the projected excursion to Ledbury on the next day to be abandoned, and left it free for a closer examination of the spoils of the week and an earlier dispersion homewards.

ESSEX FIELD CLUB.—The annual excursion in Epping Forest on the 15th and 16th October was greatly marred this year by most unfortunate weather. The rain was almost incessant throughout the two days, and enthusiasm consequently was nearly damped out. By dint of considerable perseverance under umbrellas a very good collection of fungi was got together in the large room of the "Roebuck," and by four o'clock on the 16th completely arranged and labelled. A few rare species and some dozen or more not previously recorded for the Epping Forest district gave interest to the proceedings. There was a much larger gathering of members and visitors than could have been expected, very little below the total of previous occasions. After luncheon and the ordinary business of the Society, a report was submitted by M. C. Cooke of the work of the two days, with some remarks on the different species displayed on the tables and their special interest. Afterwards Professor Boulger narrated the progress of the new edition of the "Flora of Essex," at the same time indicating localities about which further records were desirable, urging the members to render him the assistance so much needed to make the "Flora" a success. Amongst the most noteworthy species of fungi added to the Forest Flora were *Agaricus (Inocybe) perlatus*, Cooke, which was found a few weeks previous to the Foray; *Agaricus (Tricholoma) stans*, Fr.; *Agaricus (Clitocybe) inversus*, Fr.; *Agaricus (Collybia) distortus*, Fr.; *Agaricus (Psilocybe) subericæus*, Fr.; *Agaricus (Psathyra) pennatus*, Fr.; *Russula grisea*, Fr.; *Lactarius subumbonatus*, Fr.; *Lactarius camphoratus*, var. *cimicarius*, Batsch; *Bolbitius Boltoni*, Fr.; and *Boletus olivaceus*, Schæff.

STEVENSON'S BRITISH FUNGI.*

The second volume of this work has now appeared, rather quicker than was expected, but, on the other hand, for the most part less carefully elaborated, as though it had been finished in a hurry. Some serious omissions of well known species may be noted, and the arrangement subsequent to the end of the *Agaricini* is by no means satisfactory. The two volumes teem with contractions—very much contracted—of authorities cited, but the student must seek in vain for any key or index or any list of the full titles of the works so mercilessly abbreviated. The small woodcuts by Mr. Worthington Smith are excellent in their way, but we fear that the necessity for keeping them small has in many cases very much diminished their utility.

* "British Fungi (Hymenomycetes)," by Rev. John Stevenson. Vol. ii, Cortinariæ to Dacrymyces. London and Edinburgh: W. Blackwood and Sons. 1886.

C. E. BROOME.

British Mycology has suffered another severe loss by the death of Christopher Edmund Broome, M.A., of Batheaston, for many years associated with the Rev. M. J. Berkeley in the production of numerous contributions to the Linnean Society and the Annals of Natural History. Although ten years the junior of the latter, and apparently more active and vigorous, yet his friends have not failed to observe a gradual decline during the past twelve months, which has somewhat suddenly come to a fatal termination. His quiet unassuming manners, his extreme modesty in all scientific matters, and his universal kindness and geniality, endeared him to all who knew him.

KALCHBRENNER.—The Rev. Charles Kalchbrenner, the amiable and accomplished Hungarian Mycologist, died recently at the age of 79 years.

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Grevillea,

A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

NEW BRITISH FUNGI.

BY M. C. COOKE.

(Continued from p. 43.)

Agaricus (Amanita) solitarius, Bull. Champ., t. 48.

Pileus convex then flattened, pelliculose, margin nearly even, warts angular, evanescent. Stem solid, equal, *imbricatedly squamose below*, bulb campanulate, *rooting*, margin inserted, ring torn, gills attenuatedly adnate.—Fr. Hym. Eur. p. 22.

On the ground. Near Bristol. (C. Bucknall.)

Agaricus (Chitonina) rubriceps, Cooke & Mass.

Pileus rather fleshy, campanulate then expanded, umbonate, smooth, even, testaceous, margin faintly striate, stem erect, fistulose, paler than the pileus, *rooting*, volva sheathing, saccate, whitish, torn at the margin. Gills free, lanceolate, rather crowded, purplish brown. Spores elliptical, a little attenuated at each end, $12 \times 6 \mu$.

On soil in Aroid house. Kew Gardens. Dec., 1886.

Not an indigenous species, but of interest as illustrating the sub-genus.

Pileus 1 inch diam. Stem 3 in. long, about two lines thick.

Agaricus (Panæolus) scitulus, Massee.

Pileus campanulate, obtuse, smooth, even, viscid, margin exceeding the gills, dirty ochre, pale; flesh thin, white, stem equal, fistulose, white, shining, base peronate, sheath ending in a persistent ring below the middle of the stem; gills crowded, narrow, becoming ashy grey, speckled with the black spores, margin entire, paler, spores black, with a colourless hilum, narrowly elliptical, $12-13 \times 4 \mu$.

On soil in flower-pot. Scarborough. June, 1885.

Pileus $\frac{1}{2}$ in. broad, rather higher than broad. Stem $1\frac{1}{2}$ in. long, about one line thick. It resembles *Ag. separatus* in miniature, but differs in the sheathed stem and basal ring.

Cortinarius (Phlegmacium) atro-virens, *Kalch. Hung. t. 19, f. 3.*

Pileus compact, convex, even, viscid, dark green, or olivaceous umber, flesh greenish yellow, stem solid, stout, fibrillose, except the subturbinate marginate bulb. Gills adnate, crowded, sulphury then greenish, at length cinnamon.—*Fr. Hym. Eur. p. 349.*

In pine woods. Scarborough. (G. Masee.)

Mycelium tawny.

Cortinarius (Inoloma) malachius, *Fr. Hym. Eur. 361.*

Pileus rather compact, obtuse, pallid lilac, soon discoloured, becoming smooth, at first clad with white fibrils, stem bulbous, with a bluish veil, internally and the veil becoming whitish, gills emarginate, crowded, pallid purplish, then watery ferruginous.

In fir woods. Pontrilas. Sept., 1885.

Flesh of the stem soft, often contorted and ventricose, 3-4 inches long and an inch thick. Pileus 2 in. broad, lilac, then tawny ferruginous or when dry of a brick red, becoming pale, hoary with a whitish pubescence, or silky at the margin.

Cortinarius (Dermocybe) subnotatus, *Pers. Syn. 296.*

Pileus fleshy, thin, campanulate, then flattened, squamulose with hoary superficial flocci, soon smooth, olive, then fuscous; stem spongy, stuffed, conical, elongated, marked with scales or fibrils and the yellowish veil, smooth and shining at the apex; gills adnate, ventricose, broad, rather distant, yellowish, then olivaceous-cinnamon.—*Fr. Hym. Eur. 373.*

Under beech, &c. Alresford, Hants. (Rev. W. Eyre.)

Stem 3-4 in., fragile. Pileus 4 in., gills 3-5 lines broad, connected by veins, rather thick.

Cortinarius (Dermocybe) valgus, *Fr. Hym. Eur. 373.*

Fragile. Pileus convex, somewhat gibbous, even, becoming smooth, olivaceous, then brick red, margin rather membranaceous, stem somewhat hollow, elongated, twisted, naked, pallid, shining, apex striate, sub-violaceous, bulb rooting, whitish, tomentose, gills affixed, rather distant, dingy yellow, then brick red.

Amongst moss in woods. Near Bristol. (C. Bucknall.)

The form referred to this species, with some doubt, differs from the type in several particulars, and is perhaps a distinct variety. See "Illustrations," t. 750.

Cortinarius (Hydrocybe) Krombholzii, *Fr. Hym. Eur. p. 395.*

Pileus conic-campanulate, then gibbous, even, smooth, disc fleshy, margin thin, veil appendiculate; stem fistulose, equal, naked, whitish; gills nearly free, broad, ferruginous, the edge becoming yellowish.—*Krombh. t. 2, f. 31.*

Amongst moss. Scarboro'. (G. Masee.)

Stem 3 in. long, 3 lines thick. Pileus about an inch. Habit that of *Hypholoma*. Often caespitose.

Hygrophorus livido-albus, *Fr. Hym. Eur. p. 412.*

Pileus fleshy, thin, obtuse, *even*, smooth, viscid, *livid*, of one colour, margin naked; stem stuffed, slender, equal, nearly even; gills decurrent, distant, distinct, white.—*Fl. Dan. t. 1907, f. 2.*

In woods. Queen's Cottage grounds, Kew. Nov., 1886.

Hydnum (Resup.) fusco-atrum, *Fr. Hym. Eur. p. 612.*

Subiculum crustaceous, thin, at first glaucous, flocculoso-pruinose, then smooth, ferruginous brown, spines short, conically subulate, acute, fawn-colour, then blackish.

On rotten wood. (C. Bucknall.)

Diatrype Sowerbeii, *Berk. in Herb. No. 8786.*

Erumpent, verruciform, disc pallid, perithecia small, few, with short necks. Asci clavate, almost sessile, sporidia eight, narrowly elliptical, hyaline, $20 \times 4.5 \mu$.—*Sowerby Fungi t. 378, f. 14.*

On branches.

This is the original specimen from Sowerby's Herbarium of the species figured as above, which has also *Trichoderma viride* growing as a parasite upon it.

Agaricus (Clitocybe) zygophyllus, *Cooke & Mass.*

Pileus rather fleshy, convex, then expanded, disc depressed, hygrophanous, tough, flaccid, pallid, with a greyish tint when moist, ochraceous white when dry, margin thin, at first involute, rugose or *plicate*, as if pinched up at regular intervals, stem equal, stuffed, spongy, white, expanding into the pileus, even, smooth, with a thin white tomentum at the base; *gills deeply decurrent*, rather distant, distinctly *connected by veins*, cinereous. Spores elliptical ($8 \times 4 \mu$).

Amongst leaves. Swarraton, Hants. Nov. (Rev. W. L. W. Eyre.)

Pileus 2-4 in diam. Stem 2 in. long, $\frac{1}{4}$ - $\frac{1}{3}$ inch thick. Will be figured in supplement to "Illustrations."

SYNOPSIS MYCOLOGIÆ VENETÆ.*

This is an octavo volume of 360 pages, clearly and distinctly printed, of Italian Fungi classed according to their hosts, or matrices, after the manner of the little volume published by Westendorp many years ago. A work of this kind is often very useful, only that species seem to increase at such an enormous rate that new editions will be required every year or two. Doubtless its value would have been enhanced had it not been confined to Italian Fungi, but included all known species, as far as practicable, from all parts of the world, or, at any rate, for the whole of Europe.

* "Synopsis Mycologiæ Venetæ," secundum matrices, digesserunt. J. Cuboni et V. Mancini. 8vo, Patavii, 1886.

BRITISH PYRENOAMYCETES.

A preliminary list of known species.

By G. MASSEE.

(Continued from p. 39.)

Fam. 5. DIATRYPEÆ. Composite. Perithecia immersed in a heterogenous stroma.

GEN. 1. **DIATRYPE**, *Fries.* Stroma erumpent or superficial, effused, discoid or somewhat verruciform.

* DIATRYPELLA, *Not.* *Asci polysporous, sporidia allantoid, hyaline.*

1. *D. verruciformis*, *Ehr., Sacc. Syll.* 743; *Hdbk.* 2432.
On branches. Common.
var. *affinis*, *Cke.*
On elder. Whitehall. On alder. Shere.
2. *D. favacea*, *Fr., Sacc. Syll.* 744; *Hdbk.* 2431.
On *Betula alba*. Chislehurst, Lynn.
3. *D. nigro-annulata*, *Grev., Sacc. Syll.* 745; *Hdbk.* 2433
(= *angulata*, *Fr.*).
On lime and beech. Scotland.
On oak and holly. Chislehurst, Weybridge, Eltham, and Pentrich.
4. *D. Tocciana*, *Not., Sacc. Syll.* 747.
On alder. Dinmore, Irstead, Lyme Regis.
5. *D. aspera*, *Fr., Sacc. Syll.* 753; *Hdbk.* 2430.
On elm, beech, &c. Weybridge, Eltham, Burnt Ash Lane, Bishop's Wood, Lynn.
6. *D. quercina*, *P., Sacc. Syll.* 759; *Hdbk.* 2429.
On oak. Common.

** DIATRYPE, *Fries.* *Asci octosporous, sporidia sausage-shaped, hyaline.*

a. STICTOSPHÆRIA. Stroma effused.

7. *D. stigma*, *Hoffm., Sacc. Syll.* 705; *Hdbk.* 2434.
On bark and wood. Paul's Cray Common, Blackheath, Weybridge, Forden, etc.

b. DISCOSPHERIA. Stroma discoid or verruciform.

8. *D. bullata*, *Hoffm., Sacc. Syll.* 704; *Hdbk.* 2436.
On willow. Norths, Forden, Hereford, Brighton.
9. *D. disciformis*, *Hoffm., Sacc. Syll.* 703; *Hdbk.* 2435.
On alder. Mark Ash, Hants.
On beech. Forden, Shere, Edinboro', etc.

10. *D. hystrix*, *Fr.*, *Sacc. Syll.* 711 ; *Hdbk.* 2437.
On sycamore branches. Chislehurst.
11. *D. corniculata*, *Ehr.*, *Sacc. Syll.* 714 ; *Hdbk.* 2438.
On maple and ash branches. Weybridge, Kidbrooke.
12. *D. brassicæ*, *Cke.*, *Grev.* xiii, 100.
On cabbage stems. Kew Gardens.
13. *D. berberidis*, *Cke.*, *Grev.* xiv, 14.
On *Berberis vulgaris*. Bristol.

***Sporidia sub-elliptical, hyaline.*

14. *D. Sowerbeii*, *B. in Herb.* No. 8786 A.
On branches. Sowerby's herbarium.

****SCLEROSTOMA. Sporidia uniseptate, hyaline.*

†*Sporidia not appendiculate.*

15. *D. strumella*, *Fr.*, *Sacc. Syll.* 2376 ; *Hdbk.* 2444.
On red currant. Darenth, Dartford, Lynn.
16. *D. varians*, *Curr.*, *Sacc. Syll.* 2379 ; *Hdbk.* 2439.
On maple branches. Eltham.
17. *D. nucleata*, *Curr.*, *Sacc. Syll.* 2393 , *Hdbk.* 2445.
On furze. Weybridge, Shere, Lynn.
18. *D. sordida*, *Curr.*, *Linn. Trans.* xxv, 246.
On oak. Weybridge.

††*Sporidia appendiculate.*

19. *D. pyrrhocystis*, *B. & Br.*, *Sacc. Syll.* 2420 ; *Hdbk.* 2441.
On hazel. Batheaston, Highgate.

****CALOSPORA. Sporidia triseptate.*

20. *D. ulicis*, *Fr.*, *Sacc. Syll.* 3702 ; *Hdbk.* 2453.
On elm. Penzance.
21. *D. undulata*, *B. & Br.*, *Sacc. Syll.* 3705 ; *Hdbk.* 2443.
On branches. Twycross, Glamis. On ivy, King's Cliffe.

****HILLIA. Sporidia multiseptate.*

22. *D. ferruginea* (*Pers.*), *K.*, *Sacc. Syll.* 4115 ; *Hdbk.* 2447.
On hazel. Bentham Hill, Apethorpe, Weybridge.

*****FUCKELIA. Sporidia continuous, brown.*

23. *D. turgida*, *Fries*, *Sacc. Syll.* 1128.
On beech, &c. Eltham, Lullingstone Park, Twycross.
24. *D. dryophila*, *Curr.*, *Sacc. Syll.* 1149 ; *Hdbk.* 2449.
On oak branches. Weybridge, Twycross.
25. *D. denigrans*, *Curr.*, *Sacc. Syll.* 1148 ; *Hdbk.* 2450.
On dead branches.

******VALSARIA. Sporidia uniseptate, brown.*

26. *D. cincta*, *Curr.*, *Sacc. Syll.* 2809 ; *Hdbk.* 2451.
On beech. Shere.

Fam. 6. **VALSEÆ**. Composite, stroma formed from the matrix. Perithecia distinct, circinating or seriate.

GEN. 1. **VALSA**, *Fries*. Perithecia collected in tufts, immersed in the bark, disposed in rings, ostiola convergent, erumpent, forming a disc.

A. Sporidia sausage-shaped, hyaline.

SUB-GEN. 1. **Coronophora**, *Fckl.*

1. *V. gregaria*, *Lib.*, *Sacc. Syll.* 413.
On twigs. Brentry, near Bristol.

SUB-GEN. 2. **Eutypella**, *Sacc.* Ostiola sulcate. Asci octosporous.

2. *V. prunastri*, *Fr.*, *Sacc. Syll.* 566.
On species of *Prunus*.
3. *V. sorbi*, *Schm.*, *Sacc. Syll.* 568.
On *Sorbus aucuparia*. Twycross.
4. *V. stellulata*, *Fr.*, *Sacc. Syll.* 571; *Hdbk.* 2461.
On maple. King's Cliffe, Pentrich, Eltham Grove.
On elm. Forden.
5. *V. ailanthi*, *Sacc.*, *Sacc. Syll.* 577.
On *Ailanthus glandulosa*. Kew Gardens.
6. *V. microspora*, *C. & Plow.*, *Sacc. Syll.* 589.
On beech. Terrington, Norfolk.
7. *V. tetraploa*, *B. & C.*, *Sacc. Syll.* 595; *Hdbk.* 2478.
On dead sticks. Elmhurst.

SUB-GEN. 3. **Leucostoma**, *Ntke.* Disc white, cinereous, or yellowish. Ostiola not sulcate. Asci octosporous.

8. *V. nivea* (*Hoffm.*), *Sacc. Syll.* 533; *Hdbk.* 2463.
On poplar. Edinboro', Sydenham, Twycross, Terrington.
9. *V. leucostoma*, *Pers.*, *Sacc. Syll.* 537; *Hdbk.* 2464.
Appin. On *Cotoneaster bacillaris*. Kew.
10. *V. Kunzei*, *Fries*, *Sacc. Syll.* 538; *Hdbk.* 2465.
On fir bark. King's Lynn.
11. *V. lauro-cerasi*, *Tul.*, *Sacc. Syll.* 546.
On cherry laurel. Shrewsbury, Forden.
12. *V. ceuthospora*, *Cooke*, *Sacc. Syll.* 547.
On *Prunus lauro-cerasus*. Forden.
13. *V. abrupta*, *Cke.*, *Sacc. Syll.* 548.
On willow. Shere.
14. *V. tessella*, *Fr.*, *Sacc. Syll.* 559.
On willow. Shere.

SUB-GEN. 4. **Euvalsa**, *Ntke.* Disc black, ostiola not sulcate. Asci octosporous.

* **MICROSPORÆ**. *Sporidia minute, scarcely 8 μ long.*

15. *V. ceratophora*, *Tul.*, *Sacc. Syll.* 429; *Hdbk.* 2472.
On oak. Weybridge, Elmstead.
On elm. Whitehall.

var. *rosarum*, *De Not.*

On rose stems. Kew Gardens.

var. *quercicola*, *Sacc.*

On oak. Shere.

var. *acericola*, *Cooke.*

On *Acer*. Shere.

var. *ulmi*, *Cooke.*

On elm. Whitehall.

16. *V. coronata*, *Hoffm.*, *Sacc. Syll.* 433 ; *Hdbk.* 2471.

On birch. Mossburnford, Shere.

17. *V. abietis*, *Fr.*, *Sacc. Syll.* 437 ; *Hdbk.* 2473.

On fir branches. Glamis, Terrington.

18. *V. querneae*, *Curr.*, *Sacc. Syll.* 472 ; *Hdbk.* 2480.

On oak bark. Weybridge, Darenth.

19. *V. syngenesia*, *Fr.*, *Sacc. Syll.* 411 ; *Hdbk.* 2462.

On buckthorn. Highgate.

On elder. Whitehall, Batheaston.

** MESOSPORÆ. *Sporidia of medium size, 8 to 12 μ long.*

20. *V. microstoma*, *Pers.*, *Sacc. Syll.* 438 ; *Hdbk.* 2466.

On alder. King's Cliffe.

21. *V. Fuckelii*, *Ntke.*, *Sacc. Syll.* 440.

On *Corylus*. Shere.

22. *V. leiphemoides*, *B. & C.*, *Sacc. Syll.* 444.

On oak bark. Rudloe (*Herb. Berk.*).

23. *V. Schweinitzii*, *Ntke.*, *Sacc. Syll.* 447.

On willow. Shere.

24. *V. syringæ*, *Ntke.*, *Sacc. Syll.* 448.

On branches of *Syringa*. Botanical Gardens, Edinboro'.

25. *V. Hoffmanni*, *Ntke.*, *Sacc. Syll.* 456.

On *Cratægus*. Highgate.

26. *V. cornicola*, *Cke.*, *Sacc. Syll.* 473.

On *Cornus sanguinea*. Darenth.

** MACROSPORÆ. *Sporidia large, more than 12 μ long.*

27. *V. ambiens*, *Fr.*, *Sacc. Syll.* 512 ; *Hdbk.* 2475.

On *Rosa canina*, *Acer dasycarpum*, *Betula alba*, &c. Common.

var. *coryli*, *Sacc.*

On hazel. Ringstead, Thirsk.

var. *carpini*, *Cooke.*

On hornbeam. Highgate.

var. *mali*, *Sacc.*

On *Pyrus malus*. Terrington.

var. *pyri*, *Cooke.*

On *Pyrus torminalis*. Highgate.

var. *cratægi*, *Cooke.*

On hawthorn. *Fungi Britt.* No. 232.

28. *V. populina*, *Fckl.*, *Sacc. Syll.* 513.
On poplar. Terrington, Thirsk.
29. *V. salicina*, *Pers.*, *Sacc. Syll.* 514; *Hdbk.* 2476.
On willow. Weybridge, Irstead, Kidbrooke, &c.
30. *V. Curreyi*, *Ntke.*, *Sacc. Syll.* 516.
On dead larch branches. Weybridge, Perth.
31. *V. cypri*, *Tul.*, *Sacc. Syll.* 517.
On privet. Twycross.
32. *V. pauperata*, *C. & E.*, *Sacc. Syll.* 525.
On *Cerasus avium*. Jedburgh.
33. *V. rhodophila*, *B. & Br.*, *Sacc. Syll.* 529; *Hdbk.* 2479.
On rose stems. Orton Wood.
34. *V. subseriata*, *Cooke*, *Grev.* xiv, 47.
On birch. Shere.

