Peck, C.H. (1900). New species of fungi. *Bull. Torrey bot. Club* **27**(6): 14-21.

New Species of Fungi

BY CHARLES H. PECK

Amanita calyptrata

Pileus fleshy, thick, convex or nearly plane, centrally covered by a large irregular persistent grayish white fragment of the volva, glabrous elsewhere, striate on the margin, greenish yellow or yellowish brown tinged with green, the margin often a little paler or more yellow than the rest: lamellae close, nearly free but reaching the stem and forming slight decurrent lines or striations on it, yellowish white tinged with green: stem stout, rather long, equal or slightly tapering upward, surrounded at the base by the remains of the ruptured volva, white or yellowish white with a faint greenish tint: spores broadly elliptic, 10 μ long, 6 μ broad, usually containing a single large nucleus.

Pileus 10–20 cm. broad: stem 10–15 cm. long, 12–20 mm. thick.

Rich ground in fir woods or their borders. Autumn. Oregon. Dr. H. Lane.

This is a large and interesting species, well marked and easily recognized by its large size, by the greenish tint that pervades the pileus, lamellae, annulus and stem and especially by the large persistent patch of grayish white felty material that covers the center of the pileus and sometimes extends nearly to the margin. This is in fact the upper part of the ruptured volva that is carried up by the growing plant and is very suggestive of the specific name. In the young state the plant is entirely enveloped in the volva which then is similar to a goose egg in size and shape, and its walls are one-fourth to one-half an inch thick. So thick and firm are they that the young plant appears sometimes to be unable to break through and it decays in its infancy.

Dr. Lane says that, having found that the Italians made use of this mushroom for food, he began eating it and introducing it to his friends, and he learned by personal trial that it is a thoroughly good and wholesome mushroom, which, when broiled with bacon, fried, baked or stewed, may be eaten with perfect safety and that it is a nutritious food.

Amanita crenulata

Pileus thin, broadly ovate, becoming convex or nearly plane and somewhat striate on the margin, adorned with a few thin whitish floccose warts or with whitish flocculent patches, whitish or grayish, sometimes tinged with yellow: lamellae close, reaching the stem, and sometimes forming decurrent lines upon it, floccose crenulate on the edge, the short ones truncate at the inner extremity, white: stem equal, bulbous, floccose mealy above, stuffed or hollow, white, the annulus slight, evanescent: spores broadly elliptic or subglobose, 7.5–10 μ long, nearly as broad, usually containing a single large nucleus.

Pileus 2.5–5 cm. broad: stem 2.5–5 cm. long, 6–8 mm. thick.

Low ground, under trees. Eastern Massachusetts. September. Mrs. E. Blackford and George E. Morris.

The volva in this species must be very slight, as its remains quickly disappear from the bulb of the stem. The remains carried up by the pileus form slight warts or thin whitish areolate patches. The annulus is present in very young plants, but is often wanting in mature ones, in which state the plant might be mistaken for a species of *Amanitopsis*. Its true affinity is with the tribe to which *Amanita rubescens* belongs. As in that species, the bulb soon becomes naked and exhibits no remains of the volva. It is similar to *Amanitopsis farinosa* also in this respect, but quite unlike it in color, in the adornments of the pileus and in the character of its margin, which is even in the young plant and but slightly striate in the mature state. Its dimensions are said sometimes to exceed those here given, and it is reported to have been eaten without harm and to be of an excellent flavor. I have had no opportunity to try it.

Lepiota rugulosa

Pileus thin, submembranaceous, broadly convex or nearly plane, umbonate, rugulose, widely striate on the margin, whitish: lamellae thin, narrow, close, free, whitish: stem short, equal, slightly silky, whitish, the annulus thin, persistent, white: spores elliptic, 7.5 μ long, 4 μ broad.

Pileus 12–20 mm. broad: stem about 2.5 cm. long, 2 mm. thick.

Moist grassy places under trees. Washington, D. C., July. Mrs. E. M. Williams. Perhaps in the fresh state the pileus is not as distinctly rugulose as when dry.

Agaricus brunnescens

Pileus thick, firm, hemispherical, becoming convex or nearly plane, fibrillose, sometimes slightly squamose, bay brown or brownish, the margin extending beyond the lamellae and appendiculate by the remains of the veil, flesh whitish or grayish white, unchangeable, taste agreeable: lamellae close, rounded behind, free but reaching the stem, at first whitish, then reddish pink, finally brown: stem short, silky, stuffed or hollow, whitish, the annulus thick, of a soft felty texture, persistent, whitish, often striated on the upper surface by impressions of the edges of the lamellae: spores broadly elliptic or subglobose, 6–8 μ long, 4–6 μ broad.

