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[Running title: “DECADES OF FUNGI”.]

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DECADES OF FUNGI; *by the* REV. M. J. BERKELEY, M.A.
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DEC. III.—VII. AUSTRALIAN FUNGI.

(TABS. I. II.)

The subjects of the present decades were sent to Sir W. J. Hooker, by Mr. Drummond from the Swan River. It will be observed that a large proportion are either entirely new species, or common European forms; the few remaining species are, with scarce an exception, not tropical forms. The collection is very rich in species belonging to the *Lycoperdaceous* and *Podaxineous* group and we have reason to believe that new discoveries will be made in these families. The list of *Agarics* would be much larger had not the notes belonging to many species been lost, and the specimens themselves much corroded by insects. It is certainly the finest collection which has yet been received from Australia, and we have good reason to believe from Mr. Drummond's anxiety to be useful, that we shall be able at some future time to give a far more complete list.

**Agaricus excoriatus*, Fr. *Drumm.* n. 108.

The Swan River specimens are decidedly bulbous at the base, and the gills when fresh, have a slight sulphur tinge.

21. A. (*Lepiota*) *rhizobolus*, n. sp.; pileo convexo carnosio nitido albo centro præsertim squamis verrucæformibus ornato; velo marginali: stipite glabro brevi bulboso radicem profundam exserente; lamellis latiusculis liberis. *Drumm.* n. 106.

On the ground. Much eaten by the smaller marsupial animals.

Pileus 1–6 inches broad convex fleshy, shining, adorned especially in the centre with pyramidal wart-like scales, veil at first rather thick, soon vanishing from the stem and attached to the inflected edge of the pileus. Stem about 1 inch high with a very thick bulbous base which is elongated below into a thick pyramidal root. Gills free or only adnexed, broadish with their interstices smooth, white. Spores white, broadly elliptic when seen from behind, but when viewed laterally the inner side is nearly straight.

A magnificent species which comes near to *Ag. Vittadini*, Morett.

**A. nudus*, Bull. *Drumm.* n. 128.

22. *A. (Tricholoma) muculentus*, n. sp.; cæspitosus; pileo convexo subcarnoso umbonato glabro albido, stipiteque subæquali solido viscosissimo; lamellis tenuibus distantibus ventricosis rotundatis dente attenuato a stipite remotis acie integris. *Drumm.* n. 43.

On the ground amongst moss.

Cæspitose forming small tufts about 1½ inch high. Pileus 1–1¼ inch, white, thickly coated with a transparent jelly, convex slightly fleshy, umbonate not scaly. Stem 1–1½ inch high, 1½–2 lines thick, viscid like the pileus nearly equal expanded above solid. Gills ventricose, thin, distant, entire, rounded behind with a narrow tooth and leaving a free space round the top of the stem. Spores subglobose, white.

The colour of the whole when fresh is apparently white. It approaches very near to *Ag. mucidus*, but that has a strong persistent ring and belongs to the section *Armillaria*. The habitat too is different.

**A. gilvus*, P. *Drumm.* n. 115.

On the ground amongst little twigs &c., with a branched white mycelium.

Messrs. Tulasne shewed me one in a similar state gathered on very sandy ground in France.

23. *A. radicans*, Relh. var. *superbiens*, Berk.: pileo con- [→]

vexo fusco viscidulo; stipite radicato longissimo subcavo intus strigoso, extus præsertim ad basim furfuraceo-velutino, lamellis distantibus adnato-decurrentibus. *Drumm.* n. 119.

Pileus $1\frac{1}{2}$ –3 inches broad, convex, dark brown (when dry), slightly viscid, smooth, sometimes lobed; stem 5–6 inches high, $\frac{1}{4}$ inch thick, attenuated upwards, minutely furfuraceous especially at the base, rooting deeply. Gills distant adnato-decurrent, yellowish at length orange in dry specimens.

It is possible that this may prove distinct, but if so it is allied to *A. radicans*. The colour of the gills in the largest specimens is nearly that of the hymenium of *Stereum hirsutum* which seems to indicate a specific difference.

24. *A.* (*Mycena*) *crinalis*, n. sp.; tenerrimus, pileo hemispherico [*sic*] membranaceo striato albo; stipite capillari lutescenti-fusco farinaceo; lamellis paucis arcuatis decurrentibus. *Drumm.* n. 221. On decayed wood.

Gregarious; pileus $\frac{1}{2}$ –1 line across, very delicate, hemispherical, smooth, striate, membranaceous, white. Stem about an inch high, flexuous, yellow-brown, farinaceous, attached by a few strigæ. Gills 8–10 white, arcuate, decurrent.

This minute species belongs to the section *Filopodes* of *Mycena*, but there is none with which it can be confounded.

**A. fibula*, Bull. On the ground.

25. *A.* (*Pleurotus*) *lampas*, Berk.; fascicularis; phosphoreus; pileo centrali lobato carnosio glabro fulvo-nigrescente, margine tenui involuto; stipite compresso sursum incrassato solido demum fisso glabro; lamellis angustis integerrimis longissime decurrentibus. *Drumm.* n. 109.

On the stems of sickly but living plants of *Grevillea Drummondii*, Preiss. near the roots.

Fasciculate. Pileus 4 inches across, convex in the centre with the margin plane at first, quite entire and pale, then deeply lobed and gradually passing through various tawny shades into deep brown or black, perfectly smooth, margin involute. Stem 2 inches high, $\frac{1}{2}$ an inch or more thick, solid, perfectly smooth, sometime splitting. Gills narrow, yellow [→]

when dry, very decurrent, quite entire with their interstices even. Spores white.

Allied to *Ag. nidiformis*, Berk., which is also a phosphorescent species. See vol. 1, p. 215, and vol. 2, p. 173.

**A. atro-cæruleus*, Fr.—*Drumm.* n. 131.

**A. applicatus*, Batsch.—*Drumm.* n. 224, 286.

**A. perpusillus*, Fr.—*Drumm.* n. 132.

**A. chioneus*, P. Myc. Eur. vol. 3, p. 28, tab. 26, fig. 10, 11.

On dry dung.

26. *A. (Volvaria) xanthocephalus*, Berk.; pileo convexo aureo e volvâ albo-maculato; stipite bulboso, volvâ adnatâ margine sublibero lamellis remotis attenuatis liberis pulcherrime pallido-gilvis. *Drumm.* n. 107.

On the ground.

Pileus 1–2 inches broad, convex, sometimes umbonate, subcarnose with the margin very thin, varying from bright orange to golden yellow spotted by the volva. Stem 1–2 inches high, 2–3 lines broad, strongly bulbous at the base, slightly dilated above, furnished at the base with an adnate volva whose borders are free of a beautiful cream colour. Gills of the same colour as the stem, moderately broad, but not ventricose, much attenuated behind and leaving a circular space round the top of the stem. Ring none.

The specimens of this species are not so perfect as could be wished, especially as regards the gills, so that I am not absolutely certain as to the colour of the spores, but as far as I can judge from their appearance under the microscope and especially from the circumstance of the gills being remote, I think myself justified in considering it a *Volvaria*. Without the assistance of Mr. Drummond's notes, I should not have ventured to describe it, but the characters are so marked, that there can be no difficulty in recognizing it, and I shall hope shortly to obtain more perfect specimens.

27. *A. (Pholiota) allantopus*, Berk.; pileo carnoso aureo innato-squamuloso; stipite subtenui basi elongatâ bulbosâ; annulo fugaci; lamellis ferrugineo-aureis adnatis.— *Drumm.* n. 100.

On the ground.