A NEW GOSPEL OF MYCOPHAGY.

It is so seldom that scientific books are lively and spirited, dispersing scintillations of wit in all directions, like sparks from a smith's anvil, that when one is met with it is by no means surprising that we hasten to make a note of it. Under the title of "An Elementary Text Book of British Fungi," the traveller in search of the curious will find much to interest him. There are fifteen pages of figures to illustrate the text, and forty-four pages of figures which have nothing whatever to do with the text; perhaps this is not unusual, but it is curious. By a strange fatality they would be insufficient to illustrate anything satisfactorily, even with the full explanation that is missing. It is not so easy to see the joke of coining a batch of names, supposed to become the popular names of the future for certain edible and poisonous fungi. *Agaricus inversus* is the "infamous Clitocybe"—poor Agaric to be so much maligned—but *Agaricus phalloides* is the "arch bane," perhaps out of compliment to the "Archangel," for the next species is the "Destroying Angel." Theologians will be glad to learn that the name of the "Destroying Angel" has been found at last, and that it is *Agaricus vernus*, because it is "angelically beautiful, and demoniacally poisonous." With less reason *Agaricus crustuliniformis* is baptized anew as "The snake in the grass," but why not "The toad in a hole?" There are more reptiles yet, for *Agaricus lacrymabundus* is called the "Crocodile," because it sheds crocodile's tears. Oh! And "is bowed down with the weight of its guilt." This is a sly insinuation against its slipping wholesale into the manufacture of "trade ketchup." Then, again, there is the "Yellow Reptile," which is a translation from *Agaricus sulfureus*, but why not "Mephistopheles," from the suggestion of sulphur, save out of respect to Mr. Irving, or to the superior qualifications of *Boletus satanas*, which is "Beelzebub's cushion."

Hardly less happy, unless there is some hidden satire beneath the names, are many of the esculent species. For instance *Ag. dealbatus* is the "cream clot" (not to be confounded with Devonshire clotted cream), *Ag. nebularis* is the "cheese-cap," but the "red milk" and the "sweet milk" follow at a respectful distance. The general notion of "spindle shanks" certainly does not correspond with *Agaricus fusipes*; and of *Agaricus clavus*, called the "red nail," it can scarcely be said that the "right nail was hit in the head" when this diminutive little species was included with edible fungi as "a flavouring for sauces." It would probably occupy a mycologist seven years to collect a sufficient number of specimens in the British Isles to flavour a basin of soup. *Agaricus pudicus* is called the "Ingénue," but this is hardly a popular name; perhaps "the naughty Agaric" would have been better. It may be naughty, but it's very nice. *Agaricus albellus* is the "Muscat," and *Agaricus graveolens* the "False muscat," but what "graveolens?" We should much like to be informed *who* has ever found *Ag. graveolens* (Fr.) in the British Isles, or *Ag. cæsareus*, or *Polyporus corylinus*, or *Polyporus tuberaster*, all of them included as British species.

There are in this curious book a great number of recipes for cooking fungi, doubtless sufficient to meet any emergency. We should require special instructions in cooking before we could venture on the following very interesting species, which figure in the catalogue of British Edible Fungi. These are *Polyporus fomentarius* (requiring good teeth), *Polyporus squamosus* (requiring good digestion), *Agaricus (Entoloma) sinuatus* (would Worthington Smith endorse this recommendation?), *Agaricus (Entoloma) rhodopoliis* (would require a strong stomach), *Lactarius piperatus* (not desirable too late at night), *Lactarius torminosus* (should be tried *very* early in the morning), *Lactarius turpis* (similar in odour, texture, and appearance to cow-dung, not very recent), and some others equally eligible and interesting—to an undertaker.

Turning over the "culinary receipts" the reader will be shocked to find that the author, after all, has *not* the courage of his opinions, for, although in another part he repudiates the name of "mushroom" as too much "vulgar," he uses it for the first two of his receipts, and after that it is changed to "Pratelle;" for, be it known to all men, that *Pratelle* is the name predestined for all genuine mushrooms in the future. Pass on till No. 86 is reached, and then learn how "to prepare urchins," which is done by cutting the large ones into several pieces, but whether the cutting is to be done with a birch rod or a rattan cane does not transpire. "In ten minutes take out the urchins and drain them thoroughly. Now dress them as in No. 48." Poor urchins, "take them up tenderly, dress them with care." The same merciless Soyer afterwards makes game (p. 226) of "Grisettes on Toast."

Finally there is a good joke anent *Polyporus squamosus*, which Mrs. Hussey supposed would have a resemblance to stewed saddle

flaps when cooked, but when dried and sliced, and duly prepared, became transformed into respectable razor-strops. We will conclude with an extract from the book which forms the basis of the above remarks, anent this species. "I find that St. Maurice was in the habit of shaving, that he kept his razors in order upon a strop of the period, and that the said strop was made from a slice cut from the heart of a great fungus parasitic on trees. Now the Razor Strop Fungus in particular is *Polyporus squamosus*, which, until better information reaches me, I shall hold to be St. Maurice's Mushroom." Oh, ye of little faith, wherefore will ye doubt.

SACCARDO, SYLLOGE FUNGORUM.

The following Appendix of 484 pages has just reached us. "Additamenta ad Vol. i-iv, curantibus Doct. A. N. Berlese et P. Voglino, Patavii, 1886." Uniform in size and style with the four vols. of the "Sylloge." Of course it is indispensable to all who possess the original work, for which it contains numerous corrections as well as additions.

INDEX LICHENUM BRITANNICORUM.

(According to the most recent Nylanderian Arrangement.)

BY THE REV. J. M. CROMBIE, F.L.S.

PART I. (Concluded).

Series IV. **Phyllodei**, *Nyl.*

Tribe XIII. **PARMELIEI**, *Nyl.*

Genus I. **EVERNIA** (*Ach.*), *Nyl.*

- Sp. 1 *E. prunastri* (*L.*), *Ach.*
 - f. 1, *retusa*, *Ach.*
 - β. *stictocera* (*Sm.*), *Cromb.*
- 2 *E. furfuracea* (*L.*), *Fr.*
 - f. 1. *scobicina* (*Ach.*), *Nyl.*
 - 2, *ceratea* (*Ach.*), *Nyl.*

Genus II. **PARMELIA** (*Ach.*), *Nyl.*

* *Hyporhizia*, *Cromb.*

A. Glaucoscentes.

- Sp. 1 *P. perlata* (*L.*), *Ach.*
 - * *P. ciliata* (*Schær.*), *Nyl.*
- 2 *P. certrarioides* (*Del.*), *Nyl.*
- 3 *P. olivetorum* (*Ach.*), *Nyl.*
- 4 *P. perforata* (*Wulf.*) *Ach.*
- 5 *P. lævigata* (*Sm.*), *Ach.*
- 6 *P. xanthomyela*, *Nyl.*

- 7 *P. dissecta*, *Nyl.*
- 8 *P. revoluta* (*Flk.*), *Nyl.*
 - f. 1, *rugosa* (*Tayl.*), *Cromb.*
 - 2, *panniformis*, *Cromb.*
 - 3, *concentrica* (*Leight.*), *Cromb.*
- 9 *P. tiliacea* (*Hffm.*), *Ach.*
- * *P. carporhizans* (*Tayl.*), *Nyl.*
- 10 *P. scorteia*, *Ach.*
- 11 *P. saxatilis* (*L.*), *Ach.*
 - f. 1, *furfuracea*, *Schær.*
 - 2, *panniformis*, *Ach.*
- 12 *P. sulcata*, *Tayl.*
 - β . *lævis*, *Nyl.*
- 13 *P. omphalodes* (*L.*), *Nyl.*
 - f. 1, *cæsiopruinosa*, *Nyl.*
 - β . *panniformis* (*Ach.*), *Nyl.*
 - f. 1, *glomulifera* *Cromb.*
 - 2, *subconcentrica*, *Cromb.*
- 14 *P. Borreri*, *Turn.*
- B. *Ochroleuca*.
- 15 *P. caperata* (*L.*), *Ach.*
- 16 *P. sinuosa* (*Sm.*), *Ach.*
- 17 *P. conspersa* (*Ehrb.*), *Ach.*
 - f. 1, *isidiata* (*Anzi*), *Leight.*
 - 2, *stenophylla*, *Ach.*
- 18 *P. Mougeotii*, *Schær.*
 - f. 1, *dispersa*, *Cromb.*
- 19 *P. incurva* (*Pers.*), *Fr.*
- C. *Olivaceæ*.
- 20 *P. Acetabulum* (*Neck.*), *Dub.*
- 21 *P. olivacea* (*L.*), *Ach.*
- 22 *P. exasperata* (*Ach.*), *Nyl.*
- 23 *P. subaurifera*, *Nyl.*
- 24 *P. prolixa* (*Ach.*), *Nyl.*
 - β . *sorediata* (*Ach.*), *Nyl.*
- * *P. Delisei* (*Dub.*), *Nyl.*
 - β . *isidiascens*, *Nyl.*
- 25 *P. fuliginosa* (*Fr.*), *Nyl.*
 - β . *lætevirens* (*Fr.*), *Nyl.*
- * *P. glabratula*, *Lamy.*
- 26 *P. stygia* (*L.*), *Ach.*
- 27 *P. lanata* (*L.*), *Nyl.*
 - β . *reticulata* (*Wulf.*), *Cromb.*
- 28 *P. tristis* (*Webr.*), *Nyl.*
- * *Hypogymnia*, *Nyl.*
- 29 *P. physodes* (*L.*), *Ach.*
 - f. 1, *labrosa*, *Ach.*
 - 2, *tubulosa*, *Schær.*
 - β . *platyphylla*, *Ach.*

- 30 *P. vittata* (*Ach.*), *Nyl.*
- 31 *P. encausta* (*Sm.*), *Ach.*
- 32 *P. alpicola* *Fr. fil.*
- 33 *P. pertusa* (*Schrank.*), *Schær.*

Genus III. *PARMELIOPSIS*, *Nyl.*

- Sp. 1 *P. ambigua* (*Wulf.*), *Nyl.*
- 2 *P. aleurites* (*Ach.*), *Nyl.*

Tribe XIV. **STICTEI**, *Nyl.*

Genus I. *STICTINA*, *Nyl.*

- * *Eustictina*, *Cromb.*
 - a *Pseudocyphellatæ.*
- Sp. 1 *St. Thouarsii* (*Del.*), *Nyl.*
- 2 *St. crocata*, (*L.*), *Nyl.*
 - b *Cyphellatæ.*
- 3 *St. fuliginosa* (*Dcks.*), *Nyl.*
- 4 *St. limbata* (*Sm.*), *Nyl.*
- 5 *St. sylvatica* (*Huds.*), *Nyl.*
- 6 *St. Dufourei* (*Del.*), *Nyl.*

Genus II. *LOBARINA*, *Nyl.*

- Sp. 1 *L. scrobiculata* (*Scop.*), *Nyl.*

Genus III. *LOBARIA* (*Hffm.*), *Nyl.*

- Sp. 1 *L. pulmonaria* (*L.*), *Hffm.*
 - f. 1, *hypomela* (*Del.*)
 - f. 2, *pleurocarpa* (*Ach.*)
 - f. 3, *aggregata*, (*Del.*)

Genus IV. *STICTA* (*Ach.*), *Nyl.*

- * *Eusticta*, *Cromb.*
 - a *Cyphellatæ.*
- Sp. 1 *St. damæcornis*, *Sw.*
 - f. *latior*, *Cromb.*
- * *Parmosticta*, *Nyl.*
- 2 *St. aurata*, *Ach.*
 - f. 1 *subglauescens*, *Cromb.*

Genus V. *RICASOLIA* (*D.N.*), *Nyl.*

- Sp. 1 *R. amplissima* (*Scop.*), *Leight.*
- 2 *R. lætevirens* (*Lghtft.*), *Leight.*

Tribe XV. **PELTIGEREI**, *Nyl.*Sub-Tribe I. **Nephromei**, *Nyl.**Genus* I. **NEPHROMIUM**, *Nyl.*

- Sp. 1 *N. tomentosum* (*Hffm.*), *Nyl.*
 f. 1 *rameum* (*Schær.*), *Nyl.*
 2 *N. lævigatum* (*Ach.*), *Nyl.*
 3 *N. parile* (*Ach.*), *Nyl.*
 4 *N. subtomentellum*, *Nyl.*
 5 *N. lusitanicum* (*Schær.*), *Nyl.*
 f. 1, *panniforme*, *Cromb.*
 β. *Hibernicum*, *Nyl.*

Sub-Tribe II. **Peltidiei**, *Nyl.**Genus* II. **PELTIDEA** (*Ach.*), *Nyl.*

- Sp. 1 *P. aphthosa* (*L.*), *Ach.*
 f. 1, *leucophlebia*, *Nyl.*
 2 *P. venosa* (*L.*), *Ach.*

Genus III. **PELTIGERA** (*Hffm.*), *Nyl.*

- Sp. 1 *P. malacea* (*Hffm.*), *Nyl.*
 2 *P. canina* (*L.*), *Hffm.*
 f. 1, *lepidophora*, *Nyl.*
 β. *membranacea* (*Ach.*).
 3 *P. rufescens*, *Hffm.*
 f. 1, *prætextata*, *Flk.*
 4 *P. spuria*, *Ach.*
 5 *P. scabrosa*, *Fr. fil.*
 6 *P. polydactyla* (*Neck.*), *Hffm.*
 f. 1, *collina* (*Ach.*), *Nyl.*
 2, *microcarpa* (*Ach.*), *Nyl.*
 β. *hymenina* (*Ach.*), *Nyl.*
 7 *P. scutata* (*Dcks.*)
 8 *P. horizontalis* (*L.*), *Hffm.*
 f. 1, *muscorum*, *Schær.*

Sub-Tribe III. **Solorinei**, *Nyl.**Genus* IV. **SOLORINA** (*Ach.*), *Nyl.*

- Sp. 1 *S. crocea* (*L.*), *Ach.*
 2 *S. saccata* (*L.*), *Ach.*
 f. 1, *pruinosa*, *Fr.*
 3 *S. spongiosa* (*Sm.*), *Nyl.*
 4 *S. bispora*, *Nyl.*

Tribe XVI. **PHYSICIEI**, *Nyl.**Genus* I. **PHYSICIA** (*Fr.*), *Nyl.*A. *Flavescentes* (*Xanthoria*, *Fr. fil.*).

- Sp. 1 *Ph. flavicans* (*Sw.*), *D.C.*

- 2 Ph. chrysophthalma (*E.*), *D.C.*
f. 1, Dickieana (*Linds.*), *Nyl.*
- 3 Ph. parietina (*L.*), *D.N.*
f. 1, viridescens, *Cromb.*
2, cinerascens, *Leight.*
 β . aureola (*Ach.*), *Nyl.*
f. 1, congranulata, *Cromb.*
 γ . ectanea (*Ach.*), *Nyl.*
- 4 Ph. polycarpa (*Ehrh.*), *Nyl.*
f. 1, lobulata (*Flk.*), *Nyl.*
- 5 Ph. lichnea (*Ach.*), *Nyl.*
B. Cinerascentes (*Euphyscia*, *Cromb.*)
- 6 Ph. intricata (*Desf.*), *Schær.*
- 7 Ph. ciliaris (*L.*), *D.C.*
 β . saxicola, *Nyl.*
- 8 Ph. leucomela (*L.*), *Mich.*
- 9 Ph. speciosa (*Wulf.*), *Nyl.*
 β . hypoleuca (*Ach.*), *Nyl.*
- 10 Ph. pulverulenta (*Schreb.*), *Nyl.*
f. 1, panniformis, *Cromb.*
2, deminuta, *Cromb.*
3, argyphea (*Ach.*), *Nyl.*
 β . detera, *Nyl.*
 γ . angustata (*Hffm.*), *Nyl.*
 δ . subpapillosa, *Cromb.*
- * Ph. venusta (*Ach.*), *Nyl.*
- * Ph. pityrea (*Ach.*), *Nyl.*
- * Ph. muscigena (*Ach.*), *Nyl.*
- 11 Ph. aquila (*Ach.*), *Nyl.*
- 12 Ph. stellaris (*L.*), *Nyl.*
 β . leptalea (*Ach.*), *Nyl.*
 γ . subobscura, *Nyl.*
- * Ph. tenella (*Scop.*), *Nyl.*
- 13 Ph. aipolia (*Ach.*), *Nyl.*
 β . cercidia (*Ach.*), *Nyl.*
 γ . anthelina (*Ach.*) *Nyl.*
- 14 Ph. melops (*Duf.*), *Nyl.*
- 15 Ph. tribacia (*Ach.*), *Nyl.*
- 16 Ph. tribacoides, *Nyl.*
- 17 Ph. erosa (*Borr.*), *Leight.*
- 18 Ph. astroidea (*Clem.*), *Nyl.*
f. 1, teretiuscula (*Ach.*), *Nyl.*
- 19 Ph. obscura (*Ehrh.*), *Nyl.*
 β . virella (*Ach.*), *Nyl.*
- * Ph. lithotea (*Ach.*), *Nyl.*
- 20 Ph. ulothrix (*Ach.*), *Nyl.*
- 21 Ph. adglutinata (*Flk.*), *Nyl.*
f. 1, sorediata, *Nyl.*

Tribe XVII. **GYROPHOREI**, *Nyl.**Genus* I. UMBILICARIA (*Hffm.*), *Nyl.** *Lasallia*, *Mèrat.*Sp. 1 *U. pustulata* (*L.*), *Hffm.** *Agyrophora*, *Nyl.*2 *U. atropurpurea* (*Schær.*), *Nyl.**Genus* II. GYROPHORA (*Ach.*), *Nyl.*Sp. 1 *G. murina*, *Ach.*2 *G. proboscidea*, *Ach.*f. 1, *fimbriata* (*T. & B.*), *Mudd.*2. *exasperata*, *Ach.*β. *deplicans* (*Nyl.*), *Fr. fil.*3 *G. cylindrica*, *Ach.*f. 1, *denticulata*, *Ach.*2, *denudata* (*T. and B.*), *Mudd.*3, *fimbriata*, *Ach.*β. *Delisei* (*Despr.*), *Fr. fil.** *G. tornata*, *Ach.*4 *G. erosa* (*Webr.*), *Ach.*5 *G. torrefacta* (*Lghft.*), *Cromb.*f. 1, *subdividens*, *Nyl.*6 *G. hyperborea*, *Ach.*7 *G. arctica*, *Ach.*8 *G. polyphylla*, (*L.*), *T. and B.*f. 1, *glabra* (*Ach.*).2, *congregata*, *T. and B.*3, *lacera* (*Leight.*), *Cromb.*9 *G. flocculosa* (*Wulf.*), *T. and B.*10 *G. polyrrhiza* (*L.*), *Kbr.*f. 1, *luxurians* (*Ach.*), *Fr. fil.**Omissa* in ALECTORIA.a *Stirps*, *A. ochroleucæ.*Sp. *A. sarmentosa*, *Ach.*β. *cinnamomea* (*Fr.*), *Nyl.**Corrigenda* in CLADONIA.A *Phæocarpæ.** *Cl. gracillima*, *Norrl.*, est subspecies*Cl. furcata.*B *Erythrocarpæ.**F. intumescens*, *Cromb.*, *Cl. macilentæ*f. *scabrosæ*, pertinet ut forma ad *Cl. bacillarem.*

SYNOPSIS PYRENOMYCETUM.

(Continued from Vol. XIV., p. 97.)

4217. Sacc. Syll. *S. Micheliana*, Fr. Specimen in Herb. Berk. is = *Valsa leiphemia*, vide No. 1977.
4220. Sacc. Syll. *S. Sumachi*, Schw., will be *Botryosphæria sumachi* (Schw.), No. 1439*. Large hyaline elliptical sporidia.
4225. Sacc. Syll. *S. junipericola*, Schw. Specimen in Herb. Berk. is a *Sphæropsis*.
4236. Sacc. Syll. *S. acinosa*, Fr. Specimens issued by Mougeot and Nestler are *Diplodia*.
4227. Melogramma (*Valsaria*) *atrofusca*, Schw. Sacc. Syll. No. 4227, Herb. Berk. No. 9925. Sporidia uniseptata 10-12 μ long.

Othia (Otthiella) alnea, Peck, Sacc. Syll. No. 2804. var. **carnosa**, Cooke. *Cucurbitaria carnosa*, Cooke (1876).

Sporidia uniseptata, demum triseptata, hyalina, medio constricta $\cdot 025 \times \cdot 005$ mm.

On branches of *Alnus*. Portland, Maine, U.S. (Fuller).

2577. **Byssosphæria (Trichosphæria) pachnostoma**, B. & C. *Sphæria pachnostoma*, B. & C.

Peritheciis lanosis (1 mm. diam.). Ascis clavatis, sporidiis lanceolatis, continuis, hyalinis ($30 \times 5 \mu$).

On wood. Venezuela (Herb. Berk. No. 9620).

Sphæria truncata, Schwein. Sacc. Syll. No. 4275.

From authentic specimen this is the same as *Hypoxyylon marginatum* in its scattered condition, a form by no means uncommon.

2608. **Byssosphæria (Rosellinia) rhodomela** (*Sphæria*, Byssisedæ, *rhodomela*, Schwein. Amer. Bor. No. 1511), nec Sacc. No. 3263.

Peritheciis globosis, atris, mycelio tenui roseo insidentibus. Ascis linearibus. Sporidiis uniseriatis, ellipticis, continuis, fuscis ($10 \times 6 \mu$).

On rotten wood. United States (Herb. Berk. 9604).

2642. **Byssosphæria (Melanomma) rubiginosa**, Cooke. *Gibbera rubiginosa*, Cooke in Herb.

Peritheciis gregariis, superficialibus, subiculo tenui filamentoso fusco insidentibus, globosis, atro-rubiginosis, subrugulosis, ostiolo impresso. Ascis clavato-cylindricis, octosporis. Sporidiis biserialibus, lanceolatis, triseptatis, medio constrictis, hyalinis, demum pallide fuscis ($\cdot 02 \cdot 024 \times \cdot 004 \cdot 006$ mm.).

