Pœcilophasia marginata.
Macaria liturata.

PLATYPTERICIDÆ.

Cilix impressa.

PYRALIDÆ.

Hypena proboscidalis.
Simaëthis Fabriciana.
Hydrocampa Potomogeta.
Mesographa forficalis.
 — *fimbrialis*.
 — *institialis*.
 — *sericealis*.
 — *olivalis*.

TORTRICIDÆ.

Hylophila prasinana.
Tortrix viridana.
 — *pullidana*.
Lozotænia Corylana.
 — *lævigana*.
 — *oporana*.
 — *Rosana*.
 — *Holmiana*.
Antithesia Betuletana.
Spilonota Cynosbatella.
 — *Sylvana*.
 — *trigeminana*.
 — *sticticana*.
 — *quadrana*.
Pseudotomia lunulana.
 — *aurana*.
Steganoptycha cineraria.
Anchylopera Lundana.
 — *siculana*.
Cnephasia Penziana.
 — *interjectana*.
Orthotænia striana.
Sericoris micana.
 — *politana*.
 — *pulchellina*.
Pœcilochroma communana.
Lophoderus ministranus.
Peronea variegana.
 — *Schalleriana*.
 — *Gnomana*.

Peronea tripunctulana.
Glyphisia effractana.
 — *caudana*.
Dictyopteryx ciliana.
 — *Forskaleana*.
Cheimatophila castaneana.
Argyrotoza Conwayana.
 — *Daldorfiana*.
Argyrolepia Bentleyana.
Xanthosetia Zœgana.
 — *Hamana*.
 — *diversana*.

YPONOMEUTIDÆ.

Depressaria Heracleana.
 — *gilvella*.
 — *aplana*.
 — *Sparmanniana*.
 — *curvipunctosa*.
 — *albipunctilla*.
 — *Alstroemeriana*.
 — *costata*.
Anacampsis aleella.
Diurnea Fagella.
Yponomeuta Evonymella.
 — *comptella*.
Argyrosetia Gœdartella.
 — *semitestacella*.
Argyromiges Rajella.
Cœcophora Reesella.
Ilithya sociella.
Eudorea lineola.
 — *murana*.
Phycita Abietella.
 — *hybridalis*.
Crambus pratellus.
 — *angustellus*.
 — *horticellus*.
 — *cespitellus*.
 — *montanellus*.
 — *marginellus*.
 — *culmellus*.
 — *petrificellus*.
 — *aquilellus*.
Harpiteryx dentella.
Chaetochilus vitellus.

[To be continued.]

XLII.—*Descriptions of Exotic Fungi in the collection of Sir W. J. Hooker, from Memoirs and Notes of J. F. Klotzsch, with Additions and Corrections.* By the Rev. M. J. BERKELEY, M.A., F.L.S.

[With a Plate.]

THE memoirs on which the present paper is founded appeared in the 'Linnæa,' vol. vii. p. 193, and vol. viii. p. 478*. The

* *Mycologische Berichtungen zu der nachgelassenen Sowerbyschen Samm-*

notes are appended to the several species in their place in the Herbarium. It seems desirable that the record of so many interesting species existing in a British collection should not be confined to a foreign journal, and there is the greater reason for giving the results of M. Klotzsch's labours in an English form, since the species in the Herbarium, which from its richness and the extreme liberality of its possessor, may almost be regarded as national, appear frequently under perfectly different names, and in some instances the specific names have been transferred from one species to another. I have made corrections where they appeared necessary, and have taken the opportunity of describing some species either received subsequent to the completion of M. Klotzsch's revision or left by him undetermined. It has been thought right to add descriptions of a few of the species collected by M. Humboldt, where the specific phrases given in the 'Synopsis Plantarum æquinoctialium orbis novæ' are too short. It has been found almost impossible to mark the additions which it has been thought right to make in any case to the descriptions already published. I am anxious however to state that I have no wish to rob the learned author of the slightest portion of the praise which is due to his labours, or to put forth his descriptions as my own.

AGARICUS.

1. *Agaricus* (*Leucosp. Clit. Rhizop.*) *rheicolor*, Berk. Rhubarb-coloured. Pileus thin, striate, wrinkled in the centre, at length umbilicate; gills rather broad, adnato-decurrent, beautifully connected by strong veins, their bases velvety. Stem long, slender, more or less grooved, slightly thickened at the base, clothed with fine velvety, obscurely fasciculate pubescence.

Pileus scarce 1 inch broad, more or less wrinkled especially in γ centre, as in *Ag. radicans*, from the contraction of the substance of the pileus; margin grooved and striate. Gills rounded, velvety at the base from running down for a very short distance into the pubescence of the stem, most beau-

lung, so wie zu der wenigen im Linneischen Herbarium vorhandenen Pilzen, nebst Aufstellung einiger ausländischen Gattungen und Arten, 1832.

Fungi exotici e collectionibus Britannorum auctore Klotzsch, 1833.

tifully connected by strong veins, as in the section *Calodontes*. Stem 3 inches high, about two lines thick.

Apparently nearly related to *A. velutipes*, but I believe truly distinct. The stem is not always rooting, but neither is this constantly the case in that species.

On trunks of trees. Brazil. Hook. Herb.

2. *Agaricus* (*Leucosp. Myc. Hygrocyb.* (*Leuc. Omph. Myc. Kl.*)) *umbraculum*, Kl. in Linn. vol. viii. p. 478. *Ag.* (*Collybia*) *umbraculatus*, Kl. in Hook. Herb.

Fasciculate. Pileus convex, umbilicate, slightly striate, membranaceous, somewhat tawny (*fuscescente-albo*, Kl.); gills when dry tan-coloured decurrent; stem fistulose, bay, extremely viscid, confluent at the base and blackish.

Stem 2—2½ inches high, even. Pileus submembranaceous, 3—4 lin. broad, tough. Gills rather distant, sometimes dichotomous near the margin.

On trunks of trees. Mauritius. Mr. Telfair.

This species belongs clearly, as to habit, to the section *Hygrocyboideæ* of the subgenus *Mycena*. M. Klotzsch appears not to have suspected this and therefore did not moisten the stem, which drips when wet with pellucid slime like *Ag. roridus*. The pileus has rather a tawny than fuscous hue; the gills in the recent plant are probably nearly white. It appears very nearly allied to *Ag. roridus*, *β. stillans*.

3. *A. (Omphalia) strigellus*, Berk. Pileus tough, entire, infundibuliform, red-brown, sprinkled, especially towards the margin with minute setulose scales; margin slightly waved, thin, subinvolute. Gills narrow, decurrent, entire, scarcely anastomosing at the base. Stem short, clothed with coarse, velvety, fawn-coloured pubescence.

Pileus 2½ inches broad, nearly of the same colour as *Ag. vaccinus*, apparently very obscurely zoned; gills crisp when dry and wood-coloured, running down till they are lost amongst the down of the stem. Stem 1 inch high, ½ thick, rather swollen at the base. This species appears to be nearly allied to *Ag. velutinus*, Fr. in Linn., and for the same reason is placed in the subgenus *Omphalia*, though its affinities are with *Pleuropus*. The gills are crisp when dry and entire; the habit too removes it from *Lentinus*.

On trunks of trees. Brazil. Hook. Herb.

4. *A. (Pleur. Conch.) pycnoticus*, Kl. l. c. p. 479. *A. pycnosus*, Kl. in Hook. Herb. Cæspitose. Pileus entire, pulvinate, subinfundibuliform, excentric, reddish in consequence of being frosted with a grey-lilac bloom. Gills broad, dirty white, decurrent. Stem smooth.

Substance extremely tough. Stem dirty white. Pil. 1—2 inches broad, smooth. Gills entire.