Pileus 3½ inches broad, fleshy, umbonate, golden yellow with minute innate scales. Stem 4 inches high, 1-3rd of an inch thick above, swelling at the base into an oblong rooting bulb which collects the earth with its fibrillose mycelium after the fashion of a Scleroma, ring fugacious. Gills bright ferruginous-yellow adnate rather broad, spores elliptic, golden-yellow when seen by transmitted light

This species is closely allied to *Ag. aureus*, but differs very much in the nature of the stem. It is a very noble species.

**A lanuginosus*, Fr. (non Bull.)—*Drumm.* n. 229.

28. A. (Naucoria) *Drummondii*, n. sp.; pileo convexo glabro viscoso, stipite fibrilloso fistuloso sarsum farinaceo, basi tomentoso, tomento super matricem expanso, lamellis argillaceis ventricosis denticulatis.—*Drumm.* n. 116.

On rotten wood.

Pileus ⅓ of an inch broad, convex, subhemispherical, very thin even in the centre, smooth, viscid. Stem ¾ of an inch, ½ a line thick, nearly equal fibrillose below, farinaceous above from the remains of the white marginal furfuraceous fugitive veil, clothed at the base with white down which spreads in a round patch over the matrix. Gills argillaceous, rather distant, ventricose, adnate with a slight tooth, margin white, denticulate, spores argillaceous, elliptic. The young plant is perfectly white.

Allied to *Ag. myosotis*.

29. A. (Crepidotus) *lepton*, n. sp.; e resupinato reflexus, pileo convexo pruinoso fulvo-ochraceo, stipite obsolete: lamellis latiusculis ochraceis albo-marginatis. — *Drumm.* n. 299.

On bark.

Pileus 2 lines broad, attached at the vertex by a little down, convex not at all striate, tawny ochre, densely pruinose. Stem obsolete, or if present extremely short and pruinose like the pileus. Gills broad, ochraceous, bordered with a pruinose white edge. Spores elliptic with a large nucleus, flat when dry.

**A. mollis*, Schæff.—*Drumm.* n. 296, *in part*, 129, 272, *in part*.

There are several other Agarics in the collection, some of which are probably new, but which do not admit of being determined without notes.

**Bolbitius fragilis*, Fr.—*Drumm.* n. 118.

On dung.

**A. campestris* L.—*Drumm.* var. *varius*. n. 105. var. *maximus*, n. 104.

On the ground.

Of this well-known species Mr. Drummond finds two varieties which he names *maximus* and *varius*. The former of these, which even in middle sized specimens attains the diameter of a foot, is found in poor clay land in the white gum forests. The stem is about two inches thick and very short; the cuticle thick and tough and projecting over the gills and forming a distinct border. The gills are whitish with a tinge of rose colour, turning to deep rose colour, when bruised and the flesh when exposed to air changes to deep rose colour. It is said to be as much superior to the common form as Knights Marrow Fat Pea is to the Hotspur.

The other variety is much smaller and is covered with a delicate iron-red scaly cuticle, with a purplish tinge, but so thin that the flesh appears white through it. The gills are of a beautiful rose-colour, cream-colour, or white, scarcely two individuals being found alike; it grows under the York gum trees.

The cultivated plant, Mr. Drummond writes, was introduced into the colony, and soon became naturalized about Perth. It may be indigenous in Western Australia, but in ninety-nine places out of a hundred where it is now found, he has no doubt it is introduced, being carried from farm to farm by the domestic animals.

“Few orders of plants,” says Mr. Drummond, “appear to contribute more to the support of animal life than the *Fungi* in Western Australia. Many species, particularly of [→]

the genus *Boletus*, are used as food by the natives, and directly supply no inconsiderable portion of their support for several months in the year; but since I began to make my collection with the intention of sending them to you, I have often been surprised at the large number of fungi that are eaten by almost the whole of the marsupial animals. Of many species, I am satisfied that scarce a hundredth part escapes them; so assiduous are they in watching them, that of several sorts which are common in the ground, they rarely allow one to appear above the surface. They are directed to them apparently by smell and the cracking of the ground over them, and dig them up and devour them, leaving only some fragments to tell where they grew, and several of our fungi I only know from fragments seen of them in that way.

“The most delicious of our *Fungi* for the table is a plant nearly allied to *Boletus*, but the pores instead of being placed side by side, on the under side of the pileus, run in all directions through the mass, at least through that part of it which is elevated on a stem. The whole plant is white, the lower part farinaceous like a mealy potato; the shape of the upper part is irregular, generally angular uneven above. It is common in a particular sort of land, but it is so eagerly sought by the fungivorous animals, that it was with great difficulty I could procure a few specimens. The only thing which generally remains to show where they have dug it up and eaten it, is a little of the white powdery part.”

Unfortunately, no specimens of this species arrived; but if a fragment, which I picked out from some other fungi, belong to it, it should seem to be a species of *Secotium* with the spores similar to those of *Secotium Gueinzii*, Kze.

30. *Cortinarius* (*Myxacium*) *erythræus*, n. sp., parvus sanguineus; pileo convexo glabro stipiteque brevi viscoso; lamellis adnexis ventricosis; mycelio flavo.—*Drumm.* n. 112.

On the ground.

Pileus 1-1½ inch broad, blood red, clothed with a thick gelatinous coat, smooth, often lobed; veil consisting of strong

fibres, covered with a mucous coat. Stem $\frac{3}{4}$ of an inch high, 2 lines thick, slimy, like the pileus; root and mycelium yellow; gills ventricose, adnexed. Spores of a red ochre.

31. *Paxillus Eucalyptorum*, n. sp.; cæspitosus pileo convexo carnosio compacto flavo-fusco; stipite deorsum attenuato transversim squamuloso; lamellis distantibus decurrentibus flavis; sporis elongatis.—*Drumm.* n. 111.

Under the York gum trees.

Cæspitose. Pileus 3–9 inches across, yellow brown, convex, very thick and fleshy, compact, with a very minute, mealy pubescence, especially near the margin. Stem $2\frac{1}{2}$ inches high, $\frac{3}{4}$ of an inch thick above, attenuated below, marked with flat, minute, transverse scales. Mycelium white, reticulate. Gills of a fine yellow, thick, scarcely at all ventricose, slightly decurrent, sparingly forked, separating from the pileus. Spores large, oblong, colourless, at least when dry. Antheridia conical, giving the gills a pubescent appearance.

32. *Cantharellus viscosus*, n. sp.; pulcherrime flavus; pileo infundibuliformi repando subundulato viscoso; stipite deorsum attenuate flavo-pruinoso; plicis lamelliformibus furcatis decurrentibus; sporis læte ochraceis.—*Drumm.* n. 114.

On the ground, amongst little twigs, &c.

Whole plant of a beautiful yellow. Pileus $1\frac{1}{2}$ inch across, infundibuliform with the margin, repand, subcarnose. Stem 1. inch high, gradually increasing towards the part where the gills are given off, where it is 1-3rd of an inch thick, attached by a white anastomosing mycelium to twigs, &c., covered above with yellow meal. Folds decurrent, gill-like, but rather thick forked. Spores of a bright ochre, oblique under the microscope, of a beautiful golden yellow.

A very beautiful species, of which I have seen only a single specimen, accompanied fortunately by notes. It agrees in the colour of its spores with *Cortinarius*, but is distinguished at once by its thick, lamellar processes. I do not know any [→]

species of *Cantharellus* allied to it. The habit is that of *C. cibarius* and *aurantiacus*.

* *Lentinus fasciatus*, Berk. Hook. Journ. of Bot. vol. 1. p. 146, tab. v.—*Drumm.* n. 134. var. *ε. fasciatus*.