On rotten wood. Poughkeepsie, New York (Gerard No. 83).

2610. **Byssosphæria (Rosellinia) picta**, Berk. (*Hypoxylon pictum*, Berk. in *Herb. Berk.* No. 8656).

Peritheciis subglobosis, basi applanatis, atris, nitidis, mycelio tenui albo insidentibus ($\frac{3}{4}$ -1 mm. diam.). Ascis cylindraceis, octosporis. Sporidiis elliptico-lanceolatis, continuis, fuscis ($20-22 \times 8-10 \mu$).

On decorticated wood. Nilgherries.

2613. **Byssosphæria (Rosellinia) epileuca**, Berk. (*Hypoxylon epileucum*, Berk. in *Herb. Berk.* No. 8690). Sphæria albo-fulta, B. & Br., *Sacc. Syll.* No. 4231.

Sporidia not found. Ceylon (No. 1079).

Byssosphæria (Rosellinia) thelena, Fr. var. *elegans*, Duby. Ex specimine authentico *Herb. Kewensis* sub *Sphæria elegans*, Duby.

Byssosphæria (Rosellinia) pardalios, B. & C. (No. 4126).

Sporidia elliptica, curvula, continua, fusca $8-9 \mu$ long.

Byssosphæria (Rosellinia) imposita, Schweinitz in *Herb. Berk.*, No. 9601. *Sacc. Syll.* 4281.

Sporidia lanceolata, continua, fusca ($25 \times 6 \mu$).

Byssosphæria (Rosellinia) epixantha, B. & Br. in *Herb. Berk.* 8688. *Sacc. Syll.* No. 4230.

Sporidia not found.

Byssosphæria (Amphisphæria) diffusa, Schwein. *Sacc. Syll.* No. 4283. *Herb. Berk.* 9602.

Sporidia uniseptata, fusca, utrinque acuminata, medio constricta, $\cdot 018\text{-}\cdot 02 \times \cdot 006\text{-}\cdot 007$.

Byssosphæria (Amphisphæria) conferta, Schwein. *Sacc. Syll.* No. 4277. *Herb. Berk.* 9603.

Sporidia uniseptata, fusca, utrinque obtusa, medio constricta, $\cdot 012 \times \cdot 004$ mm.

Byssosphæria (Amphisphæria) rhodomphala, Berk.

Some confusion is made in the Sylloge with this species; it is twice described, under Nos. 2508 and 3619, whilst one of the references in 3619 belongs to 3624. Berkeley has given the specific name of *rhodomphalos* to only one species.

Psilosphæria (Zignoella) vincenzia, Cooke. (*Sphæria macrostomella*? forma. *Cesati Fungi*, Born.)

Superficialis, denudata, peritheciis subglobosis, atris, glabris, ostiolo lateraliter compresso, platystomoeideo (?) Ascis clavatis, octosporis. Sporidiis lanceolatis, rectis, hyalinis, uniseptatis, dein tenuiter triseptatis ($\cdot 035 \times \cdot 004$ mm.).

In ligno denudato. Sarawak.

Rosellinia oblectans, Cke. *Sordaria*? *oblectans*, Ces. *Anthostomella oblectans*, *Sacc. Syll.* No. 1084.

Perithecia tota superficialia. Ascis cylindraceis. Sporidiis uniserialibus, subglobosis, fuscis ($\cdot 006 \times \cdot 004\text{-}\cdot 005$ mm.).

Rosellinia (Coniomela) barbatula, B. & C. in *Herb. Berk.* 9621.

Perithecia densissime gregaria, subglobosa, compressa, atra, opaca.

Rosellinia (Coniomela) opaca, Cke. *Fungi of Socotra*.

Sporidia $7 \times 6 \mu$.

3592. **Lasiosphæria Russellii**, B. & C. }

3593. **Lasiosphæria papilionacea**, B. & C. }

These are both forms of the same species which is included under the name of *Dimerosporium Collinsii* (Schwz.), Sacc. Syll. No. 2431.

Coniochæta (Chætomastia) exilis, Schwein.

Specimen from Schweinitz in Herb. Berk. 9648, has small pilose perithecia ($\frac{1}{8}$ mm. diam.), with fusiform triseptate brown sporidia ($16-18 \times 5 \mu$).

On rotten wood. Nazareth.

2643. **Byssosphæria (Chætosphæria) holophæa**, B. & C.

Perithecia subglobosa, pilosa, gregaria, bysso atro-fusco, rigido, nidulantia ($\frac{1}{2}$ mm. diam.) Ascis clavatis, octosporis. Sporidiis biseriatis, elongato-ellipticis, medio constrictis, triseptatis, fuscis ($22-24 \times 8 \mu$).

On branches. Pennsylvania U.S. Herb. Berk. 9631.

Coniochæta hericium, Schwein. in Herb. Berk. 9653.

Perithecia sparsa ($\frac{3}{10}$ mm. diam.) subglobosa, fusca, breviter hirsuto-pilosa, pilis subulatis, sparsis. Ascis cylindræis, octosporis. Sporidiis ovalibus, continuis, fuscis ($12-14 \times 8 \mu$).

On rotten wood. Bethlehem, United States.

Psilosphæria (Walrothiella) Fendleri, B. & C. in Herb. Berk. 9628.

Perithecia densissime gregaria, globosa, atra, demum depressa. Sporidiis arcuatis, utrinque acutis, multinucleatis, hyalinis (50μ long).

On wood.

Psilospora (Melanopsamma) conospora, B. & C. in Herb. Berk. 9727.

Sporidia pyriformia, inæqualiter uniseptata, pallide fusca $8 \times 4 \mu$.

Lasiosphæria (Enchnosphæria) scopula, C. & Pk.

Perithecia villosa, subglobosa, atra ($\frac{1}{5}$ mm. diam.) Ascis lanceolatis, octosporis. Sporidiis elongato-fusiformibus, 10-12 septatis hyalinis ($70 \times 4 \mu$).

On naked wood. New York ; New Jersey.

Coniochæta (Hypocopra) brassicæ, Klotzsch. Rabh. *Fungi Eur.* 2217.
Sacc. Syll. 859 ?

Sporidia $65 \times 35 \mu$ continua, fusca.

Coniochæta detonsa, Cooke.

Perithecia sparsa vel gregaria, subglobosa, breviter villosa, atra. Ascis cylindræis, octosporis. Sporidiis ovato-ellipticis, continuis, fuscis $10 \times 7\frac{1}{2} \mu$.

On naked fir wood. Albury, Jedburgh.

Lasiosphæria (Leptospora) emergens, Schwz. Sacc. Syll. No. 4296.
Herb. Berk. No. 9651.

Sporidia continua, flexuosa, nucleata, hyalina, $30-32 \mu$ long.

Lasiosphæria setosa, Schw. Sacc. Syll. 4289. Herb. Berk. No. 9650.

We have not succeeded in finding sporidia.

Lasiosphæria cladosporiosa, Schw. Sacc. Syll. 4297. Herb. Berk 9654.

No sporidia found.

Coniochæta (Chætomastia) squamulata, Schwz. Sacc. Syll. 4290. Herb. Berk. 9655.

Sporidia lanceolata, 3-5 septata, fusca, 20-40 μ long.

Psilosphæria (Melanopsamma) subfasciculata, Schw. Sacc. Syll. 4309. Herb. Berk. 9701.

Sporidia ellipsoidea, uniseptata, hyalina, 20 $\times$ 8 μ .

Melanomma pyriosticta, Cooke Herb. Kewensis.

Perithecia sparsa, globosa, glabra, ostiolo minuto, fusco. Sporidiis fusiformibus, triseptatis, fuscis (25-30 $\times$ 6-7 μ).

On rotten wood. Twycross.

Melanomma ramicola, Schwein. in Herb. Berk. No. 9698.

Perithecia subcæspitosa, subglobosa, demum collapsa, atra, opaca. Ascis clavatis, sporidiis lanceolatis, triseptatis, fuscis, 25 $\times$ 6 μ .

On *Pinus pinea*.

Melanomma inspissa, Schwein. Sacc. Syll. 4312, in Herb. Berk. No. 9702.

Sporidia triseptata, fusca (12-14 μ long).

Sphæria (Denudatæ) inconstans, Schw. Sacc. Syll. 4311. Herb. Berk. 9700.

We did not succeed in finding fruit.

Sphæria (Denudatæ) aggregata, Schw. Sacc. Syll. 4315. Herb. Berk. 9699.

Sporidia not seen.

Sphæria (Denudatæ) depolita, B. & C. Sacc. Syll. No. 4306.

At present we have found nothing in Berkeley's Herbarium to correspond to this name.

Fam. 8. CUCURBITARLÆ. Perithecia cæspitosa vel gregaria.

GEN. 1. **NITSCHKIA**, Otth. (Winter, Hedwigia, 1885, 104., CÆLOSPHÆRIA, Sacc. Syll. I., 91. Perithecia nigro, vel villo tenui candido insidentia. Sporidia octona, botuliformia hyalina.

2439. cupularis, Pers. ... 377 2441. radicalis, Cooke ... 382

2440. acervata, Karst. ... 380 2442. anceps, Sacc. & Roum. 6251

GEN. 2. **FRACCHIEA**, Sacc. Syll. I., 93. Perithecia aggregata, crustula, stromatica insidentia. Sporidia allantoidea, hyalina.

* *Asci polyspori*.

2443. heterogenea, Sacc. 384 2448. rasa, Berk. ... 389

= *polycocca*, B. & Rav. 2449. subconnata, B. & C. 383

Car. Exs. No. 62. = *subcongregata*, B. &

2444. cucurbitaroides, Speg. 385 Rav. Car. Exs. iv. 57

2445. brevibarbata, B. & C. 386 2450. Saccardiana, Schulz. 6253

2446. moricarpa, Cooke ... 387 2451. Cordæana, Sch. &

= *subconvexa*, B. & Rav. Sacc. ... 6254

2447. callista, B. & C. ... 388

** PLEUROSOMA. *Asci myriospori.*2452. Candollei, *Tul.* ... 390* * *Asci octospori.*2453. introflexa, *Berk. & Rav.*GEN. 3. **GIBBERA**, *Fr. Sacc. Syll. I.*, 599. Perithecia setulosa, obsolete, papillata. Asci octospori.* *Sporidia uniseptata, hyalina.*2454. vaccinii, *Fr.* ... 2338 2456. guaranitica, *Speg.* 65392455. Borneensis, *Ces.* ... 2339** *Sporidia pluriseptata, fusca.*2457. cucurbitaroides, *Speg.* 3284.GEN. 4. **GIBBERIDEA**, *Fckl. Sacc. Syll. II.*, 132. Perithecia caespitosa, papillata, glabrescentia.* WALLROTHIELLA. *Sporidia continua, hyalina.*2458. macilentia, *C. & E.* 1758** GENUINA. *Sporidia fusoides, 6 septata, fuliginea.*2459. visci, *Fckl.* ... 3345* * ZIGNOELLA. *Sporidia multiseptata, hyalina.*2460. proteus, *B. & C.* ... 3645 2462. vitis, *Schulz.* ... 36382461. Archeri, *Berk.* ... 3637GEN. 5. **OTTHIA**, *Ntke. Sacc. Syll. I.*, 735. Perithecia caespitosa, erumpenti-superficialia carbonacea, vix papillata.* EU-OTTHIA. *Sporidia didyma, fuliginea:*2463. cratægi, *Fckl.* ... 2781 2474. syringæ, *Fr.* ... 27912464. pyri, *Fckl.* ... 2782 2475. xylostea, *Fckl.* ... 27922465. pruni, *Fckl.* ... 2783 2476. ulmi, *Fab.* ... 27932466. spireæ, *Fckl.* ... 2784 2477. corylina, *K.* ... 27942467. populina (*P.*) ... 2785 2478. urceolata, *Fckl.* ... 27952468. diminuta, *K.* ... 2786 2479. Brunaudiana, *Sacc.* 27962469. ambiens, *Niessl.* { 2787 2480. aceris, *Wint.* ... 27976120 2481. alni, *Wint.* ... 27982470. ilicis, *Fab.* ... 6121 2482. Monodiana, *S. & R.* 66252471. Doberæ, *Pass.* ... 2788 2483. lignyodes, *B. & Br.* 27992472. quercus, *Fckl.* ... 2789 2484. lisæ, *Not.* ... 28002473. rosæ, *Fckl.* ... 2790 2485. pteleæ, *Rabh.* ... 6626** OTTHIELLA. *Sporidia didyma, hyalina.*2486. morbosa, *Schw.* ... 5295 2490. alnea, *Peck.* ... 28042487. seriata, *Peck.* ... 2801 = var. carnosa, *Cke.*2488. Winteri, *Rehm.* ... 2802 (3 septata).2489. Hazslinszkyi, *Sacc.* 2803

GEN. 6. **CUCURBITARIA**, Gray. *Sacc. Syll.* II., 307. Perithecia cæspitoso-erumpentia, carbonacea, typice rugulosa.

* CUCURBITULA. *Sporidia continua fusca.*

2491. conglobata, *Fckl.* 1011 2493. syringæ, *Kichx.* ... 1013
2492. myricariæ, *Fckl.* ... 1012 2494. plicatula, *B. & Br.* 953

** MELANOMMA. *Sporidia triseptata fusca.*

2495. Aspegrenii, *Fckl.* 3229 2500. Hendersoniæ, *Fckl.* 3262
2496. alpinum, *Speg.* ... 3253 2501. dioica, *Moug.* ... 2911
2497. Requienii, *Fab.* ... 3254 2502. conglobata, *Klot. in*
2498. cinerea, *Karst.* ... 3259 *Herb. Kew.*
2499. rhododendri, *Nssl.* 3260

Sporidia 4-pluriseptata.

2503. occidentale, *Ellis* 3272 2504. pubens, *Schw.* ... 4221

** DICTYOSPORA. *Sporidia muriformia, colorata.*

2505. berberidis (*P.*) ... 3935 2533. castaneæ, *Sacc.* ... 3961
2506. rufo-fusca, *Fr.* ... 3936 2534. hederæ, *Wint.* ... 3962
2507. laburni, *Pers.* ... 3937 2535. occulta, *Fckl.* ... 3963
2508. elongata, *Fr.* ... 3938 2536. occultata, *Oud.* ... 3964
2509. ulmea, *K.* ... 3939 2537. bicolor, *Fckl.* ... 3965
2510. ulmicola, *Fckl.* ... 3940 2538. congesta, *C. & E.* ... 3966
2511. gleditschiæ, *Ces.* ... 3941 2539. comptoniæ, *C. & E.* 3967
2512. coluteæ, *Rabh.* ... 3942 2540. acerina, *Fckl.* ... 3968
2513. caraganæ, *K.* ... 3943 2541. hirtella, *Bacc. & Av.* 7120
2514. amorphæ, *Wallr.* ... 3944 2542. carpini, *Sacc.* ... 3969
2515. longitudinalis, *Peck* 7118 2543. juglandis, *Fckl.* ... 3970
2516. pithophila, *Schm. & Kze.* ... 3945 2544. rosæ, *Wint.* ... 3971
2517. delitescens, *Sacc.* 3946 2545. rubicola, *Karst. F. Fenn.* 879
2518. coronillæ, *Fr.* ... 3947 2546. protracta, *Nees.* ... 3972
2519. spartii, *N.* ... 3948 2547. salicina, *Fckl.* ... 3973
2520. acervata, *Fr.* ... 3949 2548. setosa, *Wint.* ... 3974
2521. rutæ, *Fab.* ... 6167 2549. pulchella, *Fab.* ... 3975
2522. conglobata, *Ces.* ... 3950 2550. euonymi, *Cke.* ... 3976
2523. Karstenii, *Sacc.* ... 3951 2551. confinis, *Lev.* ... 3977
2524. cratægi, *Niessl.* ... 3952 2552. dulcamaræ, *Fr.* ... 3979
2525. lauro cerasi, *Phil. & Pl.* ... 3953 2553. solitaria, *Ell.* ... 3980
2526. sorbi, *Karst.* ... 3954 2554. confluens, *Plow.* ... 3981
2527. ligustri, *Fab.* ... 3955 2555. tumorum, *Schw.* ... 3983
2528. rhamni, *N.* ... 3957 2556. insecure, *Ellis* ... 3984
2529. ailanthi, *Rabh.* ... 3958 2557. ribis, *Niessl.* ... 3985
= *negundinis*, *Wint.* 2558. botryosa, *Tode.* ... 3986
2530. naucosa, *Fr.* ... 3959 2559. Aspegrenii, *Ces.* ... 3987
2531. cingarus, *Schulz. & Sacc.* ... 7119 2560. umbilicata, *Ell.* ... 7121
2532. coryli, *Fckl.* ... 3960 2561. coremæ, *Ell. & Ev.* 7117
2562. valsæformis, *Fckl. F. Rhen.* 954

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2563. nidula, Schw. ... 4216	2568. molliuscula, Schw. 4224
2564. varia, Pers. ... 4218	2569. junipericola, Schwz. 4225
2565. stipata, Schw. ... 4219	2570. hyperici, Schwz. ... 4226
2566. parasitans, Schw: 4222	2571. acinosa, Fries ... 4236
2567. mezerei, Schw: ... 4223	

FUNGI NOVI BRASILIENSES.

AUCTORE DR. G. WINTER.

Fungi omnes, hic descripti, ab amico E. Ule in vicinitate urbis Sao-Francisco, provincia Sta. Catharina, Brasiliæ, lecti sunt. Descriptiones ampliores Meliolarum et Asterinearum novarum ab Ule collectarum in "Flora," 1887, dabo.

1. Diorchidium pallidum. *Winter, nov. spec.*

Acervuli hypophylli, sparsi gregariivæ, macula indeterminata, irregulari, mox parva, mox late effusa, luteola insidentes, minutissimi, punctiformes. Acervuli uredosporarum rotundati seu irregulariter parumque oblongati, ab epidermide inflata, demum fissa longe velati, luteo-fusculi. Uredosporæ subglobosæ vel ovoideæ, dense echinulatæ, luteolæ, 18-19, 5 μ diam., vel usque 27 μ longæ, 18-20 μ crassæ. Acervuli teleutosporarum punctiformes hemisphærico-pulvinati, ceracei, compactiusculi. Teleutosporæ ovato-cuneatæ seu subellipticæ, apicem versus parum attenuatæ rotundatæque, basi plerumque truncatæ vel late rotundatæ luteolohyalinæ, stipite prælongo, lato, persistente, hyalino suffultæ, 28-29 μ longæ, 12-14 μ crassæ.

In foliis vivis languidisque plantæ cujusdam scandentis (Ule, No. 143).

2. Uredo Janiphæ. *Winter, nov. spec.*

Acervuli solitarii gregariivæ, plerumque hypo-rarius etiam epiphylli, sæpe ad petiolos et ramulos juniores, ad folia maculis irregularibus rotundatisve, sæpe confluentibus, indeterminatis, fuliginis insidentes, rotundati vel angulati, minuti, $\frac{1}{2}$ -1 millim. lati; ad nervos foliorum, petiolos ramulosque juniores plus minusve elongati, sæpe confluentes, 5 mill. longi, primo ab epidermide, pustulatim inflata, luteola velati, mox autem nudi, applanati, epidermidis fissæ laciniis cincti, pallide luteoli. Sporæ globosæ vel ellipticæ, interdum ovatæ, dense minutissimeque aculeolatæ, fuliginæ, 19, 5-25 μ diam., vel usque 28, 5 μ longæ.

In foliis vivis Janiphæ Manihot (Ule, No. 362).

3. Hypocrella luteo-olivacea. *Winter, nov. spec.*

Stromata subglobosa vel crasse pulvinata, sessilia, ramulos tenuiores conferte circumdantia, superficialia, facile solubilia, sæpe mutua pressione plus minusve angulata, extus luteo-olivacea, peritheciis parum exstantibus verrucosa, intus lutea, ca. 1-3 millim. lata. Perithecia immersa, vertice tantum prominula, elongato-ovoidea,

in collum crassum, conicum attenuata, 150-180 μ lata. Asci elongato-cylindracei, deorsum stipitiforme attenuati, 8-spori, 180-200 μ longi, 9 μ crassi. Sporæ filiformes, hyalinae, dense septatae et (in ascis) in articulos cylindricos, utrinque truncatos, 8-9 μ longos, 2, 5 μ crassos secedentes.

Ad ramulos emortuos (Ule, No. 337).

4. *Saccardia ferruginea.* *Winter, nov. spec.*

Perithecia gregaria, forma magnitudineque varia, plerumque subglobosa, sæpe parum angulata, tenuissime membranacea, parenchymatica, ferruginea, mycelio late effuso, densissimo, sæpe parenchymatice contexto, ferrugineo, in mycelio *Asterinae* cujusdam parasitico, insidentia, 44-80 μ diam. Hyphæ mycelii valde ramosæ, repentes, dense septatae, plus minus torulosæ flexuosæque, tenues. Asci in quoque perithecio pauci, 3-10 (rarius plures), subglobosi, fere sessiles, 8-spori, 32 μ longi, 25-29 μ lati. Sporæ conglobatae, oblongæ, inæqualiter didymæ, triseptatae, plerumque cellula secunda tantum septo unico longitudinali prædita, utrinque rotundatae, subhyalinae, 13-14 μ longæ, 6 μ crassæ.

Ad folia viva Myrtaceæ cujusdam (Ule, No. 165).

Species valde memorabilis et fortasse melius genus novum constituens.

