NEW AND RARE BRITISH FUNGI.

By CHARLES B. PLOWRIGHT, M.D.

Continued from Grevillea, Vol. xiii., p. 73.

In June, 1874, the first of a series of papers bearing the above title appeared in "Grevillea" by Mr. W. Phillips and myself. They were continued from time to time as material for them accumulated until that periodical ceased to exist. Their object was not simply the ennumeration of species new to the British Flora, but also the record of new localities for rare species, as well as reference to any other point of interest connected with them. Since the first of the series was published the study of Mycology has undergone great change: facts which were then keenly disputed have long since been accepted without demur, arrangements and nomenclature then in vogue have become antiquated. More attention is now paid to the biological aspect of the question than to the morphogical; but to us the study of this group of plants still retains its fascination, and we hope from time to time to continue the publication of these papers.

297. *Mycena farrea* Lasch. Pileus membranaceous, campanulate, then expanded, subumbonate, sulcate, covered with a shining pruina, becoming pale, margin crenulate, stem slightly rooting, silky striate, gills adnate, thin, connected by veins, rather fimbriate, white.

Fries "Hymenomycetes Europæi" p. 134. "Icones" t. 79 f. 4.
North Wootton Heath, 24th September, 1897.
Amongst moss and heather.

Fragile, stem 2-3 inches long, pileus whitish or yellowish, often with a tinge of flesh colour, about 1·5 cm. (½ an inch) across, at first with a floccose margin. It is easily recognised by its white pruinose appearance, which is due to the superficial cells of the pileus being dilated into globose hollow bodies 40 to 50 μ in diameter. Pl. 2. fig. 1.

298. *Boletus radicans* Pers. Pileus pulvinate, dry, subtomentose, from olive-cinereous becoming yellow, margin thin, involute. Stem attenu-

ated below, rooting, smooth, yellow, covered with a floccose, red pruina, becoming dark where touched; tubes adnate, pores unequal, large, citrine yellow.

Persoon Syn. p. 507, Fries Hymen. p. 503.
On the road side, *Stow* Woods, 4th September, 1898.

This well-marked species I first saw at the *Copenhagen* Fungus Exhibition, October, 1888. The *olivaceous* pileus with a tinge of yellow on the tomentum is very distinctive. It is probably often overlooked as B. chrysenteron.

**Polyporus umbellatus* Fr. A specimen of this rare species was sent for identification from the Museum *Haselmere*, 9th August, 1898. It has been recorded from *Epping Forest*. Resembling *P. intybaceus* in colour, it is easily distinguished by the fact that each branch is a *bonâ fide* pileus, which is complete and umbilicate.

299. *Polyporus fragrans* Peck. Fragrant, pileus tough, fleshy, effuso-reflexed, imbricated, 3-5 cm. (one to two inches) long, 5-10 cm. (two to four inches) broad, rather thin, but sometimes thickened at the base, velvety to the touch and clothed with a minute innate tomentum, pale reddish grey or alutaceous, the thin margin concolourous and sometimes a little roughened, often sterile beneath; flesh slightly fibrous, zonate, concolourous; pores minute unequal angular, about 2-3 mm. (one line) long, the dissepiments thin, acute, toothed or lacerated, whitish, becoming darker with age, and blackish stained when bruised.

Peck. 30th Report 1878 p. 45, Saccardo Syll. vi. p. 124.

This is a very common species, which is usually regarded as *P. fumosus*, but the sweet smell readily distinguishes it. It is by no means confined to elm stumps. Specimens were sent me by Mr. Peck from *Albany*, U.S.A., many years ago, which agree with our British plant.

300. *Coprinus dilectus* Fr. Pileus cylindrical, then campanulate, finely striate, rosy white, then pale tawny, floccose or mealy, 1-2 cm. broad; stem 5-7 cm. long, whitish and *sprinkled with red powder;* volva reduced to whitish spreading squamules at the base of the stem; gills free, reddish brown, then black; spores 10×6 μ.

On dead and partially buried hawthorn sticks, Sea Bank, *King's Lynn*, *Norfolk*, November, 1898.

