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[Running title: “MESSRS. BERKELEY AND BROOME / ON FUNGI FROM BRISBANE, QUEENSLAND”.]

IV. *List of Fungi from Brisbane, Queensland; with Descriptions of New Species.*— Part II. By the Rev. M. J. BERKELEY, M.A., F.B.S., F.L.S., and C. E. BROOME, M.A., F.L.S.

(Plates X.–XV.)

Read June 15th, 1882.

THIS paper contains an enumeration of the Fungi received from Brisbane since 1878. They consist of 53, for the most part common European species, and dispersed more or less over the whole inhabited world, of a few tropical species common to all tropical regions, and others subtropical, of which an important part are identical with those which occur in the southern parts of Australia. The most interesting are the *Phalloidei*, together with the hypogæous *Hydnangium*. More of their allies would doubtless turn up were attention especially directed to them; but their search, at least that of the Truffles, requires much time and labour, even where an especial interest is attached to them. The occurrence of the Himalayan *Mitremyces viridis* is curious; and there are many other species which, either from considerations of botanical geography or near affinities, are worthy of notice; and we have therefore no scruple in bringing them before the Society.

The present numbers preceding the species, commencing with 92, are in continuation of those of the former paper on the same subject in the ‘Transactions,’ New Ser., Bot. vol. i. pp. 399–408.

92. AGARICUS (§ AMANITA) VAGINATUS, Bull. Brisbane (*F. M. Bailey*, no. 373).

93. AGARICUS (§ LEPIOTA) DOLICHAULOS, Berk. & Broome, “Fungi of Ceylon,” Linn. Soc. Journ. vol. xi. p. 496. Brisbane (*F. M. Bailey*, no. 293).

94. AGARICUS (§ LEPIOTA) CEPÆSTIPES, Sow. Brisbane (*F. M. Bailey*, no. 160).

95. AGARICUS (§ LEPIOTA) ASPRATUS, Berk, in Lond. Journ. of Botany, i. p. 97, 1849.

The pileus of this species is clothed with beautiful stellate hairs. Brisbane (*F. M. Bailey*, no. 161).

96. AGARICUS (§ ARMILLARIA) MELLEUS, Vahl. Brisbane (*F. M. Bailey*, no. 207).

97. AGARICUS (§ TRICHOLOMA) CIVILIS, Fr.

The specimen agrees generally with Fries’s characters; and without notes we cannot distinguish it from that species. Brisbane (*F. M. Bailey*, no. 232).

98. AGARICUS (§ CLITOCYBE) RHEICOLOR, Berk, in Ann. Nat. Hist. ser. i. vol. iii. p. 376.

Brisbane (*F. M. Bailey*, no. 398).

99. AGARICUS (§ COLLYBIA) COAGULATUS, Berk. & Broome. Cremoricolor, pileo hæmisphærico, rugoso-striato, lamellis paucis, stipite gracili cartilagineo luteo torto inæquali basi subdilatata.

Pileus in the dry state about f inch across, 4 lines deep, hemispherical, striate, yellow- [→]

horn-colour, glabrous; stem about 2 inches high, of the same colour as the pileus, glabrous, 1½ line thick. Brisbane (*F. M. Bailey*, no. 256).

100. AGARICUS (§ PLEUROTUS) SORDULENTUS, Berk. & Broome. Pileo orbiculari subreniformi sordide albo primum hirsutulo dein glabrescente, stipite obsolete vel vertice affixo, lamellis albis ventricosis.

Pileus ¾ to 1¼ inch across, margin incurved; at first resembling *Agaricus mollis*, but in reality very different, both in the absence of a stem and in the clothing of the pileus and colour of the gills. The spores were either in bad condition or uncertain in their appearance. Brisbane (*F. M. Bailey*, no. 292).

101. AGARICUS (§ PLEUROTUS) SEMILIBER, Berk. & Broome. Candidus, pileo semiadhærente sericeo, lamellis tenuibus decolorantibus.

This species is allied to *A. semisupimis*, Berk. & Broome, but without the central column to which the gills are attached. The pileus is woolly, pallid yellow, when dry attached by a very short lateral stem; besides the coarse woolly clothing of the pileus, it is beset with slender, erect, hyaline hairs; gills moderately close, rather broad and rough, with granules especially at their edge; spores ovate, smooth, about 0·0003 inch long. Brisbane (*F. M. Bailey*, no. 159).

102. AGARICUS (§ FLAMMULA) SAPINEUS, Fr. Brisbane (*F. M. Bailey*, nos. 201, 254, 297).

103. AGARICUS (§ FLAMMULA) BAILEYI, Berk. & Broome, n. sp. Aurantiacus, pileo primum e campanulato hemisphærico demum expanse lanato, adulto particulis furfuraceis sparso, margine inflexo; stipite brevi æquali primum floccoso; lamellis distantibus dente adnatis.

Pileus at first conical and ochraceo-rufous, then hemispherical and dark brown sprinkled over with reddish-yellow scales and expanded, the margin incurved; gills rather distant, branched halfway up, same colour as the pileus; stem curved, equal, at length dark brown, at first ochraceous, sprinkled, like the pileus, with reddish furfuraceous scales. Pileus from two lines when young to ½ inch across; stem 5 to 7 lines high. Growing in a cæspitose manner on rotten wood. Brisbane (*F. M. Bailey*, no. 189).

104. AGARICUS (§ GALERA) PEROXYDATUS, Berk, in *Lond. Journ. of Botany*, 1843, p. 511. Brisbane (*F. M. Bailey* no. 179).

105. AGARICUS (§ CREPIDOTUS) MOLLIS, Schœff. [*sic*: Schæff.] Brisbane (*F. M. Bailey*, no. 213).

106. AGARICUS (§ PSALLIOTA) VERSIPES, Berk. & Broome. Pileo amplissimo medio depresso lento albo, stipite floccoso farcto, basi attenuata, annulo amplo; lamellis ex albo salmonicoloribus liberis basi fasciculatis.

At the roots of bamboos in the Botanic Garden, Brisbane. Pileus 5 to 8 inches across, white, smooth, like chamois leather; gills at first white, changing to pale salmon-colour, fasciculate at the base (*F. M. Bailey*), a character not very visible in the dried specimen; spores pale, 0·0003 to 0·0004 inch across. A single individual occurred in the same locality which does not agree in the floccose contents of the stem, which is very laccate at the base. Mr. Bailey, however, did not consider it distinct; he also says that the large [→]

form has a strong scent of garlic when drying. "Stem (when fresh) 6 inches high, 1½ thick, somewhat hollow but not piped; gills not attached to the stem, and formed in bundles, like the stamens of an orange."—*F. M. B. Brisbane (F. M. Bailey, no. 230).*

107. AGARICUS (§ PSATHRELLA) DISSEMINATUS, Fr. Brisbane (*F. H. Bailey, no. 237*).

108. AGARICUS (§ NAUCORIA) MELINOIDES, Bull. Brisbane (*F. M. Bailey, no. 233*).

109. HYGROPHORUS PORPHYRIUS, Berk. & Broome, n. sp. Pileo campanulato obtuso carnosio viscidulo; stipite æquali concolori obtuso; lamellis adnexis albis.

1½ inch wide, 1½ high, stem 1½ high ⅓ thick. In drying, the sides of the pileus contract so as to make the species appear strongly umbonate. Amongst grass. Brisbane (*F. M. Bailey, no. 170*). "Top of pileus purple, gills white, stipes mottled."—*F. M. B.* In Mr. Bailey's drawing the whole plant is represented of a pale cinereous purple colour, the stem as swollen in the middle (the latter is described as "mottled"), the pileus of a conical shape.

110. LENTINUS CATERVARIUS, Berk. & Broome, n. sp. Cæspitosus aureus, pileo convexo explanato glabro; stipite cylindrico crasso subæquali, lamellis angustis decurrentibus hic illic erosis.

Pileus 2½ inches across; stem 1½ to 2 inches high, 5 lines to ½ inch thick. Mr. Bailey says this species grows in large masses amongst grass; and his sketch represents the pileus as very irregular in form, much curled and wrinkled. Brisbane (*F. M. Bailey, no. 253*).

111. LENTINUS EXASPERATUS, Berk. & Broome. (Plate X. figs. 1 & 1^a.) Pileo explanato umbonato, velato, verrucis rigidis exasperate, ferrugineo-pulverulento, stipite deorsum incrassato lamellis liberis hic illic erosis.

Pileus ½ inch across; stem about 5 lines high, 3 lines thick at base. There is no *Lentinus* in the Kew herbarium which agrees with this species; *L. durus* comes nearest to it. It is remarkable for the numerous rigid warts covering the pileus. Brisbane (*F. M. Bailey, no. 262*).

112. LENTINUS PUNCTATICEPS, Berk. & Broome, n. sp. (Plate X. figs. 2–7.) Pileo laterali, punctato-hispido, stipite cum lamellis decurrentibus luteis, acie acutis hic illic erosis.

The clothing contracts so as to leave small, punctate cavities, presenting a sponge-like appearance. Brisbane (*F. M. Bailey, no. 283*).

