

DARK-SPORED AGARICS—III

Agaricus

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In my last article *Gomphidius* and *Stropharia* were discussed. The genus *Agaricus*, as at present limited, differs from them both in having free lamellae.

AGARICUS L. Sp. Pl. 1171. 1753

Pratella S. F. Gray, Nat. Arr. Brit. Pl. 1: 626. 1821.

Psalliota Quél. Champ. Jura Vosg. 107. 1872.

This genus, distinguished among brown-spored gill-fungi by a fleshy stipe, free lamellae, and the presence of an annulus, has received much attention because of the important edible species in it. The different species are usually not very well characterized, being much the same in shape and color and differing very little in spore characters. A number of new ones have been described from tropical America and from the Pacific coast. See MYCOLOGIA for March, 1918, and for November, 1912.

Pileus white or yellowish or becoming so; tinged with lilac in *A. variabilis* and sometimes with rose in *A. contulius*.

Pileus 2-5 cm. broad.

Pileus white, becoming yellowish.

Stipe 4 mm. thick.

Stipe 10 mm. thick.

Pileus yellow, becoming nearly white.

Pileus larger, usually 5-15 cm. broad.

Pileus white, unchanging.

Surface squamose.

Surface deeply rimose-areolate.

Surface smooth, glabrous or fibrillose.

Pileus 7-12 cm. broad.

Pileus usually 5-7 cm. broad.

Annulus cup-like.

Annulus not cup-like.

Pileus white, becoming yellowish; or tinged with yellow at the center.

Pileus lilac-tinted when young, yellowish when older.

Pileus yellowish at the center.

Pileus 5-10 cm. broad.

1. *A. contulius*.

2. *A. alabamensis*.

3. *A. contuliformis*.

4. *A. solidipes*.

5. *A. praerimosus*.

6. *A. pilosporus*.

7. *A. chlamydopus*.

8. *A. campester*.

9. *A. variabilis*.

10. *A. Rodmani*.

- Pileus 10-15 cm. broad. 11. *A. floridanus*.
- Pileus becoming yellowish. 12. *A. cretaceus*.
- Spores 4-5 μ long.
- Spores 5-7 μ long.
- Spores very broadly ellipsoid, about 7 x 5.5 μ . 13. *A. pratensis*.
- Spores 5-7 x 3-4 μ . 14. *A. sylvicola*.
- Pileus some shade of gray, brown, or reddish-brown, at least on the disk or with age.
- Pileus glabrous or fibrillose; sometimes slightly squamulose in *A. brunnescens* and *A. micromegethus*.
- Pileus about 2-5 cm. broad.
- Stipe 1-2.5 cm. long; context not changing color when cut. 15. *A. micromegethus*.
- Stipe 2.5-4 cm. long; context becoming blackish when cut. 16. *A. argenteus*.
- Stipe 5-10 cm. long; context becoming reddish when cut. 17. *A. rutescens*.
- Pileus 5-20 cm. broad.
- Stipe 2.5-5 cm. long.
- Context whitish, unchanging. 18. *A. brunnescens*.
- Context whitish, quickly reddening when cut. 19. *A. halophilus*.
- Stipe 10-15 cm. long. 20. *A. magniceps*.
- Pileus distinctly squamulose or echinate.
- Pileus 1-4 cm. broad.
- Pileus echinate. 21. *A. echinatus*.
- Pileus squamulose.
- Species growing in leaf-mold in woods. 22. *A. diminutivus*.
- Species growing on manure in the open; pileus usually quite umbonate. 23. *A. approximans*.
- Pileus 5-18 cm. broad.
- Context becoming distinctly reddish when wounded.
- Stipe 8-15 mm. thick. 24. *A. haemorrhoidarius*.
- Stipe 4-8 mm. thick.
- Pileus becoming reddish-brown when bruised or on drying. 25. *A. rubribrunnescens*.
- Pileus not changing as above. 26. *A. eludens*.
- Context not becoming distinctly reddish when wounded.
- Stipe 2-6 cm. long.
- Pileus with scattered fibrillose scales. 8. *A. campester*.
- Pileus with spot-like scales at the center. 27. *A. Sterlingii*.
- Stipe 6-15 cm. long.
- Stipe 4-8 mm. thick. 28. *A. placomyces*.
- Stipe 1-1.5 mm. thick.
- Annulus simple; hymenophores gregarious. 29. *A. sylvaticus*.
- Annulus double; hymenophores cespitose. 30. *A. subrufescens*.

1. *AGARICUS COMTULUS* Fries, *Epicr. Myc.* 215. 1838

Pileus subfleshy, campanulate to plane, 2–3 cm. broad; surface dry, appressed-silky or glabrous, white with a yellowish or rosy tint, becoming yellow on drying or when bruised, often darker at the center and with age; context thin, white, tinged with yellow, with mild taste and no characteristic odor; lamellae free, crowded, broad in front, pale-pink to purplish-brown; spores broadly ellipsoid, almost subglobose, very rounded at the ends, pale-purplish-brown under the microscope, about $4.5 \times 3.5 \mu$; stipe tapering upward, hollow, whitish, luteous at the base, becoming yellow on drying or when bruised, 3–6 cm. long, about 4 mm. thick; annulus delicate, yellowish-white, often fugacious.

TYPE LOCALITY: Europe.

HABITAT: On the ground in open woods or in rich, grassy places.

DISTRIBUTION: New England to Alabama and west to Michigan; also in Europe.

ILLUSTRATIONS: *Atk. Stud. Am. Fungi*, f. 24; Cooke, *Brit. Fungi*, pl. 533 (552); Fries, *Ic. Hymen.* pl. 130, f. 1; Richon & Roze, *Atl. Champ.* pl. 18, f. 10–13.

Specimens so named at Albany from Delmar and Menands seem to agree perfectly with material from Bresadola. Kauffman finds it rare in Michigan and says it needs more study. I have studied fresh specimens found here in the hemlock grove and Miss Eaton has drawn them in color.

2. *Agaricus alabamensis* sp. nov.

Pileus convex, cespitose, 3–5 cm. broad; surface smooth, of compacted fibrils, white, yellowish on drying, entire on the margin, the pellicle exceeding the lamellae by 2 mm.; context dry and spongy, white, with a distinctly sweetish taste and no odor; lamellae free, densely crowded, rather straight and narrow, cream-white to pink, then changing to brown; spores broadly ellipsoid, rounded at the ends, occasionally obliquely apiculate at the base, dark-purplish-brown under the microscope, $5.5\text{--}6.5 \times 4\text{--}5 \mu$; stipe slightly tapering upward, solid, smooth, of compacted fibrils, white, yellowish on drying, 6–8 cm. long, 1 cm. thick; veil thick, white; annulus heavy, distant about 1.5 cm. from the pileus.