This beautiful addition to our flora comes near *Coprinus roseotinctus* Rea, but is apparently quite distinct. The red or rather deep orange meal soon disappears.

**Hygrophorus fœtens* Phillips. This interesting species was found on 27th September, 1895, growing amongst short grass on the Old Sea Bank at *Nottingham Point, King's Lynn.*

**Cyphella cuticulosa* Dicks. Spores oval, 6-8 x 4-5 μ. At first digitaliform : exactly the plant figured by Dickson.

On dead grass (*Triticum*), Sea Bank, *Terrington, King's Lynn*, 30th December, 1898.

301. *Ditiola (Dacryopsis) ulicis* n. sp. Pale lemon yellow becoming darker, tough, head globose then flattened, then wrinkled, at first slightly villous with a thin, white, hyaline tomentum from 1·5-5 mm. across; stem firm, paler than the pileus, from ·5-1 mm. long, sometimes absent or extending only from the wood through the bark; hyaline-villous when young; spores various in form. At first elliptico-cylindrical hyaline 15 x 5 μ., with four or five very marked nuclei, the outlines of which are more obvious than the spore-wall. Older spores more cylindrical, hyaline, mostly unseptate, with an oblique, large apiculus at the base, when quite mature cylindrical, triseptate 15-18 x 5 μ. Basidia slender branched.

On the dead stems of *Ulex europæus, North Wootton*, 26th Jan., 1899.

This fungus, which is very common, appears to have been overlooked as a young *Tremella*. It differs from *D. radicata* Fr. in being larger in the head, stouter in the stem, and not distinctly tomentose. The *D. nuda* Berk. Ann. Nat. Hist. No. 375 pl. xi. f. 14 comes nearer, but there is a total absence of the small conidia figured by Mr. Massee, presumably from an authentic specimen. Both these plants were on fir wood, whereas the present species appear to be confined to *Ulex*. *Ditiola* is such a natural though small genus that it seems undesirable to break it up without very good reason.

Pl. 2 fig. 2 four plants natural size; on fig. 3 conidia; fig. 4 unseptate spores; fig. 5 fully developed spores; fig. 6 young basidia.

302. *Lycoperdon lacunosum* Bulliard t. 52. Specimens answering to the above were found on *North Wootton* Heath, 22nd October, 1896. It is by no means impossible that the fungus figured by Bulliard is distinct from *L. gemmatum*. The peculiar depressed pits on the stem are very marked in dry specimens.

**Geaster mammosus* Chev. In considerable abundance on an old hedge bank at *Hillington*, near *King's Lynn*, October, 1896, near the habitat of *G. coliformis Pers.*

303. *Ascochyta perforans* Rob. Perithecia scattered, minute, black, ellipsoid, immersed, ostiola short, perforating the epidermis then falling off; spores hyaline, elliptical, rather acute uniseptate.

On *Ammophila arundinacea*. *Heacham Beach*, 8th January, 1899. Apparently the spermogonia of *Metasphæria sabulatorum* according to Saccardo.

304. *Dinemasporium hispidulum* Schrad. Perithecia clustered or scattered, rather large, cupshaped, black, hairs rigid, long, straight, obscurely septate, disc glaucous, spores elongate, fusiform, curved 14-18 × 2-2·5 μ, with three or four nuclei and an oblique, short, hairlike appendage at both ends.

Schrad. Jourl. Bot. 1799 II. p. 64. Fries Summa. p. 367.
Saccardo Sylloge. Vol. III. p. 685. Spec. Vent. p. 139. t. xvii. f. 16.
On dead wood (elm) in a wood yard, *King's Lynn*, Dec., 1898.

305. *Uromyces chenopodii* Duby.

Æcidiospores. Peridia in circles of from 5-10 mm. each, amphigenous 1 to 1·5 mm. in diameter, subcylindrical, bright golden yellow, margin torn. Spores colourless, with golden yellow contents, subglobose 20-23 μ in diameter.

Uredospores. Sori pale brown, generally elongate, sometimes confluent, erumpent surrounded by the conspicuous torn epidermis 1-3 mm. long. Spores oval, rarely subcylindrical, pedicellate brown, epispore echinulate: 20-25 + 18-20 μ.