113. LENTINUS EUGRAMMUS, Mont. Cuba Crypt. 414, t. xvii. f. 2. Brisbane (*F. M. Bailey, no. 183*).

114. PANUS INCANDESCENS, Berk. & Broome, n. sp. (Plate X. figs. 8–10^a.) Pileo umbilicato quandoque infundibuliformi glabro minute virgato margine involuto, lamellis tenuibus longissime descendentibus, stipite sursum incrassato deorsum cylindrico striato.

Apparently on the soil, but possibly springing from buried wood, forming large, often confluent masses. Pileus 3 inches across; stem 1½ inch high, ⅓ inch thick above, ¼ below; gills very decurrent, forming mere lines (fig. 10^a). Very luminous at night, like some other Australian Agaricini. Brisbane (*F. M. Bailey, no. 26*).

115. PANUS SUBORBICULARIS, Berk. & Broome, n. sp. Pileo suborbiculari crenato albo subtiliter tomentosus, stipite obsoleto, lamellis ad basin tomentosis decurrentibus, acie integris.

Pileus $2\frac{1}{2}$ inches wide, subimbricate, 2 inches long. The gills are close and rather wide, and curled up in drying. On old whale-bones. Brisbane (*F. M. Bailey*, no. 291).

116. PANUS VISCIDULUS, Berk. & Broome, n. sp. Pileo strato superiore gelatinoso flabelliformi pallide ardosiaco viscidulo, margine inflexo; stipite brevi laterali villosus e basi spongiosa oriundo; lamellis decurrentibus angustis albis.

Pileus $1\frac{1}{2}$ to $1\frac{3}{4}$ inch across; stem very short, villous, springing from a shaggy base; gills very decurrent running down the short stem. Mr. Bailey describes the pileus as "dull slate-coloured, somewhat clammy, gills white." The above description is drawn up from the plant when fresh; the gills and pileus become of a dark brown in drying, the stem and villous base of a dirty or yellowish white. On decaying bark. Brisbane (*F. M. Bailey*, no. 312).

117. XEROTUS PROXIMUS, Berk. & Broome, n. sp. (Plate X. figs. 11–13.) Albus, pileo suborbiculari subtiliter pulverulento, stipite laterali vel subcentrali; lamellis decurrentibus, interstitiis venosis.

This species is white when fresh, but turns a yellowish fulvous or black in parts when washed with spirit of wine; pileus thin, from $\frac{1}{2}$ inch to $1\frac{1}{2}$ inch wide, $\frac{1}{2}$ to $\frac{3}{4}$ inch long; hymenium turning black from the spirit; gills rather narrow, distant, interstices marked with prominent veins branching off from the lamellæ; stem excentric, about $\frac{1}{2}$ an inch long, tomentose, of the same colour with the pileus, equal. Brisbane (*F. M. Bailey*, no. 187).

118. XEROTUS BERTIERII, Mont. Fl. Chili, vii. 353. Brisbane (*F. M. Bailey*, no. 410).

119. XEROTUS RAWAKENSIS, Fr. Ag. Pers. Brisbane (*F. M. Bailey*, no. 131).

This differs slightly from Persoon's characters, but not sufficiently to constitute a new species.

120. XEROTUS ALBIDUS, Berk. & Broome, n. sp. (Plate X. figs. 14, 15.) Albidus, pileo reniformi glabro subhygrophano, ipso margine striato; stipite laterali glabro; lamellis paucis, interstitiis lævibus attingentibus; siccus fulvus.

Pileus from $\frac{3}{4}$ to 1 inch wide by $\frac{1}{2}$ to $\frac{3}{4}$ inch long, thin, clothed with short fulvous (when dry) tomentum, striate, especially towards the margin, from the contraction of the thin substance between the gills; hymenium of the same colour as the pileus, gills distant, but repeatedly branched about halfway from the stem, moderately wide, interstices quite smooth; stem lateral, brown, slightly velvety, thicker downwards, about $\frac{1}{4}$ inch long. Brisbane (*F. M. Bailey*, no. 182).

121. XEROTUS LATERITIUS, Berk. & Cooke in Ann. Nat. Hist. ser. ii. vol. xii. p. 428. Brisbane (*F. M. Bailey*, no. 339).

122. LENZITES BERKELEYI, Lév. in *Ann. Scien. Natur.* 1846, ser. iii. t. v. p. 122. (*Dædalea betulina velutina*, Berk, in *Ann. Nat. Hist.* ser. i. vol. iii. p. 381.)

Mr. Bailey remarks that “when fresh the upper side of the pileus is rather pink, the gills white.” Brisbane (*F. M. Bailey*, no. 285).

123. LENZITES FAVENTINUS, Caldesi, *Erb. critt. Ital.* no. 89. Brisbane (*F. M. Bailey*, nos. 202–212).

124. LENZITES STRIATA, Fr. Brisbane (*F. M. Bailey*, no. 334).

125. STROBILOMYCES NIGRICANS, Berk, in *Lond. Journ. of Bot.* 1852, p. 139.

“The colour changes but little in drying; the hymenium is very dark, almost black, the pileus is very dark and scaly, the pores close to the stem.”—*F. M. B.* Brisbane (*F. M. Bailey*, no. 260.)

126. BOLETUS HÆDINUS, Berk. & Broome, n. sp. Pileo convexo crasso alutaceo primitus subtomentoso, stipite basin versus incrassato, sursum reticulato concolori, poris pallidis.

Pileus 3 inches across; stem 2 inches high, nearly 1 inch thick at the base. Brisbane (*F. M. Bailey*, no. 231).

127. POLYPORUS (§ MESOPUS) RUGOSUS, Nees. Gippsland, Victoria.—*Miss F. M. Campbell.* Brisbane (*F. M. Bailey*, no. 403, 43).

128. POLYPORUS (§ MESOPUS) RUFESCENS, Fr. Gippsland, Victoria.—*Miss F. M. Campbell,* no. 47 (*F. M. Bailey*, no. 403, 47).

129. POLYPORUS (§ MESOPUS) ARCULARIUS, Fr. Brisbane (*F. M. Bailey*, no. 152).

130. POLYPORUS (§ MESOPUS) TOMENTOSUS, Fr. Gippsland, Victoria, *Miss F. M. Campbell,* nos. 3, 21 (*F. M. Bailey*, no. 347). No. 21 is in a different state to no. 3, the surface being blackish and leathery, and resembles a *Xylaria*.

131. POLYPORUS (§ PLEUROPUS) LUTEUS, Nees, *N. Act. N. C.* xiii. 16, t. 4.

A plant apparently belonging to this species occurred in a viviparous condition, or else forming a habitat to some parasitic *Polyporus*. It came without any number. Brisbane (*F. M. Bailey*, no. 174).

132. POLYPORUS (§ PLEUROPUS) DICTYOPUS, Mont, in *Ann. des Sci. Nat.* 1835, t. iii. p. 349). Brisbane (*F. M. Bailey*, no. 168.)

Our specimens are from $\frac{1}{2}$ to $\frac{3}{4}$ inch across, the pileus concentrically zoned and rugose, with a few fine lines radiating from the stem to the margin, especially in the smaller specimen, about 2 lines thick; the pores extend up to the margin, which is rather obtuse. The stem is reticulato-rugose; particularly at the extreme base.

133. POLYPORUS (§ PLEUROPUS) MELANOPUS, Fr. Brisbane (*F. M. Bailey*, no. 272).

134. POLYPORUS ([§] PLEUROPUS) DORCADIDEUS, Berk. & Broome, n. sp. (Plate X. figs. 16–16^a.) Pileo flabelliformi lobato umbrino pruinoso-velutino venoso, stipite brevi, poris mediis hexagonis, dissepimentis (in sicco) tenuiter laceratis.

Pileus $3\frac{1}{2}$ inches wide, 3 long; flabelliform, of a rich umber or fawn-colour (hence the specific name), clothed with very short velvety down, which gives it a pulverulent appear-

ance, margin very thin, slightly incurved; hymenium much paler, in external appearance resembling *Polyporus russiceps*, Berk. & Broome; but the hymenium is very different, the pores being angular, and about a line across, and laterally compressed. The stem is about 1 inch long by ½ inch thick, and tomentose. Brisbane, *F. M. Bailey*, no. 374.

135. POLYPORUS (§ PLEUROPUS) GUILFOYLEI, Berk. & Broome, n. sp. Pileo spathulato laterali subtiliter pulverulento, stipite e pileo producto nigro cartilagineo, hymenio in stipitem descendente pallido, poris punctiformibus $\frac{1}{120}$ unciae in diametro.

The pileus in the Brisbane plant is smooth, at least in the larger specimen, and shines with a lustre like that of crockery, of a palish yellow colour, and thin at the margin. The pores are round, and run up quite to the edge of the pileus and halfway down the stem, which is black from thence to the base; the pores terminate abruptly, being about a line in length, and quite distinct from the stem; the hymenium is of the same colour as the pileus, but a trifle darker; the pileus is from ¾ to 1¾ inch wide, and from ¾ to 1½ inch long, exclusive of the stem, which is ¾ to 1 inch in length. Logan River, Brisbane (*F. M. Bailey*, no. 211).