5. *Dimerosporium afflatum.* *Winter, nov. spec.*

Mycelium plagas rotundatas s. subirregulares, interdum confluentes, $\frac{1}{2}$ -1 $\frac{1}{2}$ millim. latas, epiphyllas, sparsas, atras, opacas, tenuissimas formans, e hyphis repentibus, arctissime adnatis, valde ramosis, crassis, fuligineis dense intertextum. Hyphopodia numerosa, alternantia, sessilia, hemisphærica, sæpe parum crenata vel angulata. Perithecia densissime aggregata, inter mycelii hyphas confertissima, angulato-subglobosa, contextu indistincto, tenuissimo, dilutissime fuliginea, appendiculis paucis filiformibus, curvatis flexuosisve, hyalinis obsita, usque 80 μ diam. Asci in quoque perithecio pauci (4-6), globosi seu ovati, sessiles, 8-spori, 37-41 μ longi, 26-36 μ crassi. Sporæ conglobatae, oblongæ, parum inæquilaterales, utrinque rotundatae, medio septatae, vix constrictae, cellula inferiori parum angustiori, hyalinae, 23-25 μ longæ, 10 μ crassæ.

In foliis vivis plantæ ignotæ (Ule, No. 368).

6. *Dimerosporium æruginosum.* *Winter, nov. spec.*

Perithecia densissime aggregata, soros plerumque epiphyllas, rotundatos irregularesve, sæpe e pluribus vel multis minoribus compositos, atros, velutinos formantia, mycelio e hyphis repentibus, dense intertextis, ærugineo-atris formato insidentia globoso-hemisphærica, poro simplici, sed distincto pertusa, atra, membranacea, pilis copiosis, longis, flexuosis, atris ubique dense obsita, 125-135 μ diam. Asci elliptici, vertice rotundati, brevissime stipitati, 8-spori, 44-54 μ longi, 20-23 μ crassi. Sporæ conglobatae, oblongo-subclavatae, utrinque rotundatae, medio septatae, vix constrictae, dilutissime fuligineae, 18-19, 5 μ longæ, 7-8 μ crassæ.

In foliis vivis *Mikaniae* spec. cujusdam (Ule, No. 245).

Dimerosporia *Baccharidis* valde affine, sed præcipue colore mycelii, ascorum forma etc. distinctum.

7. *Dimerosporium subpilosum.* *Winter, nov. spec.*

Perithecia dense aggregata, soros parvos, rotundatos vel irregulares, $\frac{1}{4}$ -1 millim. latos, epiphyllous, sparsos, atros formantia, globosa, membranacea, atra, poro simplici pertuso, pilis repentibus, radiantibus, flexuosis, fusco-atris, longis parce obsita, 56-60 μ diam. Asci late obovati vel ellipsoidei, sessiles, 8-spori, 30-32 μ longi, 16-18 μ crassi. Sporæ conglobatæ, clavatæ, utrinque rotundatæ, medio septatæ, et parum constrictæ, interdum subinæquilaterales, hyalinæ, 12-13 μ longæ, 3, 5-4, 5 μ crassæ.

In foliis vivis *Chiococcae* speciei cujusdam (Ule, No. 391).

8. *Didymosphæria filicina.* *Winter, nov. spec.*

Perithecia gregaria, in foliolis plerumque dealbatis epiphylla, immersa, globosa, poro simplici pertusa, vertice late papillæformi tantum promiunula, atra, coriacea, 80-90 μ diam. Asci fasciculati, oblongi, utrinque attenuati, substipitati, 8-spori, 44-48 μ longi, 12, 5 μ crassi. Sporæ di-tristichæ, bacilliformes, cylindrico-subclavatæ, utrinque rotundatæ, medio septatæ, haud constrictæ, hyalinæ 14-16 μ longæ, 3 μ crassæ. Paraphyses parum distinctæ, filiformes, plerumque mucosæ.

Ad folia subviva *Gymnogrammes colomelani* Kaul f. (Ule, No. 486).

9. *Didymosphæria innumerabilis.* *Winter, nov. spec.*

Perithecia in maculis magnis arescendo-candicantibus vel pallide fuligineis, determinatis, angulato-rotundatis seu irregularibus, margine luteolo angusto et area fuscidula latiori cinctis, usque 12 mill. latis hypophylla, gregaria, sæpe conferta s. aggregata, sub-superficialia, subglobosa, poro simplici pertusa, membranacea, atra, 98-110 μ diam. Asci e basi latiori ovata sursum attenuati, sessiles, 8-spori, 35-40 μ longi, 11, 5-12, 5 μ lati. Paraphyses tenuissimæ, filiformes, plerumque mucosæ. Sporæ conglobatæ, bacillari-subclavatæ, interdum parum curvatæ, medio septatæ, leniterque constrictæ, plerumque utrinque, semper autem deorsum subattenuatæ, rotundatæ, hyalinæ, cellula superiori parum latiori, 16-18 μ longæ, 4, 5 μ crassæ.

In foliis vivis *Passifloræ* cujusdam (Ule, No. 194).

10. *Physalospora multipunctata.* *Winter, nov. spec.*

Perithecia numerosa, supra foliorum partes magnas dense gregarieque sparsa, macula permagna, indeterminata irregularique, sordide fuscidula s. luteola insidentia, solitaria in tuberculo e parenchymate foliorum formato, utrinque promiunulo inclusa, globosa, ostiolo papillæformi pertuso erumpenti, haud vero prominentia, atra, carbonacea, fragilia, 190-200 μ diam. Asci oblongo-clavati, longissime pedicellati, 8-spori, 50-62 μ longi (p. sporif.), 19, 5-23 μ crassi. Sporæ conglobatæ, oblongæ, supra medium latissimæ, utrinque rotundatæ, hyalinæ, nubilosæ, 18 μ longæ, 7 μ crassæ.

Ad folia viva *Melastomaceæ* cujusdam (Ule, No. 419).

11. *Herpotrichia ferox*. *Winter, nova species.*

Perithecia densissime aggregata, acervulos irregulares, pulverinatos, inæquales, aterrimos, velutinos formantia, subiculo e hyphis repentibus, fuscis, torulosis ramosisque formato, insidentia, globosa, vertice rotundata, demum collapsa et concava, undique vertice excepto setis rigidis, crassis, acutis, opace atris, divergentibus, 360-370 μ diam. Setæ basi 10, 5 μ crassæ. Asci anguste clavati, vertice late rotundati, deorsum in stipitem sublongum, torulosum attenuati, 8-spori, 142-180 μ longi, 19-20 μ crassi. Sporæ 2-3 stichæ elongato-fusoideæ, curvulæ, 8-9 septatæ, ad septa vix contractæ, fuscæ, cellulæ extimæ pallidiores, interdum fere hyalinae, 40-60 μ longæ, 9 μ crassæ. Paraphyses tenuissime filiformes, plerumque diffusæ.

Ad corticem putridum (Ule, No. 113).

12. *Xylaria palmicola*. *Winter, nov. spec.*

Stroma plus minusve erectum vel in parte inferiori adscendens, flexuosum, gracillimum, simplex, rarius teres, plerumque subcompressum, sæpe parum tortuosum, opace fuscoatrum, basi villo longo, fusco, sed dense adpresso vestitum, usque 14 centim. longum, 1-1½ mill. crassum. Clavula peritheciigera stipite crassior, multo brevior, cylindrica, sæpe parum inæqualis, a peritheciis vix exstantibus nonnihil tuberculosa, ab ostioliis exsertis aspera, apice acuta sterili, usque 24 mill. longa, 2-4 mill. crassa. *Perithecia* globosa vel late ovoidea, immersa, ostiolo papillæformi prominentia. Asci cylindricei sursum in stipitem longissimum attenuati, 8-spori, 137-150 μ longi (pars sporif. : 74-92 μ), 9-10, 5 μ crassi. Sporæ monostichæ, ellipsoideæ, valde inæquilaterales, cymbiformes, utrinque subacutæ, opace fusco-atræ, 14-16 μ longæ, 7 μ crassæ.

In fructibus putridis Palmarum (Ule, No. 353).

13. *Phyllachora rhopographoides*. *Winter, nov. spec.*

Stromata sparsa, epiphylla, tuberculiformia, plus minusve irregularia, mox angulato-rotundata, mox secus nervulos laterales elongata, ab epidermide pustulatim inflata tecta, convexa vel subapplanata, grisea, usque 2 millim. longa, tota e parenchymate fusco-atro, e cellulis in seribus verticalibus constipatis formato constantia. *Perithecia* s. locula in quoque stromate parca, dense stipata, tota immersa, haud exstantia, angulato elliptica vel irregularia, ostiolo plerumque laterali, papillæformi vix prominentia, usque 300 μ lata. Asci fere cylindricei, utrinque attenuati, substipitati, 8-spori, 106-124 μ longi, 12, 5 μ crassi. Paraphyses copiosæ, filiformes, submucosæ. Sporæ obliquemono vel pro parte subdistichæ, oblongæ, inæquilaterales, utrinque rotundatæ saepeque attenuatæ, hyalinae, sæpe medio spurie uniseptatæ, 19-25 μ longæ, 7 μ crassæ.

Ad folia subviva *Pteridis aquilinæ* (Ule, No. 274).

14. *Phyllachora infuscans*. *Winter, nov. spec.*

Stromata plerumque in macula longitudinaliter effusa, fuscidula, usque 1 centim. longa amphigena, subgregaria, saepe seriata et confluentia, lineari-lanceolata, utrinque obtusiuscula, convexula,

atra, subnitida, longitudinaliter striato-rimosa, 1-2 mill. longa, e parenchymate denso, fusco-atro contexta. Perithecia seu locula in quoque stromate pauca, dense stipata, tota immersa, haud exstantia, subglobosa vel oblonga, mutua pressione angulata et irregularia, ostiolo haud visibili, a stromatis substantia non diversa. Asci elongato-oblongi vel oblongo-cylindracei, sursum parum, deorsum magis attenuati, breviterque stipitati, vertice rotundati, 8-spori, 124-142 μ longi, 18-26 μ lati. Sporæ subdistichæ, ellipsoideæ vel oblongæ, sæpe utrinque acutiusculæ, parum inæquilaterales, hyalinæ, 23-27, rarius usque 30 μ longæ, 9, plerumque 10, 5 μ crassæ. Paraphyses copiosæ, filiformes.

Ad folia viva Paspali (Ule, No. 271).

15. Phyllachora atroinquans. *Winter, nov. spec.*

Stromata amphigena, greges folium longe lateque obducentes, rarius minores, nigrescentes, indeterminatos irregularesque formantia, immersa, ab epidermide denigrata tecta, rotundata, sæpe obtuse angulata, haud raro subconfluentia, humida plana vel perparum convexa, sicca depressa, impressa vel demum fere umbilicata, rugulosa, atra, subnitentia, $\frac{1}{2}$ millim. lata. Perithecia in quoque stromate parca, plerumque unicum, depressa sublenticularia, in stromatis superficie ostiolo papillæformi prominentia, 270 μ lata. Asci elongato-elliptici, seu elliptico-subpyriformes, sessiles, 8-spori, 62-66 μ longi, 26-27 μ crassi. Sporæ conglobatæ, ovato-oblongæ, supra medium latissimæ, utrinque rotundatæ, hyalinæ, continuæ, 25-28, 5 μ longæ, 10-10, 5, latæ.

Ad folia arida Bromeliaceæ adhuc indeterminatæ (Ule, No. 481).

16. Phyllachora Ulei. *Winter, nov. spec.*

Stromata sparsa, amphigena, plerumque autem epiphylla, rotundata, sæpe angulata vel subirregularia, multo rarius elongata, usque 5 millim. lata, crustæformia, applanata, ab ostiolis perparum prominulis umbilicato-punctulata, cæterum lævia, atra, subnitida. Perithecia in quoque stromate numerosa, densissime stipata, subglobosa, sæpe mutua pressione angulata vel parum depressa, ostiolo minutissimo, papillæformi, pertuso, demum umbilicato, 83-94 μ lata. Asci oblongo-cylindracei, utrinque attenuati, vertice truncato, substipitati, 90-106 μ longi, 12, 5 μ lati. Spora oblique monostichæ, vel pro parte distichæ, oblongæ, utrinque acutiusculæ, subinæquilaterales, continuæ, hyalinæ, 18-20 μ longæ, 5, 5 μ latæ. Paraphyses tenuissimæ, filiformes, mucosæ.

Ad folia viva plantæ ignotæ scandentis (Ule, No. 143).

17. Phyllachora applanata. *Winter, nov. spec.*

Stromata in utraque foliorum pagina visibilia, sparsa, sine macula, angulato-rotundata vel oblonga vel irregularia, applanata, crustæformia, atra, opaca, rugulosa, ab ostiolis perithecorum punctulato-verruculosa, ca. 1 millim. longa, $\frac{1}{2}$ millim. lata. Perithecia in quoque stromate plura, conferta, immersa, globosa, ostiolo papillæformi stromatis superficiem prominentia, ca. 140 μ lata. Asci cylindracei, utrinque, deorsum autem magis attenuati, vel

cylindrico-clavati, breviter stipitati apice truncati, 8-spori, 90-106 μ longi, 10, 5-14 μ lati. Sporæ ellipsoideo-subcymbiformes, utrinque acutiusculæ, parum inæquilaterales, continuæ, hyalinæ, 14 μ longæ, 4, 5 μ latæ.

Ad folia viva Xanthoxyli (Ule, No. 262).

18. Auerswaldia clypeata. *Winter, nova spec.*

Stromata sparsa, epiphylla, interdum 2-3 conferta et confluentia, orbicularia, vel parum angulata sinuataque, scutiformia, centro convexo, late et depresso conica, atra, nitida, demum applanata, opaca et rugosa, $\frac{1}{2}$ -1 millim. lata. Perithecia in quoque stromate pauca, sæpe solitaria, lenticularia vel depresso subconoidea, tota immersa, ostiolo tantum vix papillæformi prominula, usque 0, 8 millim. lata. Asci cylindrici, deorsum stipitiforme attenuati, 8-spori, 140-150 μ longi, 16-20 μ lati. Sporæ oblique monostichæ vel pro parte distichæ, ellipsoideo-oblongæ, utrinque parum attenuatæ rotundatæque, utroque fine luteo-fuliginæ, medio subhyalinæ, continuæ, 25-27 μ longæ, 8-9 μ crassæ. Paraphyses copiosæ, tenuissime filiformes.

Ad folia subemortua Smilacis (Ule, No. 280).

19. Geoglossum pumilum. *Winter, nov. spec.*

Parvum, nigricans; clavula ovata vel subdifformis, capitata, distincta, parum et irregulariter compressa, glaberrima (!), usque 3 mill. longa, ut videtur viscosa. Stipes subcylindricus, sæpe parum compressus et sulcatus, usque 6 mill. longus, fasciculis pilorum fuscidulis, squarrosis obsitis. Asci cylindræo-clavati, sessiles, 8-spori, 230-255 μ longi, 25-27 μ lati. Paraphyses filiformes, sursum in clavam crassam, fuscidulam, usque 10 μ latam incrassatæ, interdum apicem versus articulatae, rectæ. Sporæ cylindricæ, utrinque parum angustatæ, rotundatæque, subcurvatæ, plerumque 15-septatæ, ad septa perparum constrictæ, fuscae, 94-110 μ longæ, 7 μ crassæ.

In terra argillacea (Ule, No. 338).

20. Peziza (Sarcoscypha) brasiliensis. *Winter, nov. spec.*

Cupulæ sparsæ, sessiles, carnosæ, primo hemisphæricæ, demum magis explanatæ, disciformes, marginatæ, usque 8 mill. latæ, disco plano, aurantiaco-rubro, margine erecto vel incurvo, setis rigidis, longis, fuscis, crassis, septatis obsito cinctæ, extus pallidiores. Asci elongato-cylindræci, deorsum longe attenuati, vertice fere truncati, 8-spori, 260-280 μ longi, 18 μ crassi. Sporæ monostichæ, ellipsoideæ, utrinque late rotundatæ, hyalinæ, dense grossequæ reticulatæ, 25-27 μ longæ, 14 μ crassæ. Paraphyses ascorum longitudine vel eos parum superantes, filiformes, apicem versus clavæformes, usque 9 μ incrassatæ.

Ad terram humidam, in quisquiliis putridis (Ule, No. 322).

21. Ravenelula nigrocapitata. *Winter, nov. spec.*

Apothecia sparsa, hypophylla, minutissima, depresso globosa, sessilia, in ambitu hyphis erectis intense æruginosis, apice capitulo globoso vel clavæformi, æruginoso coronatis cincta, sine

excipulo proprio, 83-128 μ diam. Asci elliptici vel ovato-elliptici, sessiles, 8-spori, 24-27 μ longi, 12, 5-16 μ lati, paraphysibus crassis, æruginoso-capitatis mixti. Sporæ inordinatæ, conglobatæ, oblongo-clavatæ, utrinque rotundatæ, medio uniseptatæ, parum constrictæ, cellula superiori latiori, hyalinæ, 11, 5-12, 5 μ longæ, 4 μ crassæ.

In foliis vivis Solani speciei cujusdam (Ule, No. 399).

22. Phoma palmicola. *Winter, nov. spec.*

Perithecia sparsa vel gregaria, mox sine macula, mox in maculis atris, linearibus vel irregularibus, determinatis, usque 10 mill. longis, interdum confluentibus immersa, depresso subconica, vertice papillæformi demum pertuso erumpentia, atra, membranacea, 300-320 μ longa, 120-123 μ alta. Sporæ numerosissimæ, oblongo-fusoideæ, utrinque acutiusculæ, guttulis 2 magnis præditæ, hyalinæ, rectæ, 6-7 μ longæ, 2, 5 μ crassæ.

Ad folia emortua Palmarum (Ule, No. 256).

23. Septoria Mikaniæ. *Winter, nov. spec.*

Maculæ amphigenæ, sparsæ vel subgregariæ, angulato-rotundatæ s. irregulares, sæpe lobatæ repandæque, luteo-fuligineæ, centro sæpe exaridæ albidæque, linea elevata lutea et area indeterminata, purpurea, plus minusve lata circumdatæ, usque 3 mill. latæ, interdum confluentes. Perithecia sparsa, immersa, subglobosa, poro pertusa, vertice demum erumpentia, membranacea, atra. Sporæ filiformes, utrinque parum attenuatæ, flexuosæ curvatæve, obscure triseptatæ, hyalinæ, 18-29 μ longæ, 1, 5 μ crassæ.

In foliis vivis Mikaniæ (Ule, No. 245).

24. Septoria Centellæ. *Winter, nov. spec.*

Maculæ sparsæ s. subgregariæ, plerumque magnæ, rotundatæ s. irregulares, sæpe angustatæ, usque 5 mill. latæ, haud raro confluentes, fuligineæ, centro pallidiori, arescendo-griseæ vel albicantes, area lata, atro-purpurea, indeterminata cinctæ. Perithecia in centro macularum gregaria sparsave, minuta, globosa, atra, vertice erumpentia, poro pertusa. Sporæ filiformes, tenuissimæ, rectæ vel subflexuosæ, indistincte pluri-septatæ, utrinque attenuatæ, hyalinæ 30-45 μ longæ, 2 μ crassæ.

In foliis vivis Centellæ asiaticæ (Ule, No. 192). Ab omnibus speciebus Septoriæ in Hydrocotyle parasitica maculis et sporarum longitudine valde diversa.

25. Cylindrosporium guttatum. *Winter, nov. spec.*

Acervuli pauci in foliorum pagina inferiori gregarii, maculis rotundato-irregularibus, fuscidulis, indeterminatis, minutis insidentes, interdum autem sine macula sparsi, subepidermide parum inflata, demum vertice perforata nidulantes, rotundati, depresso et late subconoidei. Sporæ filiformes, tenuissimæ, hyalinæ, flexuosæ, 53-70 μ longæ, 2 μ crassæ, in guttulo magno ceraceo pallido expulsæ.

In foliis languidis Hypoxidis (Ule, No. 297).

SOME AUSTRALIAN FUNGI.

BY M. C. COOKE.

Agaricus (Collybia) olivaceo-albus, *Cke. & Mass.*

Pileo carnosio, tenui, convexo-plano, demum depresso, glabro, leniter rugoso, nitido, olivaceo-fuligineo; margine lævi; stipite subæquali, glabro, albido, farcto, rigido, deorsum abrupte atro, radicato-attenuato; lamellis latissimis, adnexus, subdistantibus, planis, candidis; sporis magnis, ellipticis, $14 \times 7 \mu$.

On the ground, under she-oaks (*Casuarina quadrivalvis*). Lake Bonney. (*Wehl., No. 3, cum icone.*)

Pileus 2 in. across; stem 3 in. long, 5 mill. thick; gills 8 mill. broad.

Agaricus (Collybia) ozes, *Fr.* var. **crassipes**, *Cke. & Mass.*

Pileo conico-campanulato, obtuso, tenui, striato, stipite sursum subattenuato, striatulo, umbrino, cavo, lamellis pallido-fuscis.

On low damp ground. Lake Bonney. (*Wehl., No. 22, cum icon.*)

Pileus 1 in. high and broad; stem 3 in. long, 1 cm. diam.

Agaricus (Mycena) subcorticalis, *Cke. & Mass.*

Pileo tenui, convexo-explanato, glabro, lævi, lilacino, disco testaceo; stipite adscendente, tenui, æquali, fistuloso, glabro, lamellis adnatis, ventricosis, sub-confertis, pallide lilacino; sporis ovatis, $5 \times 4 \mu$.

On log of *Banksia*. Lake Bonney. (*Wehl., No. 16, cum icone.*)

Pileus $\frac{1}{2}$ - $\frac{3}{4}$ inch; stem 1 inch or more long, 2 mill. thick.

Agaricus (Pleurotus) australis, *Cke. & Mass.*

Pileo carnosio, convexo, glabro, umbrino; stipite sublaterali, brevi, crasso, albo-tomentoso, solido; lamellis albis, latis, distantibus, decurrentibus; sporis cylindraceo-ellipticis, rectis curvulisve, $16-18 \times 4 \mu$.

On roots of *Leptospermum*. Lake Bonney. (*Wehl., No. 14, c. icon.*)

Pileus 2-3 in. or more diam.; stem about an inch long and thick.

Agaricus (Fluteus) Wehlianus, *Musler.*

Pileo carnosio, e campanulato expanso, obtuse umbonato, lævi, nitido, ochraceo-albo, disco obscuriori, stipite procero, solido, deorsum incrassato, sursum æquali, albido, glabro, lamellis liberis, latis, ventricosis, ex albo carneis, sporis pallide ochraceis, ellipticis, guttulatis, $14-16 \times 10 \mu$.