On trunks of trees. Mauritius. Mr. Telfair. One specimen in the herbarium exceeds the above dimensions, the pileus when expanded being more than three inches across. The stem in this is scarcely half an inch thick, and indeed in any case can scarcely be called thick in proportion to the pileus. The colours in the specific character are to be understood of the dry plant. The grey-lilac bloom is very remarkable.

LENTINUS.

1. *L. (Mesop.) nigripes*, Fr. in Litt. Kl. l. c. p. 479. *L. Bertieri*, Kl. in Hook. Herb. *L. villosus*, Kl. in Hook. Herb. Cervino-ferruginous; pileus coriaceous, infundibuliform, clothed with curled hairs; gills denticulate, terminating together; stem firm, solid, tomentose, blackish at the base. Solitary; stem almost 2 inches high, 2 lines thick, dilated above. Gills crowded, narrow, denticulate. Pileus 2 inches broad, deeply umbilicate; margin involute.

On trunks of trees. Mauritius. Mr. Telfair. Brazil, Guiana.

2. *L. (Mesop.) villosus*, Kl. l. c. Brown; pileus coriaceous, infundibuliform, clothed with very dense straight hairs; gills narrow, entire, very distant, decurrent, all ending together abruptly; stem firm, villous, dilated at the apex. Stem hirsute, 2 inches high, 3—4 lines thick. Pileus 2 inches broad with the margin involute, clothed with straight, not squarrose, nor curled hairs.

On trunks of trees. Mauritius. Mr. Telfair.

3. *L. (Mesop.) stupeus*, Kl. l. c. p. 480. Bay; pileus deeply umbilicate, clothed with very crowded squarrose hairs; margin involute; gills crowded, denticulate, decurrent, all interrupted

together; stem slender, subtomentose, fawn-coloured, with longer bay hairs intermixed.

Pileus 2 inches broad, squamuloso-pilose. Stem scarcely exceeding 1 line in thickness, very much dilated above, in age quite smooth.

On trunks of trees. Mauritius. Mr. Telfair.

4. *L. (Mesop.) crinitus*, Fr. Syst. Myc. vol. i. p. 175.

On trunks of trees. Mauritius. Mr. Telfair.

5. *L. exilis*, Kl. MSS. in Hook. Herb. Pileus thin, of a tough fleshy substance, smooth, ochraceous-tawny; gills equal, decurrent, distinct, entire; stem even, smooth. Pil. 2—4 inches broad, margin lobed. Gills crowded. Stem $\frac{1}{2}$ an inch high; 3—4 lines thick.

On rotten wood. Mauritius. Mr. Telfair.

FAVOLUS.

1. *F. (Pleuropus) Humboldtii*, Berk. Stem short, lateral, gradually expanding into the thin, obovate, somewhat lobed, smooth, tawny, pileus; alveoli small, elongated, of the same colour as the pileus; dissepiments thin. Pileus with the stem $1\frac{3}{4}$ inch long, $1\frac{1}{2}$ inch broad, with three rounded lobes. Stem not $\frac{1}{2}$ an inch long.

The specimen from which the above character is drawn up is clearly a *Favolus*, but it is unfortunately not in a good state of preservation. It is marked in Sir W. J. Hooker's Herbarium, Humb. No. 179. The alveoli are far smaller than in either of the two following species, to which it is closely allied. In form and colour it is much like *Favolus braziliensis*, Fr., which however differs in several respects. From *F. flaccidus* it differs in being stipitate, and from *F. tenuicaulis* in not being reniform.

2. *F. (Pleuropus) hepaticus*, Kl. in Linn. vol. vii. p. 197. Of a tough fleshy substance; pileus reniform, liver-coloured, smooth, lobed in free-growing specimens; stem extremely short, lateral; alveoli 6—4-angled, elongated, dirty white; dissepiments very thin. *Favolus canadensis* and *Polyporus cellululosus*, Kl. in Hook. Herb.

Solitary, variable but more or less reniform. The colour of the pileus is darker towards the base. Pil. 2—5 inches broad, $1\frac{1}{2}$ —3 inches long, smooth. Stem very short, 3 lines thick.

Alveoli 1 line broad, 2 lines long, 2—3 lines deep. The most obvious mark of distinction between this and the following species resides in the less rigid dissepiments. I think it very doubtful whether the living plant is at all liver-coloured. I suspect it is rather ochraceous.

Mauritius. Mr. Telfair.

3. *F. (Pleuropus) canadensis*, Kl. l. c. Nearly sessile, with only the rudiment of a stem, of a tough, fleshy substance, rigid; pileus reniform, at first minutely squamose, tawny; margin entire; alveoli deep, 6-sided, elongated, dirty white; dissepiments rigid. Pileus $1\frac{1}{2}$ inch broad, $\frac{5}{8}$ inch long.

Canada. Messrs. Shepherd and Pursh.

CANTHARELLUS.

C. (Mesopus) canadensis, Kl. MSS. in Hook. Herb. Pileus, together with the stem, turbinate, fleshy, smooth, even, white, deeply infundibuliform; folds forming elongated alveoli, dichotomous above; stem confluent with the pileus, compact, smooth. Pileus nearly 2 inches high, $\frac{1}{2}$ an inch thick.

Canada. Hook. Herb.

It is impossible to say what the colour of the folds may have been in the fresh plant. When dry the pileus is pallid; the folds are darker and run for some distance down the stem. The nearest affinities of this species appear to be with *C. clavatus*. If it were not so much depressed it would form an addition to the section *Gomphus*.

DÆDALEA.

1. *D. (Pleuropus) lævis*, Hook. in Kunth. Syn. vol. i. p. 9. Stem short, thick, lateral. Pileus thin, suberoso-coriaceous, expanded, reniform, emarginate, quite smooth, zoneless, even; margin acute. Gills broader than the flesh, straight, extremely close, anastomosing. Stem $\frac{3}{4}$ of an inch long, and broad. Pileus $1\frac{3}{4}$ inch long, $2\frac{1}{2}$ inches broad, scarce $\frac{1}{8}$ of an inch thick. Sinuli mostly linear. Colour in the dry plant yellow brown, in the fresh plant it is probably pallid ochraceous.

Andes, between Popayan and Almaguer. Humboldt, Hook. Herb. Specimen unicum. Allied to *D. applanata*, Kl., and *D. polita*, Fr. in Linn.

2. *D. (Apus) betulina*, var. *velutina*, Berk. Pileus hard, sessile, dimidiate, lobed, deeply zoned, tawny, velvety. Gills rather thick.

New Orleans and other parts of North America, Hook. Herb. The pileus is by no means tomentose, but clothed with short close velvety pubescence. Vertex sometimes lengthened out into a sort of stem. *Thelephora lobata* varies in the same way.

3. *D. (Apus) aspera*, Kl. in Linn. vol. viii. p. 480. Pileus sessile, dimidiate, coriaceous, zoned, rough, pale; gills very broad, white, straight, with shorter ones intermixed. Pileus horizontal or somewhat pulvinate, obsoletely downy, 3 inches broad, $2\frac{1}{2}$ inches long. Gills coriaceous, thin, distant, 1 inch broad towards the base, narrower in front, rarely anastomosing.

On trunks of trees. Mauritius. Mr. Telfair.

β. alutacea, Kl. in Hook. Herb. Darker; gills thick, frequently anastomosing.

Mauritius. Mr. Telfair.

4. *D. (Apus) applanata*, Kl. l. c. p. 481. Stem central, lateral, or altogether wanting; pileus rather thin, reniform, smooth, dirty white, sometimes papillate; margin somewhat zoned; gills dirty white, very narrow, close, repeatedly dichotomous, anastomosing towards the base.