136. POLYPORUS (§ PLEUROPUS) GRAMMOCEPHALUS, Berk, in *Lond. Journ. Bot.* 1842, p. 148. Brisbane (*F. M. Bailey*, no. 176).

137. POLYPORUS (§ PLEUROPUS) NEPHRIDIOUS, Berk, in *Hook. Journ. of Bot.* vol. viii. p. 195. Brisbane (*F. M. Bailey*, no. 298).

138. POLYPORUS (§ PLEUROPUS) VINOSUS, Berk, in *Ann. Nat. Hist*, ser ii. vol. ix. p. 195.

This species appears to be very closely related to *P. nephridius*, Berk. Brisbane (*F. M. Bailey*, no. 325).

139. POLYPORUS (§ INODERMEI) VELLEREUS, Berk. (Plate X. figs. 17–18.) *Lond. Journ. Bot.* 1842, vol. i. p. 455. Brisbane (*F. M. Bailey*, no. 355).

140. POLYPORUS (§ ANODERMEI?) OCHROFLAVUS, Cooke, MSS. in *Herb. Kew.*

Mr. Bailey's plant resembles no. 340, *P. corrivalis*, in some respects, but it is much thicker and firmer. Brisbane (*F. M. Bailey*, no. 341).

141. POLYPORUS (§ ANODERMEI) PORTENTOSUS, Berk, in *Lond. Journ. Bot.* 1844, vol. iii. p. 188.

This plant comes near to *P. ochroflavus*, Cooke in *Kew Herb.* Brisbane (*F. M. Bailey*, no. 385).

142. POLYPORUS (§ ANODERMEI) FUNALIS, Pr. Port Douglas, Australia, *Rev. J. E. T. Wood* (*F. M. Bailey*, no. 376).

143. POLYPORUS (§ ANODERMEI) CORRIVALIS, Berk, in *Linn. Soc. Journ.* vol. xiii. p. 162. Brisbane (*F. M. Bailey*, no. 267).

144. POLYPORUS (§ ANODERMEI) ZONALIS, Berk, in *Lond. Journ. of Bot.* 1847, p. 504. Brisbane (*F. M. Bailey*, no. 193).

145. POLYPORUS (§ ANODERMEI) PELLICULOSUS, Berk, in *Lond. Journ. of Bot.* vii. p. 575 (1848).

“This species is dark red in colour, juicy, and grows close to the wood.”—*F. M. B.* [→]

It is like *P. spissus*, Fr., in habit, but has larger pores, and the septa are less regular. Brisbane (*F. M. Bailey*, no. 318).

146. POLYPORUS (§ ANODERMEI) COMPRESSUS, Berk, in Lond. Journ. of Bot. 1845, p. 53. Brisbane (*F. M. Bailey*, nos. 136, 137).

147. POLYPORUS (§ PLACODERMEI) OCHROLEUCUS, Berk, in Lond. Journ. of Bot. 1845, p. 53. Brisbane (*F. M. Bailey*, no. 138).

148. POLYPORUS (§ PLACODERMEI) LINEATO-SCABER, Berk. & Broome, n. sp. (Plate XI. figs. 1, 1^a, & 1^b). Pileo dimidiate postice descendente rigido brunneo, margine pallido, frequenter zonato, lineato-radiato scabroso; hymenio rhabarbarino, poris punctiformibus, dissepimentis obtusis.

Pileus 4 inches wide, 2¼ long; pores $\frac{1}{84}$ inch across, including the dissepiments, rigid, rich red-brown, repeatedly zoned, margin pale, rough, with radiating lines of short tufted flocci; hymenium and substance rhubarb-coloured. A most beautiful species, far handsomer than *P. gilvus* (*Ravenel*, no. 113), to which species it approaches, differing, however, in its more strongly marked zones, rougher pileus, deeper colour, and in its pores, which are half as large again. North Queensland, *Rev. J. E. T. Wood* (*F. M. Bailey*, no. 357).

149. POLYPORUS (PLACODERMEI) TESTUDO, Berk., n. sp. (Plate X. figs. 19 & 19^a.) Pileo imbricato rigido pulverulento griseo hic illic obscure striato scabridoque; hymenio griseo, margine incurvo puberulo, poris minutis irregularibus angulatis, dissepimentis tenuibus.

Pileus rigid, imbricated, brownish grey, pulverulent, uneven, here and there marked with indistinct striæ, slightly incurved at the paler and pulverulent margin, $\frac{1}{3}$ to $\frac{1}{2}$ inch wide by $\frac{1}{2}$ inch long. Pores minute, scarcely visible to the naked eye, angular, with thin dissepiments (fig. 19^a). The hymenium is more distinctly grey than the upper surface of the pileus. This species is allied to *P. plebeius*, Berk., and possibly a form of it (*Fl. of New Zealand*, p. 179). Brisbane (*F. M. Bailey*, no. 323).

150. POLYPORUS (§ ANODERMEI) GILVUS, Fr. Brisbane (*F. M. Bailey*, no. 333).

151. POLYPORUS (§ INODERMEI) VERSICOLOR, Fr.

A thick form. Brisbane (*F. M. Bailey*, no. 226).

152. POLYPORUS (§ INODERMEI) GALLOPAVONIS, Berk. & Broome, n. sp. Imbricatus; pileo tenui flabelliformi, repetiter zonato, intus pallido, antice umbrino, pulverulento, ipso margine subtiliter tomentosio obscuriore; hymenio concavo, ochroleuco, prope marginem sulcato; poris parvis irregularibus, 0.002-0.014 unc. diam.

Pileus about 2½ inches long by 1½ wide, of a dull ochre, with numerous narrow zones of a greyish ochre tint, especially towards the margin, which is thin and minutely tomentose, as is also the upper surface. Pores minute, of the same colour as the pileus, more cinereous towards the hinder parts, irregular, varying much in size, angular. Brisbane (*F. M. Bailey*, no. 139).

153. POLYPORUS (§ INODERMEI) CONTRARIUS, Berk. & Curtis. (Plate XI. figs. 2–4.) Pileo applanato rubiginoso; hymenio albo, poris minutis punctiformibus acie obtusis, contextu albo.

On logs, Cuba, no. 946. About 2 inches wide. There is a specimen from Cuba, older and discoloured*, the hymenium no longer white, but grey, the pores of which are larger, no. 938. Both in June. Brisbane (*F. M. Bailey*, no. 322).

154. POLYPORUS (§ INODERMEI) CINNABARINUS, Fr.

Very fine specimens of this species were sent without any number. The separation of specimens from *P. sanguineus* requires great caution. Brisbane (*F. M. Bailey*).

155. POLYPORUS (§ INODERMEI) LUTEO-OLIVACEUS, Berk. & Broome, var. TENUIS.

This plant appears to be merely a thin form of the above species, no. 30. Brisbane (*F. M. Bailey*, no. 362).

150. POLYPORUS (§ INODERMEI) VENUSTUS, Berk, in *Lond. Journ. of Botany*, 1845, p. 55. On the cracks of old logs. Brisbane (*F. M. Bailey*, nos. 243, 259).

157. POLYPORUS (§ INODERMEI) PERADENYIÆ, Berk. & Broome in *Linn. Soc. Journ.* xiv. p. 51. Brisbane (*F. M. Bailey*, nos. 271, 302).

158. POLYPORUS (INODERMEI) FLORIDANUS, Berk, in *Ann. Nat. Hist.* ser. 1, vol. x. p. 376, On Fungi in the British Museum. Brisbane (*F. M. Bailey*, no. 248).

159. POLYPORUS (§ INODERMEI) ELONGATUS, Berk., var. STIPITATUS, Berk. & Broome. Brisbane (*F. M. Bailey*, no. 360).

160. POLYPORUS (§ INODERMEI) RADIATUS, Fr. Brisbane (*F. M. Bailey*, no. 306).

161. POLYPORUS (§ INODERMEI) LILACINO-GILVUS, Berk, in *Ann. Nat. Hist.* ser. 1, vol. iii. p. 324. Brisbane (*F. M. Bailey*, no. 206).

162. POLYPORUS (§ INODERMEI) ANEBUS, Berk. in *Lond. Journ. of Botany*, 1847, p. 504.

This species resembles somewhat *P. micromegas*, Mont., as to the pileus, but it has smaller pores. Brisbane (*F. M. Bailey*, no. 324).

163. POLYPORUS (§ RESUPINATUS) FERRUGINOSUS, Fr. Brisbane (*F. M. Bailey*, no. 209).

164. POLYPORUS (§ RESUPINATUS) MEDULLA-PANIS, Fr. Brisbane (*F. M. Bailey*, no. 172).

165. POLYPORUS (§ RESUPINATUS) ERIOPHORUS, Berk. & Broome, n. sp. (Plate XI. figs. 5 & 6.) Candidus, adnatus, totus gossypinus, margine leviter reflexo, poris irregularibus mediis, acie obtusis.

On pine sticks. Often orbicular, and becoming confluent; when perfectly resupinate the margin is byssoid: it resembles a good deal some forms of *Merulius corium*, but seems to be a true *Polyporus*. Each patch measures, when not confluent, from ½ to 1 inch across. Brisbane (*F. M. Bailey*, no. 419).