On rotten wood, or on the ground. Lake Bonney. (*Wehl., No. 11, c. icon.*)

Pileus 3 in. or more diam.; stem 6-8 inches long, $\frac{1}{2}$ in. thick, nearly an inch at the base.

Agaricus (Hebeloma) olidus, *Cke. & Mass.*

Pileo carnosio, convexo, viscido, rufo-brunneo, squamulis pallidis superficialibus consperso, margine incurvo pallidiore, stipite subæquali, fistuloso, glabro; lamellis lanceolatis, attenuato-subliberis, pallido-argillaceis, sporis $10 \times 6 \mu$. Odor fœtidus.

On stony ground. Lake Bonney. (*Wehl., No. 7, c. icon.*)

Pileus scarcely 1 inch; stem 1 inch long, 4 mill. thick.

Agaricus (Flammula) purpureo-nitens, *Cke. & Mass.*

Pileo convexo, carnoso, glabro, nitente purpureo-fusco, margin lævi, stipite æquali, adscendente, fibrilloso, solido, pallidiore, carne pallido; lamellis adnexis, subdistantibus, latis, ferrugineis, sporis ovatis, cinnamomeis ($8 \times 5 \mu$).

On wood. Lower Murray River, Victoria. (*French*, 15.)

Pileus 1 inch diam., stem 2 in. long, 2-3 lines thick.

Agaricus (Flammula) limonius, *Cke. & Mass.*

Pileo carnoso, convexo-plano, glabro, lævi, udo, sulphureo; stipite æquali, farcto, flavido albo, lævi; lamellis subadnatis, sulphureis, demum aquose cinnamomeis. Sporis ellipticis, $15-16 \times 8-9 \mu$.

On rich soil. Lake Bonney. (*Wehl.*, No. 19, c. icon.)

Pileus 2-3 inches; stem 2-3 inches long, 7-8 mill. thick.

Agaricus (Naucoria) russus, *Cke. & Mass.*

Pileo convexo-explanato, tenui, lævi, glabro, lateritio-rufo, margine lævi, stipite æquali, subconcolore, deorsum albido-tomentoso, fistuloso, carne pallido, lamellis liberis, ventricosis, subdistantibus, ferrugineis; sporis ellipticis ($8 \times 4 \mu$).

On the ground. Goulbourn Valley, Victoria.

Pileus scarcely 1 in. broad; stem 2 in. long, 2 lines thick.

Agaricus (Crepidotus) stromaticus, *Cke. & Mass.*

Pileo alutaceo, sessili, tenui, flaccido, furfuraceo, resupinato, e stromate albo membranaceo-floccoso oriundo, lamellis centro concurrentibus, subdistantibus, planis, e pallido fusco-cinnamomeis. Sporis globosis, asperulis (8μ diam.).

On bark. Daintree River. (*Pentzke.*)

Pileus about half an inch.

Lenzites nivea, *Cke.*

Pileo suberoso-coriaceo, firmo, obsolete zonato, scrobiculato, niveo, postice subdiscoideo, margine acuto, tenui, lamellis rectis, tenuibus, latis, vix confertis, inæqualibus, plerumque laceratis, candidis.

On trunks. Russell River, Q. (*Sayer*, 50.)

Pileus 3-4 inches; gills $\frac{1}{2}$ inch broad or more; substance thin, white; whole plant snowy white.

Panus carbonarius, *Cke. & Mass.*

Pileo carnoso-lento, tenui, inæquali, excentrico dimidiatoque, lævi, glabro, umbrino, stipite brevi, pallido, deorsum subattenuato, pallido. Lamellis perangustis, confertis, attenuato-decurrentibus, albidis, acie tomentoso. Sporis ellipticis, albis, $12 \times 5 \mu$.

On spots where ferns had been burnt. Lake Bonney. (*Wehl.*, No. 6, c. icon.)

Pileus 2 in. broad and long, flabelliform or infundibuliform; stem $\frac{1}{2}$ in. long, scarcely as thick.

Tulostoma maxima, *Cke & Mass.*

Stipite elongato, æquali, deorsum fibrilloso, sursum striato-sulcato, peridio glabro, concolori, ore rotundo, capillitio sporisque late aureo-fulvis. Sporis globosis, verrucosis, 7μ diam.

On the ground. Gascoyne River. (*Mrs. Gribble.*) Whole plant pale ochre when dry.

Stem 7-8 inches long, $\frac{1}{3}$ inch thick; peridium $\frac{3}{4}$ inch diam. Threads of capillitium equal, half the diameter of the spores, with here and there short clavate, hyaline branchlets.

Xylopodium ochroleucum, *Cke. & Mass.*

Stipitatum. Peridium globosum (2 in.) verrucosum; verrucis magnis, pyramidalis, persistentibus. Stipite erecto, firmo, crasso, indurato, solido, æquali, imbricato-squamoso (3 in. long, vix 1 in. crass.) Sporis capillitioque ochroleuco; filamentis subsimplicibus, tenuibus. Sporis globosis, lævibus (8μ diam.) cum corpusculis sporiformibus, allantoideis, hyalinis ($15-20 \times 4-5\mu$) immixtis.

On the ground. Near Darling River. (*Bennett.*)

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NOTICE TO BINDER.

Pages 173 and 174 in our last number to be *cancelled*, on account of an error, and pages 173 and 174 issued with this number to be substituted.

Grevillea,

A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

SOME AUSTRALIAN FUNGI.

By M. C. COOKE.

(Continued from p. 95.)

Lycoperdon stellatum, Cke. & Mass.

Sessile, subglobosum, $1\frac{1}{2}$ in. diam. Peridium tenue, flaccidum, primum verrucis crassis stellatis spinosis tectum, demum in fragmentis secedens, dein superficies glabrum, ore minuto-lacerato. Capillitio sporisque sordide olivaceo, filamentis subrigidis, sparse ramosis, sporis globosis, glabris ($5\ \mu$ diam.).

On the ground. Israelite Bay, S. W. Australia. (Miss Brooke.)

Threads of capillitium of equal thickness to the diameter of the spores, continuous with the scanty floccose sterile base of the peridium. Allied to *L. cruciatum*.

Geaster subiculosum, Cke. & Mass.

Gregarium, late obovatum ($\frac{1}{2}$ - $\frac{3}{4}$ in. diam.), subiculo albo, effuso, xylostromoideo, enatum. Peridio exteriori furfuraceo, lignicolori, multifido, laciniis plurimis acutis rigidulis demum reflexis fissurato, peridio interiori obscuriori, sessili, globoso, lævi, ore leviter umbonato, fimbriato. Capillitio sporisque atro-umbrino, filamentis flexuosis, simplicibus, variabilis, attenuatis, sporis lævibus, globosis, $4\ \mu$ diam.

On rotten wood. Trinity Bay.

Allied to *G. mirabile* and *G. lignicola* in the habit of growing on wood, seated upon a dense subiculum.

Phoma purpurea, Cooke & Mass.

Amphigena. Maculis orbicularibus, purpureis. Peritheciis semi-immersis, atris, nitidis, primo tectis, gregariis, subcircinatis. Sporulis minutis, ellipticis, hyalinis, $4 \times 2\ \mu$.

On coriaceous leaves. Brisbane. (Bailey, 504.)

Ascochyta apiospora, *Cke. & Mass.*

Maculis epiphyllis, orbiculari-diformibus, fuscis, zona purpurea cinctis; peritheciis minutis, innatis, ostiolo parvulo pertusis, sporulis pyriformibus, inæqualiter didymis, hyalino-fuscis, loculo superiori subglobozo, amplo, loculo inferiori minuto, papillæformi, $12 \times 12 \mu$.

On leaves of myrtle. Johnstone River. (Bailey, 499.)

Ascochyta brunnea, *Cke. & Mass.*

Maculis amphigenis, orbiculari-diformibus, pallide fuscis, ochraceisve, linea obscuriori elevato cinctis; peritheciis minutis, punctiformibus, atris, innatis, demum emergentibus. Sporulis arcte ellipticis, uniseptatis, hyalinis ($12 \times 4 \mu$) basidiis æqualibus.

On leaflets of tree unknown (*Sapindaceæ*?). Brisbane. (Bailey, 506.)

Erysiphe vitigera, *Cke. & Mass.*

Hypophylla, mycelio floccoso, persistente, peritheciis gregariis, minutissimis (4 mm. diam.), sphæroideis; appendicibus obsoletis vel cum mycelio intertextis, ascis pyriformibus (4 in singulo perithecio), $50 \times 30 \mu$, bisporis. Sporidiis ellipticis, hyalinis, $18 \times 9 \mu$.

On leaves of grape vine. Near Melbourne. (Mueller.)

Allied to *E. lamprocarpa*, but apparently distinct from all the bisporous species. We have seen the floccose mycelium before, but without perithecia. Hitherto we have not been successful in detecting or identifying the conidia. Destructive to the vines in Australia, but there is no evidence on which to connect it with *Oidium Tuckeri*, but, on the contrary, the floccose mycelium is much more woolly, and commonly sterile, at least in so far as we have seen specimens. Leaves and twigs sent to us from Australia last year, with a thick cottony white mycelium, but without fruit of any kind, was probably the same species. It has every appearance of being a dangerous pest. The methods adopted here of sulphuring *Oidium Tuckeri* should be tried perseveringly, and the disease stamped out at once, if possible.

Agaricus (Pleurotus) clitocyboides, *Cke. & Mass.*

Pileo convexo-depresso, tenui, glabro, lævi, ochraceo-pallido, demum rufescente, margine membranaceo, leniter striatulo. Stipite ascendente, curvulo, subæquali, solido, utrinque subincrassato, pallidiore, deorsum albofloccoso, disco carnosio. Lamellis confertis, tenuibus, longe decurrentibus, vix latis albis. Sporis ellipticis, $5 \times 2 \mu$.

On old fern logs. Gipps Land. (Tisdall, 125.)

Pileus 2 in. Stem $1\frac{1}{2}$ -2 in. long, 2-3 lines thick.

Agaricus (Lepiota) stenophyllus, *Cke. & Mass.*

Pileo carnosio, molli, e hæmispherico applanato, cute fusco, in squamas adpressas diffracto; margine incurvo. Stipite procero, bulboso, fistuloso, glabro, albido, annulo supero deciduo. Lamellis linearibus, liberis, perangustis, albis. Sporis ellipticis, $12 \times 7-8$.

On the ground. Endeavour River, Queensland.

Pileus $1\frac{1}{2}$ inch. Stem 5 in. long, $\frac{1}{4}$ inch thick above, twice as thick at the base.

Agaricus (Crepidotus) phaeton, Cke. & Mass.

Pileo submembranaceo, plano, postice depresso, lateritio, margine tenui, flexuoso, striatulo; stipite laterali, elongato, subæquali, concolore, ad basem incrassatam alбовiloso. Lamellis linearibus, subdecurrentibus, cinnamomeis. Sporis ellipticis, $8 \times 4 \mu$.

On the ground. Government Domain, near Melbourne.

Pileus $1\frac{1}{2}$ -2 in. diam. Stem 2 inches long, 2 lines thick.

Agaricus (Entoloma) flavidorufus, Cke. & Mass.

Cæspitosus. Pileo convexo, vel sub-campanulato, glabro, virgatove, pallido flavido, margine lætiore, stipite deorsum incrassato, fistuloso, rufo-brunneo, ad basin albo-flocculoso. Lamellis ventricosis, dente adnexis, carneis. Sporis globoso-angulatis, verrucosis.

On black loam. Gipps Land. (Tisdall, 113.)

Pileus $\frac{1}{2}$ to $1\frac{1}{2}$ inches. Stem 2 inches long, 2 lines thick.

Uredo spyridii, Cke. & Mass.

Hypophyllis. Soris sparsis, flavescentibus, pulverulentibus. Sporis subglobosis, pallide flavidis, asperulis, $20-25 \mu$.

On leaves of *Spyridium parvifolia*. Australia. (Watt, No. 45.)

Uredo rhagodiæ, Cke. & Mass.

Hypophyllis. Soris sparsis, bullatis, diu tectis, demum laceratis, fuscis, epidermide cinctis. Sporis globoso-ovatis, lævibus, flavescentibus, $20 \times 15 \mu$.

On leaves of *Rhagodia Billardieri*. Australia. (Watt, 62).

Hymenochæte innatum, Cke. & Mass.

Resupinatum, tenue, innatum, extus cervinum, intus lateritium, margine indeterminato. Setis parvulis, gracilis, $15-20 \times 2 \mu$. Sporis globosis, 4μ .

On wood. Daintree River, Australia.

Innate, scarcely distinct from the subjacent matrix, which is discoloured by the bright brown mycelium.

DIPLODERMA, Link. Diss. II., 44.

Peridium duplex, exterius fibroso-lignescens, clausum, interius discretum, cartilagineum, nucleo centrali lignoso; capillitio radiato.

Differs from *Mesophellia*, Berk., in the distinct double peridium. The hard central nucleus is connected with the inner wall of the inner peridium by the radiating threads of the capillitium.

Diploderma glaucum, Cke. & Mass.

Subglobosum, glauco-cinereum (1 unc. diam.), peridio exterioro fragili, mox secedente. Capillitio simplici, contorto, intertexto. Sporis glaucis, ellipticis, glabris ($10 \times 5 \mu$).

Amongst sand. Scamander River, Australia. (Wintle.)

Outer peridium grey, fibrous, the fibres agglutinated together, studded on the outside with particles of sand, very brittle when dry, and soon falling away. Inner peridium thin, yellowish, brittle when dry, smooth, quite free from the outer peridium. The centre occupied by a hard, compact nucleus, half the diameter of the peridium, composed of branched hyphæ. Threads of capillitium narrower than the spores, radiating from the central nucleus to the wall of peridium.

Diploderma suberosum, *Cke. & Mass.*

Depresso-globosum ($1\frac{1}{2}$ unc. diam.), deorsum in stipitem brevem attenuatum. Peridio exterioro suberoso, persistente, ochraceo; peridio interioro nigrescente; capillitio simplici, recto, radiato, hyalino. Sporis ochraceis, globosis, glabris ($3-4\ \mu$ diam.).

On the ground. Brisbane.

Outer peridium externally fibroso-villose, inner peridium cartilaginous, blackish, almost horny when cut, but thin. Central nucleus smaller than in *D. glaucum*, at first connected with the peridium by the radiating, variable threads of the capillitium, but soon becoming free.

CASTOREUM, *C. & M.*

Peridium duplex, exterius fibrosum, deorsum in stipitem fibrosum radicans productum, interius subcartilagineum. Capillitio arachnoideo, nec radiato, vagi, peridio interioro undique adnati; floccis simplicibus, tenuibus, intertextis.

Castoreum radiculatum, *Cke. & Mass.*

Fasciculatum, subglobosum (1-2 unc.) 2-9 in stipitem fibrosem coalitum. Peridio externo fusco, persistente, coriaceo; peridio interno subgelatinoso, demum corneo. Capillitio tenuissimo, intertexto, hyalino, sporis subochraceis, fusiformibus, inæqualiter verrucosis ($12 \times 5-6\ \mu$).

On the ground, near St. George's Bay, Tasmania. (G. Wintle.) Eaten by kangaroos and bandicoots.

The outer peridium is leathery and tough, running downward and becoming confluent in a tough rooting stem. The texture of the outer peridium, the presence of a distinct inner peridium, more pronounced capillitium, paler colour, and large fusiform spores distinguish this from *Scleroderma*.

Peziza tenacella, *Phillips.*

Sessile, cupulate, then plane or convex, glabrous, umber-brown; margin entire, at length repand; flesh firm, thin; asci cylindrical; sporidia 8, elliptic, binucleate, $.01 \times .005-8$ mm.; paraphyses slender, slightly thickened at the brown curved apices.

On the ground. Melbourne, Australia. (M. F. Reader.)

Cups from $\frac{1}{4}$ to $\frac{5}{8}$ of an inch broad. The margin becomes repand, and the disc is depressed in the centre. The texture is toughish.

Asterina intensa, Cke. & Mass.

Amphigena. Maculis atris, orbicularibus. Peritheciis applanatis, minutis, densissime congestis ($\frac{1}{8}$ mm. diam.), margine fimbriato. Ascis ovatis, octosporis. Sporidiis ellipticis, obtusis, uniseptatis, fuscis ($15 \times 8 \mu$).

On leaves of *Pisonia*. New Zealand. (Kirk, 219.)

Asterina effusa, Cke. & Mass.

Mycelio effuso, atro, pelliculoso. Peritheciis sparsis vel congestis, hemisphaericis, minutis, nigris. Ascis obovatis, octosporis; sporidiis subpyriformibus, uniseptatis, loculo superiori subgloboso, altero minori, fuscis ($10 \times 5-6 \mu$).

On leaves of *Pittosporum eugenoides*. New Zealand. (Kirk, 226.)

Xylaria (xyloglossa) ovispora, Cke. & Mass.

Stromate coriaceo, atro, stipitato, erecto, sursum furcato palmatoque, deorsum in stipitem glabram attenuato. Ascis cylindraceutis. Sporidiis subglobosis, fuscis, $6 \times 5 \mu$.

On stumps. Daintree River, Australia.

Differing in the form of the sporidia from all allied species.

Xylaria (xyloglossa) cinnabarina, Cke. & Mass.

Stromate suberoso, subgloboso, corrugato vel depresso, brunneo, sub cuticulâ tenui cinnabarino, intus albo, stipite obsoleto. Peritheciis magnis, prominulis. Ascis cylindraceutis. Sporidiis lanceolatis, fuscis, $10-12 \times 3-4 \mu$.

On wood. Daintree River, Australia.

The majority of the above communicated by Baron F. von Mueller, K.C.M.G.

FLORA OF LEICESTERSHIRE.*

Only a few years ago, and a County Flora was considered moderately complete, if, in addition to the Flowering Plants, it included Ferns and their immediate allies. Now it is beginning to be recognized that a local Flora is by no means complete unless an effort is made to include as many of the Cryptogams as possible. This is always one of the most difficult parts of the volume, and the most incomplete, because the workers amongst the Cryptogams are comparatively few, and the lists scanty. Nevertheless, this "Flora of Leicestershire" presents a most respectable appearance, in its latter portion, for with the Flowering Plants we have no concern. To the 188 pages of Phanerogams, we recognize the addition of 148 pages of Cryptogams. The Algæ, contributed by

* "The Flora of Leicestershire, including the Cryptogams," issued by the Leicester Literary and Philosophical Society. Compiled by F. T. Mott, Thos. Carter, E. F. Cooper, J. E. M. Finch, and C. W. Cooper. 80, 372 pp., with maps. London: Williams and Norgate, 1887.

Mr. F. Bates, and the Desmidiæ, by Mr. J. Roy, appear to us the most complete and satisfactory, in this portion of the work; and here we are glad to observe a few species not before recorded in Britain, amongst which are *Ædogonium ælandicum*, Wittr.; *Ædogonium Bernardense*, Bates; *Microthamnion Kutzingianum*, Nag.; *Anabaena nitellicola*, Bates; *Sphærozyga Cookeana*, Bates; *Cylindrospermum majus*, Kutz; *Oscillaria chalybea*, Mert. As to the Fungi, we turn with some regret, because, although a respectable list, it might easily have been rendered much more complete if the pages of *Grevillea* had been more carefully consulted. Take, as an illustration, the *Sphærospideæ*, of which a list of the British species was published in this journal last year; the total enumerated is six species, and all the following, with Leicestershire localities, in *Grevillea* omitted.

- 164. *Dendrophoma pruinosa*, Fries. Twycross.
- 180. *Vermicularia dematium*, Fr. Twycross.
- 285. *Stagonospora turgida*, B. & Br. Twycross.
- 350. *Cytispora pini*, Desm. Twycross.
- 376. *Phyllosticta vulgaris*, Desm. Twycross.
- 412. *Phyllosticta argentinae*, Desm. Twycross.
- 456. *Asteroma rosæ*, Lib. Twycross.
- 458. *Darluca filum*, Cast. Twycross.
- 469. *Septoria Badhami*, B. & Br. Twycross.
- 475. *Septoria hederæ*, Desm. East Bergholt.
- 493. *Septoria epilobii*, West. Twycross.
- 535. *Septoria polygonorum*, Desm. Twycross.
- 556. *Polystigmina rubra*, Desm. East Bergholt.
- 557. *Leptothyrium periclymeni*, Desm. Twycross.
- 567. *Piggotia astroidea*, B. & Br. Twycross.
- 574. *Leptostroma filicinum*, Fr. Twycross.
- 581. *Leptostromella juncinum*, Fr. Leicester.
- 591. *Psilospora quercus*, Rabh. Leicester.
- 613. *Glœosporium fragariæ*, Lib. Twycross.
- 615. *Glœosporium paradoxum*, Not. Twycross.
- 647. *Melanconium magnum*, Grev. Gopsall.
- 651. *Melanconium betulinum*, S. & K. Twycross.
- 653. *Cryptomela caricis*, Corda. Orton.
- 659. *Stilbospora macrosperma*, P. Bergholt.
- 665. *Coryneum pulvinatum*, Kunze. Twycross.
- 674. *Steganosporium pyriforme*, Hoff. Twycross.

And this list might have been doubled readily by the work of a day or two in the neighbourhood of Leicester. Again, could any mycologist be induced to believe that only one species of *Puccinia*, one *Coleosporium*, not one *Uredo* or *Ustilago*, not even *U. segetum*, not a single species of *Uromyces*, and only six species of *Æcidium*, are known in Leicestershire? Surely the published sets of Bloxam's British Fungi (dried specimens) contain more than this.

Next, we come to the *Hyphomycetes*, altogether 22 species, instead of at least ten times that number, not even *Brachysporium Bloxami*, Cooke, *Grevillea*, xii., p. 36, or the beautiful *Tripodsporium elegans*, Corda, first collected in Britain by Bloxam at Twycross. All the *Sphæriacei*, or rather all the *Pyrenomycetes*, are represented by 33 species, not even including *Diaporthe acus*, Bloxam. The larger fungi (*Hymenomycetes*) present a better list, but even here it is a misfortune to miss *Hydnium Weinmanni*, Fr., for which Bristol and Twycross were the only known British localities for twenty years.