Teleutospores. Sori elongate dark brown pointed at the ends, mostly cauline, at first covered seated on bright orange spots, then naked 5-10 mm. long.

Spores brown, smooth, oval or subpyriform, apex only slightly if at all thickened, 20-35 × 18-20 μ, pedicels long, pale brown, persistent, 5-8 × 60-80 or even 100 μ.

Æcidium chenopodii, "Gardeners' Chronicle," 3 Aug., 1895, p. 135.
Uromyces chenopodii (Duby) Saccardo Syll. Vol. VII. p. 548.
Uredo chenopodii (Duby) Bot. Gall. II. p. 899.
Uromyces giganteus Speg. Dec. Myc. Ital. No. 30.
Æcidium chenopodii-fructicosi D.C. Flora franç. VI. p. 92.
Saccardo Syll. VII. p. 819.
Cæoma chenopodiatum Link. Species Plant. II. p. 45.
Uredo chenopodii Spr. Syst. IV. p. 574.

Terrington Marsh, August, 1893, Mr. Herbert G. Ward. *North Wootton Marsh*, 1893, C.B.P. The æcidiospores were also found near *Worthing* by Miss A. L. Smith, "Journal of Botany," May, 1898.

On stems, branches and leaves of Suaeda maritima.

306. *Puccinia (micropuccinia) Ribis D.C. Teleutospores.* Sori round, orbicular, surrounded by a discoloured yellow zone, chestnut-brown spores, crowded, oval-rounded at either end, apex thickened and expanded, constriction little or none, 20-30 × 15-20 μ verrucoso-punctate, beautiful chestnut-brown, pedicels short.

De Cand. Flor. franç II. p. 221 Schröt. Pilz. Schles. p. 345.

Puc. granulata DeBary. "Gardeners' Chronicle," 11 Aug., 1894, p. 135.

On red currant leaves. Rev. Dr. Keith, Dallas Manse Garden, *Forres*, 16th July, 1894.

307. *Puccinia (micropuccinia) Schœteri* Pass. Sori surrounded by a brownish violet discolouration of the leaf, large, oblong, solitary or in small clusters, covered or surrounded by the epidermis. Teleutospores subelliptical, at first golden then chestnut-brown, 40-60 × 25-27 μ, obscurely reticulate, rounded at both ends or the base at times attenuated; slightly constricted, if at all, pedicels very short, thick, hyaline, deciduous.

W. G. Smith, "Gardeners' Chronicle," 8th June, 1889, with fig.

On *Narcissus poeticus*. Rev. C. Woolley Dodd, *Malpas*.

Mr. Dodd very kindly sent me specimens. The spores were found not to germinate at once. The affected foliage was, therefore, placed on the ground near three or four plants of *Narcissus poeticus*, and secured in this position by being weighted down with stones. In due time it decayed and disappeared, but when the bulbs sent up leaves the following spring the tips of the leaves were affected by the fungus. They have produced sori of the Puccinia every year since, but on the tips only.

308. *Puccinia (Hemipuccinia) Acetosæ* Schum. Sori scattered on the leaves minute, irregularly rounded, on the stems and petioles elongated, soon naked. *Uredospores* globose, elliptical or pyriform 25-30 × 20-25 μ, aculeate, brown. *Teleutospores* oblong or subclavate, constricted, apex rounded 30-45 × 20-25 μ, slightly verrucose, chestnut brown, pedicels hyaline, rather long, slender, deciduous.

Saccardo Sylloge VII. p. 638.
Winter Pilze p. 187.

Schröt. Kryp. Flor. Schless. III. p. 389.
Uredo Acetosæ Schum. Saell. II. p. 231.
On *Rumex Acetosa*. Mr. A. W. Saunders. *Malden, Yorks*, 16th July, 1894.

**Puccinia (Heteropuccinia) Scirpi* D.C.

Æcidium Nymphæoides D.C. Epiphyllous, cups arranged without order on rounded spots or in concentric clusters scutellæform, margin scarcely projecting, entire. *Æcidiospores* angular 12-20 μ, orange yellow.