In this variety the hairs of the pileus are more distinctly fasciculate, the gills almost uniform in colour, and there is no trace of the peculiar band at their base. In other respects the specimens agree, and certainly indicate only a single species.

* *Schizophyllum commune*, Fr.—*Drumm.* n. 280, (in part).

33. *Boletus marginatus*, *Drumm.* mss; pileo convexo compacto subtiliter velutino margine tenui ab hymenio discrete involuto; stipite brevi turbinato-tuberoso subradicato nigro non reticulato subvelutino; tubulis liberis fuscis intus pallidis; sporis subrotundis pallide ferrugineis. — *Drumm.* n. 155.

On the ground, but rare.

Pileus 5 inches across, convex, very fleshy, compact, black, with a fine velvety down, which is of a golden brown under the microscope, furnished at the edge with a thin, almost membranous border, distinct from the hymenium and involute. Stem 1½ inch high and thick, very much swollen, and incrassated from its commencement, rooting, black and velvety like the pileus, not at all reticulate. Pores brown, without pale, within free, not in the least decurrent. Spores broadly elliptic, very pale, ferruginous.

34. *Boletus alliciens*, Berk.; pileo glabro luteo viscoso; carne fractâ cæruleâ; stipite subtiliter tomentosio deorsum incrassato; non reticulato; tubulis flavis irregularibus adnexis.—*Drumm.* n. 156.

On the ground, called by the natives Woorda.

Pileus 2½ inches across, convex, fleshy, smooth, slimy, yellow.—Stem 1½ inch high, ½–1 inch thick, minutely tomentose, not in the least reticulated. Pores yellow, irregular, adnexed, so that the cavity of those nearest to the stem is exposed. Spores pale, oblong. Distinguished at once by its

slimy surface and changeable flesh.—It is much esteemed by the natives as an article of food.

35. Polyporus (Mesopus) *obtectans*, n. sp.; pileo tenui coriaceo depresso inciso repando centro præsertim zonato, strigoso-striato nitidulo late cinnamomeo; stipite centrali velutino rubro-fusco; poris parvis dentatis cinnamomeis.—*Drumm.* n. 157-.

On sandy ground.

Pileus $1\frac{1}{2}$ inch across, deeply depressed, with the margin spreading and laciniated, thin, coriaceous, rough, with linear radiating, somewhat strigose, bundles of flocci more or less zoned, especially in the centre, slightly shining, of a rich cinnamon brown, except in the centre, where it is frequently ciner[e]ous; sometimes crested with flat, lacinate processes, or laterally confluent. Stem central, about 1 inch high, 1–2 lines thick, clothed with a rich, red-brown velvety pubescence. Pores small, very irregular, and jagged, with thin dissepiments, often very shallow, or quite obsolete towards the margin, of the same colour with the pileus.

This species resembles *Pol. perennis*, but differs in its bright colour, more flexible substance, and in the peculiar appearance of the pileus. It is also very near to *P. cinereus*, which has however much larger pores, as well as being of a duller tint. It accords with *P. Montagnei* in this latter respect, but that is a much smoother and neater species.

36. P. (Mesopus) *Cladonia*, n. sp. minuta; pileo cyathiformi tenuissimo fasciculato-tomentoso fulvo-cinnamomeo demum glabrescente nitido nigro; stipite sursum incrassato velutino. Hymenio tarde evoluto; poris brevibus irregularibus.—*Drumm.* n. 220.

On common soil.

Pileus $\frac{1}{4}$ – $\frac{1}{2}$ an inch across, cyathiform, very thin, of a tawny cinnamon fasciculato-tomentose, at length becoming perfectly smooth, black, shining, and zoned. Stem $\frac{1}{2}$ an inch high, gradually swelling upwards into the pileus, and of the same colour with it. Hymenium for a long time barren, and of the same colour with the stem; pores small, shallow, irregular.

This agrees in many respects with *P. oblectans*, but perfect specimens are scarce $\frac{1}{2}$ an inch in diameter, and there is a peculiar habit about the species like that of *Cantharellus sinus*. The colour of the stem also is different, and the whole plant much more delicate. It changes when old very much, and becomes black, like many *Agarics*. The name is intended to indicate its resemblance when young to some of the cupbearing lichens.

* *P. gilvus*, Schwein.—*Drumm.* n. 247, 278.

* *P. isidioides*, Berk. Hook. L. J. vol. 2, p. 415.—*Drumm.* n. 283.

In Mr. Drummond's specimens the hairs are collected into short setiform processes. The species is very closely connected with *P. gilvus*. This is not the only instance in which Uitenhage species occur in Australia.

* *Pol. varius*, Fr. *Drumm.* n. 154.

Pileus innate-squamulose at first minutely velvety. A single specimen only found on the flooded gum.

37. *P. (Apus) demissus*, n. sp.; pileis imbricatis cucullatis suberosis dependentibus spongioso-tomentosis pallidis postice flavis fulvisve; hymenio demum griseo-fusco margine sterili; poris subrotundis, acie albis subobtusis.—*Drumm.* n. 150.

On decayed partly charred wood.

Pilei imbricated $\frac{1}{2}$ an inch long, 1 inch broad, effused behind, arched, with the neck inclined or even vertical, corky, clothed with spongy down, which is sometimes disposed in little hispid fascicles, pale ochre in front, behind yellow or tawny. Hymenium not at all visible externally, grey brown, not extending to the extreme margin, sometimes of a pale reddish tinge behind; pores suborbicular, minute, irregular; edge obtuse, white.

This species is sometimes quite resupinate, and the pores have no grey tinge, but are just of the same colour as those of *Pol. ulmarius*.

Allied to *Pol. adustus*, but different from any state I have seen of that variable species.

* *P. (Apus) portentosus*, Berk, in Hook. Lond. Journ. 3, p. 188.—*Drumm.* n. 142.

This species makes tinder without any preparation.

38. *P. (Apus) ochroleucus*, n. sp.; erumpens, pileo angulato suberoso pauci-zonato ochroleuco primum subtiliter tomentosum demum glabro, margine obtuso sterili, contextu albido hymenio subconcolore poris punctiformibus parvis sæpe obturatis acie obtusis integerrimis.—*Drumm.* n. 248, 285.

Bursting through the bark of decayed branches.

Pileus 1½ inch broad and long, angulate, corky, at first minutely tomentose, but soon nearly smooth, with four or five convex zones, whitish ochre, rather tawny in the older portion; margin obtuse, barren. Hymenium flat or slightly convex; pores small, round, with obtuse dissepiments, as if pricked with a pin, rather darker than the pileus, yellowish within, sometimes slightly angular, arranged regularly in quincunxes, stratose. Substance white.

There is a strange resemblance between this species and the Philippine *P. ochreo-laccatus*, Mont., but not only does it want the laccate coat, but the substance of the pileus is white instead of brown. It is curious that, as in that species, the orifices of the pores are often blocked up. I cannot point out any species to which it is really very closely allied, but it will take its place near *Pol. marginatus*.

39. *P. (Apus) compressus*, n. sp.; minor, oblique compresso-ungulatus; pileo zonato lineato-rugoso primum albido-fulvo demum brunneo-nigra; contextu angustissimo albido; hymenio obliquo albo; poris stratosi parvis punctiformibus subintegrissimis.—*Drumm.* n. 141.

On hard dead wood.

