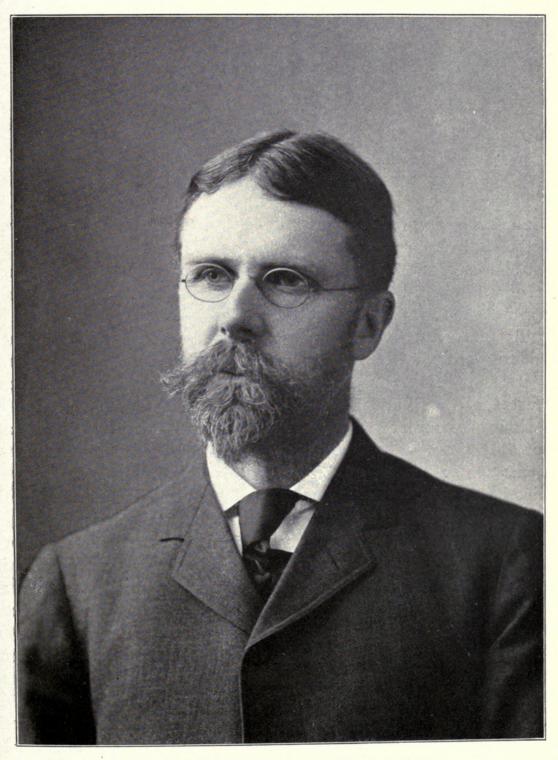
MYCOLOGICAL NOTES.

BY C. G. LLOYD.

No. 45.

CINCINNATI, O.

JANUARY, 1917.



PROFESSOR ROLAND THAXTER.

UNIVERSITY OF CALIFORNIA

AT LOS ANGELES

1010001010

MYCOLOGICAL NOTES

Issued by C. G. LLOYD.

224 West Court Street, - - CINCINNATI, OHIO.

SUBSCRIPTION PRICE.—A little personal interest on the part of the recipient in picking up and sending to my address, specimens of the larger fungi. All are desired excepting specimens of fleshy Agarics. Simply dry the specimens and send them in.

PROFESSOR ROLAND THAXTER.

The photograph we present is that of the best known of specialists working on American mycology. Professor Thaxter occupies the chair of Cryptogamic Botany at Harvard University, where he graduated in 1882. For about twenty-five years he has had charge of the students in mycology in Harvard University. Professor Thaxter is the world's authority on the class of fungi known as Laboulbeniaceae. These fungi are minute species, attaching themselves to the bodies of beetles, flies and other insects. They were practically unknown to the world until Professor Thaxter became interested in them, and he has devoted his life to their study. He has discovered, named and illustrated several hundred species, and is not only the world's authority on the subject, but he is the only one who really knows anything about it at all. In pursuit of his studies he has worked over not only the mycological section in the museums of Europe, but also the entomological section, and has traveled and collected extensively in foreign countries, such as the West Indies and South America. In addition to this, he has industriously collected Cordyceps and hypogeal fungi, and has accumulated more material in these families than can be found in any other collection. He has never published on these subjects, but has in view a publication, when he has finished with the Laboulbeniaceae.

Professor Thaxter is now in his fifty-ninth year, quiet and reserved. It is always a pleasure to meet him. On our rare visits to Harvard we have always enjoyed a visit with him. The photograph that we present was taken four or five years ago, but is an excellent likeness of him to-day.

RARE OR INTERESTING SPECIES OF FUNGI RE-CEIVED FROM CORRESPONDENTS.

POLYSTICTUS FLABELLIFORMIS VAR. JAPONICA, FROM J. UMEMURA, JAPAN. Polystictus flabelliformis (cfr. Stipitate Polyporoids, page 143) is a common species in the East. It is the only one in this section I found in Samoa. It usually corresponds to the type idea from Mauritius with a lateral stem, one half to an inch long. A subsessile form is the common form in Japan. It is paler color, the pores are whiter, and it is a fairly constant form in Japan, but not elsewhere. We have specimens as follows: Umemura, 15, 73, 76, 154, 175; Yasuda, 115, 253. (We have one collection from Madagascar.) Professor Yasuda writes, "These sessile, villose





Fig. 883.

specimens appear to run gradually into stalked, smooth specimens." The stalked, smooth plant is known as Polystictus affinis, but the whole group is really one species. Where a plant has a fairly distinct character (subsessile in this case) in connection with geographical distribution (Japan in this case), we feel that it is entitled to a distinctive name as a variety at least. In the past we have referred some of these Japanese collections to Polystictus pterygodes, but this species (very rare) has in its type idea a shiny, glabrous pileus, the same as Polystictus xanthopus, but sessile.