Pileus 5–10 cm. broad: stem 2.5–4 cm. long, 8–16 mm. thick.

Dump ground on deposits of manure and street scrapings. East Cambridge, Mass. September and October. Miss Helen M. Noyes.

The species differs from the common mushroom, *A. campester*, in its brown color, in its thicker and more persistent collar, its hollow stem and more rosy tint of the immature lamellae. The cavity of the stem is small. From *A. maritimus*, to which it has some points of resemblance, it may be separated by its darker color, its thicker and more persistent collar and by its flesh not assuming reddish hues where wounded.

Mr. G. B. Fessenden informs me that he found this mushroom seven years ago growing in soil made of the sweepings of cattle cars, but that he had not seen it since until this season. The plants are gregarious and grow in very rich loose and dryish soil composed of manure and sweepings of streets and cattle cars. They continue to appear for several weeks in succession or until cold weather stops their growth. They frequemtly develop fully beneath the surface of the ground. *A. maritimus* also has this same peculiarity. It is an edible species and is eagerly sought by Italians who are after them every day by 4 o'clock in the morning.

Stropharia irregularis

Pileus thin, fragile, subcampanulate, irregular, umbonate, glabrous, often rimose about the umbo and split on the thin wavy or irregular margin, whitish, grayish or yellowish, often white on the margin: lamellae close, dingy pink when young, becoming brown with age: stem slender, fragile, slightly floccose, hollow, often cracking transversely, shining, white, the slight annulus soon

breaking into fragments and disappearing: spores elliptic, 6–7.5 μ long, 4–5 μ broad.

Pileus 2.5–5 cm. broad: stem 5–14 cm. long, 4–6 mm. broad.

Cespitose. Mountain pastures. Linden, Va. August. Mrs. E. M. Williams.

Boletus caespitosus

Pileus broadly convex or nearly plane, sometimes slightly concave by the elevation of the margin, even, brown or blackish brown, the margin often a little paler or reddish brown, flesh slightly tinged with red: tubes adnate or slightly decurrent, yellow, their mouths rather large, angular, concolorous: stem short, even, solid, glabrous, tapering upward, brown or reddish brown: spores oblong elliptic, 10 μ long, 5 μ broad.

Pileus 1–2.5 cm. broad: stem 2–2.5 cm. long, 4–6 mm. thick.

Cespitose. Virginia. August. R. S. Phifer.

A small species growing in tufts and referrable to the tribe *Subtomentosi*. The tubes retain their bright yellow color in the dried specimens.

Boletus subsanguineus

Pileus convex or slightly depressed in the center, glabrous, viscid, bright red or scarlet, flesh thick, firm but flexible, white, slowly changing to a pale brownish lilac on exposure to the air, taste slightly bitter: tubes very short, 2–4 mm. long, adnate but often separating from the stem with the expansion of the pileus, reddish, the mouths minute, stuffed at first, pinkish, then brownish yellow changing to a light brown where wounded: stem short, thick, uneven, often tapering downward, streaked with red, pale yellow at the top, white at the base, marked at the top by the decurrent walls of the tubes.

Pileus 2.5–10 cm. broad: stem 2.5–5 cm. long, 2–4 cm. thick.

Solitary, gregarious or cespitose. Under beech trees. West Philadelphia, Pa. August. C. McIlvaine.

This is a very showy species, easily recognized by its bright red viscid pileus and its short thick and uneven or somewhat lacunose stem. It is closely related to the European *B. sanguineus* With from which it is separated by its minute tubes, its uneven stem and the brownish hues assumed where wounded.

The spore characters of this and the four succeeding species are unknown, but the other characters are quite distinctive and ap-

parently sufficient for the recognition of the species. The descriptions have been derived from colored figures and other data furnished by Mr. McIlvaine who says all are edible.