On the leaves of *Villarsia Nymphæoides* (Limnanthemum peltatum) in the "Old Bedford," *Earith*, July, 1895. C.B.P. in "Gardener's Chronicle" 27 July 1895 p. 96.

The Puccinia was found floating down the river Ouse at *King's Lynn* on 17th November, 1877, the host plant *Scirpus lacustris* having been cut out of some of its tributaries. It was not until 1894 that the teleutospores were found in situ at *Earith* in Bedfordshire. A visit the following year instantly revealed the Æcidium in profusion.

309. *Puccinia (Heteropuccinia) dispersa* Erick. Æcidiospores= Æcidium Anchusæ.

Uredospores Sori 1-1·5 mm. long scarcely 1 mm. wide scattered, not confluent epiphyllous brown; spores globose or shortly elliptical, echinulate, yellowish 20-30 μ.

Teleutospores Sori, covered by the epidermis, more or less scattered, forming more or less scattered black lines upon the under side (seldom on the upper) of the leaves. Each spore-group formed of numerous lines, each of which is surrounded by a crown of brown, curved, overarching paraphyses. Spores with short pedicels, mostly elongate clavate unsymmetrical. Spores 40-50 μ long, the breadth of the lower cell 12-15 μ, of the upper 14-20 μ; spores germinating in autumn. The promycelium is colourless.

Æcidiospores on *Lycopsis arvensis* in autumn.
Teleutospores on wheat, rye.
Eriksson and Henning record it on *Bromus arvensis* and *mollis*.

The teleutospores are with great difficulty distinguished from those of *P. glumarum*, but the uredospores are totally different, the sori of

those of *P. dispersa* being brown, scattered, and few. The promycelium spores and germ-tubes of *P. dispersa* are colourless.

310. *Puccinia glumarum* Schum.

Æcidiospores unknown.

Uredospores Sori ·5-1 mm. long by ·3-·4 mm. wide linear, on the leaves in long confluent colonies seated upon yellow discoloured spots often 70 mm. long, very destructive inside the paleæ and upon the immature kernels. Sori citron yellow. Spores spherical or shortly elliptic echinulate, yellow 25-30 μ.

Teleutospores Sori covered by the epidermis on the sheaths and stems in long fine brown or black lines, on the inner side of the paleæ more scattered. Each spore group is divided in numerous compartments, each of which is surrounded by a circle of dark brown, over-arching paraphyses. Spores shortly pedicellate, generally clavate unsymmetrical, apex flattened or with one or two bluntly pointed laternal projecting continuations. Upper cell 30-40 × 16-25 μ, lower 9-12 μ broad. Spores germinating in autumn. Contents of the promycelium yellow.

On wheat, barley, rye, and many grasses.
Synonyms. Puccinia rubigo-vera D. C. P. striæformis Westd. P. straminis Fckl.

Readily distinguished by the naked eye from *P. dispersa* while in the uredo stage from the fact that the spores are yellow, extremely abundant, and seated upon large elongated yellow spots, which often occupy half the blade. This is the early spring-rust. On the foliage it does but little harm in this country, but when it establishes itself, as it often does, in the chaff and on the wheat kernels, it seriously damages the latter.

311. *Melampsora vernalis* Niessl. Teleutospores in small, irregular, yellow brown, mostly densely crowded sori. Spores oblong or clavate unilocular, intercellular, as much as 45 μ long, yellowish brown.

Niessl, in Winter Die Pilze p. 237. Sacc. Syll. VII. p. 592.
On the leaves of *Saxifraga granulata*.
Mr. J. Taylor, *Portlethen*, Scotland, 12th June, 1890.

312. *Melampsora galii* Link. *Uredospores* sori minute, round, pustular, yellowish red, scattered or gregarious, pseudoperidia hemispherical, apex perforate, spores elliptical or ovoid 14-25 × 10-17 μ, aculeolate,

orange yellow. *Teleutospores* sori irregular, on spots of various sizes, formed in the cells of the epidermis and filling them, forming minute black confluent crusts. Spores rounded cuboid, generally longitudinally (quadrilocular-septate) attaining a length of 26 μ.