LACHNOCLADIUM CONGESTUM, FROM E. CHEEL, NEW SOUTH WALES (Fig. 884).—Berkeley named this plant as Thelephora. There is in warm countries a type of dendroid plants that should be classed in Clavariaceae, viz., the hymenium is amphigenous and they resemble Clavarias excepting that they are tough in texture and in their spores. The true Thelephora genus has its hymenium on one surface only (though there are exceptions). The

spores of this species are 6 x 8, colored, slightly irregular in outline, and very slightly tubercular. Each has a large gutta. The proper generic classification is a question. As to color and spores it is close to Thelephora. As to general form and amphigenous hymenium it is Clavariaceae. It is not a true Lachnocladium excepting in a broad sense, including both hyaline and colored spores. No species of this type of plants occurs in Europe or the United States, hence we are not troubled with the question of its proper classification in our own flora.

Lachnocladium congestum seems fairly common in Australia. We have gotten it before, but these are the first good specimens. Lach-



Fig. 884.

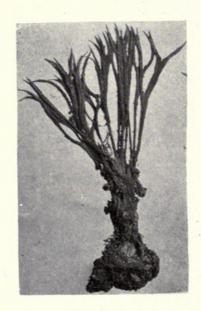


Fig. 885.

nocladium Archeri (Thelephora for Berkeley) is a very similar plant, but more slender and only known from the type. We present a photograph of Lachnocladium congestum (Fig. 884), also Lachnocladium Archeri (Fig. 885), both from the types at Kew. We judge from our photographs that Lachnocladium Kunzii from Java is the same as Lachnocladium congestum. Why Berkeley called one Lachnocladium and the other Thelephora, I do not know.

POLYPORUS POCULUS, FROM MISS A. V. DUTHIE, SOUTH AFRICA (Fig. 886).—A fine collection, and the first time ever collected in Africa. A full account was given, Myc. Notes, Old Sp. Ser., p. 45. This unique little species was originally from the United States, and, until I investigated, it was supposed to grow nowhere else. It is rare in foreign countries, but in the museums of Europe I dug up four collections (cfr. Myc. Notes, Pol. No. 3, p. 44), French Guiana, Australia, Brazil and Japan. I have since gotten fine collections from Japan (A. Yasuda). Now that Miss Duthie has found this curious species from Africa, it is known from every continent excepting Europe. With us it usually grows on chestnut bark; Miss Duthie found it on eucalyptus.

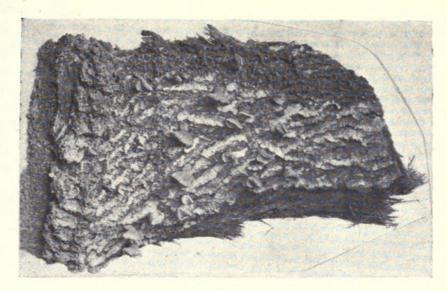


Fig. 886.

IRPEX CONSORS, FROM J. B. CLELAND, AUSTRALIA (Fig. 887).—Irpex consors (1877) from Japan, Irpex brevis (1855)

from New Zealand, Irpex decurrens (1891) from Japan, and probably Hydnum meruloides (1883) from Australia, are all, I believe, one and the same species. All were named by Berkeley, but Irpex decurrens was only a mss. name for the collection that Berkeley published as Irpex consors. Fifteen or twenty years after Berkeley had named it (for the third or fourth time), Cooke dug up the same collection from Japan which he published as Irpex Lately I have gotten decurrens. several collections from Japan (which I referred to Irpex consors), and on comparison I find in all things the same as the Australian plant. does not occur in the American flora.

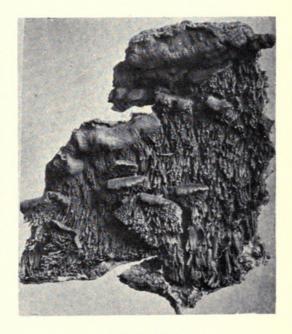


Fig. 887.