Pileus 1 inch broad, ⅓ inch long, hard, obliquely unguulate and compressed at first, of a tawny white and occasionally slightly tomentose, passing through different shades of brown to black, zoned, marked with raised rugged lines, paler towards the margin. Substance whitish, extremely thin. Mycelium white, penetrating deeply into the wood. Hymenium for the most part extremely oblique, so that the pileus and hymenium are almost in the same plane white. Pores stratose, 1-100th of an inch in diameter, forming almost the [→]

whole substance of the pileus, whitish, wood-coloured within, punctiform; dissepiments obtuse, nearly entire. In a very young state there is probably a slight silky appearance.

Allied to the foregoing species and to *Pol. annosus* also, but on a much smaller scale.

40. *P. (Apus) rimosus*, n. sp.; pileo duro longævo altissime unguato zonato cinnamomeo; zonis recentioribus lætioribus sericeis lineatis; vetustioribus rimosis; hymenio rhabarbarino; poris parvis subangulatis acie velutinis, contextu ferrugineo.—*Drumm.* n. 144. *P. igniarius*, var. *scaber*, Berk. *Annals of Nat. Hist.* vol. 3, p. 324.

On gum-trees and manna-trees; much preyed on by the larva of a small moth.

Pileus 3–4 inches broad, 1¼–2½ inches long, 2–4 inches high, very hard and slow of growth, zoned, the older portions much cracked, brown and scabrous, the border of a pretty cinnamon, elegantly marked with silky lines, with the edge acute, but in old specimens occasionally very obtuse. Pores rhubarb-coloured, small, irregular, their edge velvety. Substance ferruginous.

This I formerly considered as a variety of *Pol. igniarius*, but perfect specimens before me do not confirm this notion. The pores are larger, and the whole aspect of perfect specimens very different. In old specimens a very thin stratum is deposited every year.

* *P. igniarius*, Fr. *Drumm.* n. 143, 146.

On the Mangart living to a great age, and on the *Manglesia Drummondii*.

Mr. Drummond considers the two forms indicated by the above numbers as distinct though closely allied, but I can see no distinctive marks in the specimens before me.

41. *P. gryphææformis*, n. sp.; durissimus; pileo hemisph[a]erico-conchæformi cinnamomeo; margine subtenui lineato-rugoso badio; hymenio concavo porisque minutis stratosi badii intus rhabarbarimis [*sic*: rhabarbarinis].—*Drumm.* n. 149.

Pileus 5 inches in diameter, 2½ inches high, nearly hemispherical conchæform, attached by the convex vertex, and

marked with patches of the rhubarb-coloured mycelium; margin alone free, obscurely zoned, rather thin and acute, bay marked with linear wrinkles. Hymenium extremely concave, bay; pores minute, stratose, forming indeed the whole mass of the pileus, rhubarb-coloured within. The growth of this species is extremely slow, a very thin layer only being deposited annually, which barely reaches the margin.

This species was not gathered by Mr. Drummond himself, but brought to him by a native on account of its curious form, which is like that of some large *Gryphæa* or *Productus*. The specimen, indeed, resembles much in form the upper fig. tab. 321 of *Productus personatus* in Sowerby's Mineral Conchology. It is allied to *Pol. igniarius*.

[*] *P. cinnabarrinus* [sic]. Fr.—*Drumm.* n. 148.

* *P. Feei*, Fr. *Pol. lilacino-gilvus*, Berk. — *Drumm.* n. 147.

This species, like many others, varies extremely as regards the surface of the pileus, which in some specimens is nearly smooth, in others, clothed with a spongy coat. I therefore refer the Australian plant to *P. Feei*, of which I have a specimen from M. Fée's herbarium.

42. *P. (Apus) venustus*, n. sp.; pileo reflexo coriaceo zonato albido; zonis obscurioribus; antice fasciculato-tomentoso hispidulo, postice subcalvescente, margine subfusco; hymenio purpureo; poris mediis variis, dissepimentis tenuibus laciniatis.—*Drumm.* n. 135.

On dead wood of some Conifera or allied family, probably *Casuarina*.

Forming elongated patches, consisting of numerous, often imbricated individuals, attached laterally and effused behind, with the margin broadly reflected or entirely resupinate; pileus thin, coriaceous, dirty white, with a few dark zones gradually becoming smooth behind, in front clothed with fasciculate down slightly hispid; extreme margin brown. Hymenium of a beautiful purple when fresh, purple-brown when dry; pores about 1-30th of an inch in diam.; disse- [→]

piments thin, laciniate, often breaking up into fine lamelliform processes.

Allied to *Pol. abietinus*, but at once distinguished by its far larger pores, which break up into lamelliform plates, so as to present the appearance of a *Dædalea*, and the different aspect of the pileus. It is also nearly allied to *P. Menandianus*, Mont., *pergameneus*, Fr., *arcticus*, Fr., *laceratus*, Berk.; but it is on a larger scale than any of these. Individuals occur in which the zones are scarcely visible, and the whole aspect of the pileus different, but they have evidently been affected by some external causes.

* *P. ferruginosus*, Fr.

On dead wood.

43. *P. (Resupinatus) tardus*, n. sp. albus; mycelio ceraceo corticiiformi, margine angusto tomentoso; poris tarde evolutis parvis integerrimis.—*Drumm.* n. 130.

On dead wood.

At first resembling *Corticium molle*, at length producing pores, and forming large patches with a narrow tomentose margin; orifices of the pores, which are about 1-100th of an inch in diam., quite entire, rather obtuse. The hymenium is at first white, but in drying assumes an ochraceous tint.

This species, if the pores were not well-developed, would almost belong to *Merulius*. It is a very distinct species, but difficult to characterise in words.

* *P. vaporarius*, Fr.—*Drumm.* n. 136.

On dead wood.

Two other allied forms occur on dead wood; one, n. 137, which changes very little in drying, but has no other prominent character though possibly distinct; and another, without any number, on very rotten wood, which has the pores precisely like those of *P. vaporarius*, but scattered in patches, the interstices having a peculiar glistening appearance, as if powdered with some kind of fecula. This under the microscope is found to consist of innumerable crystals, and possibly may be entirely independent of the fungus.

* *Trametes Pini*, Fr.—*Drumm.* n. 145.

Some of the smaller specimens are regularly zoned.

44. *Hexagonia decipiens*, n. sp.; pileo horizontali duro suberoso plus minus zonato rufo-fusco velutino margine quandoque ferrugineo: hymenio griseo-brunneo, poris mediis irregularibus, dissepimentis crassiusculis.—*Drumm.* No. 151, 152.

On *Casuarina*, penetrating through the bark.

Pileus $\frac{3}{4}$ of an inch long, $1\frac{1}{2}$ inch broad, hard, corky, horizontal, sometimes much effused at the base, with either about three equal convex zones, clothed with a rich, red-brown, velvety pile, or with many zones, in which case either the whole pileus or the margin is ferruginous; mycelium and substance ferruginous, but where it enters the matrix nearly white. Hymenium horizontal, greyish brown; pores 1-30 of an inch in diam., irregular; dissepiments rather thick.

Some specimens are perfectly resupinate, in which case the pores are far wider, and sometimes there are pores on the pileus 2 or 3 lines broad, probably from the specimens having been accidentally reversed. This is one among the many instances which show how necessary it is to have *Polypori* in various stages of growth. In the present case those specimens which have grown slowly could scarcely be determined, from the specific character drawn up from the few zoned individuals, though the relation is evident at once to the eye.

* *H. Gunnii*, Berk.—*Drumm.* n. 153.

On flooded gums. A rare species.

* *Merulius Corium*, Fr. *Drumm.* n. 249.

* *M. lacrymans*, Schum.—*Drumm.* n. 269.

On decayed wood.