D. applanata, Fr. in Hb. Willd. an *D. polita*, Fr. in Linn. vol. v. p. 514? *D. candida*, Kl. MSS. in Hook. Herb. Size very variable. Pileus thin, 16 inches broad, generally plane, rarely imbricated. Margin thin, straight, substance coriaceous-suberose.

On trunks of trees. Mauritius. Mr. Telfair. Brazil. This species has very much the habit of *Dædalea gibbosa*, Fr.

5. *D. (Apus) sanguinea*, Kl. l. c. Pileus thin, slightly wrinkled, smooth, zoned, blood-coloured; margin obtuse, pale, minutely velvety; hymenium dull wood-coloured; sinuli minute, labyrinthiform, mixed with elongated pores. Substance coriaceous. Pileus subreniform, sometimes spotted and losing its colour, 3 inches broad, 2 inches long. Sinuli towards the margin poriform.

East Indies. Dr. Wight.

Klotzsch does not seem to have noticed the extremely strong

resemblance of this species to *Boletus angustatus*, Sow., t. 193. whose figure would be an excellent representation of it in every respect if the pores were smaller. Fries's character of *Dædalea angustata* conveys an entirely wrong notion of the species, which is one of the most beautiful of European Fungi. The colour is not, as characterized by Fries, who had only seen the figure, "fuscescenti-cinereus," but as figured and described by Sowerby, "dull crimson, somewhat satiny on the edges, which are of a silvery brown."

6. *D. (Apus) discolor*, Fr. *El. Fung.* p. 68. *D. albida*, Schwein. *Car.* n. 851.

On trunks of birch. North America. Dr. Richardson.

7. *D. (Apus) striata*, Fr. *Syst. Myc.* i. p. 334.

On trunks of trees. North America. Hook. *Herb.*

8. *D. (Apus) unicolor*, Fr. *Syst. Myc.* i. p. 336.

On trunks of trees. North America. Dr. Richardson*.

9. *D. (Apus) corrugata*, Kl. l. c. Pileus carnosio-coriaceous, zoned, longitudinally corrugate, smooth, pale; sinuli unequal, flexuous, at length torn, brownish. Imbricated, sessile. Pileus 1—2 inches broad, margin much dilated, 2—3 lines thick; zones of the same colour. Gills thin, labyrinthiform, poriform near the margin.

Trunks of trees. North America. Dr. Richardson.

10. *D. (Resup.) latissima*, Fr. *Syst. Myc.* i. p. 340.

D. microsinulosa, Kl. MSS. in Hook. *Herb.* Wood-coloured, effused, corky, margin obscurely lobed, minutely byssoid, more or less free; silky above, at length nearly smooth, rather rough with radiating branched raised lines. Pores at first round, at length sinuous; edges entire.

East Indies. Dr. Wight.

Forming elongated effused patches, evidently arising from many distinct confluent peltate individuals. A new layer is formed from the dead subjacent plant.

POLYPORUS.

1. *P. (Favolus) tenuis*, Hook. sub Bol. Kunth. *Syn.* vol. i. p. 10. *Bol. reticulatus*, l. c. p. 9. *B. Favus*, Linn. *Herb.* not

* The Fungi from Dr. Richardson are the result of his own and Mr. Drummond's labours in Franklin's Second Journey to the Polar Sea.

of Spec. Plant. Effuso-reflexed or resupinato-affixed. Pileus 2—3 inches in diameter, suberoso-coriaceous, suborbicular, zoned, quite smooth, sometimes longitudinally rugulose, thin, greyish wood-coloured, blackish towards the margin. Pores cinereous, 6-sided, those towards the margin imperfect and pale.

Andes between Popayan and Almaguer, Humboldt. Mauritius, Mr. Telfair. Calcutta, Dr. Wight.

Klotzsch has very rightly referred *Bol. reticulatus*, Hook., to this species. The reticulated appearance arises from the specimen having been accidentally reversed, and in consequence a new hymenium is in the act of formation on the pileus, while on the other hand many of the pores are stopped up with a new incipient pileus. The plant from Calcutta is somewhat different, the pileus being dark brown. The size of the pores is very variable.

2. *P. (Favolus) Klotzschii*, Berk., *P. sinensis*, Kl. l. c. and MSS. Hook. Herb. not Fr. Syst. Myc. Pileus subreniform, zoned, brown black, clothed with compressed branched bristles, pores brown, rather large, rotundato-hexagonal. Allied to *Polyporus hynoideus*, but differs in the larger hexagonal pores, which are however many times smaller than in the next species. The vertex is sometimes lengthened out into a short spurious stem. Pileus 5 inches long, 7 inches broad, $\frac{1}{2}$ — $\frac{3}{4}$ of an inch thick at the base, thin in front, vaulted, not flattened as in the next species, margin acute. Much more strongly zoned than *Pol. sinensis*, Fr., and more hispid.

Mauritius. Mr. Telfair.

3. *P. (Favolus) sinensis*, Fr., *Pol. (Scenidium) Wightii*, Kl. Linn. vol. vii. p. 200. tab. 10. Sessile, thin, mostly reniform; pileus flat, brown shaded with reddish-grey; margin zoned; bristles compressed, dichotomous at their apices, fastigate, brown; alveoli 6-sided, elongated, pinkish-brown. Pileus sometimes effused at the base, $2\frac{1}{2}$ inches long, 5 inches broad, emarginate, in an early stage of growth crested with the rigid recurved bristles; these at length are more scattered, compressed, wedge-shaped, or palmate, incised above, fastigate, brown, vanishing towards the margin. Alveoli 3 lines long, 2 lines broad, those in the centre deepest, shallow towards the

margin ; dissepiments thin, very rigid, clothed with scattered solitary bristles. Substance brown, ferruginous, fit for tinder.

East Indies. Dr. Wight.

This is probably the true *Pol. sinensis*, Fr., and consequently *Pol. Favus*, Linn. Sp. Pl. It is certainly quite distinct from the foregoing, which is marked *Pol. sinensis* in Sir W. J. Hooker's Herbarium, and is published under that name in the 'Linnæa,' having, besides other points, the pores nearly ten times larger. As *Scenidium* of Klotzsch appears to be intended merely as the name of a tribe, the name of *sinensis* should have been retained. In the following year the *Mauritius* plant was published as the *P. sinensis*, Fr. without any reference to *P. Wightii*. I have endeavoured to do away with the consequent confusion by giving the former the name of the learned German mycologist.

4. *P. (Favolus) sericeo-hirsutus*, Kl., Linn. vol. viii. p. 483. Pileus effuso-reflexed, very thin, coriaceous, sericeo-villous, zoned, pale tawny ; pores rather large, angular, unequal ; dissepiments very thin, sometimes torn. Pileus very often fixed by the centre, 2—3 inches across, suborbicular, emarginate. Perfectly free specimens are beautifully sericeo-strigose, with the flocci more or less matted and fasciculate, so as to give it a shaggy appearance. Some specimens are merely velvety.

On bark. New Orleans. Hook. Herb.

5. *P. (Mesopus) gracilis*, Kl. in Hook. Herb. Small. Pileus carnosu-coriaceous, orbicular, very thin, quite smooth, even, pallid ; pores extremely minute, suborbicular but more or less sinuous ; stem exactly central, very slender, flexuous, equal, pruinose. Pileus $\frac{1}{2}$ an inch broad, so thin that the pores are visible through it, pale dull ochre. Pores deep in proportion to the thickness of the pileus ; dissepiments thin, waved. Stem 1 inch high, $\frac{1}{30}$ th of an inch thick.

India Occid. Probably from Rev. L. Guilding. Allied to *Pol. flexipes*, Fr. in Linn. The above description is drawn up from two individuals in Sir W. J. Hooker's Herbarium, marked by Klotzsch *P. gracilis*, Kl. The base of the stem is broken off, therefore I cannot state whether it is blackened.