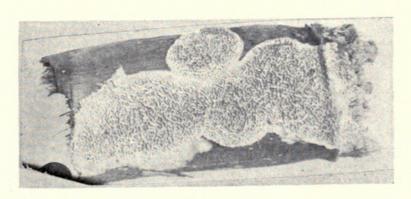


Fig. 888.

POLYSTICTUS SINUOSUS, FROM JOHN A. STEVENSON, PORTO RICO (Fig. 888).—This is the same plant as Poria sinuosa, excepting it develops a narrow, reflexed pileus. Poris sinuosa in Europe and the United States is always resupinate. It is very close to Polystictus pinsitus, but the sinuate hymenium (Fig. 888) is of a different type. It is also quite close to Polystictus Blumei of the East.

POLYSTICTUS GLABRATUS, FROM PROF. A. YASUDA, JAPAN (Fig. 889).—Pure white, drying white. Pileus spathulate or cuneiform from a short, stipe-like base. Context thin, white. Surface uneven, glabrous, very faintly zoned. Pores small, round, fleshy, entire. Cystidia, none. Spores allantoid, 1½ x 4-5.





Fig. 889.

A Polystictus with glabrous surface is rare. We have one in the United States (P. Grayii) which differs in form and texture. The description of Polystictus cuneiformis from the Philippines is the same as to the pileus, but the spores (unless they are in error) are entirely different. Berkeley has a Polystictus sub-pellucidus from Japan which is close. The type at Kew is quite poor and was described as silky, hirsute. Polystictus elongatus, a common plant in the East, is also close, but differs as to texture, surface and pores. Type, Yasuda, No. 372.

LENZITES GUINEENSIS, FROM P. VAN DER BIJL, SOUTH AFRICA (Fig. 890).—This is another of the old Friesian species, originally named from South Africa, of which no type exists, and is determined from the description. Fries gives a figure in Reliquias Afzelianae which corresponds closely enough. Surely it is only a form of Lenzites betulina (as originally referred by Fries), with the same surface and context color (white), but it is a more rigid form than the European, and has thick, rigid gills. It differs from the description, as the edges of the gills are not "dark, cinereous," but it is not worth while embarrassing the subject with a new name because of a little discrepancy of this kind. We have gotten the

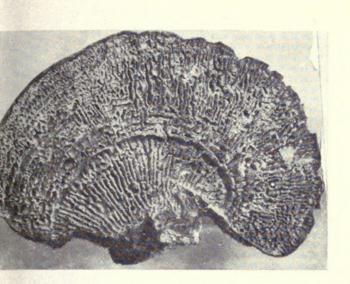




Fig. 890.
Lenzites Guineensis.

plant before from Miss Duthie, South Africa, and it seems to be, as far as we know, a form peculiar to this region.

POLYPORUS (GANODERMUS) UMBRACULUS, FROM J. GOSSWEILER, AFRICA OCCIDENTALIS (Fig. 891).—This was named by Fries from Afzelius' collection from Sierra Leone about ninety years ago, and I did not find a specimen in any museum of While no type is known, coming from the same locality, agreeing with the description, and agreeing with the figure that Fries cites, there is no question of its identity. When Persoon published the fungi of Gaudichaud's collection, he figured a Polyporus (t. 2, f. 2), which in grosser features is the same as this plant. Persoon named it Polyporus leptopus. It came from the East Indies, and the type is preserved at Paris. Fries referred this figure to his previously published Polyporus Umbraculus, and Patouillard accepted it, but in my work I demurred, for we knew what Polyporus leptopus was, and we did not know what Polyporus Umbraculus was. I feel that the receipt of the 'specimen from the "type locality," agreeing exactly with the figure and description, and differing entirely in spores from Polyporus leptopus, justifies my conclusion. Both species have the same strongly laccate, black stem, fragile and hollow, and the same pileus and pores, but are quite different in their spores.

Polyporus leptopus has globose spores, 12 mic., strongly rough and without apiculus. It belongs in section Amaurodermus (6b). Polyporus Umbraculus has obovate spores, tapering to a strong hyaline, apiculate base, about 12 mic. long and 10 at the broadest part. They are also strongly rough and are very abundant in the specimens. It belongs in the section (3) Ganodermus. Polyporus Henningsii (cfr. Stip. Pol., page 105, fig. 401) is probably the same as

Umbraculus—a short-stemmed form of it.