Notwithstanding these drawbacks, we must hail the volume with pleasure, as containing the commencement of a catalogue of the Fungi of Leicestershire. It is clearly printed, and will be a welcome contribution to the natural history of the county. We have called attention to the omissions in the hope that a new edition will exhibit an improvement, and that the good people of Leicester will not accept this as a complete Cryptogamic Flora of their county, but rather as a first instalment, which will soon be considerably augmented.

BRITISH SPHÆROPSIDEÆ.

We have just had our attention called to an inexplicable printer's error, by which in our list all the numbers between 596 (on p. 108 of Vol. xiv.) and number 606 (on p. 123, Vol. xiv.) have been omitted. We have endeavoured to supply this deficiency, but, as our notes are all destroyed, there are one or two numbers not accounted for.

597. **Dinemasporium hispidulum**, Schrad. *Sacc. Syll.* 3619.
On wood. Epping, Kew, Shere.
598. **Dinemasporium herbarum**, Cooke. *Sacc. Syll.* 3619.*
On nettles. Highgate.
599. **Dinemasporium fimeti**, P. & Pl. *Sacc. Syll.* 3627.
On rabbits' dung. King's Lynn.

GEN. 7. **DISCELLA**, B. & Br. *Sacc. Syll.* III., 687.

Perithecia discoid or patellate, covered, often imperfect. Sporules oblong or ovate, uniseptate, hyaline.

600. **Discella carbonacea**, Fries. *Sacc. Syll.* 3631.
On willows. Eastbourne.
601. **Discella abnormis**, B. & Br. *Sacc. Syll.* 3634.
On elder. Batheaston.

GEN. 8. **EXCIPULARIA**, *Sacc. Syll.* III., 689.

Perithecia sub-cupulate, setose. Sporules oblong, multiseptate, hyaline, then brownish.

602. **Excipularia fusispora**, *B. & Br. Sacc. Syll.* 3638.
On *Clematis*. Batheaston.

GEN. 9. **PILIDIUM**, *Kunze. Sacc. Syll.* III., 689.

Perithecia discoid, unequal, smooth, torn into teeth at the margin. Sporules oblong or fusoid, septate, hyaline.

603. **Pilidium fuliginosum**, *Fr. Sacc. Syll.* 3639.
On willow.

GEN. 10. **PLEUROSPOOPSIS**, *Ærst. Sacc. Syll.* III., 643.

Perithecia brightly coloured at first, subsuperficial, papyraceous, operculate. Sporules ovoid, continuous, yellow.

604. **Pleurosporopsis strobilina**, *A. & S. Sacc. Syll.* 3655.
On fir cones. Edinburgh.

To these also must be added the following recent additions to the British list.

8*. **Phoma cryptica**, *Sacc. Syll.* 403.
On *Lonicera*. Groombridge, Kent.

28*. **Phoma enteroleuca**, *Sacc. Syll.* 442.
On capsules of *Syringa*. Kew Gardens.

30*. **Phoma vepri**, *Sacc. Syll.* 444.
On *Rubus*. Oxford.

44*. **Phoma callunæ**, *Karst. Sacc. Syll.* 500.
On *Calluna vulgaris*. Aberdeen.

69*. **Phoma mororum**, *Sacc. Syll.* 565.
On *Morus alba*. Kew.

74*. **Phoma glyptica**, *C. & M. Grev. xv.*, 107.
On *Salix*. Tunbridge Wells.

90*. **Phoma quercus**, *Sacc. Syll.* 640.
On oak leaves. Oxford.

126*. **Phoma Berkeleyi**, *Sacc. Syll.* 796.
On *Urtica* and *Sambucus*. Aberdeen.

113*. **Phoma subcomplanata**, *C. & M. Grev. xv.*, 107.
On *Heracleum*. Tunbridge Wells.

130*. **Phoma macrocarpa**, *Trail. Scot. Nat.*, July, 1886.
On *Mercurialis*. Scotland.

131*. **Phoma melæna**, *Fr. Sacc. Syll.* 804.
On *Astragalus glycyphyllos*. St. Cyrus, N.B.

136*. **Phoma sarmentella**, *Sacc. Syll.* 827.
On hop bine. Isleworth.

140a. **Phoma galacis**, *Cooke. Grev. xiv.*, 90.
On leaves of *Galax aphylla*. Kew.

- 140b. **Phoma tussilaginis**, *C. & M. Grev.* xv., 108.
On leaves of *Tussilago*. Hereford.
- 140c. **Phoma podophylli**, *Cooke. Grev.* xv., 108.
On leaves of *Podophyllum*. Kew.
- 146*. **Phoma deusta**, *Fekl. Sacc. Syll.* 925.
On *Rhinanthus*. Aberdeen.
- 148*. **Phoma iridis**, *C. & M. Grev.* xv., 108.
On *Iris* leaves. Somerton; Breinton; Kew.
- 152*. **Phoma neglecta**, *Desm. Sacc. Syll.* 982.
On *Juncus effusus*. Aberdeen.
- 159*. **Aposphæria pulviscula**, *Sacc. Syll.* 1052.
On willow wood. Oxford.
- 164*. **Dendrophoma phyllogena**, *Trail. Scot. Nat.*, 1887, p. 87.
On holly leaves. Aberdeen.
- 166*. **Coniothyrium hellebori**, *C. & M. Grev.* xv., 108.
On leaves of *H. niger*. Kew.
Coniothyrium Fuckelii, *Sacc. Syll.* 1724.
On gooseberry. Frant.
Coniothyrium inconspicuum, *Cooke. Grev.* xv.
On *Gynerium*. Claygate.
- Phlyctæna vagabunda**, *Desm. Sacc. Syll.* 3226.
On herbs. Twycross, Epping, &c.
- Phlyctæna phomatella**, *Sacc. Syll.* 3231.
On elm twigs. Hampstead.
- Phlyctæna Johnstonii**, *B. & Br. Sacc. Syll.* 3236.
On ragwort. Berwick.
- 197*. **Diplodia ulicis**, *S. & S. Sacc. Syll.* 1869.
On *Ulex*. Frant, Sussex.
- 240*. **Diplodia rhododendri**, *Bell. Sacc. Syll.* 2027.
On *Rhododendron*. Aberdeen.
- 260*. **Diplodia ascochytoides**, *Sacc. Syll.* 2274.
On *Lavatera thuringiaca*. Kew.
- 299a. **Stagonospora aquatica**, *Sacc. Syll.* 2470.
var. *sexseptata*, *Trail.*
On *Scirpus lacustris*. Aberdeen.
- 299b. **Stagonospora equisetina**, *Trail. Scot. Nat.* 1887, p. 88.
On *Equisetum palustre*. Corbie Loch, N.B.
- 398*. **Phyllosticta ulmi**, *West. Sacc. Syll.* 174.
On elm leaves. Whitfield.
- 421*. **Phyllosticta pentestemonis**, *Cooke. Grev.* XIV., 90
On *Pentestemon grandiflorus*. Kew.
- 424*. **Phyllosticta teucris**, *Sacc. & Sp. Sacc. Syll.* 271.
On *Teucrium scorodonia*. Scotland.
- 425*. **Phyllosticta galeopsidis**, *Sacc. Syll.* 275.
On *Galeopsis tetrahit*. Aberdeen.

- Ascochyta astrantiæ**, Roum. *Sacc. Syll.* 2212.
On *Astrantia*. Kew.
- Ascochyta aquilegiæ**, Roum. *Sacc. Syll.* 2191.
On *Aquilegia vulgaris*. Kew.
- Ascochyta lathyri**, Trail. *Scot. Nat.* 1887, p. 87.
On *Lathyrus sylvestris*. Montrose.
- Ascochyta viciæ**, Trail. *Scot. Nat.* 1887, p. 87.
On pods of *Vicia sepium*. Dunottar.
- Ascochyta microspora**, Trail. *Scot. Nat.* 1887, p. 87.
On *Arctium*. St. Cyrus. On *Petasites*. Aberdeen.
- Ascochyta malvicola**, *Sacc. Syll.* 2210.
On *Malva sylvestris*. Aberdeen.
- Ascochyta primulæ**, Trail. *Scot. Nat.* 1887, p. 88.
On *Primula vulgaris*. Dunottar.
- Ascochyta plantaginis**, S. & S. *Sacc. Syll.* 2234.
On *Plantago major*. Aberdeen.
- Ascochyta graminicola**, *Sacc. Syll.* 2252.
var. **brachypodii**, Trail.
On *Brachypodium sylvaticum*. Dunottar.
var. **leptospora**, Trail.
On *Agropyrum repens* and *Psamma arenaria*. Aberdeen.
- 497*. **Septoria sinarum**, Speg. *Sacc. Syll.* 2802.
On *Dianthus barbatus*. Aberdeen.
- 498*. **Septoria lychnidis**, Desm. *Sacc. Syll.* 2804.
On *Lychnis diurna*. Dunottar.
- 524*. **Septoria prunellæ**, Trail. *Scot. Nat.* 1887, p. 88.
On *Prunella*. Near Ballater.
- 529*. **Septoria adoxæ**, Eckl. *Sacc. Syll.* 2945.
On *Adoxa*. Forbes.
- 532*. **Septoria cercosporoides**, Trail. *Scot. Nat.* 1887, p. 88.
On *Chrysanthemum*. Montrose.
- 547a. **Septoria affinis**, *Sacc. Syll.* 3054.
On oats and *Triticum repens*. Aberdeen.
- 547b. **Septoria alismatis**, Oud. *Sacc. Syll.* 3093.
On *Alisma plantago*. Kingcausie, N.B.
- 547c. **Septoria lineolata**, S. & Sp. *Sacc. Syll.* 3076.
On *Carex arenaria*. Aberdeen.
- 577*. **Sacidium epimedii**, Cke. *Grev. xv.*, 110.
On *Epimedium alpinum*. Kew.
- 631*. **Cylindrosporium oxalidis**, Trail. *Scot. Nat.* 1887, p. 89.
On *Oxalis*. Aberdeen.
- 635*. **Cylindrosporium alismatearum**, *Sacc. Syll.* 3865.
On *Alisma plantago*. King's Lynn.
- 646*. **Marsonia melampyri**, Trail. *Scot. Nat.* 1887, p. 89.
On *Melampyrum pratense*. Near Ballater.
- 668*. **Coryneum comari**, Trail. *Scot. Nat.* 1887, p. 90.
On leaves of *Rotentilla comarum*. Aberdeen.

NEW BRITISH FUNGI.

BY M. C. COOKE.

(Continued from p. 67.)

Panus farinaceus, *Schum. Fr. Hym. Eur.* 490. var. **albido-tomentosum**, *Cke. & Mass.*

Pileus subcoriaceous, flexuous, pallid umber, densely clothed with a short whitish *velvety tomentum*, which seems to be persistent, but thinner and shorter towards the incurved margin, stem lateral, or without any distinct stem, but attached by a villous base; gills radiating, attenuated behind, lanceolate, honey-coloured, entire, rigid, scarcely crowded, mixed with shorter ones; spores sub-globose ($5\ \mu$ diam.).

On trunks. Epping.

Pileus about an inch broad, often in imbricated tufts. It is doubtful whether this is not a distinct species from the type described by Fries.

Panus patellaris, *Fr. Hym. Eur.* 490.

Resupinate, coriaceous, plane or cup-shaped, orbicular, externally pallid, *furfuraceous*, adnate by the scarcely porrect vertex, margin involute, gills concurrent, dingy ochre, somewhat crowded, entire. Spores oval ($6 \times 4\ \mu$).

On branches of cherry. Forres. (Rev. Dr. Keith.)

In some respects very similar to *P. ringens*, but differs in the distinctly mealy pileus, and the smooth, not striate, margin. Pileus $\frac{1}{2}$ inch or a little more.

Peniophora terrestris, *Mass.*

Pale grey, effused, forming velvety patches on the naked soil, with an indeterminate margin, substratum thin, interwoven, basidia clavate or pear-shaped, metuloids lanceolate, rough, hyaline ($85-89 \times 15-20\ \mu$). Spores oval, hyaline ($10 \times 6-7\ \mu$).

On naked soil. Queen's Cottage, Kew.

Forming grey velvety patches 1-2 inches in diameter.

Phoma glyptica, *Cke. & Mass.*

Subcuticular. Perithecia grouped in circles, surrounded by a more or less distinct line, sub-globose, the punctiform ostiola piercing the epidermis. Sporules oval, continuous, hyaline, on long sporophores ($4-5 \times 3\ \mu$).

On branches of *Salix*. Tunbridge Wells.

Externally, in habit and appearance, not distinguishable from *Valsa glyptica*, Berk. & Curr.

Phoma subcomplanata, *Cke. & Mass.*

Perithecia gregarious, soon becoming exposed and superficial, small, globose, then collapsed and cup-shaped, black ($\frac{1}{6}-\frac{1}{4}$ mm.). Sporules subglobose, continuous, hyaline, very numerous, minute ($3 \times 2\ \mu$).

On stems of *Heracleum*. Tunbridge Wells. (E. G. Baker.)

Resembling *P. complanata*, but much smaller, and sporules very minute.

Phoma tussilaginis, Cke. & Mass.

Epiphyllous. Perithecia at first covered, then hemispherical, black, pierced at the apex, gregarious on brown irregular spots, minute, punctiform. Sporules elliptical, colourless, continuous, $8-10 \times 5-6 \mu$.

On fading leaves of *Tussilago farfar*. Canal Bank, Hereford. Sept., 1885.

A most distinct and interesting species, not at all like the ordinary forms of *Phoma*, approaching *Asteromella*.

Phoma podophylli, Cooke.

Epiphyllous. Perithecia rather scattered, black, punctiform, seated on dead brown spots of decaying leaves, convex, rather prominent. Sporules narrowly elliptic, with a nucleus at each extremity ($10 \times 3 \mu$).

On fading leaves of *Podophyllum*. Kew.

Phoma Iridis, Cooke.

Perithecia scattered, punctiform, covered by the cuticle, convex, black. Sporules narrowly elliptical, with or without nuclei, obtuse at the ends, on short basidia ($7 \times 2 \mu$).

On leaves of *Iris foetidissima*. Somerton, Breinton, Kew.

Dendrophoma phyllogena, Trail. Scot. Nat., 1887, p. 87.

On pale spots. Perithecia numerous, subdermal, black, ellipsoid, subpapillate basidia fasciculate ($30-35 \mu$ long, 2μ thick at the base), hyaline, bearing alternate short branches, each tipped with a hyaline cylindrical conidium ($8-12 \times 1\frac{1}{2}-2 \mu$).

On holly leaves. Aberdeen.

Coniothyrium hellebori, Cke. & Mass.

On both surfaces. Spots orbicular, sooty brown, marked concentrically ($\frac{1}{2}$ in. diam.). Perithecia small, collected chiefly in the centre, for some time covered, papillate. Sporules oval, pale brown ($4-5 \times 2-3 \mu$).

On fading leaves of *Helleborus niger*. Kew.

Ascochyta microspora, Trail. Scot. Nat., 1887, p. 87.

Epiphyllous, spots nearly circular, black or dark brown, thickly dotted with globular perithecia (70μ diam.), which appear pale brown under the microscope; sporules uniseptate, subcylindrical, with rounded ends, straight or curved ($5-7 \times 1\frac{1}{2}-2 \mu$), hyaline.

On *Arctium lappa*. St. Cyrus.

On *Petasites* (sporules $6-8 \times 1\frac{1}{2}-2 \mu$). Aberdeen.

Ascochyta primulae, Trail. Scot. Nat., 1887, p. 88.

Epiphyllous, spots like those of *Phyllosticta primulicola*, Desm. Perithecia scattered over the spots, depressed, globose, pale brown ($100-110 \mu$ diam.), papillate. Sporules uniseptate, hyaline, cylindrical, obtuse ($5-6 \times 2-2\frac{1}{2} \mu$).

On *Primula vulgaris*. Dunottar.

Ascochyta lathyri, *Trail. Scot. Nat.*, 1887, p. 87.

Spots ill-defined, tending to cover the entire leaf. Perithecia numerous, subglobose, depressed ($50-100\ \mu$ diam.). Sporules uniseptate, hyaline, cylindrical, with obtuse ends ($8-10 \times 2\frac{1}{2}\ \mu$).

On dead leaves of *Lathyrus sylvestris*. St. Cyrus, near Montrose.

Ascochyta viciæ, *Trail. Scot. Nat.*, 1887, p. 87.

Spots pale and withered, with a rufous border, irregularly rounded. Perithecia scattered over the spots. Sporules uniseptate, subcylindrical, obtuse, often slightly curved, granular, yellowish ($13-16 \times 2\frac{1}{2}-3\ \mu$).

On pods and leaves of *Vicia sepium*. Near Dunottar.

Ascochyta graminicola, *Sacc. Syll.* var. **brachypodii**, *Trail. Scot. Nat.*, 1887, p. 88.

Differs from the type in the slightly curved and stouter sporules, which measure $15-17 \times 5\ \mu$, and are slightly fusoid, with blunt ends. Perithecia not crowded, though arranged in groups.

On dead leaves of *Brachypodium*. Near Dunottar.

var. **leptospora**, *Trail. Scot. Nat.*, 1887, p. 88.

Agrees with var. *Holci*. (Sacc.) in the form of the sporules, but the latter are rather smaller ($12-14 \times 2\frac{1}{2}-3\ \mu$) and are hyaline, without guttæ.

On dying leaves of *Agropyrum repens* and of *Psamma arenaria*. Aberdeen.

Steganospora aquatica, *Sacc. Syll.* var. **sex-septata**, *Trail. Scot. Nat.*, 1887, p. 88.

Agrees well with *S. aquatica* in all respects except the slightly larger perithecia ($150\ \mu$ diam.) and in the sporules, which are slightly more slender ($32-35 \times 5-6\ \mu$) and have six septa instead of three.

On dead stems of *Scirpus lacustris*. Near Aberdeen.

Steganospora equisetina, *Trail. Scot. Nat.*, 1887, p. 88.

Perithecia innate, scattered, globose ($80\ \mu$ diam.), brown. Sporules straight, fusoid-cylindrical ($18-24 \times 4-5\ \mu$), subacute, 6-8 guttulate, faintly 5-7 septate, hyaline.

On dead stems of *Equisetum palustre*. Corbie Loch.

Septoria lychnidis, *Desm. Sacc. Syll.* var. **pusilla**, *Trail. Scot. Nat.*, 1887, p. 89.

Differs from the type in the sporules, which have only from 1 to 4 septa, and measure $35-50 \times 1\frac{1}{2}-2\ \mu$.

On living leaves of *Lychnis diurna*. Near Aberdeen.

Septoria cercosporoides, *Trail. Scot. Nat.*, 1887, p. 89.

Spots irregular, ill-defined, black, most conspicuous on the upper surface of the leaves. Perithecia in groups, ellipsoid ($90 \times 70\ \mu$), rather pale brown. Sporules clavulate, with one end blunt, thus resembling the conidia of *Cercospora* ($50-60 \times 2\ \mu$), nearly hyaline, 6-8 septate.

On *Chrysanthemum leucanthemum*. Montrose.

Septoria prunellæ, *Trail. Scot. Nat.*, 1887, p. 89.

Spots irregular, but bounded by larger veins of leaves. Perithecia numerous, innate. Sporules nearly hyaline, filiform ($45 \times 1 \mu$), multiseptate.

On living leaves of *Prunella vulgaris*. Near Ballater.

Sacidium epimedii, *Cooke*.

Perithecia scattered, on the under surface, innato-convex, then open above, very thin. Sporules subglobose, continuous, hyaline, about 4μ diam.

On fading leaves of *Epimedium alpinum*. Kew.

Cylindrosporium oxalidis, *Trail. Scot. Nat.*, 1887, p. 89.

Spots on leaflets brown, dry, pale-margined, round (1-3 mm. diam.) pustules scattered, subdermal, with a wide pore for escape of the sporules, which are filiform, slightly tapering to the ends, curved ($20-25 \times 1 \mu$), hyaline.

On *Oxalis acetosella*. Near Aberdeen.

Marsonia melampyri, *Trail. Scot. Nat.*, 1887, p. 89.

Spots on leaves undefined, dark, becoming nearly black, pustules scattered on the spots or in patches, translucent; sporules hyaline, oblong-ellipsoid, slightly curved, scarcely constricted at the septum ($12-20 \times 3-3\frac{1}{2} \mu$), intermixed with chains of hyaline cells ($3-4\frac{1}{2} \times \frac{1}{2} \mu$).

On *Melampyrum pratense*. Near Ballater.

Marsonia potentillæ (*Desm.*), *Sacc. Syll.* var. *tormentillæ*, *Trail. Scot. Nat.*, 1887, p. 89.

Differs from the type chiefly in the sporules, which measure $12-16 \times 3-4 \mu$.

On *Potentilla tormentilla*. Near Aberdeen.

On *Potentilla anserina* ($14-20 \times 4-5 \mu$). Near Montrose.

On *Potentilla comarum* ($18-21 \times 3-4 \mu$). Near Aberdeen.

Coryneum comari, *Trail. Scot. Nat.*, 1887, p. 90.

Pustules grouped on ill-defined darker spots on the leaves, circular ($50-60 \mu$), with conspicuous pore; sporules honey-yellow, darkening to pale brown, straight, broadly fusiform ($25-30 \times 4-5 \mu$), triseptate.

On *Potentilla comarum*. Near Aberdeen.

Xylosphæria (zignoia) dealbata, *Cke*.

Perithecia on bleached spots, immersed in the wood, then semi-erumpent, conical, black (3 mm. diam.), pierced at the apex. Asci subcylindrical. Sporidia eight, narrowly elliptical, continuous, hyaline ($7 \times 4 \mu$).

On decorticated branches. Frant, Sussex. (E. G. Baker.)

Sphæria (phomatospora) ribesia, *Cke. & Mass.*

Perithecia gregarious, subcuticular, globose, black, papillate, at first covered, erumpent, at length with the ostium and upper portion exposed. Asci clavate or subcylindrical; sporidia narrowly elliptical, continuous, with two nuclei, hyaline ($10 \times 4 \mu$).

On twigs of *Ribes grossularia*. Battle Abbey. (E. G. Baker.)