Thecospora Galii (Link) De Ton. Sacc. Syll. VII. p. 765. *M. Galii* Wint. Die Pilze p. 244. *Cæoma Galii* Link Sp. II. p. 21. *M. guttata* Schroet. *Uredo sherardiæ* Rostrup.

On *Galium verum*, 1889. Mr. H. T. Soppitt.

313. *Cæoma Ari-italici* Requ. Hypophyllous, sori generally irregular, flattened, orange yellow, without order or concentricaly arranged, often confluent. Spores round or elliptical, often subangular 15-30 × 15-20 μ verrucose, orange yellow.

Sacc. Syll. VII. p. 868. Cæoma Ari Wint. Die Pilze p. 256. Uredo Ari-italici Requ. Duby Bot. Gall. II. p. 899.

On Arum maculatum.

Mr. E. J. Tatum, near *Salisbury*, April, 1897.

314. *Schœteria delastrina* Winter. Sori bluish grey, pulverulent, developed in the fructification and seeds, spores joined in pairs, rarely in triplets, flattened at the point of contact, epispore greyish blue, irregularly verrucose 15-23 × 8-12 μ, promycelium mostly simple, ampullæform, short, rarely filiform, with lateral branches, sporidia globose at the apex of the promycelium, often in chains.

Fakenham, Norfolk, June, 1889, in the capsules of *Veronica arvensis*.

315. *Urocystis Filipendulæ* Fckl. Sori black, then torn, pulverulent, spore-masses as much as 44 mm. long, variable, central spores 1-7 μ round or angular, brown 15-25 × 10-15 μ punctate, peripheral spores irregular subglobose as much as 12 μ, often scarcely distinguishable from the central spores 6-12 μ, brown, sporidia cylindrical.

Fckl. Symb. Mycol. II. p. 12. Winter Die Pilze p. 122. Saccardo. Sylloge Vol. VII. p. 520.

On the petioles and midribs of the radical leaves of *Spiræa Filipendula*, Darnford Down, *Salisbury*, May, 1897. Mr. Tatum.

316. *Tilletia Rauwenhoffii* F. v. W. Sori irregular, black, spores globose 25-30 μ, epispore formed of two layers, the inner olive brown, the outer 3-4 μ thick hyaline areolate with widely hexagonal, scarcely prominent reticulations.

Sacc. Syll. VII. p. 484. Fisch. v. Wald. Aperçu. p. 50. Polycystis Holci West.

On the fructification of *Holcus mollis*, *Doncaster*, 17th September, 1891, at the Meeting of the Yorkshire Union.

**Onygena pilifera* Fr. This curious species occurred on the ejected pellet of an owl on *Ashwicken* Fen, 25th June, 1897. Mr. T. Petch.

317. *Xylaria longipes* Nitschke. Stroma erect or variously curved, growing on the thicker, fallen, decaying, decorticated branches, generally single, sometimes 2-3 joined at the base. Ascophore generally simple, terete, cylindrical, thick, apex very obtuse, rounded more rarely ventricose inflated, oblong, very rarely compressed, entire or bipartite, superficially reticulato-rimose, at first clay-coloured then black, ostiola small, hemispherical, prominent, nigropunctate. Stem variable in length, but always much thinner than the ascophore and attenuated, thickened and tuberose at the base, with thick, distinct or interwoven and adpressed, reddish black hairs, smooth above, plicato-rugulose, at first clay-coloured then brown. Conidiiferous hymenium greyish white, soon disappearing, conidia obovate, small $8 \times 4\text{-}5\ \mu$ on very short sterigmata, acrogenous. Perithecia immersed, not prominent, small, globose or compressed, crowded but uniseriate. Asci cylindrical, stipitate octosporous $80\text{-}100 \times 7\text{-}8\ \mu$ (sporiferous portion). Sporidia obliquely uniseriate, ovate, unequilateral, black $11\text{-}14 \times 5\text{-}6\ \mu$.

Nitschke Pyren. Germ. p. 14. Sacc. Syll. I. p. 328.

On dead Sycamore *(Acer Pseudo-platanus)* branches, *Docking*, near *King's Lynn*, September, 1896.