It affords me more gratification to get one of these old puzzles settled than it would to receive a hundred "new species."



Fig. 891.

MUTINUS BAMBUSINUS, FROM J. GOSSWEILER, WEST AFRICA.—It is a question whether the tropical plant that passes

for Mutinus bambusinus is really distinct from the Mutinus caninus of Europe. The specimen from Mr. Gossweiler, Fig. 892, is smaller and more slender than our figure of Mutinus bambusinus (cfr. Syn. Phalloids, fig. 26). The coating of gleba is thick and is separated at the base, giving it a pileate appearance. The plant has no pileus, however, the gleba is borne directly on the stem. The "species" of Mutinus have few distinguishing characters, excepting general size and shape, but we would not like to propose a new name for a collection that is only smaller and more slender than usual.

THELEPHORA MYRIOMERA, FROM E. CHEEL, NEW SOUTH WALES (Fig. 893).—I judge from descrip-



Fig. 893.

tion it is this plant which was named from Australia. It is not a European form,

Fig. 892.

although it might be taken for a lacerate form of Thelephora terrestris. It is a true Thelephora as to color and spores, with hymenium on the lower side only. No type of Thelephora myriomera exists, and I think we are justified in taking this name for a plant from the same

SEISMOSARCA HYDROPHORA, FROM DR. J. B. CLE-LAND, AUSTRALIA (Fig. 894).—Additional specimens clear up the mystery that surrounded this plant (cfr. Note 431). The hairs

that I supposed were on the surface are really, I think, "gloeocystidia," and imbedded in the jelly. The basidia are oblong, cruciate, divided, with four long sterigmata. The spores are 6 x 12, elliptical, pale yellow tint. The hairs and basidia, both in a mashed piece, appear on the surface, but I believe they are imbedded in a very transparent mucilage.

country, and answering the description.



Fig. 894.

bedded in a very transparent mucilage. The color of the plant is pale amber. The structure of this plant is similar, and it is cogeneric with the common plant we have, called Exidiopsis alba (Letter 44, Note 48).

The genera of Tremellaceae are not all clear as yet. We believe Seismosarca to be same as Exidiopsis in sense of Moeller, but not of Brefeld. In this view our American plant becomes Seismosarca alba (not Exidiopsis alba as in Note 48). There is no doubt of the identity of Cooke's genus, notwithstanding that Cooke did not in his account and figure present a single feature correctly and did not

have the genus in its real character. The "setae" which Cooke shows as rigid, sharp, colored spines are in reality obtuse, colored bodies imbedded in the thin, gelatinous outer layer so that they appear on the surface, but have no resemblance, however remote, to Cooke's figure. The basidia are typically those of an Exidia as shown by Brefeld, and well known, with no resemblance to the clavate basidia of Cooke's figure, which no true tremellaceous plants have. spores are elliptical, 6 x 12, pale yellow tint, and similar to Exidia spores. There are species of Dacryomyces with as deeply colored spores, and there was no basis for a genus on the color of spores. Cooke represented them as "bright brown," which I have always thought was a bull, for no tremellaceous plant is known with deeply colored spores. The spores that Cooke described and figured are found on the specimen at Kew, but they are accidental, probably from some Coniophora, as I suspected when I saw them, and of which I am now assured.

PORIA XYLINA, FROM A. YASUDA, JAPAN (Fig. 895).— Pure white, soft cottony, with broad, soft margin. Tissue of hyaline, loosely woven hyphae. Pores large, angular, oblique. Cystidia none.

Spores abundant, elliptical, 6 x 8, transparent hyaline, with a large gutta.

This is not a European nor an American species, and probably not named. The specimen is resupinate, hence a Poria, but it has a nodular effect, as though it might develop a pileus, in which case it would be a Polyporus. It is too soft for a Trametes.

PORIA SUBICU-LOSA, FROM MR. C. J. HUMPHREYS,

WISCONSIN (Fig. 896). — We present -a photograph as it is a rare species. Heretofore it has been collected but

Fig. 895.

once by Peck in 1879 and does not occur in Europe. It belongs to the ferruginous section and is characterized by its large pores, soft, loosely adnate subiculum. The plant has no setae and spores are globose, hyaline 5-6 mic. Professor Humphrey found it on very rotten hemlock.