45. *Hydnum investiens*, n. sp.; totum resupinatum, latissime expansum, subiculo primum tomentoso, demum compacto glabro; aculeis mediis compressis acutis penicillatisque. — *Drumm.* n. 138.

Lining the inside of decayed “*Black-boys*.”

Subiculum rather thick, at first white, tomentose, consist-[→]

ing of loosely interwoven, cottony threads, at length more compact and smooth. Aculei $\frac{1}{2}$ –1 line long, compressed, sometimes very acute, sometimes very obtuse and obscurely penicillate, of a pale ochre.

This species resembles somewhat resupinate forms of *H. ochraceum*; it has, however, the habit of *H. farinaceum*, but the aculei are much larger. In one specimen the aculei are much elongated, darker, and extremely acute. "It grows," says Mr. Drummond, "inside of decaying trunks of Black-boy. The outer crust of the Black-boy, charred as it always is and cemented together with gum, affords little nourishment to any vegetable, but the pith is of a different description. The fungus arranges itself inside of the outer covering, but receives its nourishment from the pith. Where it grows it is entirely in the dark."

46. *H. dispersum*, n. sp.; totum resupinatum; subiculo tenui ceraceo demum evanescente; aculeis mediis basi fasciculatis compressis apicibus subulatis.—*Drumm.* n. 207.

On very decayed wood.

Forming long patches. Subiculum very thin, ceraceous, but frequently obsolete or entirely evanescent. Aculei fasciculate at the base, compressed, subulate above, about $\frac{1}{2}$ a line long, tawny when dry, but probably white and transparent when fresh.

It appears to be a very distinct species. The aculei follow the lines of the cellular tissue of the wood, and form more or less distinct rows. Hence it has somewhat the habit of an *Irpex*.

47. *H. Isidioides*, n. sp.; totum resupinatum subiculo crustaceo albo margine subfimbriato è matrice frustulatim separabili; aculeis brevibus obtusis primum distinctis, dein confluentibus.—*Drumm.* n. 149.

On the Hymenium of *Pol. gryphæiformis* [*sic*].

Forming a thin crustaceous stratum about 4 inches across, cracking only where the matrix cracks, and separable in small fragments, especially towards the centre. Aculei short, cylindrical, obtuse, at first scattered, at length crowded. This[→]

species at first somewhat resembles *Polyporus vaporarius*, but it is a true *Hydnum*, and very distinct, though difficult to define in words.

* *Thelephora caryophyllæa*, Fr.—*Drumm.* n. 200.

48. *Stereum illudens*, n. sp.; coriaceum subrigidum, pileo effuso reflexoque zonato radiato-plicato hirsuto spadiceo, hymenio lævi glabro carneo rufo.—*Drumm.* n. 158.

On sticks, &c. Common.

Pileus effused behind, with the margin reflected, about 1 inch long and several inches in breadth from the confluence of many individuals. Coriaceous, rather rigid zoned clothed with a short hairy pile, often plicate in young specimens, of a rich brown, becoming grey in the older parts, or when the outer coat has vanished dark brown. Hymenium cracked, smooth, reddish-brown, with frequently a flesh-coloured bloom.

This species is intermediate between *S. purpureum* and *S. spadiceum*, but is distinct from either. The hymenium is nearly of the same colour with that of *S. quercinum* with a beautiful flesh-coloured bloom.

* *S. purpureum*, Fr.—*Drumm.* n. 281.

* *S. hirsutum*, Fr.—*Drumm.* n. 159, 208.

* *S. rubiginosum*, Fr.—*Drumm.* n. 161.

49. *Auricularia minuta*, n. sp.; gregaria; pileis minutis effuso-reflexis lobatis; extus fulvo-umbrinis hispidulis; hymenio lævi flavo-griseo.—*Drumm.* n. 163.

On dead sticks.

Pilei 3 lines broad, effused behind, with the lobed convex border reflected, tawny umber, zoned clothed with short, hispid pubescence. Hymenium smooth, pruinose, of a yellowish grey, frequently proliferous. It is only in perfect specimens that the zones are visible. This is a minute and obscure species, but cannot be confounded with others. The specimens, though so small have passed through every stage of growth. In age it becomes bleached.

50. *Corticium radicale*, n. sp.; pileo crassiusculo intus [→]

albo reflexo plano strigoso albido-fulvo; hymenio glabro rimosulo pallidé fulvo demutn fusco; margine sterili tomentosus.—*Drumm.* n. 162.

At the base of living shrubs.

Pileus $\frac{3}{4}$ of an inch long, $1\frac{1}{4}$ inch broad, effused at the base, and surrounding the matrix, broadly reflected above, clothed with fasciculate, tawny, strigose hairs; substance rather thick, white margin slightly lobed, thin. Hymenium minutely cracked, tawny when fresh, pale brown when dry; not extending to the edge, which is pale and tomentose.

A very distinct species from any with which I am acquainted.

51. *C. vinosum*, n. sp.; resupinatum vel breviter reflexum purpureo-fuscum tenue, medio rimoso-areolatum subtiliter setulosum: margine pallidiore angusto velutino.—*Drumm.* n. 160.

On bark.

Forming broad confluent patches many inches long and broad, when fresh of a dark claret-purple, purple brown when dry; generally altogether resupinate, but occasionally slightly reflected, with the free surface grey and fasciate, thin, but partially separable from the matrix, much cracked in the centre, and exposing in the cracks the pallid internal stratum, clothed with very fine minute bristles; margin waved, velvety pale, scarcely byssoid.

This species, which is apparently quite new, resembles somewhat the resupinate forms of *Thel. rubiginosa*. The matrix is deeply penetrated and decomposed by the pale mycelium.

* *C. incarnatum*, Fr. *Drumm.*

* *C. comedens*, Fr.

52. *Guepinia Pezizæformis*, n. sp.; minuta, miniata; stipite brevi velutino: hymenio oblique cupulæformi parcé rugoso. *Drumm.* n. 205.

On dead sticks.

Plant of a beautiful orange red, $1\frac{1}{2}$ line high; stem short; pileus lateral externally as well as the stem minutely velvety;

hymenium obliquely cup-shaped, slightly lobed, sparingly wrinkled and pitted within. Spores oblong, sometimes curved.

A very distinct species, with the habit of a *Peziza*, but a most decided *Guepinia*.

53. *Clavaria setulosa*, n. sp.; ochracea, pusilla, stipite brevi irregulariter diviso; ramis compressis furcatis obtusis vel flabellatis pubescentibus.—*Drumm.* n. 199.

On the ground.

About 1 inch high. Stem short and indistinct, compressed with two or three irregular main divisions, and again forked or flabellate, with the tops obtuse; ochraceous, clothed with patent, scattered, hispid pubescence, which under a lens is found to consist of little bundles of filaments, which are compact at the base, but penicillate above.

In habit it resembles *Clavaria pratensis*.

**C. Botrytis*, P.—*Drumm.* n. 197.

54. *Calocera Guepiniodes*, n. sp.; pusilla, erumpens, variabilis, stipite compresso, sursum palmato.—*Drumm.* n. 204.

On rotten wood.

Bursting forth from the decayed wood, in which it makes a little round hole. Stem compressed, divided above in a palmate manner, with a few very short obtuse branches, and those of a red-brown; or divided at once into two or three spatulate branches, which are yellowish and the stem very dark.

These two forms, however different at first sight, belong to one species. There is a state exactly intermediate. The resemblance of the second especially to *Guepinia* is very great; but the hymenium goes quite round the branches, and there is no velvety down.

* *Tremella mesenterica*, Retz.—*Drumm.* n. 193.