This species occurred in considerable abundance and is evidently an autumnal one. It is distinct from all forms of *X. polymorpha* by reason of its much smaller perithecia. From *X. corniformis* the larger size of the sporidia and asci as well as the development of the stem and other characters separate it. The sporidia are binucleate.

Plate 2, f. 7 and 8 two specimens natural size, f. 9 section of apex of ascophore showing the small perithecia, f. 10 and 11 asci and parphyses, f. 12 binucleate sporidia.

318. *Xylaria Tulasnei* Nitschke. Apex of the club acute. Stroma growing from the ground or from rabbit's dung, simple, black, slender, filiform, flexuose or contorted, base variously thickened, sclerotiform, often just below the club, but not at the base, covered by an abundance of dense hairs, variable in length, conidiiferous hymenium grey, conidia very minute obovato-globose. Ascophore globose or greatly thickened at the base, apex sterile, acute, attenuated to a point. Perithecia prominent mammillate rather large, asci cylindrical, shortly pedicellate, octosporous, with very long, filiform, thin and septate pseudo

paraphyses. Sporidia subuniseriate, broadly ovate, very obtuse, straight, black, unicellular, surrounded by a thick hyaline, layer of mucous 24 × 12-14 μ.

Nitschke Pyren. Germ. p. 8. Sacc. Syll. I. p. 334. Xylaria pedunculata Fr. X. pedunculata f. pusilla Tul. Sel. Fung. Carp. II. p.18 t. II. f. 1-38. Rabh. Exs. No. 636.

This is a very curious Xylaria. The head seldom exceeds in size a lentil or small pea. When growing on rabbit's dung there is hardly any stem, the whole fungus consisting of a nodose, black, coriaceous excrescence. If, however, the ground in the immediate vicinity of the affected pellet be searched, the heads of other specimens will probably be found, just projecting above the earth. On digging these up it will be seen that each constitutes the terminal extremity of a pretty long stem from 1-5 or 6 cm. ($\frac{1}{2}$ to 3 inches). The upper part of the stem immediately below the ground level is densely hairy for a variable distance, in some cases for 4 or 5 mm., in others for 2 or 3 cm. The thickness of the stem varies from that of a mere thread as fine as horsehair to 2 or more mm. Sometimes it ends in what may have been a sclerotium, in others it seems to be lost in the ground. The globose head is surmounted by a sterile conical point. Mr. Broome, who found this fungus near *Bath* and communicated it to Rabenhorsts' Exsiccati (636), was of opinion that the base of the buried stems originated from and in buried pellets of rabbit dung. It occurs on heaths and is in fruit from October to February.

Pl. 2, f. 13 three specimens of X. Tulasnei natural size, the heads only were above ground, f. 14 three specimens on a pellet of rabbit's dung natural size, f. 15 section of ascophore showing the barren apex, f. 16 ascus and paraphyses, f. 17 sporidia.

319. *Philocopra discospora* Nov. sp. Perithecia semi-immersed or free, elongate-conical, black, paler below. Ostiola surrounded by a crown of rigid, straight, black, simple setæ. Upper part of the perithecia sparsely setulose, setæ simple, black, short, sometimes curved. Perithecia 400-500 × 250 μ, asci polysporous, cylindrico-fusiform, tapering at either end, sessile 130-150 × 18-20 μ, paraphyses as long as the asci, simple, hyaline, linear. Sporidia at first yellow, then dark brown, finally black, arranged without order in the asci, a little longer than wide, discoid 7-8 × 6-8 μ.

On rabbit dung, *North Wootton* Heath, January, 1899.

It differs from P. polyspora in the shape of the asci,—discoid sporidia and other points.

Pl. 2, f. 23 perithecium, f. 24 ascus and paraphyses, f. 25 sporidia.

320. *Rosellinia malacotricha* (Auersw.) Niessl. Perithecia gregarious, often densely crowded, conical or subglobose 200-300 μ in diameter, carbonaceous, surmounted by rigid, fasciculate, black hairs, ostiola smooth, shortly conical, shining. Asci octosporous, cylindrical, stipitate, apex blunt 100 × 10 μ, sporidia uniseriate, discoid or elliptical or semiorbicular 10-15 × 8-10 μ, at first binucleate, yellowish, then black brown, paraphyses guttulate, scarcely exceeding the asci in length.