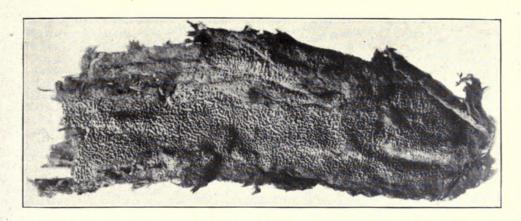


Fig. 896.
Poria subiculosa.

CATASTOMA MAGNUM, FROM GEORGE BROWN, NEW ZEALAND (Fig. 897).—This is only a large form of Catastoma anomalum (cfr. Lyc. Aust. page 27, Myc. Notes, page 319). But in addition

to its large size it differs in other respects. The exoperidium is thick and leathery. In the type form of Catastoma anomalum it is thin and papery. The spores are 6-7 mic. and strongly rough, in anomalum they are slightly rough. Usually they are apedicellate, sometimes with a short, hyaline pedicel, 4-5 mic.

We consider it only a form of Catastoma anomalum, but it differs in the same degree that Catastoma subterraneum differs from Catastoma circumscissum. Neither Catastoma

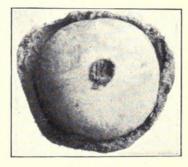


Fig. 897.

subterraneum nor Catastoma magnum are distinct species from the corresponding Catastoma circumscissum or Catastoma anomalum for me.

ASEROE RUBRA, FROM GEORGE BROWN, NEW ZEA-LAND.—We present a photograph of this plant (Fig. 898) made from

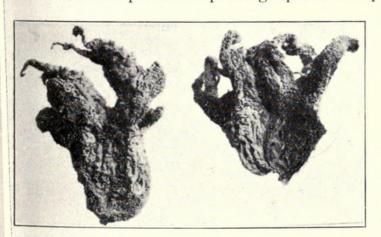
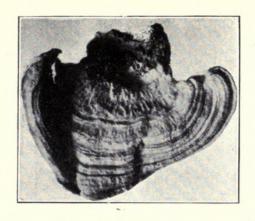


Fig. 898.

a dried specimen sent by Mr. Brown. It shows how characteristic phalloids are when carefully dried. This figure presents the plant almost as well as the photograph of the fresh plant we produced on page 522 which was from Australia. This New plant has a Zealand shorter, thicker stem than the Australian plant photographed, but surely the

same species. In fact it has become very well established now that there is but one species of Aseroe in Australasia, although the Handbook carries three (including a "variety").



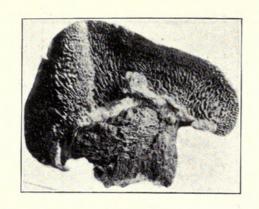


Fig. 899.
Polystictus formosae.

POLYSTICTUS FORMOSAE, FROM A. YASUDA, JAPAN (Fig. 899).—Pileus thin, pale, glabrous, rugulose, with narrow darker

zone. Context white. Pores large, rigid, angular, shallow.

A single specimen, No. 391, from Formosa. The pores are exactly the same as those of Polystictus Persoonii, and while I can not assert it, I have a feeling that it is an extreme form of this species. Type Yasuda, 391, Formosa.

BOVISTELLA OBLONGISPORA, FROM MISS A. V. DU-

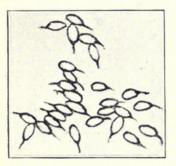


Fig. 900.

THIE, SOUTH AFRICA.—Peridium thin, globose 1-2 cm. in diameter. Cortex furfuraceous. Gleba compact, olive then umber. Sterile base none. Capillitium deep colored, long, intertwined, much branched, about 3 mic. in diameter. Spores (Fig. 900) regular 4 x 6 mic. oblong, dark colored, smooth, with a short, thick, permanent, subhyaline pedicel 4-5 mic. long.

This species belongs to the 4th section of the genus (Myc. Notes, page 285) and is the only species of Bovistella known with oblong spores.

The plant is quite similar to Lycoperdon oblongisporum in several respects, but the latter does not have pedicellate spores.

POLYPORUS OBNIGER, FROM DR. F. STOWARD, AUS-

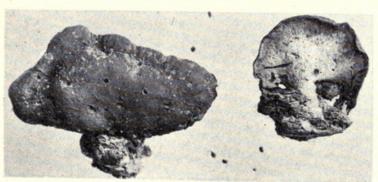


Fig. 901.