TYPE LOCALITY: Auburn, Alabama.

HABITAT: In clay soil in a plowed field.

DISTRIBUTION: Known only from the type locality.

Collected by F. S. Earle on May 19, 1901. The entire hymenophore is white and practically glabrous. The stipe is much longer than that of *A. campester* and the spores are quite different.

3. *Agaricus comtuliformis* sp. nov.

Pileus thin, slightly convex, at length expanded, 2.5–5 cm. broad; surface at first bright-yellow, nearly white at maturity, but with yellowish or brownish stains, especially near the center; margin becoming light-brown with age; lamellae free, narrow, crowded, cream-white, changing to light-pinkish-lilac, at length purplish-brown; spores broadly ellipsoid, smooth, sometimes obliquely apiculate at the base, dark-purplish-brown under the microscope, about $5 \times 3.5 \mu$; stipe slender, not bulbous but tapering slightly upward, stringy or finally hollow within, nearly white but usually somewhat tawny and with more or less fibrous scales below the annulus, 5–7.5 cm. long, about 6 mm. thick; annulus fibrous and tomentose below, usually yellowish.

TYPE LOCALITY: Auburn, Alabama.

HABITAT: On the ground in pine woods.

DISTRIBUTION: Known only from the type locality.

Collected in quantity by F. S. Earle on July 29, 1899, and again on August 2 of the same year. It is larger than *A. comtulus*, with larger and darker spores, and the mature gills are darker. The surface of the pileus is bright-yellow in young, fresh plants, although much resembling that of *A. comtulus* in herbarium material.

4. *AGARICUS SOLIDIPES* Peck, Bull. Torrey Club 31: 180. 1904

Pileus fleshy, firm, convex, 2–7 cm. broad; surface squamose or rimose-squamose, white or whitish, involute on the margin; context white, unchangeable, edible, with an agreeable, sweet taste; lamellae crowded, free, dull-pink changing to dull-sepia, finally brownish-black; spores ellipsoid, $8-10 \times 5-6 \mu$; stipe very short, equal or tapering upward and downward, glabrous, solid, white or whitish, with a slight, white veil often adhering entirely to the margin of the pileus, 2–4 cm. long, 6–10 mm. thick.

TYPE LOCALITY: Denver, Colorado.

HABITAT: In prairie pastures.

DISTRIBUTION: Vicinity of Denver.

Type collected by E. B. Sterling in June, 1902. Plants bearing this name at Albany, collected by C. F. Baker at Claremont, California, in 1909, are quite different from Sterling's plants.

5. *AGARICUS PRAERIMOSUS* Peck, Bull. N. Y. State Mus. 94: 30.
1905

Agaricus tabularis Peck, Bull. Torrey Club 25: 325. 1898; not
A. tabularis Fries, 1821.

Pileus very thick, fleshy, firm, convex, 5–10 cm. broad; surface deeply rimose-areolate, whitish, the areoles pyramidal, truncate, their sides horizontally striate and their apices sometimes tomentose; context whitish, tinged with yellow; lamellae narrow, crowded, free, blackish-brown when mature; spores broadly ellipsoid, generally containing a single large nucleus, 7.5–9 x 6–7.5 μ ; stipe short, thick, solid, 2.5–5 cm. long, 1.5–2.5 cm. thick.

TYPE LOCALITY: Craig, Colorado.

HABITAT: In clay soil or dumps by roadsides.

DISTRIBUTION: Colorado.

Type collected by E. Bethel in August; also collected on dumps, etc., about Leadville by E. B. Sterling on September 18, 1901. The deep clefts in the pileus are probably caused to some extent by the dry air, as I have found them in other fleshy species from Colorado.

6. *AGARICUS PILOSPORUS* Peck, Bull. N. Y. State Mus. 94: 36.
1905

Agaricus sphaerosporus Peck, Bull. Torrey Club 31: 181. 1904;
not *A. sphaerosporus* Krombh. 1836.

Pileus fleshy, firm, broadly convex, sometimes slightly depressed in the center, 7–12 cm. broad; surface glabrous, whitish, the cuticle sometimes rimose, and the incurved young margin occasionally wavy or irregular when mature; context white, unchanging; lamellae thin, crowded, rounded behind, reaching the stipe, but free from it, rosy-red, becoming blackish-brown; spores globose or nearly so, 7.5–8 x 6–7.5 μ ; stipe nearly equal, thick, firm, solid, straight or curved, whitish, 3–10 cm. long, 2–3 cm. thick, with a thin, white veil rupturing and adhering partly to the margin of the pileus and partly to the stipe, forming a slight, fringed, soon evanescent annulus.

TYPE LOCALITY: Denver, Colorado.

HABITAT: In rich soil.

DISTRIBUTION: Vicinity of Denver, Colorado.

Collected by E. B. Sterling on June 7, 1902. The types at Albany are in excellent condition.

7. *AGARICUS CHLAMYDOPUS* Peck, Bull. N. Y. State Mus. 94: 36.
1905

Agaricus cothurnatus Peck, Bull. Torrey Club 31: 181. 1904;
not *A. cothurnatus* Fries, 1838.

Pileus fleshy, convex, with an involute margin, 5–7.5 cm. broad; surface dry, glabrous or minutely pulverulent on the margin, chalky-white; context white; lamellae crowded, free, chocolate-colored becoming black; spores subglobose, 8–9 x 7–8 μ ; stipe nearly equal, white, with dense root-like fibers at the base, sheathed below by the white veil, which forms a cup-like annulus with its upper margin lacerate, 3–5 cm. long, 10–12 mm. thick.

TYPE LOCALITY: Denver, Colorado.

HABITAT: In rich soil along roadsides and paths.

DISTRIBUTION: Known only from the type locality.

Type collected by E. B. Sterling on July 25, 1902. The dried plants still retain their chalky whiteness.