Niessl Beiträge p. 36 t. v. f. 36. Saccardo Sylloge. I. p. 270. Fungi. Ital. t. 593.

On dead fir wood, West Briggs Wood, Wormegay, *King's Lynn*, 15th December, 1898.

321. *Delitschia Marchalii* Berb. and Vogl. Perithecia gregarious, very minute, subglobose, asci cylindrical, rather acute, shortly attenuated below 75-85 × 11-13 μ octosporous, paraphyses few and small, sporidia generally obliquely uniseriate, elliptical, obtuse, slightly constricted at the septa, at first hyaline then brown, surrounded by a narrow hyaline zone, not separating at the septum 10-12 × 5-6 μ.

Saccardo Syll. Vol. IX. p. 747.

On rabbit dung, *Castle Rising* Heath, 26th December, 1898.

Remarkable for its very minute sporidia.

322. *Sporormia Marchaliana* Mout. Perithecia gregarious, globose, ·5 to ·75 mm. in diameter, immersed or superficial, black; ostiola papillæform, thick and short; coriaceous though carbonaceous. Asci narrowly clavate, stipitate, octosporous, sporiferous portion 170-200 × 20-25 μ paraphyses filiform, branched, sporidia 1-3 seriate above, uniseriate below, cylindrico-fusiform, obtusely rounded at both ends, slightly curved, brown 11-13 septate, easily separating at the septa; the intermediate segments wider than long, surrounded by a layer of hyaline gelatin 60-75 × 8-10 μ.

Mouton in Bull. Soc. Roy. Bot. Belg. 1886 p. 155. Saccardo Sylloge. IX. p. 819.

On rabbit's dung, *Castle Rising* Heath, 26th December, 1898.

Plate 2, fig. 21 ascus f. 22 sporidia.

323. *Sporormia microspora* Nov. sp. Perithecia small, semi-immersed, black, globose or subconical, scattered, smooth, about 200-250 μ in diameter, ostiola inconspicuous. Asci cylindrical, octosporous, sessile, 100-120 × 10-12 μ. Paraphyses few, filiform, branched hyaline. Sporidia uniseriate, cylindrical, triseptate, pale then dark brown, con-

stricted at the septa, segments rather unequal, surrounded by a thin layer of gelatin 15 × 5 μ.

On rabbit's dung, *North Wootton* Heath, 18th January, 1899.

The form and colour of the sporidia recall those of Melanomma pulvis pyrius.

Plate 2, fig. 18 perithecium, f. 19 asci and paraphyses, f. 20 sporidia.

324. *Gibberella cyanogena* (Desm.) Perithecia crowded, oblong, 150-200 μ in diameter, obtusely conical then collapsing, umbilicate, plicate and verrucose, dark amethyst blue. Asci clavate, octosporous, obtuse above, sporidia fusiform oblong, sometimes straight, sometimes slightly curved, obtusely rounded at either end, subhyaline, triseptate, slightly constricted, 25-30 × 7 μ. Mycelium branched, effused, crustaceous, yellowish. Conidia sometimes solitary, sometimes cæspitose-fusiform, lunate, apiculate, 1-3 rarely 5 septate subhyaline.

Spheria Cyanogena Desm. Ann. Soc. Nat. X. 1848 p. 352. Gibberella Cyanogena Saccardo Syll. II. p. 555.