166. TRAMETES OCCIDENTALS, Fr., *Polyporus*, Berk, in *Ann. Nat. Hist.* ser. i. vol. iii. p. 393. (*Trametes occidentals*, Spruce, no. 29.) Brisbane (*F. M. Bailey*, no. 286).

* “Qui color albus erat, nunc est contrarius albo.”

166 bis. TRAMETES RIGIDA, Berk. & Mont, in *Ann. Sci. Nat.* 1849, t. xi. p. 240, 37, var. TENUIS.

A thin, nearly resupinate form. Brisbane (*F. M. Bailey*, no. 311).

167. TRAMETES PICTA, Berk. (*Trametes Mülleri*, var., Berk, in *Linn. Soc. Journ.* vol. x. p. 320.) Brisbane (*F. M. Bailey*, nos. 140 and 294).

168. TRAMETES UMBRINA, Currey, in *Linn. Trans*, ser. ii. Bot. vol. i. p. 124. Brisbane (*F. M. Bailey*, no. 190).

169. TRAMETES VERSATILIS, Berk, in *Lond. Journ. of Botany*, 1842, p. 150. Brisbane (*F. M. Bailey*, no. 227).

170. DÆDALEA ASPERA, Kl. in *Linnæa*, 1833, viii. p. 480. Brisbane (*F. M. Bailey*, no. 165).

171. DÆDALEA INCOMPTA, Berk. MSS. (Plate XII. figs. 1, 2.) Pileo pallido, maculis sordide brunneis variegato, fisso, duro, rugoso, zonato, margine obtuso; hymenio minute sinuoso, lignicolori, poris postice descendentes.

Pileus imbricated, 2 inches wide, 1½ long, of a pallid tint, variegated with dirty brown stains, cracked (perhaps in drying), rough and zoned. The hymenium is wood-coloured, composed of minute and irregular sinuosities, which run down the wood on which it grows, and there form sistotrema-like teeth; dissepiments thin, rigid, the edges even, about ½ a line to a line in depth; substance hard, much paler than the hymenium, from 1 to 1½ line thick. Port Douglas, *Rev. J. E. Tenison Woods* (*F. M. Bailey*, no. 377).

172. DÆDALEA SANGUINEA, Fr.

The pores measure about $\frac{1}{100}$ inch across. A resupinate form of this species was also sent without a number. Brisbane (*F. M. Bailey*, no. 361). No. 369 seems to be the same thing in a more advanced state.

173. DÆDALEA SCALARIS, Berk. & Broome, n. sp. (Plate XI. figs. 7–9.) Albus, pileis imbricatis crassis sursum quasi dealbatis, poris ex rotundis varie sinuosis acie obtusiusculis, contextu molli suberoso candido.

Pileus 3 inches long, imbricated, from $\frac{3}{4}$ to 1 inch thick; pores about 1 line deep, dædalioid except at the extreme margin, where they are subrotund but irregular. It has very much the habit of *Trametes gibbosa*; but the hymenium is very different; it differs also in the upper surface, which looks as if it had been whitewashed. Brisbane (*F. M. Bailey*, no. 429).

174. HEXAGONIA CRINIGERA, Fr.

The specimen was sent under this name; but Fries describes his plant as not zoned, whereas the present plant is distinctly zoned; nor is the attachment the same exactly, neither is the pileus “rotundatus,” but rather reniform. It agrees better with *H. apiaria*, a specimen of which is in the herbarium at Kew. It was collected by John Marquis near Brisbane (*F. M. Bailey*, no. 408).

175. HEXAGONIA DECIPIENS, Berk, in *Lond. Journ. of Botany*, 1845, iv. p. 57. (Plate XII. fig. 3.)

Gippsland, Victoria, *Miss F. M. Campbell*. (*F. M. Bailey*, nos. 336. 12. and 347. 4), [→]

In no. 347. 4 the pores are rather larger than in no. 336, which seems to be the only difference.

176. HEXAGONIA TENUIS, Hook. (Plate XII. figs. 4–6.) In Kunth, *Synop.* p. 10. Brisbane (*F. M. Bailey*, no. 375).

177. HEXAGONIA RIGIDA, Berk, in *Linn. Soc. Journ.* vol. xvi. p. 54. (Plate XII. figs. 7–11.) Brisbane (*F. M. Bailey*, no. 348).

v178. HEXAGONIA MÜLLERI, Berk, in *Linn. Soc. Journ.* vol. xiii. p. 166. (Plate XII. figs. 12, 13.)

The specimen from Brisbane answers better to the description of this species, although it comes near to *H. tenuis* and *H. variegata*. Brisbane (*F. M. Bailey*, no. 342).

179. LASCHIA CÆSPITOSA, Berk, in *Lond. Journ. of Botany*, 1854, p. 229. Brisbane (*F. M. Bailey*, nos. 158 and 238).

180. MERULIUS BAILEYI, Berk. & Broome, n. sp. (Plate XIII. fig. 1.) Aurantius, pileo flabelliformi viscido glabro, margine crenato rugoso inflexo, carne flava, poris marginis irregularibus quantillum radiantibus, dissepimentis obtusis flexuosis.

“This species is almost orange-coloured when fresh; it contracts much in drying. The hymenium seems sometimes like that of a *Dædalea*.”—*F. M. B.* It seems to partake of the characters of both the genera; but its texture and general habit resemble rather those of *Merulius*. The upper surface of the pileus is lacerate, especially at the margin, where it is strongly incurved when dry; the hymenium is reticulate in some places, in others it exhibits folds; in a small specimen laterally confluent with the larger one, the folds assume the appearance of gills; the colour when dry is a dark rusty brown, the original orange tint is perceptible here and there on the upper surface. The larger specimen is about 2 inches wide by 1½ long, the lesser ones about ¾ of an inch. Brisbane (*F. M. Bailey*, no. 171).

181. MERULIUS TENUISSIMUS, Berk. & Broome, n. sp. Papyraceus, umbrino-fuscus, subtus et margine tenuissimus, albus, plicis subreticulatis distantibus leviter elevatis

Parasitic apparently on some *Hymenochaete*, on whose hymenium it forms very thin irregular closely adherent patches of a yellowish-brown colour, which exhibit extremely delicate reticulations towards their centre, measuring about ¼ of a line across the inner substance shown where the hymenium is cracked, and at the margin is nearly white. Brisbane (*F. M. Bailey*, no. 173).

182. PHLEBIA RADIATA, Fr.

On the same beam with *Hydnum meruloides*. Brisbane (*F. M. Bailey*, no. 247).

183. CRATERELLUS CORNUCOPIOIDES, Fr. Brisbane (*F. M. Bailey*, no. 414).

184. SISTOTREMA IRPICINUM, Berk. & Broome, n. sp. (Plate XIII. figs. 2, 3.) Pileo subcuticulari, crasso, subtiliter tomentoso, pallido, postice longissime descendente; hymenio umbrino; poris irregularibus hic illic lamellosis, in parte descendente irpicinis quandoque cavis.

Pileus 1½ inch wide, nearly as much long, thick, rigid, pallid, very minutely tomentose. Hymenium porous, the pores very irregular, splitting up more or less into laminæ, and where the fungus descends into very hydroid divisions, which are at times hollow, after [→]

the fashion of Pers. 'Mycol. Europ.' t. xviii. fig. 5. The teeth or, rather, tubes are often perforated at the end. On old logs. Brisbane (*F. M. Bailey*, no. 313).

185. HYDNUM (§ APUS) MERULIOIDES, Berk. & Broome, n. sp. (Plate XIII. fig. 4.) Pileo dimidiato, crasso, extus glabro, pallido, lineis prominulis rugoso; hymenio vivide aurantiaco, aculeis cylindricis obtusis.

Pileus 3 inches across, nearly 2 long; aculei about 1 line long, at first sight closely resembling *Merulius tremellosus*; but the hymenium is that of a *Hydnum*. On the timber of a bridge, Brisbane (*F. M. Bailey*, no. 246).

186. HYDNUM GILVUM, Berk, in Lond. Journ. of Botany, 1851, p. 168.

Pileus about 1½ inch wide, 1 inch long, brown when dry, slightly tomentose; spines bright gilvous, 1½ to 2 lines long, collected in little fascicles when dry, acute and smooth, paler at the tips. Brisbane (*F. M. Bailey*, no. 169).

187. RADULUM MOLARE, Fr. Brisbane (*F. M. Bailey*, no. 234).

188. IRPEX TABACINUS, Berk. & Cooke. Brisbane (*F. M. Bailey*, no. 345).

189. CLADODERRIS DENDRITICA, Pers. (*Thelephora dendritica*, Fr.) North Queensland, *Rev. J. E. T. Woods* (*F. M. Bailey*, no. 356.).

190. THELEPHORA (§ MESOPUS) SPONGIÆPES, Berk. "Australian Fungi," Linn. Soc. Journ. vol. xviii. p. 385. (Plate XIV. figs. 1, 2.)