8. *AGARICUS CAMPESTER* L. Sp. Pl. 1173. 1753

Pileus convex to expanded, 5–9 cm. broad; surface dry, silky and whitish, or floccose-squamulose and light-reddish-brown, the color being chiefly in the scales; context white, thick, solid, of mild flavor, usually not changing color when bruised; lamellae free, rounded behind, ventricose, crowded, pale-pink when young, becoming salmon-pink, and finally brown or blackish; spores ellipsoid, smooth, pale-purplish-brown under the microscope, blackish-brown in mass, about 7 x 4 μ ; stipe smooth, white, cylindric, nearly equal, stuffed within, 3–6 cm. long, 1–1.5 cm. thick; annulus above or near the middle of the stipe, simple, white, often evanescent.

TYPE LOCALITY: Europe.

HABITAT: Wild in meadows and rich pastures; cultivated in caves, mines, houses, etc.

DISTRIBUTION: Cosmopolitan.

ILLUSTRATIONS: Ann. Rep. N. Y. State Mus. 48: pl. 6; Atk. Stud. Am. Fungi, f. 1–8; Barla, Champ. Nice, pl. 27; Bull. Herb. Fr. pl. 134; Cooke, Brit. Fungi, pl. 526 (544); Fries, Sv. Aetl. Svamp. pl. 5; Gibson, Edible Toadst. pl. 5, 6; Gill. Champ. Fr.

pl. 129 (572, 573); Hard, *Mushr. f.* 248, 249; Hussey, *Ill. Brit. Myc.* 1: *pl.* 90; McIlv. *Am. Fungi*, *pl.* 91, *f.* 4, 5; Murrill, *Ed. Pois. Mushr. f.* 11; *Mycologia* 1: *pl.* 3, *f.* 1; *pl.* 15, *f.* 4; N. Marsh. *Mushr. Book*, *pl.* 18, *f.* 1; Palmer, *Mushr. Am.* *pl.* 1; Richon & Roze, *Atl. Champ. pl.* 14, *f.* 1-15; Ricken, *Blätterp. Deutschl. pl.* 61, *f.* 6; Sow. *Engl. Fungi*, *pl.* 305.

I have found the common edible mushroom wherever I have traveled, whether in northern or southern Europe, tropical America, or on the Pacific coast. About New York City it usually appears in late summer and early autumn. There are many varieties, which need not be discussed here. The literature of the species is extensive.

9. *AGARICUS VARIABILIS* Peck in McIlv. *Am. Fungi* 346. 1900;
not *A. variabilis* Batsch, 1783

Pileus ovoid to campanulate, becoming irregularly convex or nearly plane, subumbonate, densely cespitose, 10-15 cm. broad; surface smooth, minutely fibrillose or slightly floccose, pure-white, tinged with lilac in young plants and with yellow when older; margin not striate, but sometimes split; context very thin toward the margin, white, unchanging, with a strong almond-like taste and a slight odor of musk, edible, never attacked by larvae; lamellae free, crowded, ventricose, rather narrow, pure-white when young, becoming dark-umbrinous, without the usual purplish tint; spores dark-umber-brown, without a shade of purple; stipe equal, not bulbous, white, silky, smooth above the annulus, minutely scurfy below, 5-8 cm. long, nearly 1 cm. thick; annulus ample, white, mottled with yellow scales on the under side, persistent, fixed above the middle of the stipe.

TYPE LOCALITY: Mt. Gretna, Pennsylvania.

HABITAT: In an old roofless stable.

DISTRIBUTION: Known only from the type locality.

ILLUSTRATION: McIlv. *Am. Fungi*, *pl.* 91, *f.* 1.

According to McIlvaine, who discovered the species, it grew in large quantities in an old stable from September until after frost. I have not seen the types. It is said to differ from *A. subrufescens* in being snow-white when young and tinged with light-lilac rather than with reddish-brown. If it is really a good species, a new name must be found for it.

10. *AGARICUS RODMANI* Peck, Ann. Rep. N. Y. State Mus. 36:
45. 1884

Pileus rather thick, firm, at first convex, then nearly or quite plane, 5-10 cm. broad; surface smooth or rarely slightly rimose-squamose on the disk, white or whitish, becoming yellowish or subochraceous on the disk; context white, unchanging; lamellae crowded, narrow, rounded behind, free, reaching nearly or quite to the stipe, at first whitish, then pink or reddish-pink, finally blackish-brown; spores broadly ellipsoid or subglobose, generally uninucleate, $5-6 \times 4-5 \mu$; stipe short, subequal, solid, whitish, smooth below the annulus, often furfuraceous or slightly mealy-squamulose above, 5-7.5 cm. long, 12-25 mm. thick; annulus variable, thick or thin, entire or lacerate, attached at or below the middle of the stipe, often appearing double with the margins projecting above and below a central groove.

TYPE LOCALITY: Astoria, Long Island, New York.

HABITAT: In grassy ground and paved gutters.

DISTRIBUTION: Canada to Virginia and west to Michigan.

ILLUSTRATIONS: Ann. Rep. N. Y. State Mus. 48: *pl. 9, f. 1-6*; Atk. Stud. Am. Fungi, *f. 17*; Hard, Mushr. *f. 250*; Kauffm. Agar. Mich. *pl. 45*; N. Marsh. Mushr. Book, *pl. 19*.

Named for Rev. Washington Rodman, who collected the types on Long Island. Specimens are to be seen at Albany also from Macoun, Wells, Wilson, Mackintosh, and Braendle. I have found it more than once about New York City. Dr. Kauffman reports it as frequent in Michigan, especially in cities, growing solitary or in clusters which sometimes contain 50 or 100 individuals.

11. *AGARICUS FLORIDANUS* Peck, Bull. N. Y. State Mus. 150: 50.
1911

Pileus hemispheric or campanulate, becoming nearly plane, solitary or subcespitose, 9-15 cm. broad; surface rimosely areolate or slightly strigose, becoming glabrous, whitish with a yellow or yellowish center; lamellae at first white, then pink, and finally dark-brown or blackish; spores globose or broadly ellipsoid, $5-6 \times 4-5 \mu$; stipe easily separable from the pileus, equal or slightly thickened at the base, solid, becoming fibrous when old, whitish, 5-10 cm. long, 1.5-3 cm. thick; annulus small.

TYPE LOCALITY: DeFuniak Springs, Florida.

HABITAT: In sandy soil among grass in fields.

DISTRIBUTION: Known only from the type locality.

A number of specimens, preserved at Albany as the types, were collected by Dr. G. Clyde Fisher on March 29, 1910.