6. *P. (Mesopus) parvulus*, Kl. Linn. l. c. Pileus thin, coriaceous, obsoletely silky, obscurely zoned, striato-rugose ;

margin jagged ; pores rather large, at length torn, cinnamon ; stem cinnamon, slender, subtuberous, velvety. Pileus 4—8 lines broad, deeply umbilicate, subcyathiform, shining, sometimes confluent. Pores irregular, angular, torn, very shallow towards the margin ; dissepiments very thin. Stem $\frac{1}{2}$ —1 inch high.

Amongst moss. North America. Dr. Richardson. Allied to *Pol. perennis*, but very distinct.

7. *P. (Mesopus) perennis*, Fr. var. *canadensis*, Kl. in Hook. Herb. Deeply infundibuliform, zoneless.

8. *P. (Mesopus) umbraculum*, Fr. Mauritius. Mr. Telfair.

9. *P. (Mesopus) xanthopus*, Fr. *Bol. Katui*, Ehr. Hor. Phys. Ber. t. 19. f. 12. Hook. in Kunth. Syn. vol. i. p. 9.

East Indies, Dr. Wight. Near Acapulco, Humboldt.

10. *P. (Pleuropus) spathulatus*, Hook. in Kunth. Syn. vol. i. p. 9. sub *Boleto* ; small, tawny. Pileus convex, broadly obovate, coriaceous, rather hard, minutely velvety ; pores minute, punctiform, subangular ; dissepiments extremely thin, their borders minutely downy ; stem lateral, velvety, rather stout, elongated. Pileus about 3 lines broad, sometimes very absolutely zoned, in one specimen lobed from the confluence of two individuals. Stem $\frac{1}{8}$ — $\frac{5}{8}$ of an inch high, $\frac{1}{8}$ thick, clothed with a dense spongy down.

Near Loxa in Peru. Humboldt. Resembling in colour and substance *Pol. perennis*.

11. *Pol. (Pleuropus) coffeatus*, Berk. Cæspitose. Pileus hard, corky, suborbicular, oblique, even, dingy red-brown ; margin paler, tawny ; substance wood-coloured ; pores minute, punctiform, dirty white ; stem elongated, nearly even, dingy brown frosted with coffee-coloured bloom. Pileus $\frac{3}{4}$ of an inch broad, not lacquered, at least in the specimens before me. Stem $2\frac{1}{2}$ inches high, $\frac{3}{8}$ of an inch thick, lateral. Hymenium decurrent.

On rotten trees, rare. St. Vincent's. Rev. L. Guilding.

The specimen before me consists of a group of three, of which the larger pileus is unfortunately broken off.

12. *P. (Pleuropus) lucidus*, Fr. Mauritius. Mr. Telfair. Confluent, umbilicate, concentrically undulato-rugose, with the stem central, resembling in habit *Polyp. rugosus*, Nees, but

much larger and thicker. Pores more or less yellow. In Sir W. J. Hooker's Herbarium there is a curious stemless ungulate pitch black variety with brownish pores gathered in North America by Dr. Scouler. Dr. Richardson also gathered an extraordinary form at the Slave Lake on the white spruce $4\frac{1}{2}$ inches long, 7 inches broad, $2\frac{1}{2}$ inches thick at the base, entirely stemless, decurrent at the base, with a strongly raised convex border. Surface veiny, varnished; the older portions dull and slightly cracked. Substance, hard, corky, pale, not at all red. Pores very minute, dirty white.

13. *P. (Pleuropus) Amboinensis*, Fr. Mauritius. Mr. Telfair. Some states of this species approach so near to *P. lucidus* that it is difficult sometimes to believe it distinct. There are specimens in Sir W. J. Hooker's Herbarium almost exactly intermediate.

14. *P. (Pleuropus) flabelliformis*, Kl. l. c. Pileus rigid, thin, obsoletely tomentose, zoned, tawny-bay, at length blackish; margin acute; pores extremely minute, dirty white; stem very short. Pilei 2—4 inches broad, sometimes laterally connate, flabelliform, coriaceous-rigid, elegantly zoned, the interstices coarsely velvety, emarginate, plane or depressed, very variable in colour, generally brown variegated with chestnut. Hymenium pale tan. Pores perfectly round or elliptic. Stem abruptly black at the base, where it is sometimes dilated.

Mauritius, where it appears to be a common species. Mr. Telfair. Analogous to *Pol. versicolor*.

15. *P. (Merisma) discolor*, Kl. l. c. Imbricated, confluent, subsessile. Pilei flabelliform, connate at the base, longitudinally rugulose, plicate, lobed, dirty white; pores brown-olive, plane, extremely minute, subrotund, sometimes torn. Substance fleshy, white, when brittle old. Pilei irregular, lobed, growing together at the base, longitudinally rugose, 3—6 inches broad.

On trunks of trees. Mauritius. Mr. Telfair.

16. *P. (Merisma) Telfairii*, Kl. l. c. p. 484. Imbricated, confluent, sessile; pilei minutely tuberculoso-rugose, obsoletely zoned, white, subpubescent; pores minute, plane, somewhat toothed, of the same colour. Substance carnosocoriaceous. Pilei subpubescent, sometimes sericeo-striate and shi-

ning, densely imbricated, lobed, thin, 2—3 inches broad, 1 inch long, white or wood-coloured; dissepiments extremely thin. Pores sometimes strongly toothed. Margin sometimes very thin, torn, and inflexed when dry.

Trunks of trees. Mauritius. Mr. Telfair.

17. *P. (Merisma) cristula*, Kl. in Hook. Herb. Dull vermillion, imbricated, confluent, coriaceous. Pilei zoned towards the margin, irregular, smooth. Pores shallow, minute, irregular, angular, dissepiments thin, torn. Pilei confluent, $\frac{3}{4}$ —1 inch broad, their disk crested with numerous smaller pilei, many of which are cylindrical and abortive; margin thin, acute, barren. Pores of the smaller pilei decomposed into hydroid bristles, so that some parts of the mass appear bristly. Substance firm with a slight ferruginous tinge.

On decaying Bamboo. Dr. Wight. Allied to *Pol. cinabarinus*, which does not appear to occur in the tropics. The colour however is much duller.

18. *P. (Apus. Perenn.) ligneus*, Berk. Wood-coloured. Pileus convex, ungulate, hard, ponderous, rugose, zoned; hymenium narrower with age; pores extremely minute, round. Pileus $3\frac{5}{8}$ inches long, $5\frac{1}{4}$ inches broad, $2\frac{1}{8}$ inches thick. Substance wood-coloured, very hard, but velvety like cork. Marginal zones very narrow; those in the centre about three, much raised, brown. Hymenium becoming narrower every year. Sometimes cylindrical from the elongation of the vertex.

St. Vincent's, Rev. L. Guilding. Mauritius, Mr. Telfair.

19. *P. (Apus. Perenn) australis*, Fr. *P. fomentarius*, β . *applanatus*, Kl. in Hook. Herb.

Mauritius. Mr. Telfair. A very extraordinary fungus occurs in Mauritius which I think is clearly referable to this species. It is furnished with a long lateral stem. Pileus much longer than broad. Hymenium narrow with a broad sulcate sterile border. Pores pale. Some specimens are altogether stipitiform, pointed with an oblique abortive hymenium. I have gathered *Polyporus fomentarius* more than once with a long, distinct, lateral stem. Plate VIII.

20. *P. (Apus. Perenn.) fomentarius*, Fr. North America. Dr. Richardson.

Var. excavatus, Berk. Hard, ungulate. Hymenium hol-

lowed out. Pileus $1\frac{1}{2}$ inch across, $1\frac{1}{2}$ high, dirty white, banded with brown; bands scarcely at all depressed, quite smooth, nearly even. Margin rather obtuse. Pores small, perfectly round, fawn-coloured, cinnamon within. Old specimens have four or five smooth, even, convex, black-brown ridges. Substance cinnamon coloured.