* *T. foliacea*, P.—*Drumm.* n. 93.

* *Exidia glandulosa*, Fr.—*Drumm.* n. 194, n. 123 (*in part*).

55. *Dacrymyces rubro-fuscus*, n. sp.; pusillus rubro-fuscus; stromate sinuato gyroso; sporis magnis globosis ovalibusve

simplicibus vel uni-biseptatis (Tab. 1, f. 1.)—*Drumm.* n. 212, n. 225 (*in part*).

On decayed branches, either on the wood itself or growing from some Sphæria.

Stroma scarce 1 line high, of a rich red-brown when moist, black when dry: flocci slender, short, very sparingly branched; spores globose or oval, often distorted, simple or with a single transverse septum, and sometimes one of the cells is divided by a vertical septum.

Allied to *D. moriformis*, in which also the spores are large, more or less globose, and either really or spuriously septate. Tab. I., f. 1°—*a.* Flocci of *Dacrymyces rubro-fuscus*: *magnified*. *b.* Spores in various stages of growth: *magnified*.

56. *Secotium melanosporum*. n. sp.; pileo irregulari subglobose umbilicato; primitus infra furfuraceo, superne glabro; margine rotundato; velo appendiculato marginali; stipite elongato subæquali; hymenio stipite percursu; sporis nigris. (Tab. I. f. 2.)—*Drumm.* n. 180.

On the ground.

Growing in clusters. Pileus 2-3 inches or more in diameter, subglobose, umbilicate at first, sparingly furfuraceous except at the apex, margin very obtuse and rounded; veil attached in lacinate fragments to the margin. Stem 2-2½ inches high ⅓-½ an inch thick, solid, passing completely through the hymenium, which forms the whole mass of the pileus, exhibiting on the base traces of the volva-like veil. Spores minute, obliquely ovate when seen laterally, furnished with an extremely short peduncle, of a dark-chocolate brown. In the largest specimen, towards the top of the stem within, are two little cavities which exhibit traces of an hymenium. These, however, do not appear to be constant.

This species agrees with *S. erythrocephalum*, Tul., in the dark-coloured spores; but it is a much larger and coarser species.

Tab. I. f. *Secotium melanosporum*; nat. size.—*a* spores; highly *magnified*.

57. *S. coarctatum*, n. sp.; minutum. [*sic*] olidum; pileo obovato umbilicato, margine acuto coarctato; velo marginali lacerate appendiculato; stipite gracili; hymenio stipite percusso; sporis ochraceis minutis demum cinereis. (Tab. II. f. 3)—*Drumm.* n. 181.

On the ground.

Pileus $\frac{1}{2}$ – $\frac{3}{4}$ of an inch broad, $\frac{1}{2}$ an inch high, obovate, umbilicate, much constricted below, and pressed to the stem; margin acute; veil marginal, appendiculate. Stem $\frac{3}{4}$ of an inch high, scarce a line thick, solid, passing completely through the mass of the hymenium, expanding above. Hymenium pressed close to the stem, but unconnected with it except above, lined with a delicate silky stratum. Spores minute, obovate with a globose nucleus, and a very obscure peduncle, at first ochraceous, at length cinereous.

Tab. I. f. 3. *Secotium coarctatum*; *nat. size.*—*a.* Section slightly *magnified*, *b.* Spores highly *magnified*.

A third species apparently of this curious genus is found in the Swan River district, and is considered a great delicacy for the table. Of this I have seen no perfect specimen. If a little fragment which occurred among other fungi belongs to it, the spores (as mentioned above) agree in form with those of *S. Gueinzii*; and from a rough sketch sent by Mr. Drummond, it must differ very greatly from the other species; but in the uncertainty whether the fragment alluded to really belongs to it, I do not venture to describe or name it. There is also a fragment of what appears to be a species of *Hymenogaster*, with oblong yellowish spores. It occurred amongst some duplicates, without any indication or notice whatever, and I am therefore obliged to wait for further information.

* *Geaster striatus*, D[ec].—*Drumm.* n. 173.

On the ground. A very large variety.

* *G. minimus*, Schwein.—*Drumm.* n. 175.

58. *G. Drummondii*. n. sp.; peridio exteriori simplici rigido explanato multipartito intus brunneo; laciniis æqualibus; interiori sessili, disco plano, ore conico plicato. (Tab I. f. 4).

On the ground.

Exterior peridium rigid, multipartite, lined with a dark-brown smooth coat. Divisions about 8, mostly equal acute. Interior peridium perfectly sessile, very minutely scabrous, pale; disc plane, aperture conical, plicate. Capillitium and spores brown.

This species differs from *G. umbilicatus* in its rigid outer peridium, larger spores, and the disc of the aperture not being so decidedly umbilicate. It is more nearly allied to *G. ambiguus*, Mont.; but in that the outer peridium is not equally divided, and the lining of it thicker and pale. It agrees with it in the size of the spores. The peridium of *G. ambiguus*, in the only specimen which I possess, is very scabrous. I have no doubt, from a series of specimens which I have seen in Dr. Montague's herbarium, of the distinctness of the two species, though it is difficult to indicate the exact differences. It is a small species, scarcely exceeding an inch in diameter when expanded.

Tab I. f. 4. Geaster *Drummondii*; *nat size*.

**G. rufescens*, P.—*Drumm.* n. 174.

At once distinguished from *G. hygrometricus* by its smooth, minute spores.

59. *Bovista lilacina*, Mont. and Berk.; *turbinata* subtus *plicata* primum pallide ochracea demum *sublilacina*; *capillitio* sporisque *lilacinis*.—*Drumm.* n. 167.

On the ground.

Turbinate 2½ inches in diameter, plicate below, smooth; at first cream-coloured, but gradually acquiring a pale lilac tinge; outer coat very thin; inner at first firm; apex at length expanding and lobed, exposing the elliptic lilac capillitium and minute, globose, smooth spores, which at length vanish, and leave a *Pezizæform* base. The cells are not persistent in this species as in the genus *Hippoperdon*. In an early stage of growth a section of this species resembles very much *Lycoperdon cælatum*. The stem is hollowed out into little sinuous cavities, but those which are destined to be fertile form a distinct elliptic mass. In some specimens the stem is very decided, in others almost obsolete.

60. *Mycenastrum phæotrichum*. Berk, in Hook. Lond. Journ. of Bot., Vol. II. p. 418.—*Drumm.* n. 166.

On the ground.

In an early stage of growth the whole internal mass to the very base is formed of little sinuous cavities, which do not exhibit the least trace, as far as I can find, of the threads which are so peculiar in a later stage of growth. The European species appears to be figured by Sterbeeck, tab. 28, D.

* *Lycoperdon gemmatum*, Fr. *Drumm.* n. 172, 250.

* *Tulostoma fimbriatum*, Fr.—*Drumm.* n. 179.

* *Scleroderma geaster*, Fr.—*Drumm.* n. 168.

* *S. vulgare*, Fr.—*Drumm.* 169.

* *Polysaccum Pisocarpium*, Fr.—*Drumm.* n. 170.

* *P. crassipes*, Dec.

Var. *australe*.—*Drumm.* n. 171 (in part).

This agrees in every respect with European specimens, except that the spores are paler, with a slight tinge of yellow. It is equally variable in form, the stem being sometimes nearly obsolete. It is possible that it may be a distinct species, but the only difference visible in the dried specimens is that just mentioned, and that may depend on extraneous circumstances.

* *P. turgidum*, Fr.—*Drumm.* n. 171 (in part).

On the ground with the last.