TRALIA (Fig. 901).— Pileus (about 2 x 3 x 7 cm.) with a short lateral stipe, thick, rigid. Surface smooth, black. Context pale isabelline. Pores minute, round, with greyish cinerous mouths (when dry), decurrent to base of stem. Cystidia none. Spores not found.

This has the aspect of a Melanopus, but there is no indication of black on the stem. It goes in Section Petaloides 19 of my Stipitate

Polyporoids pamphlet, but if I were rewriting it I would rearrange this section 19, uniting subsection a with previous subsection and renumbering 19b. From the description one might take this to be Polyporus tristiculus of South America, but to me plants have little relation excepting the arrangement.

CYCLOMYCES GREENII, FROM J. UMEMURA, JAPAN (Fig. 902).—The occurrence of this rare plant in Japan is of the

greatest interest. For many years it was looked upon as among the rarities of the United States and it is not often collected with us. A full account was given in Mycological Notes, (page 488). We reproduce a figure to give the Japanese collectors an idea of this curious fungus. The gills are concentrically arranged directly contrary to the usual way gills are placed. Mr. Umemura's plant is undeveloped but is unquestionably the same as our American plant. Only twice before has Cyclomyces Greenii been collected in the East and both times discov-



Fig. 902.

ered to be a "new species." First by Hooker in India sixty years ago, and called by Berkeley Cyclomyces turbinatus, then it was sent to Patouillard from Java twenty years ago, and called Cyclomyces Javanicus. This is the first time we have ever gotten it excepting from United States. When the truth is learned about fungi, it is found that the species are relatively few, the distribution wide.

IRPEX IYOENSIS, FROM A. YASUDA, JAPAN (Fig. 903).—As named by Professor Yasuda. Effused with reflexed pileus. Sur-

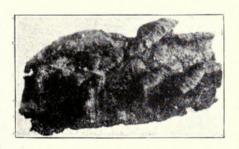


Fig. 903.

face faintly zonate, dark. Spines 2-3 mm. long, irregular, connate at base. Hymenium dense, pubescent with short (8-12 mic.) subhyaline, projecting hairs, and with rare long (projecting 30-35 mic.), deep colored setae. Spores no doubt hyaline, not found. There are numerous small, hyaline, globose bodies 2-3 mic. which I take to be conidial spores.

Irpex iyoensis is closely related to the common Irpex cinnamomeus of the United States, which however, never develops a pileus, and which has exactly the same colored spines, but abundant setae. The spines of the two species are same color and appearance to the eye. I know no other species with cin-

namon colored spines. The pileus of specimens received is dark colored, but appears to me as though weathered, and I presume the natural color is cinnamon. The plant came from the province of Iyo and I suppose the name is Iyo latinized. In this connection, it is strange that our most abundant Irpex cinnamomeus has not been found in Europe or Japan.

THELEPHORA FLABELLARIS, FROM DR. M. S. WHET-STONE, MINNESOTA (Fig. 904).—This is a rare form. With same texture and surface as Thelephora caryophyllea, it is cut into





Fig. 904.
Thelephora flabellaris.

narrow segments. Berkeley who collected it in England, followed Fries in holding it as an "irregular branched frond" of Thelephora caryophyllea. I doubt it although it is so rare, it is hard to say. I never saw but three specimens, the English plant at Kew, a collection from O. M. Oleson, California, and this one from Mrs. Whetstone.

THE TROPICAL XYLARIAS.

The principal published work on the foreign Xylarias has been done by Cooke, who arranged and illustrated a series of figures. It is needless to say to those who have checked up after Cooke's work that it was very inaccurately done, and that many of his figures were simply reconstructed. The more recent workers, Rehm and Theissen, who have not studied the authentic types, have evidently reached many of these conclusions, mainly from Cooke's work, with the natural result that they have still further added to the confusion. I have never given the subject the detailed study in the museums that I would have wished, but I have photographed all the type specimens I found, and with these photographs and with the published accounts I think I can reach much more correct conclusions than have been previously recorded.

I shall be very glad if my correspondents will collect and send me the Xylarias that they note. These plants have a young, conidial condition, usually white or partially white. The specimens should be collected when they are mature, that is, when they are all black. They never get too old to collect and furnish all the data, but they are often gathered too young.