On birch. Isle à la Crosse. Dr. Richardson.

21. *P. (Apus. Perenn.) nigricans*, Fr. On dead birch. Isle à la Crosse, Jan. 1827. Dr. Richardson.

22. *P. (Apus. Perenn.) igniarius*, Fr. On birch. North America. Dr. Richardson.

A resupinate state of this species with a very narrow dark border was found April 1830, by Bertero in Juan Fernandez, marked No. 1682.

23. *P. (Apus. Perenn.) pectinatus*, Kl. l. c. p. 485. Small. Pileus triquetrous, imbricated, bay, crested with concentric thin velvety folds; pores short, minute, yellow. *Pol. indicus*, Kl. MSS. in Hook. Herb. Pileus effused at the base, scarce one inch broad. Substance of the colour of turmeric. The folds arise from the successive reflexed borders of the pileus, calling to mind *Cytherea Dione*.

East Indies. Dr. Wight. Nearly allied to the last.

24. *P. (Apus. Perenn.) spadiceus*, Berk. Hard, coriaceous-suberose. Pileus thin, bright brown, minutely velvety, closely zoned. Hymenium ferruginous-cinnamon; pores very minute, subrotund, cinnamon within. Pileus $1\frac{1}{4}$ inch long, $2\frac{1}{2}$ inches broad. Substance rhubarb-coloured. A very neat species, resembling *P. tabacinus*. Allied to the last.

East Indies. Dr. Wight.

25. *P. (Apus. Perenn.) rhabarbarinus*, Berk. Horizontal, heavy, hard. Pileus flattened, broad, rugose, deeply and repeatedly zoned, black-brown, almost lacquered. Hymenium cinnamon-brown. Pores round, extremely minute, almost invisible to the naked eye. Substance rhubarb-coloured. Pileus 5 inches long, 8 inches broad, $\frac{3}{4}$ of an inch thick. There is a rudiment of a lateral stem. The species is clearly related to *P. igniarius*. This fine species has unfortunately no label attached to it. It is probably from Brazil.

26. *P. (Apus. Perenn.) sanguinarius*, Kl. l. c. p. 484. Corky,

hard. Pileus thin, sometimes papillose, brown-blood-coloured, at length pale, effused at the base; pores extremely minute, pale, with a brownish tinge. Very like *P. igniarius*. Pileus effuso-reflexed, rather thin, zoneless, tuberculated, smooth, margin subacute, brown-blood-coloured, 3—4 inches broad.

Mauritius, Mr. Telfair. Of this I have seen no specimens.

27. *P. (Apus. Perenn.) marginatus*, Fr. On birch. North America. Dr. Richardson.

28. *P. (Apus. Perenn.) fraxineus*, Fr. On ash. North America. Dr. Richardson.

29. *P. (Apus. Perenn.) hydroides*, Fr. *Pol. ursinus*, *P. vulpinus*, Link in Berl. Mag.

Mauritius, Mr. Telfair. St. Vincent's, Rev. L. Guilding, Demerara, Mr. Parker. The hymenium of this species varies very much. The pores are sometimes close and angular with thin dissepiments; sometimes they are perfectly round and distant as represented by Bosc under *Bol. hydnatinus*, with the dissepiments thicker in consequence of the cellular substance of the fungus beginning to grow again after the perfection of the hymenium, and thus partially obliterating the pores. There is a triquetrous variety from Brazil.

30. *P. (Apus. Perenn.) fibrosus*, Hook. in Kunth. Syn. vol. i. p. 10. sub *Boleto*. Subreniform, somewhat lobed, undulated. Pileus brown shaded with reddish-grey, zoned, clothed with scattered branched concentrically disposed fibres, sericeous beneath; margin very thin, acute, fimbriated; pores minute, subangular, umber; dissepiments very thin. Pileus $1\frac{3}{4}$ of an inch long, $3\frac{1}{2}$ broad, flattened, thin; substance much softer than in the last, which is hard and woody, ferruginous-umber. Pores not stratose. Certainly distinct from the foregoing. This is placed next to *P. hydroides* on account of its close affinity, but I doubt whether either is truly perennial. With *P. tenuis*, Humboldt. Demerara, Mr. Parker.

31. *P. (Apus. Bienn.) gilvus*, Fr. Suberoso-coriaceous. Pileus reniform, obscurely zoned, rugoso-striate, subsericeous, red grey; substance rhubarb-coloured; pores small, subferruginous.

Var. *scabro-rugosus*, Berk. Imbricated; pileus dimidiate, more or less zoned, radiato-rugose and coarsely scabrous, red-

dish-grey, here and there ferruginous; substance rhubarb-coloured; pores small, greyish-umber. Pilei $\frac{1}{2}$ — $\frac{3}{4}$ of an inch thick, 4 inches broad, $2\frac{1}{2}$ inches long, suberoso-coriaceous, wrinkled, coarsely scabrous, in parts as if overgrown with a small *Isidium*, reddish-grey; margin paler; extreme margin and base sometimes ferruginous.

New Orleans. I have drawn up a character for *P. gilvus*, from an original specimen of Schweinitz, as Fries's specimens appear to have been very imperfect. The New Orleans plant is certainly the same as the Pennsylvanian, but it acquires a much larger size.

32. *P. (Apus. Bienn.) calvescens*, Berk. Fawn-coloured, rather thin, hard, suberoso-coriaceous. Pileus dimidiate, sub-imbricate, rather rugged, older part naked; border bright zoned, beautifully velvety. Hymenium uneven; pores rather minute, angular, dissepiments thin; margin abruptly barren.

New Orleans. Pileus $1\frac{1}{2}$ inch long, $2\frac{1}{2}$ inches broad. Allied to the foregoing.

33. *P. (Apus. Bienn.) cinnabarinus*, Fr. Carlton House. North America. Dr. Richardson.

34. *P. (Apus. Bienn.) ulmarius*, Fr. North America. Dr. Richardson.

35. *P. (Apus. Ann. Suberosi) suaveolens*, Fr. North America. Mr. Drummond in Capt. Franklin's expedition.

36. *P. (Apus. Ann. Suberosi) obtusus*, Berk. Pileus thick, pulvinate, fleshy, spongy, soft, tomentose, white; margin very obtuse; pores unequal, rather large, irregular, subgyrose, tawny when dry. *Pol. Drummondii*, Kl. MSS. in Hook. Herb. Pileus 4—6 inches across, 2 inches thick at the base, minutely tomentose; substance soft but tough, white. Hymenium rather convex; dissepiments jagged, often projecting like teeth; pores very unequal, $\frac{3}{4}$ line broad, 1 inch deep. Allied to *Pol. suaveolens*, but the habit is different, and the pores much larger and more irregular, and the substance denser.

North America. Mr. Drummond.

37. *P. (Apus. Ann. Sub.) leoninus*, Kl. l. c. p. 486. Pileus effuso-reflexed, fleshy, spongy, fibroso-hairy, tawny; pores rather large, deeply jagged and sinuated, dissepiments deeply toothed. Pileus effused for several inches, zoneless, clothed

with dense strigose tawny pubescence. Pores brownish, with large acuminate teeth, giving the hymenium an hydroid appearance.

East Indies. Dr. Wight. It is allied to *Pol. suaveolens*. The specimen before me is resupinate, with the margin broadly reflexed. The portion of the pileus next to the tubes, which is very thin, is corky; the rest consists of a spongy mass of fibres like *Ozonium auricomum* of authors.

38. *P. (Apus. Ann. Sub.) betulinus*, Fr. On birch. North America. Dr. Richardson.