Distinguished by the stem being divided at the base and the brown spores.

61. *Mitremyces luridus*, n. sp.; pusillus subsessilis; peridio externo subsessili, ore nigro. (Tab. I. f. 5).—*Drumm.* n. 182.

On sandy soil.

Outer peridium globose 1-3rd of an inch in diameter, of a dingy yellow brown, scabrous, with small black scattered granules, supported by a short, black, anastomosing mass of tendon-like bodies, which collect the grains of sand amongst which it grows. Aperture with about 4 or 5 teeth, which are not coloured as in the other species. Inner peridium [→]

pale yellow, or sometimes pure white. Spores elliptic with one or two nuclei, mixed with a few filaments.

Resembling much *Mitremyces fuscus*, Berk. a Tasmanian species. It is, however, very much smaller, and bears nearly the same relation to it that *M. Junghunii* does to *M. lutescens*. The teeth have not, as in the other species, the slightest tint of cinnabar.

Tab. I. f. 5. *Mitremyces luridens* [*sic*]; *nat. size*.—*a*. Section showing the internal sac, still full of spores: *magnified*.—*b*. Spores and flocci; highly *magnified*.

* *Lycogala epidendrum*, Fr.—*Drumm.* n. 202.

On charred wood.

62. *Didymium scrobiculatum*, n. sp.; sessile subconfertum difforme; peridiis compressis albis scrobiculatis subfurfuraceis; floccis albis, sporis compactis nigris.—*Drumm.* n. 263.

On the charred surface of “*Black-boys*.”

Forming little scattered tufts, peridia when solitary subglobose, but more frequently crowded, though not densely, compressed and irregular, sessile, but not adnate, wrinkled, white slightly furfureous; flocci membranous, white, spores globose, compact, jet-black; columella wanting.

Allied to *Didymium cinereum*, but far less adnate. Indeed there is occasionally a spurious attempt at a stem. Sometimes the surface is covered with raised dots rather than wrinkles.

* *Physarum nutans*, P.—*Drumm.* n. 282 (in part).

63. *P. flavicomum*, n. sp.; peridio cernuo subtus umbilicatis tenuissimo iridescenti; floccis anastomosantibus juncturis triangularibus sporisque globosis luteis stipite gracili apice attenuato fusco.—*Drumm.* n. 208 in part).

On very decayed wood.

Gregarious. Peridia very broadly umbilicate beneath, extremely delicate and evanescent, especially above, iridescent. Capillitium attached to the lower part of the pileus, without any trace of columella, forming a loose, yellow network, with the points of juncture frequently triangular.

Spores globose, yellow. Stem attenuated upwards, very slender where it gives off the peridium.

A very elegant species, remarkable for its yellow flocci.

* *Craterium pedunculatum*, Trent.—*Drumm.* n. 259.

On decayed leaves.

* *Stemonitis fusca*, Roth.—*Drumm.* n. 209, 272 (in part).

* *Arcyria incarnata*, P.—*Drumm.* n. 282 (in part).

64. *Licea applanata*, n. sp.; conglomerata, peridiis brevissimis arcte connatis rufis; sporis magnis crocatis.—*Drumm.* n. 188.

On dead sticks.

Forming roundish patches which are scarlet when young, but of a bright liver brown when mature, consisting of minute very short crowded peridia, invisible to the naked eye, which contain saffron-coloured spores, intermixed with a few filaments; spores globose, much larger than in *L. fragiformis* and *cylindrica*.

* *Cyathus vernicosus*, Dec.—*Drumm.* n. 228.

On rotten wood.

64. *Clathrus pusillus*, n. sp.; pusillus, elongato-obovatus, columnis præcipue ad apicem reticulum amplum efformantibus. (Tab. I, f. 6.).—*Drumm.* n. 176.

On the ground.

Volva nearly cylindrical or obovate $\frac{1}{2}$ – $\frac{3}{4}$ of an inch in diameter; columns $1\frac{1}{2}$ inches or more high, wrinkled transversely, of a beautiful bright ruby red, springing from four to eight together from a point at the base, and forming by their juncture above a net with subpentagonal meshes, extremely brittle and scarce able to support their own weight. Hymenium attached to the inner side of the columns and network through their whole extent, except occasionally at the base. Spores minute, oblongo-elliptic.

This beautiful species resembles in many respects *Colus hirundinaceus*, Caval. and Sech. and goes very far to prove that their genus is not well founded, for there is no reason to think that any material difference would be presented by the young plant. The specific difference consists in the [→]

much more ample meshes, and the fructifying mass is in the Toulon plant confined to the network, whereas in the present case it extends more or less down the columns.

The specimens vary extremely. In the larger the network resembles closely that of *Clathrus cancellatus*; in the smaller specimens it is confined to the apex, but specimens occur in which the six ribs merely unite above, and thus form five oblong meshes, as in *Laternea*. The most perfect form Mr. Drummond considers to be that in which a single pentagonal mesh is formed at the confluence of the five columns.

TAB. I, f. 6. *Clathrus pusillus*; *nat. size*.

An opportunity has lately been afforded, through the kindness of Dr. Broomfield, of examining a young specimen of *Clathrus cancellatus* from the Isle of Wight, (Tab. I. f. 7). This shows the correctness of Micheli's figure, the substance of the volva being divided into compartments answering to the meshes, so that in a vertical section a septum answers more or less accurately to each column, as represented by Micheli. The fructifying mass is not confined, as in *Clathrus crispus*, to the angles of the meshes, but extends over the whole of the internal surface of the columns and network, being interrupted only here and there by obscure passages running from the central mass of jelly. *Clathrus cancellatus* and *C. crispus*, then, are generically distinct, and the sectional denomination *Clethria* must be raised to the rank of a genus. The difference will be seen at once on comparing the present figure with that given of *Clethria crispa* in Ann. and Mag. of Nat. Hist. vol. 9, tab. xv. It is observable that in the egg state *Clathrus* presents an appearance very similar to the stipitate *Phalloideæ*. In the case of *Clathrus*, however, the pileus only is developed. I find the spores and sporophores as represented by Brongniart in his Introduction to Botany, p. 546. A late opportunity of examining a very young *Phallus*, related to *P. Dæmonum*, from Ohio, has shown me that the reticulate frill in an early stage of growth exactly lines the pileus, and gradually detaches itself at the base as the pileus increases.

Tab. I. fig. 7, *a*, section of young *Clathrus cancellatus* slightly magnified; *b*. portion of hymenium springing from one of the sides, highly magnified.

66. *Ileodictyon gracile*, n. sp.; costis tenuoribus lævibus. (Tab. II. fig. 8).—*Drumm.* n. 177.

On the ground.

Volva globose, showing, as in *Clathrus*, probably from internal partitions, traces of the reticulations, splitting into about four lobes, furnished at the base with a few fibrous roots; about $1\frac{1}{2}$ inch in diameter; network far exceeding the volva; meshes obscurely hexagonal; ribs $\frac{1}{2}$ –1 line broad, flat, smooth, white, entirely covered internally by the hymenium; spores minute, oblong, elliptic, larger than in *Clathrus pusillus*, with a linear nucleus.

The genus *Ileodictyon* is distinguished from *Clathrus* principally by the tubular not cellular ribs, and certain differences in the volva, which are not evident in the dried specimens before me. The Swan River species is much less, and the ribs scarcely more than one-fourth as thick as those of the New Zealand species, nor are they crisped and wrinkled. The size of the meshes varies. Messrs. Tulasnes have made a beautiful analysis from specimens in spirits of the edible species, which will I hope soon be published. I do not know that this species is eaten by the natives.