Agreeing in general character with the above, but much higher, being 3 inches high when dry; the spongy base is f inch, and brown. Collected by the Rev. B. Scortechini, Logan River, Australia (*F. M. Bailey*, no. 409).

191. THELEPHORA CRISTATA, Fr. Brisbane (*F. M. Bailey*, no. 403).

192. THELEPHORA PEDICELLATA, Schwein. Car. t. 2. fig. 3. Brisbane (*F. M. Bailey*, no. 150).

193. HYMENOCHÆTE RUBIGINOSA, Lév. Brisbane (*F. M. Bailey*, no. 276).

194. STEREUM (§ MESOPUS) NITIDULUM, Berk, in Lond. Journ. of Botany, 1843, p. 638. Brisbane (*F. M. Bailey*, nos. 127, 388).

195. STEREUM (§ MESOPUS) ELEGANS, Fr. Gippsland, Victoria, *Miss F. M. Campbell*, no. 46 (*F. M. Bailey*, no. 403. 46.)

196. STEREUM (§ PLEUROPUS) SPATHULATUM, Berk, in Lond. Journ. of Botany, viii. 274. (Plate XIV. figs. 3–7.) Brisbane (*F. M. Bailey*, no. 427).

197. STEREUM (§ MERISMA) PASCIATUM, Schwein. Syn. 106, no. 1011. Brisbane (*F. M. Bailey*, no. 279).

198. STEREUM (§ MERISMA) RADIATO-FISSUM, Berk. & Broome, n. sp. (Plate XIV. figs. 8–11.) Pileis multifidis subinvolutis vel basi divisa oriundis, spadiceis nitidis multizonatis, apice laceris, hymenio lævi pallido.

Growing in dense masses, stipitate, stem narrow, gradually expanded upwards; pileus beautifully zoned with dull ochre and red-brown bands, ½ to ¾ inch high, silky above; hymenium pallid and smooth, margin jagged, incurved and crisped when dry. On dead wood. Brisbane (*F. M. Bailey*, no. 277). In no. 278 the pileus is less distinctly divided, [→]

rather consisting of an aggregation of distinct, oblong, subspathulate individuals, which are more or less confluent, whereas in no. 277 the divisions run down into a distinctly divided stem. A variety of this species, or perhaps the same in a more advanced condition, was sent under no. 319. It does not curl up in the same way, and the hymenium is dull brown.

199. STEREUM (§ MERISMA) ILLUDENS, Berk, in *Lond. Journ. of Botany*, 1845, p. 59. Brisbane (*F. M. Bailey*, nos. 145, 215).

200. STEREUM (§ MERISMA) SIMULANS, Berk. & Broome. (Plate XIII. figs. 5–15.) Pileo orbiculari rigido rugoso tomentoso margine reflexo, hymenio glabrato pallido-ochraceo, contextu rhabarbarino.

This species is intermediate between *S. rugosum* and *S. lobatum*. The pileus is tomentose, gilvous, slightly reflexed and zoned; the hymenium uneven, glabrous, of a brownish ochre colour, and concentrically zoned, fixed by the centre; when young cup-shaped; the substance rhubarb-coloured. It is much more rigid than *S. lobatum*, differing from *S. rugosum* in the substance of the pileus. Brisbane (*F. M. Bailey*, nos. 162, 163, 225).

201. STEREUM (§ MERISMA) COMPLICATUM, Fr. (Plate XIV. figs. 12–14.) Brisbane (*F. M. Bailey*, no. 278).

202. STEREUM (§ APUS) HIRSUTUM, Fr. Brisbane (*F. M. Bailey*, nos. 145, 185).

203. AURICULARIA MESENERICA, Bull. Brisbane (*F. M. Bailey*, no. 394).

204. AURICULARIA LOBATA, Sommerf. in *Fr. Summa Veg. Scand.* p. 333.

The difference of this species from *Hirneola polytricha* is very slight. Brisbane (*F. M. Bailey*, no. 133).

205. CORTICIUM INCARNATUM, Fr. Brisbane (*F. M. Bailey*, no. 149).

206. CORTICIUM AMORPHUM, Fr.

This plant closely resembles in habit and colour *C. amorphum*. It seems immature; but the spores are not like the bodies supposed to be the spores in the species alluded to, but resemble those of a *Cyphella*, ovate, pointed at each end, and 0.0009 inch long. Brisbane (*F. M. Bailey*, no. 351).

207. CORTICIUM ARACHNOIDEUM, Berk, in *Ann. Nat. Hist.* 1844, ser. i. vol. xiii. p. 345. Apparently an early state of this species. Brisbane (*F. M. Bailey*, no. 147).

208. CORTICIUM BAMBUSICOLA, Berk. & Broome, n. sp. Subrotundum, gilvuni, scabridum, tenue, margine subfimbriato concolori, sporis globosis brunneis lævibus.

Forms roundish patches of a dull ochraceous or gilvous colour, cracked in drying, and slightly fimbriate at the margin; the substance is composed of loose branched threads closely adhering to the matrix; the surface is rough under the lens with conical cystidea [*sic*] and brown spherical spores, 0.0004 to 0.00045 inch in diameter. It would come under the subgenus *Peniophorus* of Cooke. The attachment of the spores has not been seen. On rotting Bamboos. Brisbane (*F. M. Bailey*, no. 143).

209. HYPOCHNUS RUBRO-CINCTUS, Ehrb. in N. A. Hor. Phys. Berol. 84. t.17. f. 5. Brisbane (*F. M. Bailey*, no. 229).

210. GUEPINIA SPATHULARIA, Fr. Gippsland, Victoria, *Miss F. M. Campbell* (*F. M. Bailey*, no. 336. 22).

211. CLAVARIA PORTENTOSA, Berk. & Broome. (Plate XIV. fig. 15.) Albida, stipite subcylindrico scabroso repetiter ramosissimo, apicibus elongatis subulatis sursum obscuris, ipso apice pallidis, hic illic subclavatis.

Amongst dead leaves. Stem $2\frac{1}{2}$ inches high, dilated upwards, where it is 1 inch thick; head about 2 inches high, the whole mass rather broader.

Clavaria Botrytis came under the same number, but it differs entirely in the mode of branching. Brisbane (*F. M. Bailey*, no. 426 in part).

212. CLAVARIA BOTRYTIS, Pers. Brisbane (*F. M. Bailey*, no. 426 in part).

213. CLAVARIA MILTINA, Berk, in Lond. Journ. of Botany, 1852, p. 140. Brisbane (*F. M. Bailey*, no. 241).

214. CLAVARIA CRISTATA, Holms.

Spores globose, 0.0003 inch in diameter. Brisbane (*F. M. Bailey*, no. 300).

215. CLAVARIA RUFA, Fl. Dan. Brisbane (*F. M. Bailey*, no. 387).

216. CALOCERA CORNEA, Fr. Brisbane (*F. M. Bailey*, no. 406).

217. DACRYMYCES SACCHARI, Berk. & Broome, n. sp. Massa irregularis gelatinosa aurantiorubra in stromate albido insidens; stratum tenue sistit in caulibus exustis Sacchari officinarum. Conidiis subglobosis irregularibus diffluentibus.

The fungus consists of irregular flattish masses of a reddish orange-colour, seated on a dirty-white stroma, which spreads over the charred stems of sugar-cane. The threads which constitute these masses are large, but delicate, easily breaking up at the joints, and throwing off from their tips subglobose conidia, as in the case of *Dacrymyces lacrymalis*. True spores have not been seen. Brisbane (*F. M. Bailey*, no. 352).

218. TREMELLA MEENTERICA, Retz, in Act. Holm. 1769, p. 249. Gippsland, Victoria, *Miss F. M. Campbell* (*F. M. Bailey*, no. 336).

219. TREMELLA LUTESCENS, Fr. Brisbane (*F. M. Bailey*, no. 423).

220. DICTYOPHORA MULTICOLOR, Berk. & Broome, n. sp. (Plate XIV. fig. 16.) Capitulo aurantiaco reticulis parvis, velo pulcherrime citrino; stipite basi attenuate pallide alutaceo.

Head bright orange, perforated at the apex, with little cavities filled with the dark spores; net bright lemon-colour, not spreading widely; reticulations large; stem cream-coloured, attenuated at the base. Odour foetid, as in the *Phalloidei*, but not so strong as in *Aseroë*; spores oblong, 0.0002 inch long.

Mr. Bailey's sketch of this species does not represent the stem as marked with reticulations below the net; but the dry specimen appears as if it were so; the net extends about halfway down the stem. The plant was given to Mr. Bailey by a friend, and there it was no volva with it; but it had probably been broken off by the finder. The height of [→]

the entire fungus was about 7 inches. The stem was hollow and inflated. Brisbane (*F. M. Bailey*, no. 245). We are indebted to Miss E. Ellis, of Hereford, for a beautiful coloured drawing of this species composed from coloured sketches sent us by Mr. Bailey.

221. PHALLUS CALYPTRATUS, Berk. & Broome, n. sp. (Plate XIV. fig. 17.) Curtus, pileo aurantiaco, calyptra albida glabra terminato, stipite pallido, subæquali.