Sphærella hieracii, *Cke. & Mass.*

Perithecia scattered over the upper surface of faded leaves, punctiform, subconical, immersed at the base. Asci clavate. Sporidia uniseriate, or rarely in part biseriate, elliptically lanceolate, obtuse at the ends, uniseptate, at first with a nucleus in each cell, hyaline, not constricted ($20 \times 4 \mu$).

On dying leaves of *Hieracium pilosella*. Tunbridge Wells. (E. G. Baker.)

TWO FUNGI FROM GABOON.

Coniothyrium aroideum, *C. & Mass.*

Amphigenum. Peritheciis sparsis, minutis, punctiformibus, prominulis, atris. Sporulis ovalibus, fuscis ($4 \times 3 \mu$).

On leaves of *Culcasia scandens*. Gaboon, W. Africa. (E. Simmonds.)

Asteromella gabonensis, *C. & Mass.*

Epiphylla. Maculis fumosis, orbicularibus vel confluentibus. Peritheciis gregariis, minutis, atris, hæmisphæricis, membranaceis. Sporulis ovalibus, continuis, hyalinis ($6 \times 4 \mu$).

On fading herbaceous leaves. Gaboon, W. Africa.

THE HYMENOMYCETES OF EUROPE.*

This thin volume by M. Patouillard may be supposed to represent a kind of introduction to his "Tabulæ Analyticæ Fungorum," and, as such, will doubtless prove acceptable to those who require general elementary information; otherwise, as an independent work, it possesses little value. Sixty-seven pages of large type cannot be supposed to exhaust the anatomy of the Hymenomycetes, and we do not recognize any effort to do so, since we fail to discover anything new, either in matter or manner, to give any character to what is simply a *résumé* of what is pretty generally known. This is followed by about as much more letterpress devoted to classification, in which we detect more novelty, without any increase of satisfaction. Nowadays a book on Fungi is supposed, of necessity, to contain a batch of new genera, brought into the world prematurely, and doomed to premature death, like rickety children, while scarce a tear will be shed over their remains. When this mania for new genera subsides a very small percentage of the creations will perhaps survive; the rest will serve to entertain and employ future mycologists in the

* "Les Hyménomycétés d'Europe. Anatomie générale et classification des Champignons supérieurs," par N. Patouillard. 8o., pp. 162, plates 4. Paris (Klincksieck), 1887.

preparation of interminable synonymies. Children in all countries, and both sexes, are fond of playing with dolls ; it is a harmless amusement, and keeps them from further mischief. There is not a little analogy between those who amuse themselves with the wholesale dressing up of new genera, and the children who amuse themselves with dolls.

NEW SPECIES OF RAVENELIA.

Ravenelia verrucosa, Cke. & Ellis.

Hypophylla. Uredosporis globosis, asperulis, luteis ($16\ \mu$). Teleutosporis in glomerulos hæmisphæricos congestis ($80\ \mu$). Glomerulis (sporis 20) stipitatis, cum lobulos (circa 8) hyalinos circumdatis. Teleutosporis cuneatis, ad apicem asperulis, atrofusis, ($20\ \mu$ diam.).

On leaves of *Lecania*, sp. ? Mexico. (J. B. Ellis).

It differs from *R. stictica* in not being sessile, in the hyaline lobules being larger and more conspicuous, and the warts smaller. This is the only species with which it could be confounded, and from this it seems to be distinct.

MUSCOLOGIA GALLICA.*

This work, which has now reached its fifth part, is proposed to be completed in about ten or twelve parts, each part containing 32 pages of letterpress and eight or ten plates. The plates remind us of those in Wilson's "Bryologia," except that they are not so fine and distinct ; in fact, there is all the difference between plate-printing and lithography. Nevertheless, the work is likely to prove a most useful one, and we cannot help wishing that there was as much prospect of our own "Moss Flora" coming so soon to a termination as the present work. Of the letterpress, we must confess ourselves incompetent to pronounce a critical opinion, since "mosses" have never been our "hobby ;" but we have been informed by others, on whom we rely, that this portion of the work is satisfactorily done. When complete it will form a good, imposing volume, and we doubt not will be found very valuable to the Bryological students of France, and be to them what Wilson's has for many years been to us. The last part or two has been rather tardy, since the work commenced in 1884, and its author should be urged to a quicker pace. It surely cannot be necessary to spend six or seven years in passing a work of this kind through the press, which will be the case without greater expedition is used.

* "Muscologia Gallica, Descriptions et Figures des Mousses de France," par T. Husnot. Parts 1 to 5. Roy 8vo., with plates. Paris (Savy), 1886-1887.

SOME NEW BRITISH DISCOMYCETES.

BY W. PHILLIPS, F.L.S.

Mollisia (Niptera) Tamaricis (Roumg.).

Cups most generally cæspitose, hemispherical, then expanded, bent and contorted by mutual compression, fuscous, margin growing white, furfuraceous, hymenium greyish-brown in the centre, sometimes tinged with a yellowish somewhat olivaceous colour, glabrous, asci sub-fusiform; sporidia 8, hyaline, terete, sub-fusiform, sometimes curved, $7.8 \times 2.3 \mu$. Paraphyses somewhat thickened at the apices, often branched.

Peziza Tamaricis, Roumg. Fung. Gall. Exs. 263. *Pyrenopeziza Tamaricis* (Roum.), Sacc. Mich. ii., p. 536. *Mollisia Myricariæ*, Bres. Revue Myc. Vol. iv., p. 212 and 221. Roumg. Fung. Gal. No. 2278. *Mollisia Tamaricis* (Roum.), Bresad. Fung. Triden. fasc. iii., p. 42, t. xlv., f. 2.

On Tamarisk. Gopsall! (Rev. A. Bloxam.)

Cups $\frac{1}{2}$ to 1 line broad. Asci $45.55 \times 6.8 \mu$.

Mollisia (Pyrenop) lignicola, n.s.

Gregarious or scattered, sessile, at first globose, at length somewhat expanded, externally scabrous, and vertically rugose, brown or blackish-brown, when dry black; margin sub-fimbriate from the slightly unequally elongated cells; hymenium pallid; asci cylindraceo-clavate; sporidia 8, cylindrical or fusiform, obtuse, straight or curved, $5.8 \times 1.5.2 \mu$. Paraphyses indistinct.

On old worked wood (on an old gate). Bagley Wood, Berkshire (1821)! (Mr. Baxter.)

Cups $\frac{1}{4} - \frac{1}{2}$ a line broad; when dry collapsed, but not plane even when moist. Asci $35 \times 4 \mu$; sporidia biseriate. The marginal cells have the form of short septate blunt hairs when highly magnified.

Helotium badium, n.s.

Gregarious, erumpent, sessile, at first turbinate and slightly concave, at length plane; hymenium bay-brown, margin distinct, somewhat lighter, externally the same colour, glabrous; asci broadly clavate, rather abruptly narrowed at the base; sporidia 8, oblong-fusiform, or subclavate, 3.5 guttulate, $20 \times 5 \mu$; paraphyses filiform, slender.

On dead twigs (willow?). Botanic Garden, Oxford, 1822! (Mr. Baxter in Herb. Kew.)

Cups $\frac{1}{2} - 1$ line broad, margin entire and even. It has a general likeness to *H. ferrugineum*, but differs altogether in the fruit.

Encælia Bloxami, n.s.

Gregarious, often cæspitose, shortly stipitate, cyathiform, coriaceous, blackish-brown, minutely verrucose, hymenium lurid-brown; margin slightly undulating; flesh dark purple-brown, asci clavate; sporidia 8, elliptic, $3.4 \times 2 \mu$; paraphyses filiform, adherent.

Fusiform, uniseptate, stylospores on slender filaments are abundantly intermixed with the asci and paraphyses, the summits rising a little above the surface of the hymenium.

Patellaria Bloxami, Berk. in Bloxam's collection in Kew Herb.

On dead wood. No habitat is given.

Cups about 1-4 lines broad. When dry the plant is black; the purple-brown colour of the interior is only seen in a microscopic section. The stylospores appear to arise from the sub-hymenial tissue, and are by no means an accidental addition, for they are present in all the cups I examined. They are similar bodies to those in *Peziza diplocarpa*, Currey, and cannot be explained as spores that have germinated. On the very young cups a few short hairs occur. The cells of the pseudo-pyrenchyma are about $7.5\ \mu$ across.

Dermatea Fagi, *n.s.*

Erumpent, the orbicular or elliptic groups 1-8 lines across, splitting the epidermis; cups plane or slightly convex, mostly immarginate, when moist orange yellow, when dry ferruginous yellow, pruinose, densely crowded on an evident stroma; stem when present stout, continuous with the stroma; asci broadly clavate; sporidia elliptic or oblongo-elliptic, filled with coarsely grained protoplasm, sometimes becoming muriform, $18-23 \times 9-12\ \mu$; paraphyses slenderly filiform, abundant.

Stylospores oblong-elliptic or elliptic, $10-20 \times 7-9\ \mu$; produced on the surface of the stroma in tufts between the cups on clavate sporophores.

On *Fagus sylvatica*. New Aberdeen! 1886.

The cups are $\frac{1}{4}$ - $\frac{1}{2}$ a line broad. The conidia are produced in such a quantity that they form a pale layer on the stroma, visible by the aid of a pocket lens; I am not aware that they have been observed before in any other species.

Name, from the name of the tree on which it grows.

Cenangium seriatum, *Fr.*

Gregarious or cæspitose, erumpent through narrow transverse cracks in the bark; cups globose-depressed, at first closed, at length opening, horny, black, glabrous, arising, in company with the Pycnidia and Spermagonia, in a linear series from a thin black stroma; asci broadly clavate; sporidia 8, linear lanceolate, acute at the ends, straight or curved, pseudo-multiseptate, $55-85 \times 2-3\ \mu$.

Spermogonia in the form of minute depressed tubercles, discharging by a pore the filiform-lanceolate spermatia, which are curved and about $15\ \mu$ long.

Pycnidia minute, slenderly conical, discharging by a minute apical pore the linear lanceolate stylospores, which are acute at the ends, curved, and about $30\ \mu$ long.

Cenangium seriatum, Fr. Sys. Myc. ii., p. 185; Duby. Bot. Gal. p. 736, No. 10. *Peziza truncatula*, Rebent. Neom. p. 383. *Dermatea seriata*, Tul. Sel. Fung. Carp. Vol. iii., p. 160.

Exsic. Desmazieres Plant. Crypt. Gall. ed. 1, fasc. viii. (1829),

No. 384; Leveille in Moug. Stirp. Crypt., fasc. xv. (1860), No. 1479.

On *Betula alba*. Oxford! (Mr. Baxter.)

The transverse cracks in the bark expose the linear series ($\frac{1}{2}$ -1 in. long), composed of the three forms, the ascigerous cups being rarest. Tulasne gives the sporidia as $35-45 \times 3-4 \mu$; but in the Oxford specimen they are as given above. He says that long before the fruit can appear the linear series changes the natural colour of the white parchment-like bark to brown, and that underneath each sorus is a black linear ovate zone in the wood.

ALGÆ BRITANNICÆ RARIORES EXSICCATÆ.

FASCICULUS III.

BY E. M. HOLMES.

51. *Anabaina variabilis*, Kütz.
Harwich, June, 1885, E. Batters.
52. *Bangia ceramicola*, Chaur.
Weymouth, October, 1884, E. M. Holmes.
53. *Callithamnion fruticulosum*, J. Ag., on *Chondrus crispus*.
Swanage, June, 1885, E. M. Holmes.
54. *Callithamnion tenuissimum*, Kütz.
Falmouth, June, 1884, E. M. Holmes.
55. *Cladophora expansa*, Kütz, on *Zostera* leaves.
Weymouth, September, 1884, E. M. Holmes.
56. *Cladophora flexuosa*, E. B.
Cley, Norfolk, August, 1886, E. Batters.
57. *Cladophora hirta*, Kütz.
Cley, Norfolk, August, 1886, E. Batters.
58. *Cladophora refracta*, Roth.
Weymouth, November, 1883, E. M. Holmes.
59. *Clathrocystis roseo-persicina*, Cohn.
Harwich, June, 1885, E. Batters.
60. *Codiolum gregarium*, A. Braun.
Lynmouth, August, 1883, E. M. Holmes.
61. *Dasya venusta*, Harv.
Studland, near Swanage, October, 1886, E. M. Holmes.
62. *Ectocarpus cæspitulus*, J. Ag.
Newquay, June, 1884, E. M. Holmes.
63. *Ectocarpus irregularis*, Kütz.
Bognor, May, 1885, E. M. Holmes.

64. *Ectocarpus confervoides*, *Le Jol.*, f. *arcta*, *Kütz.*, on *Zostera angustifolia*.
Weymouth, August, 1885, E. M. Holmes.
65. *Gigartina pistillata*, *Lamour*.
Tresco, Scilly, December, 1885, J. Robbins.
66. *Glœocapsa crepidinum*, *Thur.*
Near Rhyl, July, 1886, E. Batters.
67. *Lyngbya luteo-fusca*, *J. Ag.*
Berwick-on-Tweed, August, 1886, E. Batters.
68. *Lyngbya spectabilis*, *Thur.*, *ined.*, on *Rhizoclonium*.
Near Rhyl, July, 1886, E. Batters.
69. *Oscillaria capucina*, *Crn.*
Weymouth, October, 1886, E. M. Holmes.
70. *Pilinia rimosa*, *Kütz.*
Yarmouth, August, 1886, E. Batters.
71. *Polysiphonia turgidula*, *Cr.*
Falmouth, June, 1884, E. M. Holmes.
72. *Polysiphonia simulans*, *Harv.*
Swanage, June, 1885, E. M. Holmes.
73. *Spirulina oceanica*, *Cr.*
Weymouth, November, 1884, E. M. Holmes; and Cley,
Norfolk, August, 1886, E. Batters.
74. *Symploca fasciculata*, *Kütz.*, on *Fucus platycarpus*.
Weymouth, October, 1884, E. M. Holmes.
75. *Vaucheria Thureti*, *Woron.*
Weymouth, September, 1886, E. M. Holmes.

BRITISH PYRENO MYCETES.

A preliminary list of known species.

BY G. MASSEE.

*(Continued from p. 72.)***VALSA** *(continued)*.

SUB-GEN. 5. **Quaternaria**, *Tul.* Perithecia four, or only a few in a cluster.

V. quaternata, *P.* (*Persoonii*, *Tul.*), *Sacc. Syll.* 425; *Hdbk.* 2482.

On beech, &c. Common.

V. dissepta, *Fr.*, *Sacc. Syll.* 426; *Hdbk.* 2467.

On lime twigs. King's Cliffe, Blackheath, Bedford
Purlieus.

On elm. Kew Gardens, &c.

V. abnormis, *Fr.*, *Sacc. Syll.* 4208.

On dead branches. Shere.

SUB-GEN. 6. **Calosphæria**, Tul. Perithecia nearly free beneath the loosened epidermis.

a. EU-CALOSPHERIA. *Perithecia rostellate*.

V. pulchella, P., Sacc. Syll. 391; Hdbk. 2481.

On cherry bark. Weybridge, Albury, Ringstead, Bristol.

V. pusilla, Wahl., Sacc. Syll. 393.

On bark. Batheaston.

V. dryina, Curr., Sacc. Syll. 397; Hdbk. 2469.

On oak. Weybridge, N. Wootton.

b. EROSTELLA. *Perithecia not rostrate*.

V. vibratilis, Fr., Sacc. Syll. 411.

On dead branches. Audley End; Essex, Norths.

B. Sporidia ovate or fusiform, or rod-like.

SUB-GEN. 7. **Cryptosporella**, Sacc. *Sporidia ovate or fusiform*.

V. hypodermia, Fr., Sacc. Syll. 1801; Hdbk. 2483.

On elm branches. Kidbrooke, Batheaston, Terrington, &c.

V. aurea, Fckl., Sacc. Syll. 1803; Hdbk. 2474 (= *amygdalina*, Cke.).

On hornbeam. Hampstead.

V. platanigera, B. & Br., Sacc. Syll. 1817; Hdbk. 2477.

On plane. Leicestershire.

SUB-GEN. 8. **Cryptospora**, Tul. *Sporidia cylindrical or rod-shaped*.

V. suffusa, Fr., Sacc. Syll. 4116; Hdbk. 2485.

On alder. Irstead.

On beech. Spye Park, Southgate.

V. intexta, Curr., Sacc. Syll. 4119; Hdbk. 2486.

On oak. Weybridge.

V. corylina, Tul., Sacc. Syll. 4120; Hdbk. 2487 (= *versatilis*, Fr., Sacc. Syll. 4144).

On hazel. Shere.

V. betulæ, Tul., Sacc. Syll. 4124.

On *Betula alba*. Kew Gardens, North Wootton, near Bristol.

C. Sporidia one or many septate.

SUB-GEN. 9. **Chorostate**, Ntke. *Sporidia uniseptate*.

V. conjuncta, Nees, Sacc. Syll. 2353.

On bramble. Batheaston.

V. tritorulosa, B. & Br., Sacc. Syll. 2535; Hdbk. 2494.

On hornbeam. Highgate.

V. carpini, Pers., Sacc. Syll. 2357.

On walnut, hornbeam, sycamore. Scotland.

V. aceris, Fckl., Sacc. Syll. 2363.

On maple. Darent, Norfolk.

- V. *hippocastani*, *Cooke*, *Grev.* xiii., 98.
On *Æsculus hippocastanum*. Kew Gardens.
- V. *oncostoma*, *Duby*, *Sacc. Syll.* 2370 ; *Hdbk.* 2499.
On *Robinia*. Swanscombe, Darent.
- V. *enteroleuca*, *Fr.*, *Sacc. Syll.* 2372 ; *Hdbk.* 2501.
On *Robinia*. Blackheath.
- V. *leiphemia*, *Fr.*, *Sacc. Syll.* 2385 ; *Hdbk.* 2490.
On oak branches. Common.
- V. *Robergeana*, *Desm.*, *Sacc. Syll.* 2388.
On *Staphylea pinnata*. Kew Gardens.
- V. *pulchra*, *Curr.*, *Sacc. Syll.* 2390 ; *Hdbk.* 2492.
On dry sticks. Weybridge.
- V. *furfurea*, *Fr.*, *Sacc. Syll.* 2396 ; *Hdbk.* 2493.
On birch. Twycross, Shere.
- V. *fibrosa*, *Pers.*, *Sacc. Syll.* 2397 ; *Hdbk.* 2489.
On blackthorn. Shere, Batheaston.
- V. *extensa*, *Fr.*, *Sacc. Syll.* 2398 ; *Hdbk.* 2488.
On mountain ash. Chiselhurst, Charlton, King's Cliffe.
On *Rhamnus catharticus*. Rockingham Forest.
- V. *faginea*, *Curr.*, *Sacc. Syll.* 2399 ; *Hdbk.* 2495.
On beech. Eltham Grove.
- V. *ailanthi*, *Sacc. Syll.* 2408.
On *Ailanthus glandulosa*. Kew Gardens.
- V. *punctata*, *Cke.*, *Grev.* xiv., 47.
On bark. Edinboro'.
- V. *æsculicola*, *Cke.*, *Grev.* xiv., 47.
On *Æsculus hippocastanum*. Twycross, Sydenham, Melrose.
- V. *Bloxami*, *Cke.*, *Grev.* xiv., 47.
On birch (?). Twycross.
- V. *olivæstroma*, *Cke.*, *Grev.* xiv., 48.
On *Cerasus avium*. Jedburgh.
- V. *fuscidula*, *Cke.*, *Grev.* xiv., 48.
On oak twigs. Highgate.
- CHOROSTELLA. *Sporidia appendiculate*.
- V. *decedens*, *Fr.*, *Sacc. Syll.* 2423.
On elm twigs. Batheaston.
- V. *tessera*, *Fr.*, *Sacc. Syll.* 2424.
On willow. Shere.
- V. *syngenesia*, *Fr.*, *Sacc. Syll.* 2425 ; *Hdbk.* 2462.
On *Rhamus frangula*. Forbes, N. Wootton, Highgate.
- V. *taleola*, *Fr.*, *Sacc. Syll.* 2426 ; *Hdbk.* 2502.
On oak branches. Common.
- V. *nidulans*, *Nssl.*, *Sacc. Syll.* 2428.
On *Rubus idæus*. Bristol.
- V. *glyptica*, *B. & C.*, *Sacc. Syll.* 2433.
On willow. King's Cliffe, Apethorpe.
- V. *tortuosa*, *Fr.*, *Sacc. Syll.* 2441.
On branches. Alton.

SUB-GEN. 10. **Calospora**, Sacc. *Sporidia triseptate*.V. stilbostoma, Cooke, Sacc. Syll. 2382 (= *rhois*, Cooke).On *Rhus*. Swanscombe.V. detrusa, Fr., Sacc. Syll. 2401; *Hdbk.* 2507.

On barberry. Wansford, Hants.

V. cratægi, Curr., Sacc. Syll. 2405; *Hdbk.* 2497.

On hawthorn. Shere, Kidbrooke, N. Wootton.

V. platanoides, Pers., Sacc. Syll. 3695; *Hdbk.* 2508.On *Acer pseudo-platanus*. Kew Gardens and Shere.

On holly. Terrington, Bath.

V. Innesii, Curr., Sacc. Syll. 3696; *Hdbk.* 2513.

On small branches of sycamore. East Bergholt. Weybridge.

V. aglæostroma, B. & Br., Sacc. Syll. 3357; *Hdbk.* 2512.

On elm twigs. Leicestershire.

GEN. 2. **MELANCONIS**, Tul. Stroma valsæform, blackish or yellowish. Perithecia circinate. Sporidia uniseptate, hyaline or brownish. (Conidia = *Melanconium*.)

a. EU-MELANCONIS. *Sporidia not appendiculate, hyaline.*M. stilbostoma, Fr., Sacc. Syll. 2343; *Hdbk.* 2454.

On birch. Blackheath, Weybridge, Hampstead, King's Lynn, Bristol, Lucknam, Wilts.

M. modonia, Fr., Sacc. Syll. 2344.

On *Castanea vulgaris*. Darent, Weybridge, North Wootton.b. MELANCONIDIUM. *Sporidia appendiculate, hyaline.*M. alni, Tul., Sacc. Syll. 2349; *Hdbk.* 2455.