39. *P. (Apus. Ann. Cor.) caperatus*, Berk. Hard, ligno-coriaceous, thin, effused at the base. Pileus zoned, variegated with brown, at first velvety, at length quite naked, sometimes shining. Hymenium pale fawn-coloured; pores minute, nearly round, dissepiments thin. Pileus 4—5½ inches across, 3 inches long, sessile with the vertex sometimes prominently marked with narrow concentric fasciæ, some of which as the fawn-coloured down disappears become wrinkled. Substance hard, brownish bay. Very smooth specimens have a sericeous gloss.

Mauritius. Mr. Telfair. This species is more properly biennial, but it accords, though hard and woody, better with the coriaceous section than any other allied to *P. gilvus*.

40. *P. (Apus. Ann. Cor.) glabrescens*, Berk. Suberoso-coriaceous, rather thick. Pileus pale ochre, very minutely velvety, zoned; pores minute, round, pale cinnamon; dissepiments thin. Pileus 6 inches broad, 4 inches long, sessile or furnished with a short lateral stem, much incurved when dry. Substance wood-coloured. Much thicker than most of the species in its section, in which it is placed on account of its zoned pileus.

Mauritius. Mr. Telfair.

41. *P. (Apus. Ann. Cor.) subcinereus*, Berk. Effuso-reflexed, suberoso-coriaceous, imbricated; pileus dirty white, minutely downy; margin acute, obsoletely zoned, barren; pores minute, short, cinereous. Forming longitudinally effused imbricated masses, with the margin more or less reflexed. Pileus $\frac{5}{8}$ of an inch long, sometimes, but rarely, quite free and reniform, soft to the touch, minutely downy, with two or three indistinct

zones, generally confined to the margin. Often quite resupinate. Pores cinereous, perhaps tinged with violet when fresh. Substance corky, dirty white.

On *Populus balsamifera*. Carlton House. North America. Dr. Richardson.

42. *P. (Apus. Ann. Coriacei) versicolor*, Fr. Juan Fernandez. Bertero, No. 1686, May 1830. An ochraceous variety. This is not in Montagne's 'Flora Fernandesiana.'

43. *P. (Apus. Ann. Cor.) pavonius*, Hook. in Kunth. Syn. vol. i. p. 10. sub *Boleto*. Coriaceo-membranaceous. Pileus flabelliform, lobed, fusco-ochraceous, elegantly zoned, velvety; hymenium of the same colour as the pileus; pores very minute, angular. Pileus 2 inches long and broad, very much narrowed towards the base, very thin, spreading out from the substipitiform vertex.

New Granada. Humboldt.

44. *P. (Apus. Ann. Cor.) striatus*, Hook. l. c. p. 11. sub *Boleto*. Small, subimbricated, coriaceo-membranaceous; pileus dark brown, zoned, radiato striate; pores cinereous, brown, angular. Pileus $\frac{1}{2}$ an inch broad.

Near Loxa. Humboldt. A very curious and distinct species.

45. *P. (Apus. Ann.) abietinus*, Fr. Isle à la Crosse. North America. Dr. Richardson.

46. *P. (Apus. Ann. Coriacei) biformis*, Fr. in litt. Pileus effuso-reflexed, coriaceous, villous, white, zoned; pores middle-sized, toothed, dirty white. Imbricated. Pileus 2—4 inches broad, 1—2 inches long. Pores irregular, sometimes brown tinged with violet.

On birch. North America. Dr. Richardson.

β . *Populi balsamiferæ*. Pileus obsoletely villous, white; pores rather large, brownish. Pileus constantly thicker at the base, towards the margin void of pores.

Isle à la Crosse. Dr. Richardson. Nearly allied to *Pol. abietinus*. The pubescence sometimes vanishes in great measure, and it then resembles *Pol. versicolor*.

47. *P. (Apus. Ann. Cor.) laceratus*, Berk. Effuso-reflexed, thin, zoned, smooth, rugoso-striate, wood-coloured. Pores rather large, angular, soon torn, brownish. Dissepiments thin, toothed. Pileus 2 inches broad, $\frac{3}{4}$ of an inch long, allied to

the two last, but differing in the characters of the pileus. The pores are probably tinged with purple when fresh. A very pretty species. The pileus when young is probably tomentose as in the allied species.

New Orleans. Hook. Herb.

48. *P. (Apus. Ann. Cor.) occidentalis*, Kl. l. c. Effused at the base, thin, coriaceous, yellow-brown. Pileus zoned, reniform, villous, at length velvety. Hymenium even. Pores nearly round, shallow. Nearly of the same tawny yellow throughout. Pileus 4—6 inches broad, 2—3 inches long, with zones of the same colour. Klotzsch describes the dissepiments as very thick, which is the case in some specimens, but when perfect they are thin and the pores middle-sized and angular. The same remark indeed is applicable here as in *Pol. hydnoides*. Some specimens are perfectly resupinate and have the pores arranged concentrically.

St. Vincents, where it is a common species. Rev. L. Guilding.

49. *P. (Ap. Ann. Cor.) cupreus*, Berk. Thin, coriaceous, flexible. Pileus rounded, effused at the base, slightly lobed, zoned, smooth, coppery-ferruginous. Substance ferruginous. Hymenium ferruginous-cinnamon. Pores very minute, shallow; margin barren. Pileus 2½ inches broad, 2 inches long, very thin, of the same sort of glaucous coppery tint as the hymenium of *Thelephora rubiginosa*.

East Indies, Dr. Wight.

50. *P. (Ap. Ann. Cor.) tabacinus*, Mont. Ann. d. Sc. Nat. n. s. vol. iii. p. 349.

Mauritius, Mr. Telfair. Differing from the Juan Fernandez plant in being a little less zoned. The substance of this is rich brown, very different from that of *Pol. spadiceus* described above.

51. *P. (Apus. Ann. Cor.) pruinatus*, Kl. l. c. Pileus effused at the base, gilvo-fuscous, pruinose; margin obsoletely zoned; pores extremely minute, round, fuliginous. Imbricated. Pileus 1 inch long and broad, sometimes tuberculated. Pores 2 lines long. Substance thin, leathery.

Mauritius. Mr. Telfair.

52. *P. (Apus. Ann. Cor.) Friesii*, Kl. l. c. p. 487. tab. 11. *Ann. Nat. Hist.* Vol. 3. No. 19. Aug. 1839.

Pileus coriaceous, thin, reddish-grey, silky, elegantly zoned, flabelliform, lobed; margin incised; pores brown, deeply torn, towards the margin plane, entire. Pileus obsoletely zoned, $2\frac{3}{4}$ inches long and broad, narrowed behind, at length smooth. Margin very thin, sometimes toothed. Dissepiments forming long ligulate processes.

In the warmer parts of North America. It is also marked *Polyp. amœnus*, Klotzsch, from the Cape of Good Hope. Mr. Muller.

53. *P. (Apus. Ann. Cor.) Drummondii*, Kl. l. c. Pileus imbricated, obsoletely zoned, white tinged with red-brown, thin, subpapyraceous, attenuated at the base; margin dilated, incised, pendulous; pores of the same colour, unequal, toothed, plane towards the margin. Pilei 3—6 lines broad, 8—15 lines long, obsoletely zoned, longitudinally rugulose, often laterally connate, attached at the base by a few byssoid fibres. Dissepiments very thin, inciso-dentate.

New Orleans. Mr. Drummond.

54. *P. (Ap. Ann. Cor.) palmatus*, Hook. l. c. sub *Hydno*. Pileus palmate, deeply incised and fimbriate, rufescent, slightly zoned, smooth, shining; pores middle-sized, shallow; dissepiments thin, toothed. Pileus $1\frac{1}{4}$ inch long, 2 inches wide. A very elegant species. By an error of the press lines have been substituted for inches in Kunth's synopsis. The colour of the pileus is rufescent rather than yellow-brown.