12. *AGARICUS CRETACELLUS* Atk. Jour. Myc. 8: 110. 1902

Pileus thin, convex to expanded, gregarious or sometimes a few joined at the base, 4–7 cm. broad; surface smooth, slightly viscid in wet weather, white with a yellowish tint at times; context white, or rarely with a pink tint, with odor and taste of almonds; lamellae narrow, free, narrowed behind, white at first, then pink, later becoming grayish-brown, not becoming black; spores 4–5 x 3 μ ; stipe tapering from the enlarged base, white, smooth above the annulus, chalky-white below and covered with minute, white, powdery scales often arranged in irregular concentric rings below, solid, with the center less dense, 5–8 cm. long, 6–10 mm. thick; annulus persistent, white, smooth above, the lower surface with very fine floccose scales similar to those on the stipe from which the annulus is separated.

TYPE LOCALITY: Ithaca, New York.

HABITAT: On leaf-mold in woods.

DISTRIBUTION: New York and Michigan.

Kauffman says it is infrequent in Michigan in early autumn, growing gregariously on leaf-mold in coniferous regions.

13. *AGARICUS PRATENSIS* Scop. Fl. Carn. ed. 2. 2: 419. 1772

Agaricus arvensis Schaeff. Fung. Bavar. Ind. 73. 1774.

Pileus convex to expanded, 6–15 cm. broad; surface dry, subshining, glabrous or decorated with small fibrillose scales, white, becoming yellowish with age or on drying; context white, becoming yellowish, thick, highly flavored and easily digested, with an agreeable odor; lamellae free, crowded, broad, at first pallid, becoming slowly grayish-pink, and finally blackish-brown; spores very broadly ellipsoid, smooth, pale-purplish-brown under the microscope, blackish-brown in mass, about 7 x 5.5 μ ; stipe glabrous, stuffed or hollow, white, becoming yellowish when bruised, often enlarged at the base, 5–10 cm. long, 8–16 mm. thick; annulus of two parts, membranous and white above, radiately split and tinged with yellow below.

TYPE LOCALITY: Bavaria.

HABITAT: In rich soil in pastures, fields, and wood borders.

DISTRIBUTION: Eastern North America; Bermuda and Mexico; also in Europe.

ILLUSTRATIONS: Ann. Rep. N. Y. State Mus. 48: *pl.* 8; Cooke, Brit. Fungi, *pl.* 523 (540); Fries, Sv. Aetl. Svamp. *pl.* 4; Gill. Champ. Fr. *pl.* 129 (571); Hard, Mushr. *f.* 252, 253; Hussey, Ill. Brit. Myc. 1: *pl.* 76, 77; Lucand, Champ. Fr. *pl.* 162; Murrill, Ed. Pois. Mushr. *f.* 27; Mycologia 6: *pl.* 137, *f.* 2; Richon & Roze, Atl. Champ. *pl.* 10, *f.* 1-5; Ricken, Blätterp. Deutschl. *pl.* 62, *f.* 2; Schaeff. Fung. Bavar. *pl.* 310, 311; Sow. Engl. Fungi, *pl.* 304.

14. *AGARICUS SYLVICOLA* Sacc. Syll. Fung. 5: 998. 1887

Agaricus campestris sylvicola Vitt. Descr. Funghi Mang. 43. 1832.

Agaricus bulbosus McClatchie, Proc. S. Cal. Acad. Sci. 1: 382. 1897.

Agaricus abruptus Peck, Mem. N. Y. State Mus. 3: 163. 1901; not *A. abruptus* Fries, 1852.

Agaricus abruptibulbus Peck, Bull. N. Y. State Mus. 94: 36. 1905.

Pileus convex or expanded, 5-15 cm. broad, all parts of the plant except the lamellae being white at first and becoming tinged with straw-color in places with age or when bruised, or almost entirely on drying; surface smooth, shining, glabrous or slightly silky; context white, with agreeable odor and taste; lamellae thin, crowded, rounded behind, free, pale-reddish-gray when young, becoming darker with age, and finally brown or blackish-brown with a chestnut tint; spores ellipsoid, purplish-brown, 5-7 x 3-4 μ ; stipe long, equal, smooth, stuffed or hollow, bulbous, white, 8-20 cm. long, 6-15 mm. thick; veil usually double, forming a thin, membranous annulus decorated with floccose patches below.

TYPE LOCALITY: Italy.

HABITAT: In rich soil or humus in open woods and wood borders.

DISTRIBUTION: Temperate North America and Europe.

ILLUSTRATIONS: Atk. Stud. Am. Fungi, *f.* 19, 20; Cooke, Brit. Fungi, *pl.* 529 (547); Gill. Champ. Fr. *pl.* 129 (581); Hard, Mushr. *f.* 251, 254; Kauffm. Agar. Mich. *pl.* 47; Mycologia 6: *pl.* 139; N. Marsh. Mushr. Book, *pl.* 18, *f.* 2, & *pl.* 20; Peck, Mem. N. Y. State Mus. 3: *pl.* 59, *f.* 1-14; Richon & Roze, Atl. Champ. *pl.* 12, *f.* 1-4.

This attractive species is usually distinguished from *A. arvensis* by its smaller size and more slender shape. The abruptly bulbous stipe often seen in American specimens can hardly be considered a specific character; the same variation occurs in *A. subrufescens*, for example. There are many specimens at Albany from the eastern United States and I found it in several places on the Pacific coast, but never abundant.

15. AGARICUS MICROMEGETHUS Peck, Bull. N. Y. State Mus. 116: 44. 1907

Agaricus pusillus Peck, Ann. Rep. N. Y. State Mus. 54: 152. 1901; not *A. pusillus* Schaeff. 1774.

Pileus fleshy but thin, convex, becoming plane, sometimes slightly depressed at the center, solitary or cespitose, 1–5 cm. broad; surface dry, silky-fibrillose or fibrillose-squamulose, grayish-brown, darker or brown on the disk, often with yellowish or ferruginous stains; context fragile, white or whitish, not changing color when wounded, with taste and odor of almonds; lamellae thin, crowded, free, grayish, soon pinkish, finally brown; spores broadly ellipsoid or subglobose, $5 \times 4 \mu$; stipe equal or slightly tapering upward, sometimes bulbous, stuffed or hollow, slightly fibrillose, white, 1–2.5 cm. long, 2–6 mm. thick; annulus slight, often evanescent.

TYPE LOCALITY: Detroit, Michigan.