On alder. Southgate, Shere, Dinmore, Irstead, N. Wootton.

M. thelebola, Fr., Sacc. Syll. 2350; *Hdbk.* 2503.

On alder. Chiselhurst, Shere, Lewes, Irstead.

c. MELANCONIELLA. *Sporidia brown or brownish.*

M. spodiæi, Tul., Sacc. Syll. 2805.

On hornbeam. Highgate.

M. chrysostroma, Fr., Sacc. Syll. 2806; *Hdbk.* 2456.

On branches. King's Cliffe, Jedburgh, Highgate.

d. HERCOSPORA, Fr. Similar, but with the pycnidia = *Rabenhorstia*.M. tiliæ, Fr., Sacc. Syll. 2352; *Hdbk.* 2496.

On lime. Shere, Hampstead, Blackheath, Jedburgh.

GEN. 3. **PSEUDOVALSA**, Not. Stroma valsæform, innate. Sporidia usually septate, brown.

* VALSARIA. *Sporidia uniseptate.*P. parmularia, Berk., Sacc. Syll. 2816; *Hdbk.* 2506.

On oak. King's Cliffe.

P. Caproni, *Cke., Grev.* xiv., 48.

On dry wood. Shere.

* AGLAOSPORA. *Sporidia three (or more) septate.*

† *Sporidia not appendiculate.*

P. profusa, *Not., Sacc. Syll.* 3346.

On *Robinia*. Blackheath Park.

P. lanciformis, *Fr., Sacc. Syll.* 3349; *Hdbk.* 2458.

On birch. Shooter's Wood, Weybridge, North Wootton,
Wilts, Scarborough.

P. umbonata, *Tul., Sacc. Syll.* 3351.

On *Quercus*. Kew Gardens.

P. longipes, *Tul., Sacc. Syll.* 3353; *Hdbk.* 2459.

On oak. Chiselhurst, Philpotts, N. Wootton.

†† *Sporidia appendiculate.*

P. convergens, *Tode., Sacc. Syll.* 3345.

On *Rubus*. Berwick. (Johnstone.)

P. aucta, *B. & Br., Sacc. Syll.* 3360; *Hdbk.* 2708.

On alder. Spye Park, Wilts.

P. hapalocystis, *B. & Br., Sacc. Syll.* 3361; *Hdbk.* 2515.

On plane. Batheaston.

On *Platanus acerifolia*. Kew Gardens.

GEN. 4. **FENESTELLA**, *Tul., Sacc. Syll.* 11, 325. Stroma cortical, valsæform. *Sporidia* multiseptate, muriform, or clathrate.

EU-FENESTELLA. *Sporidia coloured.*

F. princeps, *Tul., Sacc. Syll.* 3995; *Hdbk.* 2510 (= *Valsa fenestrata*, B. & Br.).

On oak. Spye Park, Lynn, Batheaston, Elmhurst, Twycross.

F. tetratrupha, *B. & Br., Sacc. Syll.* 3996; *Hdbk.* 2509.

On alder. Batheaston, Wilts.

F. vestita, *Fr., Sacc. Syll.* 4004; *Hdbk.* 2514.

On beech twigs. Ringmer, Sussex; Eltham Grove.

On elm. Chiselhurst.

F. Lycii, *Duby, Sacc. Syll.* 4005.

On *Lycium barbatum*. Lynn.

F. salicis, *Rehm., Sacc. Syll.* 4008.

On *Salix cinerea*. Kew.

Fam. 7. EUTYPEÆ. Stroma broadly and indefinitely effused, formed from the matrix. Perithecia immersed in the stroma, usually densely and broadly gregarious.

GEN. 1. **EUTYPA**, *Tul.* Stroma broadly effused in the bark or wood. Ostiolum small. Asci eight-spored. *Sporidia* sausage-shaped, hyaline.

* *Ostiola sulcate.*

E. Acharii, *Tul., Sacc. Syll.* 618; *Hdbk.* 2396.

On dead branches. Common.

E. aspera, *Nke.*, *Sacc. Syll.* 620.

On branches. Queen's Cottage, Kew.

E. maura, *Fr.*, *Sacc. Syll.* 627.

On dead wood. Highgate.

E. spinosa, *Pers.*, *Sacc. Syll.* 635 ; *Hdbk.* 2399.

On branches. Wingfield Manor, Dinmore, Eltham, Scarborough'.

** *Ostiola not sulcate.*

E. lata, *Pers.*, *Sacc. Syll.* 637 ; *Hdbk.* 2397.

On ivy. Queen's Cottage Kew, Ringmer, Pentrich, Shrewsbury. Common.

E. leioplaca, *Fr.*, *Sacc. Syll.* 638 ; *Hdbk.* 2400.

On decorticated branches. Hampstead, King's Cliffe.

E. scabrosa, *Bull.*, *Sacc. Syll.* 640 ; *Hdbk.* 2401.

Inside a hollow elm. Shropshire. On maple. Lynn.

E. prorumpens, *Wallr.*, *Sacc. Syll.* 642.

On *Sorbus aucuparia*. King's Cliffe.

E. flavo-virens, *Tul.*, *Sacc. Syll.* 643 ; *Hdbk.* 2398.

On wood and branches. Common.

E. rhodi, *Nke.*, *Sacc. Syll.* 652 ; *Hdbk.* 2402.

On dead rose stems. Shere.

E. ulicis (*Fr.*), *Berk.*, *Sacc. Syll.* 668.

On furze. Langridge, Penzance.

NEW BRITISH ALGÆ.

A few months ago some quartz pebbles taken out of the river Poulter, which is a tributary of the Idle, near Retford, in Nottinghamshire, were sent to me to know what was the curious red lichen-like stain closely encrusting them, and bearing a remarkable resemblance to huge drops of clotted blood. If they had been taken from the sea shore, or its immediate neighbourhood, there would have been no difficulty in determining the red spots to be *Hildenbrantia rubra*, but being from a fresh water habitat where they cover the whole bed of the stream for hundreds of yards, and at a considerable distance from the sea, and no Fresh Water *Hildenbrantia* being mentioned in Cooke's "Fresh Water Algæ," it required Mr. Wm. Archer, of Dublin, to whom I submitted the specimens, to point out that the plant is *Hildenbrantia rivularis*, Lieber (Rabenhorst's "Flora Europæa Algarum," p. 408), a Fresh Water Algæ common throughout Europe, but not, that I am aware of, hitherto recorded from the British Isles.

Since making this discovery, I have looked over my collection of uncertain and unexamined Algæ, and am pleased to have found the same plant on a large pebble which I gathered a few years ago from the shore of Ram's Island, in Lough Neagh, Co. Antrim ; and on a piece of rock which I chipped off the bed of a little streamlet in the wood at Rorstrevra, Co. Down.

H. W. LETT, M.A.

SYNOPSIS PYRENOMYCETUM.

(Continued from p. 86.)

Fam. 9. SUPERFICIALES, Fr. Perithecia discreta, superficialia, vel sub-superficialia.

Sub.-Fam. 1. BYSSISEDÆ. Perithecia byssiseda.

GEN. 1. **BYSSOSPHERIA**. Cooke Grev., VII., 84. Perithecia glabra, e bysso plus minus distincto emergentia.

* CÆLOSPHERIA. *Sporidia hyalina, continua.*

2572. tristis, Tode. ... 378 2573. calyculus, Mont.... 5891
2572.*luteobasis, Ellis.... 639

* TRICHOSPHERIA. *Sporidia hyalina.*

2574. regulina, B. & Br. 1750 2577. corynephora, Cooke 6022
2575. regulinoides, Sacc. 1751 2578. pachnostoma, B. & C.,
2576. acanthostroma, M. 1754 Grev. xv., 80.
= culcitella, B. & R. 4278 2579. aterrima, Fckl. ... 3632
= aculeata, B. & Br. 2580. solaris, C. & E. ... 3578

** INZENGÆA. *Sporidia stellata, hyalina.*

2581. erythrospora, Borzi 6400

** EU-ROSELLINIA. *Sporidia continua, fusca.*

A. Bysso fusco-nigro.

2582. aquila, Fr. ... 916 2594. sepulta, B. & C. ... 929
= byssiseda, P. 2595. tetradeniæ, B. & Br. 930
= carioni, Grog. in 2596. subænea, B. & C. 931
Roum., F. Gall. 839 2597. immunda, B. & C. 932
,, v. elegans, Duby. 2598. bothrina, B. & Br. 933
2583. corticium, Schw. ... 917 2599. emergens, B. & Br. 934
2584. thelena, Fr. ... 918 2600. marcucciana, Ces. 935
2585. andurnensis, Ces. 919 2601. ignobilis, Ces. ... 936
2586. salicum, Fab. ... 5924 2602. purpureo-fusca,
2587. buxi, Fab. ... 920 Schw. ... 4282
2588. Morthieri, Fckl. ... 921 2603. euomphala, B. & C. 1784
2589. Desmazierii, B. & Br. 922 = craterella, B. & R.
2590. bunodes, B. & Br. 923 2604. Macouniana, Ell. & Ev.
2591. Beccariana, Ces. ... 924 6308
2592. leprantha, Fr. ... 926 2605. quercina, Hart. 6309
2593. aucklandica, Rabh. 927

B. Byssopallido v. *laete colorato*.

- | | | | |
|--------------------------------------|------|---|------|
| 2606. pyxidella, <i>Ces.</i> ... | 928 | 2611. picta, <i>Berk., Grev.</i> xv. 81 | |
| 2607. subiculata, <i>Schw.</i> | 925 | 2612. pardalios, <i>B. & C.</i> | 4126 |
| 2608. mutans, <i>C. & Pk.</i> | 944 | 2613. epixantha, <i>B. & Br.</i> | 4230 |
| 2609. rhodomela, <i>Schw., Grev.</i> | | 2614. epileuca, <i>B. & Br. Grev.</i> | |
| xv., 80 | | xv., 81 | |
| 2610. imposita, <i>Schw.</i> ... | 4281 | | |

C. *Species incertæ.*

2615. arctica, *Fckl.* ... 6316

*** MELANOPSAMMA. *Sporidia uniseptata, hyalina.*

a. *Perithecia subglabra.*

2616. mendax, *Sacc.* & *R.* 2257 2618. alligata, *Fr.* ... 2335
2617. investans, *Cke.* ... 2333

b. *Perithecia rugosa*.

2619. querceti, *Rehm.*... 2278 2620. imitatrix, *B. & Br.* 2334

*** ENCHNOSPHERIA. *Sporidia uniseptata, fusca.*

- | | |
|---|--|
| 2621. <i>acicola</i> , <i>Cooke</i> ... 2753 | 2624. <i>rhodomphala</i> , <i>Berk.</i> 2258 |
| = <i>Coulteri</i> , <i>Peck.</i> { 3600 | 2625. <i>diffusa</i> , <i>Schw.</i> ... 4283 |
| { 6621 | 2626. <i>conferta</i> , <i>Schw.</i> ... 4277 |
| 2622. <i>parietalis</i> , <i>B. & C.</i> 3601 | 2627. <i>lanuginosa</i> , <i>B. & C.</i> 2254 |
| 2623. <i>rhodosticta</i> , <i>B. & Br.</i> 3624 | 2628. <i>subiculosa</i> , <i>E. & Ev. Exs.</i> |

***** HERPOTRICHIA. *Sporidia triseptata, hyalina.*

- | | | | |
|--------------------------------------|--------|-------------------------------------|------|
| 2629. rhodospila, <i>B. & C.</i> | { 3622 | 2631. innumera, <i>B. & Br.</i> | 3211 |
| | { 3619 | 2632. callimorpha, <i>Mont.</i> | 3212 |
| 2630. ceratotheca, <i>Cke.</i> | 6150 | = ruborum, <i>Lib...</i> | 2249 |

Sporidia pluriseptata, sub-hyalina.

2633. *helicophila*, *Cke.* ... 3274 2634. *solorinæ*, *Anzi.* ... 3275

***** MELANOMMA. *Sporidia 2-3 septata, fusca.*

2635. epochnii, *B. & Br.* 3245 2637. ? globigera, *Moug.* 3265
2636. rhodomela, *Fr.* ... 3263

***** CHÆTOSPHERIA. *Sporidia 2-5 septata.*

- | | | | |
|--------------------------------------|----------|---------------------------------|----------|
| 2638. phæostroma, <i>Mont.</i> | 3200 | 2642. parvula, <i>Sacc.</i> | ... 3206 |
| 2639. phæostromoides, | | 2643. parvicapsa, <i>Cooke</i> | 3207 |
| <i>Pk.</i> | ... 3201 | 2644. rubiginosa, <i>Cooke,</i> | |
| 2640. bihyalina, <i>B. & Br.</i> | 3203 | <i>Grev.</i> xv., 80 | |
| 2641. fusca, <i>Fckl.</i> | ... 3202 | | |

***** CUCURBITARIOIDEA. *Sporidia, muriformia, colorata.*

2645. *insularis*, *Ces.* 2550, 3982
2646. *viridescens*, *Sollm., Bot. Zeit.* xxi. (1863), p. 210.

SPECIES DUBIÆ.

2647. cinerea, *Pers.* ... 4276 2649. pannus, *Kunze.* ... 4280
 2648. contexta, *Walk.* ... 4279 2650. cuticularis, *Schwz.* 4284

GEN. 2. **CHÆTOSPHÆRIA.** *Tub.* Perithecia gregaria, villosa, subiculo insidentia.

* *Sporidia uniseptata, hyalina.*

2651. nigrita, *B. & Br.* 2337 2652. cryptostoma, *Lev.* 2250

** *Sporidia 2-5 septata, fusca.*

2653. cupulifera, *B. & Br.* 3204 2660. atrobarba, *C. & E.* 3215
 2654. leonina, *Cke. & Pk.* 3205 2661. pileo-ferruginea, *Cr.* 3216
 2655. xanthotricha, *B. & Br.* ... 3208 2662. angelicæ, *Cr.* ... 3217
 2656. flavo-compta, *B. & C.* 3209 2663. ornata, *Hark.* ... 6695
 2657. pannicola, *B. & C.* 3210 2664. Saccardiana, *Schz.* 6696
 2658. calostroma, *Desm.* 3213 2665. pezizæformis, *Schz.* 6697
 2659. indica, *Niessl.* ... 2214 2666. holophæa, *B. & C., Grev.* xv., 82

*** *Sporidia continua, fusca.*

2667. hystriacula, *B. & Br.* 1010 2668. clavariarum, *Desm.* 837

Sub.-Fam. 2. **VILLOSÆ.** Perithecia villosa, tomentosa vel setosa.

GEN. 3. **LASIOSPHÆRIA.** Perithecia superficialia, setosa, sporidia hyalina vel subhyalina.

* **CÆLOSPHÆRIA.** *Sporidia allantoidea.*

† *Asci octospori.*

2669. exilis, *A. & S.* ... 379 2670. suberis, *Wint.* ... 6252.
 = *chatomium*, *Ca.* ... 2306
 = *pusillum*, *Fr.* ... 834

†† *Asci polyspori.*

2671. mucida, *Fr.* ... 4285

** **SPHÆROPYXIS,** *Bon.* *Sporidia globosa.*

2672. hispida, *Bon.* ... 1017

** **TRICHOSPHÆRIA,** *Fckl.* *Sporidia continua, hyalina.*

2673. pilosa, *Pers.* { 1741 2678. cæsia, *Curr.* ... 1746
 { 6020 2679. fissurarum, *B. & C.* 1747
 2674. tarda, *Fckl.* ... 1742 2680. nobilis, *S. & S.* ... 1749
 2675. punctillum, *Rehm.* 1743 2681. trames, *B. & C.* ... 1790
 = *pachyspora*, *Sacc.* 2682. subcorticalis, *Peck.* 1753
 2676. superficialis, *Curr.* 1744 2683. Elisæ-mariæ, *S. & P.* ... 6021
 2677. erythrella, *Wallr.* 1745

** LEPTOSPORA. *Sporidia continua, subhyalina.*

2684. sorbina, <i>Nyl.</i> ...	3566	2695 sphagnorum, <i>Cr.</i> ..	3576
2685. stannea, <i>Fr.</i> ...	3567	2696. cirrhostoma, <i>B. &</i>	
2686. ovina, <i>Pers.</i> ...	3568	<i>Br.</i> ...	3577
2687. hispidula, <i>S. & S.</i>	3569	2697. breviseta, <i>Karst.</i> ...	7050
2688. radiata, <i>Fckl.</i> ...	3570	2698. janus, <i>B. & Br.</i> ...	3579
2689. felina, <i>Fckl.</i> ...	3571	2699. scabra, <i>Curr.</i> ...	3580
2690. caudata, <i>Fckl.</i> ...	3572	2700. sulphurella, <i>S.</i> ...	3581
2691. crinita, <i>Pers.</i> ...	3573	2701. montis-caballi, <i>Sp.</i>	3582
2692. strigosa, <i>A. & S.</i>	3574	2702. immersa, <i>Karst.</i> ...	3583
2693. erinacea, <i>Cr.</i> ...	3575	2703. emergens, <i>Schw.</i> ...	4296
2694. romeana, <i>Sacc. &</i>		2704. stuppea, <i>Ell. & Ev.</i>	7052
<i>Berl.</i> ...	7051		

Species incertæ.

2705. calva, <i>Tode</i> ...	3584	2709. tephrotricha, <i>Fr.</i> ...	3589
2706. nitrosa, <i>Wallr.</i> ...	3586	2710. flavescens, <i>Fr.</i> ...	3590
2707. acinosa, <i>Batsch.</i> ...	3587	2711. depilata, <i>Fr.</i> ...	3591
2708. chloronema, <i>B. & Br.</i>	3588	2712. trichiacea, <i>Fr.</i> ...	3594

*** ERIOSPHÆRIA. *Sporidia didyma, hyalina.*

2713. vermicularia, <i>Nees.</i>	2328	2718. horridula, <i>Wallr.</i> ...	2336
2714. exigua, <i>Sacc.</i> ...	2329	2719. vermicularioides,	
2715. andromedæ, <i>Rehm.</i>	2330	<i>Sacc. & Roum.</i> ...	6536
2716. œnotria, <i>S. & S.</i> ...	2331	2720. inæqualis, <i>Grove.</i> ...	6537
2717. membranacea, <i>B &</i>		2721. calospora, <i>Speg.</i> ...	6538
<i>Br.</i> ...	2332		

*** EULASIOSPHÆRIA. *Sporidia septata.*† *Sporidia septata, hyalina.*

2722. hirsuta, <i>Fr.</i> ...	3538	2727. Libertiana, <i>Sp. &</i>	
<i>var. terrestris.</i>		<i>Roum.</i> ...	3544
3723. rufiseda, <i>Sacc.</i> ...	3539	2728. subambigua, <i>Cke.</i>	3545
2724. cæsariata, <i>C. & P.</i>	3541	2729. viridicoma, <i>C. & Pk.</i>	3546
2725. helicoma, <i>I. & P.</i>	3542	2730. canescens, <i>Pers.</i> ...	3547
2726. Montagnei, <i>Fr.</i> ...	3543	2731. xestothele, <i>B. & C.</i>	3548

†† *Sporidia septata, fuscescentia.*

2732. hispida, <i>Tode.</i> ...	3549	2738. capensis, <i>K. & C.</i>	3555
2733. racodium, <i>Pers.</i> ...	3550	2739. paucipilis, <i>Cke.</i> ...	3556
2734. orthotricha, <i>B. & C.</i>	3551	2740. muscicola, <i>Not.</i> ...	3557
2735. ferruginea, <i>Fckl.</i> ...	3552	2741. mutabilis, <i>Pers.</i> ...	3558
2736. Fuckelii, <i>Sacc.</i> ...	3553	2742. stipæ, <i>Fab.</i> ...	3559
= <i>depilata</i> , <i>Fckl.</i>		2743. ambigua, <i>Sacc.</i> ...	3560
2737. pezizula, <i>B. & C.</i>	3554		

††† *Sporidia color incertæ.*

2744. actinodes, <i>B. & C.</i>	3561	2746. tephrocoma, <i>B. &</i>	
2745. hemipsila, <i>B. & Br.</i>	3562	<i>Br.</i> ...	3564

HEMIARCYRIA CHRYSOSPORA, *Lister.*

A form of *Hemiarcyria*, which appears not to have been hitherto described, was sent to me by Mr. Henry Munro, of the Gardens, Cleveland, Lyme Regis, on Dec. 4, 1886.

He found it in mature condition, on twigs of larch, lying on the ground, and on the surrounding herbage.

The sporangia are sessile, about 1 mm. in diameter, spherical, and generally closely aggregated, of a bright ochraceous yellow, resembling those of *Trichia chrysosperma*; the walls of the sporangia are membranous.

The yellow capillitium is a loosely formed net of spiral threads, 5 mk. in breadth, with many free ends, which terminate, as a rule, in slightly expanded conical apices; it is attached at numerous points to the basal wall of the sporangium.

The spirals, usually four in number, are closely arranged, and are connected by less prominent transverse processes, nearly at right-angles to the line of the spirals, and at distances about equalling that of the spirals from each other, giving a more chequered appearance than that exhibited by the longitudinal striæ of *Trichia chrysosperma*.

The bright yellow spores are 16 mk. in diameter; the central portion is surrounded by a hyaline coat 3 mk. in thickness, which is divided into about twenty polygonal areas; they bear a near resemblance to those of *Trichia chrysosperma*, a species which seems to be rare in this country, and for specimens of which I am indebted to Prof. Bayley Balfour.

The organism under consideration, except for the absence of free elaters, resembles in the closeness of the spirals and the diameter of the threads, robust specimens of *Trichia affinis*, which is abundant in our woods in late autumn, but the spores are markedly different, being considerably larger, with no appearance of pitting on the ridges, and with a thicker reticulated envelope.

The reticulation is even more brightly defined than in the spores of *Trichia chrysosperma*.

Lyme Regis, May 14, 1887.

ARTHUR LISTER.

WASTE PAPER.—Our readers should look out for another new book, which professes to be a "Field Book for Fungus Hunters," but is really only a hunter for their spare coppers. "Please pity the poor blind!"

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