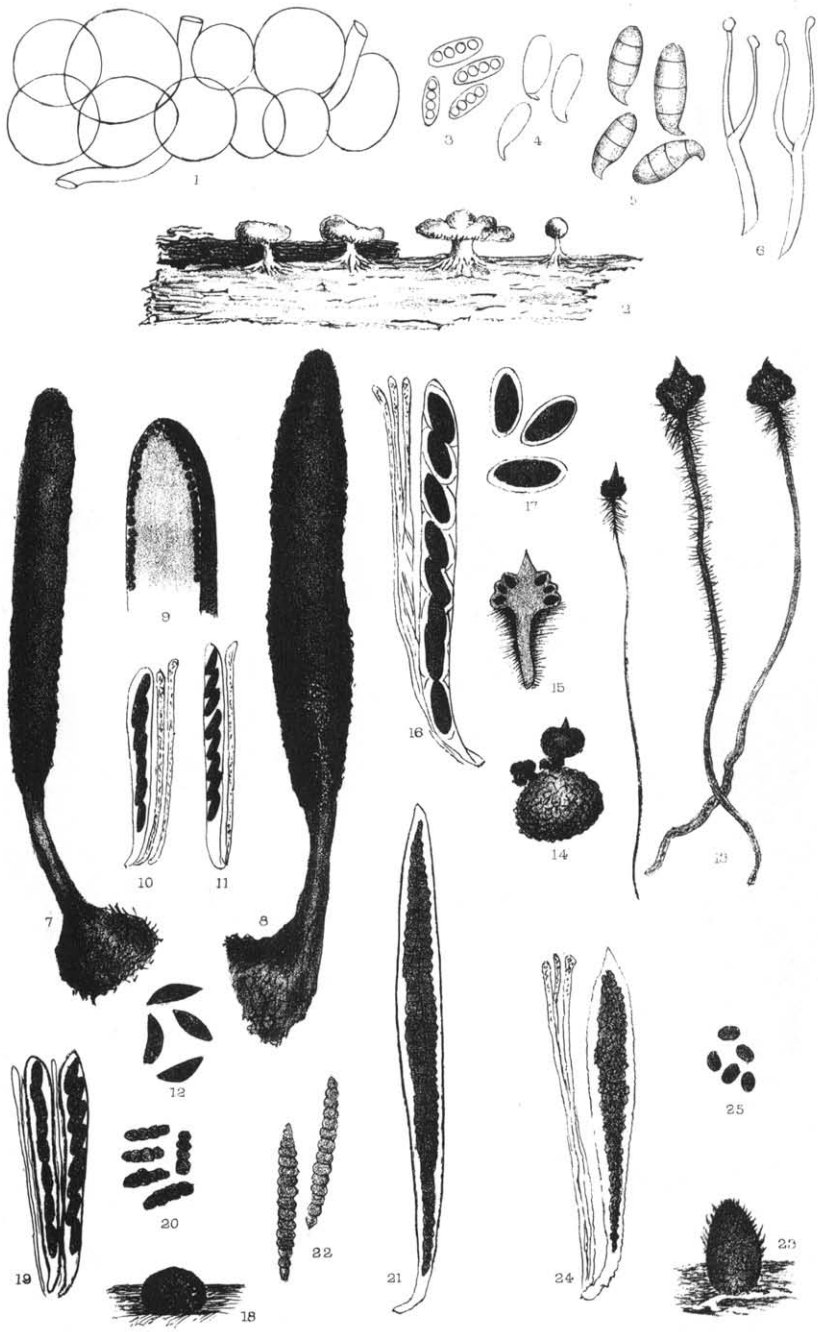
On an old cabbage stalk, Sea Bank, *King's Lynn*, December, 1898. *Halifax*, Mr. Crossland, January, 1899.

The spores are larger than those of G. pulicaris, which is found on *Sambucus*.

325. *Diaporthe (Euporthe) incrustans* Nke. Stroma effused, variable, staining the matrix. Perithecia minute, globose, rarely depressed or angular, abruptly attenuated at the neck. Ostiola elongate, often erumpent in clusters, very black. Asci narrowly clavate, octosporous, 50-65 × 7-9 μ. Sporidia biseriate or obliquely uniseriate, straight or very slightly curved, subhyaline, uniseptate, quadrinucleate 12-14 × 3 μ. Spermogonia Phoma-like spermatia 5-7 × 2-2·5 μ, basidia 30 μ long.

Nits. Pyren. Germ. p. 267. Saccardo Sylloge. II. p. 655.

Castle Rising, on cabbage stalks, 1st January, 1899.



CBP ad nat del

West Newman lith