"XYLARIA" FLABELLIFORMIS.—In our article on Isaria flabelliformis, Myc. Notes, p. 547, we state that we think no one but Schweinitz ever claimed to have found any but conidial spores. We forgot to mention it, but we were aware that Cooke had figured

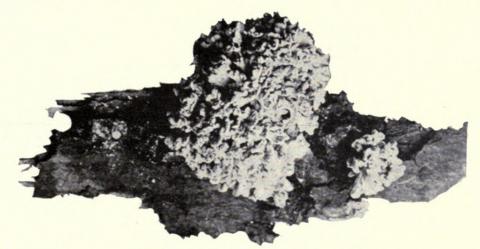


Fig. 905.

Isaria flabelliformis (from nature).



Fig. 906.

Cooke's idea.

the fruiting body of "Xylaria flabelliformis" Grevillea, Plate 171, Fig. 153 (reproduced, Fig. 906). Of course, Cooke was a wonderfully talented man. It takes something more than ordinary genius for a man to draw a picture of a fungus that he never saw. We present

above a photograph (Fig. 905) from nature of "Isaria" flabelliformis, a frequent plant with us. Schweinitz claims that it had a perithecioid stage, and we reproduce his figure (907), which, while crude, was evidently intended to represent the plant. Fries stated, on the basis of Schweinitz's figure, no doubt, that it was the conidial state of Xylaria corniformis. I do not believe that there is any ground for that, but it was taken up and ap-

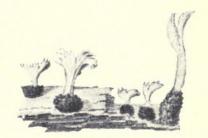


Fig. 907.

pears in Ellis' N. A. Pyrenomycetes. And finally Cooke was able, with his wonderful talent, to construct (in his imagination) a perfect plant (Fig. 896) which no one but Cooke (in his imagination) ever saw.

XYLARIA SCHWEINITZII, SENT BY DR. SYLVIO BONANSEA, MEXICO.—This species was originally collected in Surinam by Dr. Hering, of Philadelphia, and given to Schweinitz. Schweinitz did not publish it, but named it in manuscript Spheria capitata. After Schweinitz's death his herbarium was sent to Berkeley (Note). Ber-

keley published this as "Xylaria Schweinitzii, Berkeley and Curtis," thus advertising the three middlemen, none of whom had much to do with it excepting to pass it along. The original collector was left

Fig. 908.

out in the cold in this advertising scheme, and the clerical trinity gathered all the glory.

Xylaria Schweinitzii is the same type of plant as Xylaria polymorpha. It has the same stroma, and similar perithecia. When fully developed, it has a subglobose head, and a slender stipe. The spores, 10 x 28, average broader, but it belongs close to polymorpha.

NOTE—We have noted this statement somewhere in print since our Letter No. 50 was published. At that time we reached the same conclusions, but only by inference, which, however, proved to be correct.

XYLARIA VARIABILIS, FROM J. GOSSWEILER, AFRICA OCCIDENTALIS (Fig. 909).—We determine this purely on the



Fig. 909.

principle of the doctrine of probabilities. It came from the "type locality." While it has not much resemblance to the picture that Currey gave, it is about as near as most pictures that are supposed to represent Xylarias, nearer than many of them. In addition, it agrees with a remark of Currey's, "The inner tissue collapses in drying (as is the case with many Xylarias), leaving the bark (so to speak) in the form of a brittle, detached integument." This is shown in our photograph (but not in Currey's picture), and it is a better character than Mr. Currey thought. We have photographs of most of the historical specimens in the museums, excepting the relatively few that are in the British Museum. facilities for photographing there were not as convenient for me as in other museums. Mr. Gossweiler's specimens also agree with the "type" in another feature—they are immature.

The perithecia are arranged in lines, on the order of those of the well-known Xylaria grammica of the American tropics, and the two species will go in the same group, if indeed they are not finally referred to the same species.

The determination of species by deduction is not very satisfying, as must be admitted, but it is better than past work that has been done on tropical species, most of which was pure guess work. We do not believe any portion of mycology is in a worse condition than that of the foreign Xylarias.



Lloyd, C. G. 1917. "Mycological Notes No. 45." *Mycological writings of C. G. Lloyd* 5, 621–636.

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