Tab. II. f. 8. *Ileodictyon gracile*; *nat. size*.

67. *Phallus curtus*, n. sp.; capitulo adnato cum stipite flavo subæquali volvam oblongam vix excedente.—*Drumm.* n. 178.

On the ground.

Volva oblong, furnished with a few fibrous roots at the base bursting by two or three irregular lobes; stem $\frac{1}{3}$ of an inch high, with a little membranous cup at its base. Head $\frac{3}{4}$ of an inch high, oblong, rising scarcely $\frac{1}{2}$ an inch above the volva, smooth, not reticulated. Spores minute, oblong-elliptic. Extremely foetid.

Allied apparently to *Phallus caninus*.

* *Stilbum erythrocephalum*, Ditm.

On dung.

* *Excipula strigosa*, Fr.[—]*Drumm.* n. 215.

* *Trichoderma viride*, P.—*Drumm.* n. 212 (in part).

* *Sepedonium chrysospennum*, Lk.—*Drumm.* n. 225 (in part).

68. *Mystrosporium pulchrum*, Berk. and Corda. Effusum olivaceum; floccis albis rugosis furcatis trifidisque; aliis tenuioribus fertilibus; sporis oblongis è lobis globosis efflatis, scabriusculis. (Tab. II. f. 9).—*Drumm.* n. 270.

On rotten wood, accompanying *Merulius lacrymans*.

Forming olive patches, about an inch broad. Flocci of two kinds; some irregularly branched, forked or trifid, often paler, irregular, and ending in two or three little tubercles, others finer, sparingly branched, sometimes septate, giving off short erect threads, which bear the spores. Spores compound, consisting of a number of globose slightly-scabrous lobes. In an early stage of growth, they consist of a single row of cells, which gradually becomes double; ultimately, the cells swell out and become globose. It does not appear that the lobes separate, as the old decayed spores are to be found amongst the flocci.

The habit of this plant is exactly that of *Helicosporium vegetum*.

Tab. II. f. 9. *Mystrosporium pulchrum*, magnified; a. spores, highly magnified.

Amongst the spores of the plant occur others, precisely like those of *Helicoma*, Corda, but without any flocci belonging to them. It is possible that they are more nearly of the nature of *Helicosporium*, and are parasitic on the threads of the *Mystrosporium*. I have not, however, sufficient data to determine this point.

* *Fusarium lateritium*, Nees.—*Drumm.* n. 192. (in part).

* *Antennaria scoriadea*, Berk, in Bot. of Ant. Voy. ined.—*Drumm.* n. 192 (in part).

On branches of shrubs, with *F. lateritium*.

A description of this will shortly be given from good specimens, in the Botany of the Antarctic Voyage. The Swan River specimens are very imperfect.

69. *Peziza Drummondii*. n. sp.; media, cupulæformis sessilis, subtus costis validis terram intransibus suffulta, spadicea; hymenio brunneo. (Tab. II. f. 10).—*Drumm.* n. 183.

On the ground.

Cup $\frac{1}{4}$ of an inch broad, sessile, bright brown, farinaceous, supported beneath by strong compressed ribs, which penetrate into the soil, and when dry are exceedingly hard and almost horny. Hymenium brown. Asci linear elongated slightly attenuated below; spores elliptic.

Tab. II. f. 10. Ascus of *P. Drummondii*, with sporidia; highly magnified.

A very pretty species, allied to *Pez. Acetabulum*. A species on wood, marked n. 210, was found by Mr. Drummond, allied to *P. cochleata*, and possibly a form of it.

* *P. melaloma*, A. and S.—*Drumm.* n. 189.

On burnt earth and charcoal.

* *P. rutilans*, Fr.—*Drumm.* n. 190.

On the ground.

There is also another *Peziza*, n. 186; apparently *P. applanata*, Fr.

* *Peziza scutellata*, L.

* *Aseobolus* [*sic*: *Ascobolus*] *furfucaceus*, P.

On cow dung, with another very minute species, which I cannot determine.

* *Sphæria punctata*, Sow.—*Drumm.* n. 187.

On horsedung.

The disk in the Swan River specimens is reddish, and the perithecia more prominent than usual, but there is no specific difference.

* *S. rubricosa*, Fr. *El.* 2, p. 63.—*Drumm.* n. 201.

On dead wood.

As the specimens grew on dead wood, they are more freely developed than those which I possess on bark from Guiana. The wood is tinged of a pale lilac; there is a cottony lilac mycelium, and the stroma is flat. In old specimens the ostiola are much elongated, and project beyond the stroma. There is no difference in the asci or sporidia.

* *S. multiformis*, Fr.

70. *S. (Lignosæ) capnodes*, n. sp.; effusa interrupta applanata lævis fuliginea intus nigra, ostiolis punctiformibus prominulis; peritheciis immersis oblongis; sporidiis ellipticis fuscis.—*Drumm.* n. 218.

On dead wood.

Forming elongated, more or less interrupted, erumpent patches, many inches long, plane, slightly raised, black, with a smoky bloom; black within, brittle and carbonaceous, surrounded by a portion of the elevated wood; perithecia crowded, immersed, oblong; ostiola minute papillæform; sporidia elliptic, dark brown; wood marked within by a deeply-penetrating black line.

Resembling in habit *Sphæria stigma*, but differing in its dark stroma, smoke-like bloom, and above all, in its elliptic, brown, not curved, and pellucid sporidia. The whole plant looks exactly as if it had been smoked over a candle.

A very curious new genus was sent by Mr. Drummond amongst the *Fungi*, allied to *Collema*, but with the outward habit, and in some respects the structure, of a *Dothidea*. One species is identical with a plant gathered by Dr. Montagne many years since, without fructification, in the department of the Eastern Pyrenees, on the white mulberry, and has lately been found in Algiers on the *Lentiscus*; the other species has at present been found at the Swan River only.

MYRIANGIUM, *Mont. et Berk.*

Thallus pulvinatus, cartilagineus madore turgescens inæquabilis tuberculatus intus pallescens. Apothecia tuberculiformia primo clausa, tandem aperta plana immarginata. Thalamium (lamina prolifera) crassum fuscum multiloculare; singulo loculo ascum unicum fovente, tandem fatiscenti-pulverulentum. Sporidia oblongo-cylindrica octona, octies [→]

annulata, annulis interdum quadrate cellulosi, pellucida, ascis sphaericis inclusa.

1. *Myriangium Duriæi*, Mont. and Berk. majus, hæmi-sphericum, subnitidum.

HAB. In Pyr. Or. (*Montagne*), ad corticem *Mori albi*. *Lentisci* in Algeriâ (*Durieu*); in Australia in Prov. dictâ Swan River (*Drummond*).

2. *Myriangium Montagnei*, Berk, minus, irregulare, atropurpureum, subtiliter tomentosum. *Drumm.* n. 262.

HAB. Ad corticem in Australia in Prov. dictâ Swan River. *Drummond*.

The second species resembles extremely *Dothidea examinans*, Berk. and Mont.; but not only are the sporidia quite different, the cells containing a single ascus only, but the whole structure of the plant is that of *Collemaceæ*.

The genus bears a certain external resemblance to *Tympanis*, without, however, the least affinity. It is more nearly allied to *Arthonia*, but differs from it in the structure of the thallus and nucleus. It is again allied to *Paulia*, Fée (*Linn.* vol. x. tab. 4), but the fructification is different; and also to *Omphalidium*, Mey. and Flotw., in which the asci and sporidia have a very dissimilar form, and the structure of the thallus is quite unlike. Complete figures will shortly be published by Dr. Montagne.