HABITAT: In various kinds of soil in shaded or exposed places.

DISTRIBUTION: New England to Tennessee, and west to Michigan and Texas.

ILLUSTRATION: Bull. N. Y. State Mus. 116: pl. 107, f. 1–6.

Type collected by Dr. R. H. Stevens. Other specimens are at Albany from Mackintosh, Morris, DeRouville, etc. I collected it on the Upper St. Regis; at Unaka Springs, Tennessee; and at Blacksburg, Virginia. There are specimens here also from New Jersey and Texas. The plant is not always *small*, but often about the size of the ordinary field mushroom. This is expressed in Peck's later name. Specimens from Delhi, New York, collected by Sherwood, are set aside by Peck as a variety.

16. *AGARICUS ARGENTEUS* Braendle in Peck, Bull. Torrey Club **26**:
68. 1899

Pileus thin, convex, becoming nearly plane, 2.5–5 cm. broad; surface slightly silky or glabrous, pale-grayish-white or grayish-brown, shining with a silvery luster when dry; margin sometimes striate, at first incurved, often revolute with age; context edible, whitish, becoming blackish when cut; lamellae crowded, free, at first brownish, becoming blackish-brown or black with age; spores broadly ellipsoid, 7–10 x 6 μ ; stipe short, glabrous, solid, often narrowed toward the base, 2.5–4 cm. long, 4–8 mm. thick; annulus slight, evanescent.

TYPE LOCALITY: Washington, District of Columbia.

HABITAT: Lawns and grassy places in rich soil.

DISTRIBUTION: Known only from the vicinity of Washington.

Collected by F. J. Braendle, who says that the drying specimens emit a strong but not unpleasant odor. The species appears after rains from April to November, and is often associated with *Stropharia bilamellata*.

17. *AGARICUS RUTILESCENS* Peck, Bull. Torrey Club **31**: 180.
1904

Pileus fleshy, firm, convex with incurved margin, becoming nearly plane, 2.5–6 cm. broad; surface even or sometimes rimose and minutely fibrillose, dingy-white, becoming ferruginous, reddish-brown, or bay on drying; context whitish changing to reddish when cut or broken; lamellae crowded, narrow, free, reddish becoming blackish-brown; spores broadly ellipsoid, 7–8 x 5–6 μ ; stipe equal or nearly so, firm, stuffed, silky, white, changing to reddish when wounded, frequently abruptly bulbous at the base, with a white veil often adhering partly to the margin of the pileus and partly to the stipe, 5–10 cm. long, 6–10 mm. thick.

TYPE LOCALITY: Denver, Colorado.

HABITAT: On manured ground in pastures.

DISTRIBUTION: Vicinity of Denver, Colorado.

Collected by E. B. Sterling on June 7, 1902. The types are well preserved at Albany.

18. *AGARICUS BRUNNESCENS* Peck, Bull. Torrey Club **27**: 16.
1900

Pileus thick, firm, hemispheric, becoming convex or nearly plane, gregarious, 5–10 cm. broad; surface fibrillose, sometimes slightly

squamose, bay-brown or brownish; margin extending beyond the lamellae and appendiculate from the remains of the veil; context whitish or grayish-white, unchanging, with an agreeable taste, edible; lamellae crowded, rounded behind, free, but reaching the stipe, at first whitish, then reddish-pink, finally brown; spores broadly ellipsoid or subglobose, $6-8 \times 4-6 \mu$; stipe short, silky, stuffed or hollow, whitish, then reddish, and finally brown, 2.5-4 cm. long, 6-16 mm. thick; annulus thick, of a soft, felty texture, persistent, whitish, often striate on the upper surface with impressions of the edges of the lamellae.

TYPE LOCALITY: East Cambridge, Massachusetts.

HABITAT: In dump ground on deposits of manure and street scrapings.

DISTRIBUTION: Vicinity of Cambridge, Massachusetts.

Several good specimens are at Albany, including the types collected by Miss Helen Noyes. See Peck's description for long and interesting notes. My *A. campester hortensis*, described and figured in MYCOLOGIA for July, 1914, seems very near this species. The spores are very broadly ellipsoid to subglobose, smooth, pale-purplish-brown under the microscope, about $7 \times 5 \mu$; appearing broader and quite different from those of typical *A. campester*. The lamellae of my plant, also, are not so pink as those of the common mushroom.

19. AGARICUS HALOPHILUS Peck, Bull. N. Y. State Mus. 94: 36.
1905

Agaricus maritimus Peck, Bull. Torrey Club 26: 66. 1899; not
A. maritimus Fries, 1818.

Pileus very fleshy, firm, at first subglobose, then broadly convex or nearly plane, 5-20 cm. broad; surface glabrous, sometimes slightly squamose with appressed spot-like scales, white becoming dingy or grayish-brown when old; context whitish, quickly reddening when cut, edible, with an agreeable taste and a distinct odor, suggestive of the odors of the seashore; lamellae narrow, crowded, free, pinkish becoming purplish-brown with age, white on the edges; spores broadly ellipsoid, purplish-brown, $7-8 \times 5-6 \mu$; stipe short, stout, firm, solid, equal, sometimes bulbous, white, 2.5-5 cm. long, 1.5-2.5 cm. thick; annulus delicate, slight, and easily obliterated.

TYPE LOCALITY: Lynn, Massachusetts.

HABITAT: On sandy soil near salt water.

DISTRIBUTION: Massachusetts.

The type collected by Dr. R. F. Dearborn in November is well preserved at Albany. Dr. Dearborn also found specimens at Lynn, Nahant, and Marblehead from June to December. Peck has published interesting notes in connection with his description. Mr. Oscar Hill collected it at Revere, Massachusetts, on May 29.

20. AGARICUS MAGNICEPS Peck, Bull. N. Y. State Mus. 94: 36.
1905

Agaricus magnificus Peck, Bull. Torrey Club 26: 67. 1899; not
A. magnificus Fries, 1838.

Pileus fleshy, thick, convex, becoming nearly plane or centrally depressed, gregarious or cespitose, 5–15 cm. broad; surface glabrous, often wavy and split on the margin, white or whitish, often brownish in the center; context 1.5–2 cm. thick in the center, thin on the margin, white, unchanging, edible, with taste and odor of anise; lamellae numerous, rather broad, crowded, free, ventricose, white becoming dark-purplish-brown with age, never pink; spores small, ellipsoid, 5–6 x 3–4 μ ; stipe firm, stuffed with a cottony pith, bulbous or thickened at the base, fibrillose, striate, minutely furfuraceous toward the base, pallid or whitish, 10–15 cm. long, 2.5 cm. thick; annulus thin, persistent, white.