Pileus $\frac{1}{2}$ inch across, stem $1\frac{1}{2}$ inch high, slightly attenuated above, $\frac{1}{3}$ inch thick. On bursting through the uterus this species carries up the upper part along with it; and it then forms a covering resembling the calyptra of mosses; at least it is so in the single specimen found by Mr. Bailey. Among grass. Brisbane (*F. M. Bailey*, no. 290).

222. PHALLUS QUADRICOLOR, Berk. & Broome, n. sp. (Plate XIV. fig. 18.) Pileo conico, apice perforate, basi latissima, aurantiaco, reticulato, (sicco) brunneo, sporis ovatis pallide brunneis obducto, mycelio purpureo, stipite reticulato.

Head conical, 2 inches long, very wide at the base, orange-coloured, coarsely reticulated, brown when dry, clothed with pale brown ovate spores, 0.0003 inch long; stem reticulate, lemon-coloured, $2\frac{1}{2}$ inches long, from the pileus to the volva about $1\frac{1}{2}$ inch long, white; mycelium purple. It is related to *Phallus aurantiacus*, Mont., but differs in its conical head, which is much wider at the base. It is remarkable for its perforated orange-coloured head, lemon stem, and especially for its purple mycelium. Found by Mr. Thomas Weedon, of Woolongabba, Queensland.

The measurements are taken from a pencil-sketch accompanying the specimen (*F. M. Bailey*, no. 354).

223. CYATHUS VERNICOSUS, DC. (*Nidularia campanulata*, Sow.) Brisbane (*F. M. Bailey*, no. 378).

224. MITREMYCES VIRIDIS, Berk, in Lond. Journ. of Bot. 1851, p. 201. Gippsland, Victoria, *Miss F. M. Campbell* (*F. H. Bailey*, no. 418).

225. HYDNANGIUM AUSTRALIENSE, Berk. & Broome, n. sp. Subglobosum, peridio crasso, (sicco) rugoso, rufo-brunneo, carne pallide ochracea, cellulis vacuis laxis e puncto basilari oriundis; sporis globosis, minute echinulatis.

This species has very much the appearance of *Rhizopogon luteolus*, Fr.; but the globose spores distinguish it at once from that plant. The spores are minutely echinulate, and measure 0.0004 to 0.0005 inch in diameter, or about 0.012 millim. The nearest species to it is *Hydnangium carneum*, Wallr., if it be really distinct; it differs in its spores, which are much less echinulate than in that species, and in the colour of the flesh, which Tulasne describes as dilutely flesh-coloured. A single specimen only occurred. Brisbane (*F. M. Bailey*, no. 188).

226. GEASTER FLORIFORMIS, Vitt. Mon. Tuber. 18. Brisbane (*F. M. Bailey*, no. 214).

227. POLYSACCUM PISOCARPIUM, Fr. Brisbane (*F. M. Bailey*, no. 177).

228. LYCOPERDON CÆLATUM, Fr. Brisbane (*F. M. Bailey*, no. 208).

228 bis. CHONDRIODERMA DIFFORME (Pers.). Brisbane (*F. M. Bailey*, no. 379).

229. ÆTHALIUM SEPTICUM, Fr. Brisbane (*F. M. Bailey*, no. 413).

230. ARCYRIA NUTTANS, DC. Fl. Fr. ii. 254. Brisbane (*F. M. Bailey*, no. 130).

231. ARCYRIA CINEREA, Pers. Dispos. Fung. x. t. 1. fig. 2. Brisbane (*F. M. Bailey*, no. 132).

232. ARCYRIA INCARNATA, Pers. Observ. i. 58, pi. v. figs. 4, 5. Brisbane (*F. M. Bailey*, no. 169).

233. RÆSTELIA POLITA, Berk. (Plate XV. figs. 1–5.) Clavulis sursum incrassatis pallide succineis, lævibus vel subtiliter tomentosis, e basi villosa crassa oriundis.

This very curious species consists of long spines, which are sometimes acute, at others slightly thickened upwards, of a pale amber-colour, smooth, but dotted over with little glands, proceeding from a shaggy or foliaceous base. The hairs clothing the base are lancet-shaped; the spores (?) are globose, about 0·0003 inch in diameter. The clavules are about $\frac{3}{4}$ of a line high, the head continuous with the stem and cellular throughout. The plant is identical with a specimen in the Kew herbarium, and is growing on the same plant, *Jacksonia scoparia*, R. Br. Brisbane (*F. M. Bailey*, no. 370).

234. ÆCIDIUM NYMPHOIDEARUM. *Æ. nymphoidis*, DC. Fl. Fr. ii. 597. Brisbane (*F. M. Bailey*, no. 424).

235. PUCCINIA GRAMINIS, Pers. A small form. Brisbane (*F. M. Bailey*, no. 353).

236. USTILAGO EMODENSIS, Berk. in Lond. Journ. of Bot. 1851, p. 202.

Spores minutely rough, 0·0005 to 0·0006 inch across. In swollen stems of some species of *Polygonum*. Brisbane (*F. M. Bailey*, no. 289).

237. TILLETIA EPIPHYLLA, Berk. & Broome, n. sp. Pustulis brevibus epiphyllis, sporis globosis lævibus pallide fuscis.

Pustules from $\frac{1}{4}$ to $\frac{1}{2}$ a line in length, pale brown, occupying a yellowish spot on leaves of maize. Spores smooth, globose, about 0·0014 inch in diameter, filled with granules. *Uredo maydis*, DC., is a much larger plant, with much smaller spores. Brisbane (*F. M. Bailey*, no. 228).

238. MELAMPSORA PHYLLODIORUM, Berk. & Broome. (Plate XV. figs. 6–8.) Soris in tuberculis alligenis sitis, sporis e filamentis delicatis oriundis subfusiformibus insigniter granulatis, aliis elongatis uniseptatis fusiformibus lævibus immixtis.

Large spores, beautifully granulated, pear-shaped, 0·0023 inch long; the narrow elliptic bodies, mixed with the large spores, are 0·0009 inch long. It is possible that the latter may be produced by some distinct parasite. On phyllodia of *Acacia*. (Plate XV. figs. 6, 7, large spores, fig. 8 small elliptic spores.) Brisbane (*F. M. Bailey*, nos. 269, 301).

239. MELAMPSORA NESODAPHNES, Berk. & Broome. (Plate XV. fig. 9.) Sporis massam pulverulentam villosam ochraceam in superficie fructus *Nesodaphnes obtusifoliæ* formantibus.

The swollen and distorted fruit is covered with the dusty ochraceous spores, mixed with villous matter, constituted apparently of the stalks of the spores; spores oblong or pear-shaped, finely granulated, varying in length from 0·0005 to 0·0015 inch; the stem frequently remains adherent to the spores. Brisbane (*F. M. Bailey*, no. 344). This plant possesses a peculiar odour resembling the smell of a chemist's shop.

240. ASPERGILLUS GLAUCUS, Link. *Species Plant*, i. 67. On seeds of maize. Brisbane (*F. M. Bailey*, no. 304).

241. CERATIUM ARBUSCULA, Berk. & Broome, in *Linn. Soc. Journ.* vol. xiv. p. 97. Brisbane (*F. M. Bailey*, no. 396).

242. FUSARIUM RUBICOLOR, Berk. & Broome, n. sp. (Plate XV. figs. 10, 11). Effusum, griseo-carneum, sporis elongatis 3–4-septatis, apice latioribus.

On leaves of *Eucalyptus*, spreading over galls, probably produced by a small Acarus; spores 0.002 inch long; they spread over the leaves and colour them, especially the veins, of a tint like that of raspberry-cream. Brisbane (*F. M. Bailey*, gall no. 5).

243. MICROCERA COCCOPHILA, Desm. Brisbane (*F. M. Bailey*, no. 383).

244. ILLOSPORIUM FLAVELLUM, Berk. & Broome, n. sp. (Plate XV. figs. 12-14.) Stipitatum flavidum, sporis globosis.

Forming a yellow stroma on lichens; the plant consists of roundish stipitate bodies, sometimes jagged at the edge. Spores round, terminal; when crusted they are seen to consist of a granular mass containing ovate vacuoles 0.0005 inch long. Brisbane (*F. M. Bailey*, no. 273).

245. OIDIUM LEUCOCONIUM, Desm. On gourd leaves. Brisbane (*F. M. Bailey*, no. 235).

246. ANTENNARIA SEMIOVATA, Berk, in *Ann. Nat. Hist.* ser. ii. vol. xiii. p. 468.

This differs slightly from the plant described in the *Annals of Natural History*; but there are not sufficient characters to distinguish it. Brisbane (*F. M. Bailey*, no. 178).

247. SPHÆROPSIS TRICORYNES, Berk. & Broome. Peritheciis minutis nigris in parenchymate foliorum immersis, sporis ellipticis.

The very minute black perithecia are imbedded in the substance of the leaves; the elliptic spores are seated on short stalks, and measure 0.0012 inch in length. Endeavor River, *Rev. J. E. T. Wood*, on leaves of *Tricoryne anceps* (*F. M. Bailey*, no. 359).