New Granada. Humboldt.

55. *P. (Apus. Ann. Cor.) thelephoroides*, Hook. in Kunth. Syn. vol. i. p. 10. sub *Boleto*. Flabellate, plicate, very thin, longitudinally rugose, somewhat flexuous, brown; pores of the same colour, microscopic. Pileus 2 inches long, 4 inches broad. Hymenium even. Pores quite invisible to the naked eye, so that it looks like a *Thelephora*.

Near Loxa. Peru. Humboldt. A most distinct species, resembling none with which I am acquainted. Without more perfect specimens it is not easy to say what are its nearest affinities.

56. *P. (Resup.) arenarius*, Kl. l. c. Very widely effused; pileus resupinate, dirty white with a slight rufous tinge; pores rather distant, plane, unequal, sinuous.

Running over grass, and in consequence having the hymenium rugged, with variously shaped protuberances. Pileus 6—8 inches broad and long, $\frac{1}{2}$ an inch thick, of the same colour within.

On sandy soil. East Indies. Dr. Wight, No. 85.

57. *P. (Resup.) vulgaris*, Fr.

Mauritius. Mr. Telfair. Carlton House, North America. Dr. Richardson. Juan Fernandez. Bertero.

HYDNUM.

H. (Resup.) delicatum, Kl. in Hook. Herb. Orbicular, effused, with the border slightly reflexed; tomentose above, ochraceous; hymenium dirty-white; prickles purplish-grey, scattered, simple, short, conical, with sub-clavate tips.

On decaying *Jatropha Curcas*. Madras. Dr. Wight.

IRPEX.

1. *I. (Effuso-ref.) fusco-violaceus*, Fr. *Irpex Richardsonii*, Hook. Herb. On pine trunks. North America. Dr. Richardson.

2. *I. (Effuso-ref.) lacteus*, Fr. North America. Dr. Richardson.

3. *I. (Resup.) flavus*, Kl. l. c. p. 488. Pileus resupinate, yellow, of a soft spongy texture, margin villous, slightly reflexed, teeth oblique, compressed, unequal, incised, connected by a network of veins, widely effused, confluent, often thickly clothing the branchlets of trees. My specimens have the margin slightly reflexed, on which account I am inclined to consider them imperfect, and referable to the preceding tribe.

North America. Dr. Richardson.

THELEPHORA.

1. *T. (Apus) striata*, Fr. North America. Dr. Richardson.

2. *T. (Apus) lobata*, Kze. Fr. in Linn. *T. affinis*, Kl. in Hook. Herb. North America. Dr. Richardson. New Orleans. Mr. Drummond. Mauritius. Mr. Telfair.

3. *Th. (Apus) complicata*, Fr. in Linn. *T. delicatula*, Kl. in Hook. Herb. Resupinate, free, pendulous, papyraceous; margin lobed, often crisped and plicate, sericeo-striate, delicately zoned, red-brown; hymenium smooth. At first gene-

rally forming orbicular resupinate patches which soon become confluent, with the border free almost to the centre, lobed, often multipartite, crisped and plicate; sometimes flabellate, adhering only by the vertex, which assumes the form of a stem. The older portions are clothed with whitish down, the newer are smooth and shining bright red-brown, elegantly zoned.

On twigs. New Orleans. Fries appears not to have seen orbicular roundly-lobed specimens in which the pileus is closely and most elegantly zoned. In plicate individuals the zones are obscure. New Orleans. Mr. Drummond. Klotzsch says N. A., Dr. Richardson, but I suspect this is a mistake.

GEOGLOSSUM.

G. hirsutum, var. *hirsutiusculum*, Berk.

A smaller plant than the European, but differing in no respect from it except in the bristles being shorter. The analysis of both is similar, the asci being shorter and stouter than in *G. glabrum*. The sporidia in both species are very distinctly septate.

Mauritius. Mr. Telfair.

PEZIZA.

1. *P. anomala*, Pers. *P. solenia*? videtur diversa et fortasse n. sp. Bertero. No. 1701.

On bark and *Sphæria*. Juan Fernandez. 1830, May. Not in Fl. Fern.

2. *P. (Phial. Hymenosc.) utriculus*, Bert. Mss. No. 1702. Scattered; cups white, hemispherical, membranous, smooth, crisped; stem slender, rather long.

On dead wood. Juan Fernandez. Bertero. 1830, May. Not noticed by Montagne. Resembling *Peziza Campanula*, but much smaller.

EXIDIA.

1. *E. hispidula*, Berk. Globoso-campanulate, oblique, sessile within, brown-black, externally fawn-coloured, clothed with short bristly down. *Peziza nigricans*, Hook. in Kunth. Syn. vol. i. p. 13.

New Granada. Humboldt. Mauritius. Mr. Bojer. St. Vincents. Rev. L. Guilding. Nearly allied to *E. auricula Judæ*, but the down is longer and more bristly.

NIDULARIA.

N. striata, Bull, var. *pusilla*, Berk. Smaller, only $\frac{1}{4}$ an inch high. Furfuraceous above. Striæ confined to the margin. Colour dull umber, not bright brown. Very near to *N. plicata*, Fr., a Brazilian species. That however appears to be even more strongly grooved than *N. striata*.

West Indies.

SPHÆRIA.

1. *S. (Cordyceps) digitata*, Fr. Negapatam. Dr. Wight.

2. *S. (Cordyceps) allantodia*, Berk. Corky; stem extremely short, almost obsolete, smooth; stroma clavate, obtuse, thick, coated with a thick rigid brown-black bark; perithecia small, globose; ostiola minute, prominent; about 4 inches high, 1 inch thick, attenuated below, often curved, at first solid throughout, with the inner substance firm and pale brown, at length more or less hollow, resembling closely a small black-pudding. Some specimens are more elongated and thinner. Outer coat black, with a brown bloom like that of some exotic *Polypori*, very hard and rigid, distinct from the substance, in old plants sometimes contracted. Perithecia small, crowded. Ostiola minute, rather prominent.

Brazil.

3. *S. (Cordyceps) Telfairii*, Berk. Corky, club-shaped, more or less obtuse above, clothed with very brittle fawn-coloured bark dotted with the black orifices of the rather large perithecia. About $2\frac{1}{2}$ inches high, $\frac{1}{2}$ an inch thick; solid; bark extremely brittle, black coated with a thin distinct fawn-coloured coat, apt to become involute. Perithecia rather large, subglobose. Ostiola black, slightly prominent. Asci long, linear, slender, containing eight segmentiform sporidia, which occasionally contain a single central sporidiolum.

Mauritius. Mr. Telfair. This is marked by Klotzsch *S. involuta*, spec. nov. I have thought it best not to adopt the manuscript name, as the bark in other allied species is often involute.

4. *S. (Cordyceps) obovata*, Berk. Stem short, smooth, gradually swelling out into a short obovate club, hollow, lined with a papyraceous coat; bark black; perithecia rather large, scattered; ostiola very minute. Whole plant not $\frac{3}{4}$ of an inch

high, $\frac{1}{2}$ an inch thick above, extremely obtuse; bark brittle, black; ostiola not visible to the naked eye; perithecia rather large, globose. Asci and sporidia as in *S. Telfairii*. Nearly allied to *S. papyracea*, but differing in size and form.

St. Vincents. Rev. L. Guilding.

5. *S. (Cordyceps) gracilis*, Kl. in Hook. Herb. *S. digitata*, Hook. in Kunth. Syn. vol. i. p. 7. Corky; stem smooth, forked, fastigate, slender, subacute, barren at the apex. Intermediate between *S. digitata* and *S. multiplex*, Kz. About $1\frac{1}{2}$ inch high, 1 line thick, dull black; bifid or trifid, cæspitose. Perithecia extending sometimes below the origin of the forks.