TYPE LOCALITY: Mount Gretna, Pennsylvania.

HABITAT: In thin woods.

DISTRIBUTION: Massachusetts, New Jersey, and Pennsylvania.

ILLUSTRATION: McIlv. Am. Fungi, pl. 94.

Collected by McIlvaine in August, 1898. The types at Albany are in rather bad condition because not properly dried before shipping. Sterling found it at Trenton, New Jersey, and Simon Davis in Massachusetts.

21. AGARICUS ECHINATUS Gunn. Fl. Norv. 2: 125. 1772

Pileus subfleshy, campanulate to expanded, gregarious or subcespitose, 1–3 cm. broad; surface dry, densely covered with minutely floccose to wart-like or pointed, fuliginous scales; context thin, white, becoming reddish; lamellae free, narrow, crowded, pink to dark-purplish-red or fuscous; spores ellipsoid, smooth,

dilute-ferruginous, with a purplish-brown tint under the microscope, hyaline when immature, reddish-purple-brown in mass, 4-5 x 2-3 μ ; stipe equal, floccose-pulverulent and pale-fuliginous below, stuffed, white to blood-red within, 2-4 cm. long, 2-4 mm. thick; veil floccose, easily torn, forming an imperfect annulus.

TYPE LOCALITY: Norway.

HABITAT: In rich soil in greenhouses.

DISTRIBUTION: East Lansing, Michigan; also in Europe.

ILLUSTRATIONS: Ann. Sci. Nat. II. 5: *pl.* 13, *f.* 2 (as *Agaricus oxyosmus*); Cooke, Brit. Fungi, *pl.* 395 (422) (as *Inocybe*); Gunn. Fl. Norv. 2: *pl.* 7, *f.* 6, 9, 10; Pat. Tab. Fung. *f.* 155 (as *Pholiota*); Ricken, Blätterp. Deutschl. *pl.* 31, *f.* 6 (as *Inocybe*); Roth, Catal. Bot. 2: *pl.* 9, *f.* 1.

I have authentic specimens from Europe of this very rare and interesting species reported by Dr. Kauffman as occurring in a greenhouse in East Lansing, Michigan. Saccardo places it in *Inocybe* and cites several synonyms. Patouillard classified it as a *Pholiota*. It very much resembles some species of *Lepiota* that turn red and have brown-tinted spores. Some of the figures also show a booted stipe, as in *Lepiota amianthina*.

22. AGARICUS DIMINUTIVUS Peck, Bull. Buffalo Soc. Nat. Sci. 1: 53. 1873

Pileus thin, fragile, convex, becoming plane or centrally depressed, sometimes with a slight umbo, 2.5-4 cm. broad; surface dry, alutaceous, whitish, or pinkish-brown, adorned with small, appressed, silky, brownish scales, brownish or reddish-brown in the center; lamellae crowded, thin, free, ventricose, brownish-pink, becoming blackish-brown or black; spores ellipsoid, brown, 5 x 4 μ ; stipe equal or slightly tapering upward, hollow or stuffed with a whitish pith, glabrous, whitish or pallid, 4-5 cm. long, 2-5 mm. thick; annulus thin, white, persistent.

TYPE LOCALITY: Croghan, New York.

HABITAT: Among fallen leaves or on mossy ground in woods.

DISTRIBUTION: Vermont, New York, and Michigan.

ILLUSTRATIONS: Ann. Rep. N. Y. State Mus. 54: *pl.* 74, *f.* 1-8; Kauffm. Agar. Mich. *pl.* 50, *f.* 2.

This species has been collected from a dozen or more localities in northern New York and Kauffman says it is frequent in Michi-

gan during August and September. I got a good collection on the Upper St. Regis and sent some of it to Albany. I also found a rather small specimen at Unaka Springs, Tennessee, which was isabelline with reddish-brown disk, and had a smooth, glabrous, white stipe which was cream-colored toward the base.

23. *AGARICUS APPROXIMANS* Peck, Bull. N. Y. State Mus. 131:
33. 1909

Pileus thin, conic or campanulate, often obtusely umbonate, gregarious or sometimes two united at the base, 2.5-4 cm. broad; surface squamulose except on the umbo, often radiately rimose, whitish, with brownish squamules, blackish-brown or fuscous on the umbo; context white, unchanging, with a sweet and agreeable taste; lamellae thin, crowded, free, white, becoming brown or blackish-brown; spores 5-6 x 3.5-4 μ ; stipe equal or tapering upward, stuffed or hollow, whitish, sometimes brownish below the annulus, 2.5-4 cm. long, 4-6 mm. thick; annulus conspicuous, persistent, simple, white, attached above the middle of the stipe.

TYPE LOCALITY: Near Trenton, New Jersey.

HABITAT: On manure.

DISTRIBUTION: Known only from the type locality.

ILLUSTRATION: Bull. N. Y. State Mus. 131: *pl. V, f. 8-14*.

Collected by E. B. Sterling on September 5, 1908. The types, which are well preserved at Albany, remind me in their shape of some species of *Lepiota*.

24. *AGARICUS HAEMORRHODARIUS* Schulz. in Kalchb. Ic. Hymen.
Hung. 29. 1874

Pileus fleshy, ovoid to expanded, solitary or somewhat clustered, 5-11 cm. broad; surface dry, covered especially toward the center with rather dense, appressed, fibrillose, brownish-gray squamules; context white, changing to blood-red when broken, the odor and taste agreeable; lamellae free, approximate, crowded, rosy-flesh-colored to purplish-brown; spores ellipsoid, smooth, purplish-brown, about 6 x 4 μ ; stipe subequal, fibrillose, pallid to somewhat darker with age, stuffed to hollow, solid at the base, which is sometimes bulbous, 5-10 cm. long, 8-15 mm. thick; annulus superior, ample, simple, persistent, white.

TYPE LOCALITY: Hungary.

HABITAT: About bases of trees in coniferous or mixed woods.

DISTRIBUTION: Temperate regions of North America, south to Virginia and west to California; also in Europe.