248. GRAPHIOLA PHŒNICIS, Fr. On date-palm, Brisbane (*F. M. Bailey*, no. 303).

249. GLÆOSPORIUM CUCURBITARUM, Berk. & Broome, n. sp. Maculis læte aurantiacis depressis cirriferis, sporis clavatis breviter stipitatis.

Small cirri arise from depressed patches on the cuticle, which are composed of clavate spores, which, as well as the patches, are of bright orange-colour. The spores vary from 0.0004 to 0.0009 inch in length. On the skin of some gourds. Brisbane (*F. M. Bailey*, nos. 371, 393).

250. TORULA HERBARUM, Link. *Observ.* i. 19.

The spores are more loosely arranged than in the common form. Brisbane (*F. M. Bailey*, no. 310).

251. CLADOSPORIUM POPYRICOLOR, Berk. & Broome, n. sp. Filamentis irregulariter ramosis, supra hyalinis, infra brunneis, sporis numerosis oblongis pallide brunneis binucleatis.

Threads alternately and irregularly branched, hyaline above, pale brown below; spores

ovate-oblong, pale brown, numerous, having two nuclei, about 0·0008 inch long. Brisbane (*F. M. Bailey*, no. 128). It forms a grey-black stratum on damp paper.

252. *PHILLIPSIA SUBPURPUREA*, Berk. & Broome, n. sp. Cupulis planis margine lobatis centro affixis; hymenio subpurpureo, sicco brunneo, subtus primum albido dein præcipue margine sublateritio; sporidiis uniserialibus, late ellipticis, ·0015 unc., paraphysibus filiformibus æqualibus.

Brisbane (*F. M. Bailey*, no. 167). Cups at length plane, sessile; disk purplish, when dry dark purple, externally rugose from contraction in drying. Asci equal, containing 8 oblong smooth spordia, 0·0008 to 0·0015 inch long, about half the width; paraphyses linear. "Grows on wood close to the ground."—*F. M. B.*

253. *PEZIZA CONFUSA*, Cooke, in *Bullet. Buffalo Acad.* vol. ii. p. 291, and *Mycog.* pl. 32.

The Brisbane plant agrees closely with Mr. Cooke's species; only the colour is more pallid and the hairs less developed. Spordia globose, 0·0005 inch diam. (Cooke, *Mycographia*, ii. t. 32. fig. 124.) Brisbane (*F. M. Bailey*, no. 166).

254. *PEZIZA HIRTA*, Schum. Gippsland, Victoria, *Miss F. M. Campbell* (*F. M. Bailey*, no. 347. 8).

255. *PEZIZA* (§ *LACHNEA*) *COPROGENA*, Berk. & Broome, n. sp. Cupulis subaurantiacis, pilis obtusis pallide badiis nec cruciatis vestitis; sporidiis elliptico-oblongis nitidis glaberrimis; paraphysibus obtusis.

Much paler than *P. stercorea*, with longer spordia, and not a trace of cruciate or peltate hairs. Spordia 0·0015 inch long. Brisbane (*F. M. Bailey*, no. 205).

256. *HELOTIUM TERRESTRE*, Berk. & Broome, n. sp. (Plate **XV.** figs. 15–17.) Parvum, planiusculum, cornicolor luridum, extus villosum; ascis elongatis, sporidiis uniserialibus ellipticis utrinque breviter appendiculatis.

Cups $\frac{1}{6}$ inch across; stem $\frac{1}{24}$ inch high; spordia uniseriate, 0·0004 inch long, elliptic, with a little globule at each extremity; paraphyses linear, sometimes slightly clavate at the tips. Brisbane, on damp earth (*F. M. Bailey*, no. 299).

257. *ASCOBOLUS BAILEYI*, Berk. & Broome, n. sp. Cupulis primum ochraceis concavis, demum vinoso-brunneis explanatis, extus leviter granulatis, ascis prominentibus, sporidiis brunneis ovatis lævibus, paraphysibus linearibus,

Cups at first of a dull ochre colour, at length of a vinous brown, flat, with a raised and slightly incurved margin, externally granulated, not at all furfuraceous or farinose, 2–3 lines across when mature; asci rather clavate; spordia sometimes in one, at others in two rows, of a clear hyaline brown colour, 0·0006 to 0·0007 inch long, ovate or elliptic; paraphyses equal in length to the asci, generally linear, sometimes a little swollen at the summit. The projecting asci show it to belong to the *Ascoboli*; it, however, resembles Cooke's fig. of *Peziza scatigena* (*Mycographia*, fig. 72); but it is not farinaceous externally, and the spordia are smaller. It would come under Boudier's genus *Ascophanus* but for the spordia, which are of a clear distinct brown colour. On dung, Brisbane (*F. M. Bailey*, no. 252).

258. PATELLARIA LIGNYOTA, Fr.

Some of the cups are shortly stipitate. *Miss F. M. Campbell*, no. 15 Gippsland, Victoria (*F. M. Bailey*, no. 347).

259. HYPOCREA MEMBRANACEA, Berk. & Broome, n. sp. *Tenuissinia membranacea alutacea*, peritheciis sparsis pallide aurantiacis.

Forming at first a very thin byssus, which gradually forms a membrane nowhere thicker than silver-paper, and thinner at the margin. Unfortunately the perithecia are not mature; but they are sufficient to determine the affinities. Parasitic on some *Polyporus*, Brisbane (*F. M. Bailey*, no. 181).

260. NECTRIA COCCINEA, Fr.

A curious state of this species, the ostiola being depressed and not always central and dark-coloured; the lateral ostiolum and compressed form may arise from the crowded condition of the perithecia. Brisbane (*F. M. Bailey*, no. 284).

261. SPHÆROSTILBE CINNABARINA, Tul. *Carp.* iii. p. 103. (Plate XV. fig. 18.)

This differs somewhat from Tulasne's plant in the more slender terete stems, which bear the globose heads of conidia, and rather resemble his figure of *S. gracilipes*, from which, however, it is distinct in colour; from *S. aurantiaca* it differs in the cylindrical not compressed and dilated stems. Montague describes his *Stilbum cinnabarinum* as having capillary stems, which so far agree with the Brisbane plant; but his figure 3, t. ii. in *Ram. de la Sagra*, *Hist. Ins. Cubæ*, gives a very inadequate notion of the latter. We therefore think it safer to leave our plant under Tulasne's name. Brisbane (*F. M. Bailey*, no. 157).

The heads of conidia are bright ochre-coloured, the stems pale red, darker below, rough or subtomentose, the perithecia granulated and collapsed; the asci and sporidia are immature, the latter ovate, and about 0.0003 inch long, and not yet septate. Plate XV. fig. 18, a group of perithecia with a conidiiferous head.

262. PORONIA PUNCTATA, Fr. *Miss F. M. Campbell*, no. 19, Gippsland, Victoria (*F. M. Bailey*, no. 836).

263. PORONIA ÆDIPUS, Mont, in *Ann. Sc. Nat. Cent.* ii. no. 35, et Cuba, p. 346, t. 13. fig. 2. Brisbane (*F. M. Bailey*, no. 415).

264. HYPOXYLON CONCENTRICUM, Grev., var. MINUS.

A small form, black and shining; there seems to be no other difference from the common state. Brisbane (*F. M. Bailey*, no. 274).

265. HYPOXYLON SERPENS, Fr.

There seems to be no character to distinguish the British plant from that of Fries. Brisbane (*F. M. Bailey*, no. 197).

266. SPHÆRIA (§ SUBTECTÆ) POLYSCIA, Berk. & Broome, n. sp. (Plate XV. figs. 19–21.)

Peritheciis immersis apice impressis; sporidiis ejectis ocellatis, sparsis vel confertis; mycelio aterrimo, punctato.

Scattered or immersed in dark, black, granulated mycelium; the perithecia are depressed at the summit, and ocellated with the escaped oblong or sausage-shaped sporidia, [→]

which are 0.0009 inch long. Asci short, 0.0035 inch long, containing two rows of sporidia. The appearance of the mycelium, dotted with the perithecia, under a low power is just like that of shagreen leather. On bottle-gourds, Brisbane (*F. M. Bailey*, no. 287).

267. *RHYTISMA HYPOXANTHUM*, Berk. & Broome, n. sp. Forma stylophora, maculis insulariformibus e folio incrassato flaccido facto oriundis; sporis brevibus, oblongis, 0.0003 unc. longis.

The parts of the leaves on which the fungus is developed are thickened uniformly and of a buff tint; spots irregular in shape, bright shining black, with a distinctly defined margin, here and there slightly granulated; basidia within the granules distinct, short, threadlike, bearing oblong stylospores 0.0003 inch long. Brisbane (*F. M. Bailey*, in a distinct set sent as probably galls, or of other insect-origin, no. 4 of the set).

268. *SPHÆRELLA DESTRUCTIVA*, Berk. & Broome. (Plate XV. figs. 22–24.) Peritheciis minutis in maculis brunneis sitis; ascis brevibus, sporidiis uniseriatis subellipticis basi subattenuatis.