Andes. Humboldt.

6. *S. (Connata) pruinata*, Kl. in Linn. l. c. p. 489. Perithecia globose, effused, growing together, emersed, clothed with white meal, black within; ostiola black, prominent. *S. farinosa*, Kl. in Hook. Herb. Forming small round pruinose patches, dotted with the black ostiola. Allied to *S. serpens*. Certainly not belonging to the tribe *Concrescentes*.

North America. On poplar. Dr. Richardson.

7. *S. (Globosæ) nummularia*, Dec.

On dead branches. Juan Fernandez, No. 1726. May, 1830. Not in Fl. Fern.

8. *S. (Depazea) Drymidis*, Berk. Epiphyllous, spots white, orbicular, with a distinct brown raised border; perithecia black, mostly disposed in a single ring near the margin.

On dead leaves of *Drymis*. Juan Fernandez, May, 1830. No. 1727. Not in Mont. Fl. Fern. A very pretty species.

DOTHIDEA.

1. *D. (Erumpentes) granulosa*, Kl. in Hook. Herb. Hypophyllous, suborbicular, confluent, very thin, depressed, black, most minutely granulose with the superficial cells. Forming little patches, scarcely 1 line broad.

On leaves of *Eugenia Temu*, Hook. and Arn. Valparaiso in Chili.

2. *D. (Xyloma) Musæ*, Kl. l. c. Epiphyllous, black, consisting of distinct cells, either scattered or collected in round spots. Spots 1 line broad. Cells very minute, shining.

On leaves of *Musaceæ*. East Indies. Dr. Wight. Cells arranged in lines, following the nervation of the leaf.

3. *D. (Asteroma) conspurcata*, Berk. Flat, membranous, uniform, orbicular, dull pitch-brown; perithecia few, scattered, hemispherical, of the same colour. Forming small brown spots on the under and upper side of the leaf, exactly like fly-specks. The margin though irregular is not the least fimbriate, or it would more properly be placed in the genus *Asteroma*.

On the leaves of a myrtle called *Luma*, in hilly woods. Juan Fernandez. Bertero. May, 1830. No. 1728. Not in Mont. Fl. Fern.

PHACIDIUM.

P. depressum, Hook. Mss. *Sph.?* *depressa*, Hook. in Kunth. Syn. vol. i. p. 7. Scattered, orbicular, depressed, opening with 5—6 black acute laciniae; disk black, at length naked, bordered by the excipulum. About the size of *P. coronatum*. Asci short, linear, obtuse. I do not find curved paraphyses as in that species.

Andes, with *S. gracilis*. Humboldt.

EXCIPULA.

E. gregaria, Fr. in Linn. l. c. p. 552. On petioles of *Carica Papaya*. Mauritius. Mr. Bojer.

GEASTER.

1. *Geaster plicatus*, Berk. *Geaster striatus*, γ *plicatus*, Kl. Mss. in Hook. Herb. Outer peridium soft, papyraceous, pale umber, smooth; laciniae about 7, acute; inner peridium seated on a long peduncle, globose, dark umber, smooth, strongly plicate at the base; orifice seated in a circular depression, conical, plicato-sulcate. Sporidia brown.

Madras. Dr. Wight. Nearly allied to *G. striatus*, β . *minimus*, but certainly distinct. The folds at the base of the inner peridium are very remarkable.

2. *G. limbatus*, Fr. North America. Dr. Richardson.

3. *G. minimus*, Schwein.! North America. Dr. Richardson.

4. *G. rufescens*, Pers. *G. fimbriatus*, Kl. in Linn. North America. Dr. Richardson.

5. *G. hygrometricus*, Pers. North America. Dr. Richardson.

BOVISTA.

B. argentea, Berk. Oval, depressed; inner peridium extremely thin, papyraceous, shining, silvery without; within as well as the minute sporidia and capillitium of a pale dingy red-brown. Larger diam. $2\frac{5}{8}$ inches, smaller $2\frac{1}{8}$; depth about 1 inch. Inner peridium resembling very thin paper which has been washed with silver. The sporidia and flocci resemble in colour coffee and cream.

Madras. Dr. Wight. In the herbaria of Sir W. J. Hooker and N. B. Ward, Esq.

LYCOGALA.

L. epidendrum, Fr. St. Vincents. Rev. L. Guilding. Both the common state, and one with grey-green sporidia.

DIACHEA.

D. elegans, Fr. On the leaves of a *Paulinia*. Brazil. Mr. Boog.

STEMONITIS.

S. fusca, Roth. *Tilostylus jungermannioides*, Kl. Mss. in Hook. Herb.

Mauritius. Mr. Bojer. Carlton House. North America. Mr. Drummond.

ONYGENA.

O. equina, Pers. On buffaloes' horns. North America. Dr. Richardson.

TESTICULARIA.

Pseudoperidia aggregate, forming a dense mass. Sporidia more or less mixed with simple flocci.

T. Cyperi, Kl. in Linn. vol. vii. p. 202.

Parasitic on *Cyperi*, occupying the place of the seed, solitary or two together, ovate or oblong, about the size of a large pea or acorn. Outer coat white, papyraceo-corneous, brittle, at length bursting at the apex, farinoso-floccose, filled with naked black pseudoperidia resembling gunpowder. Sporidia globose, accompanied by simple flocci.

On *Cyperi*. North America.

This extremely curious genus is considered by Klotzsch as uniting the *Angiogastri* with the *Trichospermi*. I cannot concur in this notion. I feel little doubt that its proper situation

is amongst the epiphytous Coniomycetes, and that it is indeed nearly allied to *Uredo urceolorum*, &c. It will be seen, on looking at Corda's figure, Ic. Fung. tab. 8. fig. 12, that the sporidia in that species are clothed with a cellular integument. *Testicularia* is a compound *Uredo*, the cellular integument of its globules being a pseudoperidium, and the contained granules sporidia. I have not been able to see the flocci as distinctly as they are represented by Klotzsch. There are traces of flocci in *U. urceolorum*.

ÆCIDIUM.

Æ. Euphorbiæ, Dec. Mauritius. Mr. Telfair.

XLIII.—*Remarks on the Generic Distribution of the British Hydromyzidæ (DIPTERA).* By A. H. HALIDAY, Esq.

[Continued from p. 224.]

Gen. 3. HYDRELLIA.

Caput oblatum. Oculi confertissime pilosi, quasi velutini. Mentum parum incrassatum. Antennæ articulo 2º exunguiculato. Alæ exunguiculatæ.

Every facet of the compound eyes appears to produce a short erect hair from its centre, which gives a velvety pile to the whole, and an indefinite outline when viewed by a magnifier, unless in the direction of a row of the lenses.

Subgenerum Synopsis.

Arista	{	dorso pectinata		
		facies	{	convexa 1. Hydrellia.
				impressa 2. Atissa.
		subtilissime pubescens		3. Glenanthe.

Subg. 1. HYDRELLIA, Desv.

Antennæ articulo 3º ovato aut orbiculato, compresso, deflexo; arista dorso pectinata. Facies convexa, superne attenuata, squamuloso-micans, puncto lucido antennarum basin superante. Palpi subdilatati. Alæ apice rotundatæ. Nervus discoidali-recurrens ab alæ margine parum distans.

As the species of this group are subject to some variation in the colour of the face, antennæ and mouth, a more particular examination of the specific characters is required. This will not be difficult, as they generally occur in great profusion

1839. "XLII.—Descriptions of Exotic Fungi in the collection of Sir W. J. Hooker, from Memoirs and Notes of J. F. Klotzsch, with Additions and Corrections." *Annals of natural history* 3, 375–401.

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