ILLUSTRATIONS: Ann. Rep. N. Y. State Mus. 54: *pl.* 75, *f.* 1-13; Cooke, Brit. Fungi, *pl.* 531 (550); Gill. Champ. Fr. *pl.* 129 (577); Kalchb. Ic. Hymen. Hung. *pl.* 18, *f.* 1; Richon & Roze, Atl. Champ. *pl.* 16, *f.* 1-6.

Peck called attention to this species in his 45th Report, his remarks being based on specimens collected under hemlocks at Menands, New York. It has since been reported from the United States in localities widely scattered. Kauffman found it infrequent in certain parts of Michigan, Harper got it in California, and I have it from Brooklyn, New York. It is easily recognized by its quick change to red when any part is bruised or broken in the fresh condition.

25. *Agaricus rubribrunnescens* sp. nov.

Pileus convex to expanded, rather thin, gregarious, reaching 8 cm. broad; surface dry, white, conspicuously ornamented from youth to maturity with slightly reddish scales, becoming reddish-brown when bruised or on drying; context thin, white, changing to reddish-brown; lamellae free, narrow, crowded, pink to dark-purplish-brown; spores ellipsoid, smooth, purplish-brown under the microscope, about $5.5 \times 3.5 \mu$; stipe slender, equal or slightly enlarged at the base, slightly fibrillose, stuffed, white, becoming reddish-brown when handled or on drying, about 5 cm. long and 5 mm. thick; annulus simple, ample, persistent, white to slightly yellowish.

TYPE LOCALITY: Bronxwood Park, New York City.

HABITAT: About exposed roots of a living red maple tree on a lawn.

DISTRIBUTION: New York City and Long Island.

The type specimens were collected by me on September 8, 1916, in my yard, where the plant has appeared for several years. I have it also from two places on Long Island. It differs from *A. haemorrhoidarius* in its conspicuously scaly surface and smaller spores.

26. *AGARICUS ELUDENS* Peck, Bull. N. Y. State Mus. 139: 42.

1910

Pileus thin, ovoid, broadly conic or subcampanulate, sometimes broadly expanded, cespitose or solitary, 5–10 cm. broad; surface brown when young, becoming whitish and covered with brown, fibrillose squamules, smooth and brown on the disk; margin surpassing the lamellae when young; context white, changing to reddish when wounded; lamellae thin, crowded, narrow, free, whitish becoming bright-pink, then chocolate-brown and finally black or blackish-brown; spores subglobose or ellipsoid, 5–7 × 4–5 μ ; stipe firm, nearly equal or sometimes thickened at the base, often slightly bulbous, fibrous, silky, white, distinctly hollow, white within, changing to blood-red when wounded, then to brown or black, 2.5–7 cm. long, 4–8 mm. thick; annulus thick, persistent, white, attached near the apex of the stipe.

TYPE LOCALITY: Near Trenton, New Jersey.

HABITAT: On dumping grounds.

DISTRIBUTION: Known only from the vicinity of Trenton.

ILLUSTRATION: Bull. N. Y. State Mus. 139: *pl. X, f. 6–13*.

The types were collected by E. B. Sterling on September 15, 1908, and he secured many more specimens on September 13, 1909. These are all at Albany. I see no difference between them and the type specimens of *A. placomyces*, which is known to become reddish-brown when bruised and to grow abundantly in the open at times.

27. *AGARICUS STERLINGII* Peck, Bull. Torrey Club 29: 73. 1902

Pileus fleshy, firm, convex or sometimes slightly depressed in the center, cespitose, 5–12 cm. broad; surface slightly silky and sometimes with appressed spot-like scales at the center, pale-brown or grayish-brown; context dingy, white or brownish, edible; lamellae thin, crowded, free, pale-brown, becoming blackish-brown with age; spores broadly ellipsoid, 6–8 × 4 μ ; stipe equal or nearly so, solid or stuffed, 2.5 cm. long, 8–12 mm. thick, whitish, sometimes darker above the annulus, with a thick veil partly adhering to the margin of the pileus and partly to the stipe.

TYPE LOCALITY: New Jersey.

HABITAT: Unknown.

DISTRIBUTION: Known only from the type locality.

The type at Albany is marked "New Jersey, E. B. Sterling."

The specimens have ordinary garden loam attached to their clustered stipes. The species resembles *A. subrufescens* above, but the stipe is much shorter and thicker.

28. *AGARICUS PLACOMYCES* Peck, Ann. Rep. N. Y. State Mus. 29: 40. 1878

Pileus thin, at first convex, becoming flat with age, solitary, gregarious, subcespitose, or in rings, 5–8 cm. broad; surface dry, squamulose, whitish, becoming brown with age or when bruised, the disk and small scales blackish-brown; context rather thin, white or yellowish, without characteristic odor, edible; lamellae free, crowded, white, then pinkish, finally blackish-brown; spores ellipsoid or ovoid, smooth, purplish-brown under the microscope, 5–6 x 3.5–4 μ ; stipe slender, smooth, containing a small pith, becoming hollow, slightly tapering upward, bulbous, white or whitish, becoming brown when bruised or on drying, 8–13 cm. long, 4–8 mm. thick; annulus large, flabby, floccose, double, persistent, fixed near the apex of the stipe.

TYPE LOCALITY: Oneida, New York.

HABITAT: On the ground in hemlock or mixed woods; sometimes in the open.

DISTRIBUTION: Temperate North America, south to Alabama and west to California.

ILLUSTRATIONS: Ann. Rep. N. Y. State Mus. 48: *pl. 9, f. 7–12*; Atk. Stud. Am. Fungi, *f. 21–23*; Bull. U. S. Dept. Agr. 175: *pl. 25, f. 1*; Hard, Mushr. *f. 255–257*; McIlv. Am. Fungi, *pl. 91, f. 3*.

In addition to the type material from Oneida, Peck had many other specimens from New York, New England, Missouri, Minnesota, and elsewhere. I found it on the Pacific coast, but not in tropical regions. It is a very symmetrical and easily recognized species, found especially under hemlock trees.

29. *AGARICUS SYLVATICUS* Schaeff. Fung. Bavar. Ind. 62. 1774

Pileus campanulate to expanded, gregarious, 8–11 cm. broad; surface at first grayish, then yellowish-white, covered with brown scales, rufous-fuscous on the disk; context rather thick, with agreeable odor and taste; lamellae remote, crowded, rose-colored to reddish-cinnamon; spores ellipsoid, smooth, incarnate-fulvous, 6–7 x 3.5–4 μ ; stipe equal or swollen at the base, glabrous or nearly so, whitish, hollow, 6–9 cm. long, 1–1.5 cm. thick; annulus simple, distant, ample, white, flocculose.