It forms brown spots on leaves of Lucern on which the perithecia are seated; asci 0.0003 inch long; sporidia subelliptic, broader at one end, 0.0005 inch long, very injurious to the crops of Lucern. The brown spots consist of a delicate mycelium when viewed under a low power of the microscope. Brisbane (*F. M. Bailey*, no. 264).

269. *ASTERINA BAILEYI*, Berk. & Broome, n. sp. (Plate XV. figs. 25–28.) Filamentis fuscis nodosis ramosis maculas rufo-brunneas in foliis ignotis formantibus; peritheciis minutis rugosis fuscis, fibrillis paucis adhærentibus; ascis clavatis, 8 sporidia brunnea continentibus.

It forms small reddish-brown patches on the leaves of some plant not named; the perithecia are rough and dark brown, subglobose, and seated on nodose branched threads of the same colour; asci clavate, containing 8 ovate biseriata sporidia, which are 1-septate, and constricted in the middle, brown, and about 0.0015 inch in length. Brisbane (*F. M. Bailey*, no. 129. No. 332 seems to be the same thing; but the patches are many times larger).

270. *MELIOLA MOLLIS*, Berk. & Broome, in *Linn. Soc. Journ.* vol. xiv. p. 136.

Mr. Bailey's plant differs from the above in its rather smaller fruit, 0.0006 inch long, which contain nucleoli, and do not appear septate (this may be owing to its being in a younger state), and in its longer and more branched threads. The fruit in *M. mollis* from Ceylon was 0.0008 inch long, and distinctly uniseptate. Brisbane (*F. M. Bailey*, no. 330).

271. *MELIOLA AMPHITRICHA*, Fr. Brisbane (*F. M. Bailey*, no. 184).

272. *MELIOLA CORALLINA*, Mont. *Fl. Chile*, vii. 472. (Plate XV. figs. 29–32.)

Perithecia globose, clothed with short broad spines, which are seated on a mycelium composed of coarse dark brown branched threads, beneath which is a stratum of delicate hyaline. Sporidia dark brown, 3–4-septate, oblong, 0.0023 to 0.0025 inch long by about 0.0007 inch wide. There is similar fruit in *Meliola amphitricha*, Fr.; there is also an unnamed species in the herbarium of Mr. Berkeley, from Khasia, which has similar sporidia. Brisbane (*F. M. Bailey*, nos. 288, 328).

273. MELIOLA MUSÆ, Mont. Ann. des Sci. Nat. 1846, t. v. p. 265. (Plate XV. figs. 33–36.)

The curved hairs surrounding the perithecia are rough, and of a very dark brown colour; the branched threads of the mycelium are hyaline, the sporidia dark brown, 4-septate, and 0.002 inch long. Some other sporidia, which are cellular, occur; but they seem to belong to some other species. Brisbane (*F. M. Bailey*, no. 329).

DESCRIPTION OF THE PLATES.

PLATE X.

- Fig. 1. *Lentinus exasperatus*, Berk. & Broome. Upper surface, nat. size. 1^a, small portion, enlarged.
Figs. 2, 3, 4, 5, & 6. *Lentinus punctaticeps*, Berk. & Broome, n. sp. In various aspects, from dried specimens.
Fig. 7. Ditto. Enlarged sketch of portion of the upper surface.
Figs. 8, 9, 10, & 10^a. *Panus incandescens*, Berk. & Broome, n. sp. Nat. size, from dried specimens. 10^a, portion of the undersurface, showing the linear gills.
Figs. 11, 12, & 13. *Xerotus proximus*, Berk. & Broome, n. sp. Nat. size, as dried.
Figs. 14 & 15. *Xerotus albidus*, Berk. & Broome, n. sp. 14, Undersurface; 15, portion of upper surface. Nat. size, from dried specimen.
Fig. 16. *Polyporus* (§ *Pleuropus*) *dorcadideus*, Berk. & Broome, n. sp. Upper surface, nat. size. 16^a, portion of undersurface.
Figs. 17 & 18. *Polyporus* (§ *Inodermei*) *vellereus*, Berk. Nat. size. 17, under, & 18, upper surface; 17^a, small portion of the undersurface, enlarged.
Figs. 19 & 19^a. *Polyporus* (§ *Placodermei*) *testudo*, Berk. & Broome, n. sp. Nat. size. 19^a, portion showing pores.

PLATE XI.

- Figs. 1–1^b. *Polyporus* (§ *Placodermei*) *lineato-scaber*, Berk. & Broome, n. sp. Nat. size. 1, upper, and 1^a, portion of undersurface; 1^b, the same, enlarged.
Figs. 2–4. *Polyporus* (§ *Inodermei*) *contrarius*, Berk. & Cooke. Nat. size. 2 & 3, upper, and 4, undersurface.
Figs. 5 & 6. *Polyporus* (§ *Resupinatus*) *eriophorus*, Berk. and Broome, n. sp. Nat. size.
Figs. 7–9. *Dædalea scalaris*, Berk. & Broome, n. sp. Sections, nat. size.

PLATE XII.

- Figs. 1 & 2. *Dædalea incompta*, Berk. MSS.
Fig. 3. *Hexagonia decipiens*, Berk. Nat. size.
Figs. 4, 5, & 6. *Hexagonia tenuis*, Hook. Nat. size. 4 & 5, under, and 6, upper surface.
Figs. 7, 8, 9, 10, & 11. *Hexagonia rigida*, Berk. Nat. size. 7 & 8 upper, and 9, 10, and 11, under surface.
Figs. 12 & 13. *Hexagonia Mülleri*, Berk. Nat. size; 12, under, and 13, upper surface.

PLATE XIII.

- Fig. 1. *Merulius Baileyi* Berk. & Broome, n. sp. Under surface, nat. size.
Figs. 2 & 3. *Sistotrema irpicinum*, Berk. & Broome, n. sp. Nat. size.
Fig. 4. *Hydnum* (§ *Apus*) *merulioides*, Berk. & Broome, n.sp. Under surface, nat. size.
Figs. 5 to 15. *Stereum* (§ *Merisma*) *simulans*, Berk. and Broome. Various views of specimens of nat. size, as dried.

PLATE XIV.

- Figs. 1 & 2. *Thelephora* (§ *Mesopus*) *spongiæpes*, Berk. Upper and under surface, nat. size.
Figs. 3 to 7. *Stereum* (§ *Pleuropus*) *spathulatum*, Berk., in various stages of growth, nat. size.
Figs. 8 to 11. *Stereum* (§ *Merisma*) *radiato-fissum*, Berk. & Broome, n. sp., nat. size, as dried.
Figs. 12 to 14. *Stereum* (§ *Merisma*) *complicatum*, Fr. Both surfaces as dried, nat. size.
Fig. 15. *Clavaria portentosa*, Berk. & Broome, nat. size.
Fig. 16. *Dictyophora multicolor*, Berk. & Broome, nat. size. Drawn by E. Ellis.
Fig. 17. *Phallus calyptratus*, Berk. & Broome, n. sp., nat. size.
Fig. 18. *Phallus quadricolor*, Berk. & Broome, n. sp., nat. size.

PLATE XV.

- Figs. 1 to 5. *Ræstelia polita*, Berk. 1, entire plant enlarged; 2, base of stem and basal hairs; 3, tip of stem; 4, lancet-shaped hairs; 5, the spores.
Figs. 6 to 8. *Melampsora phyllodiorum*, Berk. & Broome. 6 & 7, the large spores; 8, small elliptical spores : both highly magnified.
Fig. 9. *Melampsora Nesodaphnes*, Berk. & Broome. The spores in different stages, greatly magnified.
Figs. 10 & 11. *Fusarium rubicolor*, Berk. & Broome, n. sp. 10, plants on portion of *Eucalyptus*-leaf, enlarged; 11, spores, further enlarged.
Figs. 12 to 14. *Illosporium flavellum*, Berk. & Broome, n. sp. 12 & 13, enlarged plants; 14, spores and granular sinuses, highly magnified.
Figs. 15 to 17. *Helotium terrestre*, Berk. & Broome. 15, plant, enlarged; 16, asci and paraphyses, greatly enlarged; 17, spores, also highly magnified.
Fig. 18. *Sphærostilbe cinnabarina*, Tul. A group of perithecia with a conidiiferous head.
Figs. 19 to 21. *Sphæria* (§ *Subtectæ*) *polyscia*, Berk. & Broome, n. sp. 19, mycelium with perithecia; 20, asci, enlarged; 21, sporidia, highly magnified.
Figs. 22 to 24. *Sphærella destructiva*, Berk. & Broome. 22, plant, slightly enlarged; 23, asci, greatly enlarged; 24, sporidia, highly magnified.
Figs. 25 to 28. *Asterina Baileyi*, Berk. & Broome, n. sp. 25, plant, nat. size; 26, enlarged; 27, asci, magnified; 28, sporidia, highly magnified.
Figs. 29 to 32. *Meliola corallina*, Mont. 29, plant, enlarged; 30, mycelium, greatly enlarged; 31, asci and paraphyses, and 32, spore, greatly magnified.
Figs. 33 to 36. *Meliola Musæ*, Mont. 33, perithecium and curved hairs, enlarged; 34, branched threads of mycelium, enlarged; 35, 36, sporidia, highly magnified.