TYPE LOCALITY: Bavaria.

HABITAT: On the ground in woods.

DISTRIBUTION: Temperate North America, Canada to Alabama and west to California; also in Europe.

ILLUSTRATIONS: Bres. Fungi Trid. 1: *pl.* 90; Richon & Roze, Atl. Champ. *pl.* 18, *f.* 6-9; Schaeff. Fung. Bavar. *pl.* 242.

Peck recognized two color forms, one light and the other dark. He had specimens from Canada, Vermont, Illinois, etc., as well as from New York, but most of them appear to be different from plants collected by me in Sweden and other authentic material obtained from Bresadola. The typical plant is covered above with brown scales and does not change in color as does *A. haemorrhoidarius*.

30. AGARICUS SUBRUFESCENS Peck, Ann. Rep. N. Y. State Mus.
46: 25. 1893

Pileus at first deeply hemispheric, becoming convex or broadly expanded, cespitose, 5-18 cm. broad; surface silky-fibrillose, becoming conspicuously squamulose, whitish, grayish, or dull-red-dish-brown, usually smooth and reddish-brown on the disk; margin not striate, often splitting with age; context white, unchanging, with the taste of green nuts and the odor of almonds when crushed; lamellae free, narrow, crowded, at first white or whitish, then pinkish, finally blackish-brown; spores ellipsoid, smooth, dark-purplish-brown under the microscope, 6-7.5 x 4-5 μ ; stipe rather long, often somewhat thickened or bulbous at the base, at first stuffed, then hollow, white and subglabrous above the annulus, floccose-fibrillose to somewhat scaly toward the base, 6-15 cm. long, 1-1.5 cm. thick at the top, twice as thick below; annulus rather distant, very ample, reflexed, double, smooth and white above, ornamented with floccose, pale-tawny scales below.

TYPE LOCALITY: Glen Cove, Long Island, New York.

HABITAT: On leaf-mold in woods and on compost heaps consisting mainly of decaying leaves.

DISTRIBUTION: New York to Michigan and southward; also cultivated.

ILLUSTRATIONS: Ann. Rep. N. Y. State Mus. 48: *pl.* 7; Bull. U. S. Dept. Agr. 175: *pl.* 26; Kauffm. Agar. Mich. *pl.* 48-50.

This splendid species grows wild and is sometimes cultivated.

The type was collected by William Falconer. Peck had specimens also from northern New York, New Jersey, Michigan, and the District of Columbia. Dr. Kauffman has made a special study of it in Michigan and pronounces it the largest species of the genus in his state. When growing on compost, it naturally attains larger proportions than when growing wild in the woods. I have specimens from Long Island six inches broad; and I found a cluster in Tennessee under red cedars in a pasture composed of individual plants five inches broad and six inches high.

DOUBTFUL AND EXCLUDED SPECIES

Agaricus Achimenes Berk. & Curt. Ann. Mag. Nat. Hist. II. 1: 98. 1849. Described from South Carolina and also reported from North Carolina. I saw a portion of the type at Upsala, but did not make full notes on it; so I have asked Miss Wakefield to describe the specimens at Kew, which she has very kindly done as follows:

“There are three specimens of this. The largest, from which the spores drawn were taken, has a pileus measuring 9 cm. across. The other two are 4 and 5 cm. The pileus is slightly umbonate. The stalk varies from about 7 to 9 cm. in length. It is 7–8 mm. thick above, and becomes gradually thicker towards the base. A well-marked ring, with entire edge, occurs about one third of the distance from the apex. The base of the stem has some whitish mycelium adhering to it. The gills are very crowded, and appear to have been either free or adnexed. They are lightish-brown in colour. Spores pale-yellowish by transmitted light, apiculate, 11–12 x 8 μ , and with a blunt apex such as one often sees in *Coprinus* spores, as if there were a regular germ-pore there. The plant is surely a *Pholiota*.”

Agaricus amygdalinus M. A. Curt. Gard. Chron. 34: 1066. 1869. Curtis did not describe the plant, but said it could be recognized at once by its taste and odor of bitter almonds. According to him, it occurred commonly in North Carolina among leaves in rich woods, etc. See *A. fabaceus*. Other species of *Agaricus* are now known to have an almond flavor.

Agaricus cretaceus Fries, Syst. Myc. 1: 280. 1821; not *A. cretaceus* Bull. 1787. Described from plants found in manured fields in Sweden. Reported from North Carolina, Minnesota, and California by the older collectors. Peck mentioned it in his 22d Report, and there is a specimen in his collection from West Albany

so labeled, which does not entirely agree, however, with plants from Europe. Kauffman says the species differs from *A. creta-cellus* Atk. in its "hollow stem, gills blackish-fuscous at maturity, and pileus at length scaly." I have an idea that it has been confused by some with *Lepiota naucina*.

Agaricus fabaceus Berk. Lond. Jour. Bot. 6: 314. 1847. Described from Waynesville, Ohio, growing among dead leaves in woods. Reported from South Carolina by Ravenel and from other localities by various collectors. Dr. Farlow suggested it might be the same as *A. amygdalinus* Curt. and *A. subrufescens* Peck. Miss Wakefield writes me from Kew as follows:

"The type from Lea, Ohio, consists of three specimens, in fairly good condition. The pileus is 10 cm. across in the largest, 5 cm. in the smallest, and umbonate. The stalk is somewhat swollen at the base, and 11 cm. long in the large specimen. Gills crowded, dark, either free or adnexed. No ring now present. Spores dark-brown by transmitted light, about 6-7 x 3.5-4 μ ."

Agaricus flavescens (Gill.) Sacc. Syll. Fung. 5: 1000. 1887. Two collections so named at Albany are different and rather poorly preserved. *A. sylvicola* becomes yellowish with age or on drying and may have been confused by some American collectors with *A. flavescens*.

Agaricus foederatus Berk. & Mont. Syll. Crypt. 121. 1856. Described from plants collected in July in a pasture near Columbus, Ohio, by Sullivant. The description suggests a species of *Stropharia*, as Morgan has claimed. There is no specimen at Kew.

Agaricus xylogenus Mont. Syll. Crypt. 122. 1856. Described from plants collected near Columbus, Ohio, by Sullivant. See notes in *Mycologia* 6: 151. 1914, and in N. Am. Fl. 10: 64. 1914.