Boletus eccentricus

Pileus thick, firm, convex, irregular, glabrous, more or less lobed or wavy on the involute margin, gray or yellowish gray, flesh white, close grained, elastic, unchangeable, taste and odor farinaceous: tubes convex, depressed around the stem, not reaching the margin of the pileus, somewhat uneven or pitted on the surface, yellowish brown, the mouths subangular, at first concolorous, becoming reddish or reddish purple: stem eccentric, tapering downward, solid, uneven with short irregular shallow grooves or obscure reticulations, tinged with red at the top, grayish below, tinged with red or purple within at the base.

Pileus 5–10 cm. broad: stem 4–5 cm. long, 3–4 cm. thick at the top.

Sandy soil in grassy places in woods. Mt. Gretna, Pa. August and September.

The species is well marked by its eccentric stem, thick irregular pileus and the reddish or reddish purple mouths of the mature tubes. Mr. McIlvaine remarks that when it is cooked it is delicate and savory.

Boletus badiceps

Pileus firm, convex or somewhat centrally depressed when mature, dry, velvety, obliquely truncate on the margin, bay red or dark maroon color, flesh white, unchangeable, taste and odor mild, sweet, suggestive of molasses: tubes plane, adnate, white or whitish, becoming dingy with age, the mouths minute: stem equal or slightly swollen in the middle, radicating, glabrous, solid, brownish.

Pileus 4–8 cm. broad: stem 4–5 cm. long, 1.5–3 cm. thick.

Oak woods. West Philadelphia, Pa. August and September.

The truncate or beveled margin of the pileus is a striking feature in this species. It is about 4 mm. broad and as even as if cut with a knife. Sometimes the surface of the stem ruptures transversely just below the top, the liberated shreds above curling upward against the tubes and those below curving outward and downward. In mature plants brownish spots appear in the flesh of the pileus. "When cooked it is of high flavor and tender as kidney," C. McIlvaine.

Boletus crassipes

Pileus convex or centrally depressed, firm, dry, velvety, brown tinged with yellow, the wavy or lobed involute margin extending beyond the tubes, flesh lemon yellow, unchangeable, taste sweet, odor like that of yeast: tubes rather short, depressed around the stem, almost free, yellowish mottled with brown, the mouths minute, stuffed when young: stem stout, thick, sometimes swollen in the middle and sometimes bulbous, beautifully reticulated but the reticulations sometimes disappearing with age, orange yellow tinged with brown, flesh of a brighter yellow than that of the pileus.

Pileus 5–10 cm. broad: stem 6–8 cm. long, 2.5–3.5 cm. thick.

Oak woods. Mt. Gretna, Pa. August and September.

The thick, beautifully reticulated stem, the deep velvety brown color of the pileus and the yellow color of the flesh serve to distinguish this species.

Boletus fulvus

Pileus thick, convex or subcampanulate, dry, glabrous, rimose areolate, tawny yellow, the extreme margin dark brown, flesh spongy, tough, white, slowly assuming a reddish tint on exposure to the air: tubes rather long, ventricose, depressed around the stem and free or nearly so, greenish yellow, the mouths small, tawny yellow: stem rather long, often narrowed and striate at the top, dotted with brownish orange granules or points, radicating, tough, stuffed with greenish yellow fibers, colored like the pileus.

Pileus 5–7.5 cm. broad: stem 10–12.5 cm. long, 8–16 mm. thick.

Cespitose on decaying stumps. West Philadelphia, Pa. August. Mr. McIlvaine says that there were between 20 and 30 specimens on and about an old stump and that they were as attractive to the eye as a cluster of *Clitocybe illudens*.

Polyporus albiceps

Pileus tough, plane or slightly depressed in the center, even, glabrous, dry, opake, white without and within: pores short about 1 mm. long, minute, subrotund, decurrent, white, the thin dissepiments dentate on the edge: stem central or nearly so, subequal, glabrous, solid, pallid.

Pileus 2.5–5 cm. broad: stem 2.5–4 cm. long., 6–8 mm. thick.

Decaying wood buried in the ground under walnut trees. Sea beach, New Hampshire. Mrs. A. M. Hadley.

Stereum pulverulentum

Resupinate, hard, adnate, tuberculose, crowded, appearing as if confluent in a continuous stratum with the tubercles separated by narrow cracks, the surface pulverulent, pale clay color inclining to wood-brown.

Bark of paper birch, *Betula papyrifera.* Orono, Maine. October. F. L. Harvey.

The species is related to *Stereum frustulosum,* but the tubercles are more crowded, smaller and thinner than in that species and have no blackish margin. The pulverulence is more conspicuous on the larger and thicker ones.

Guepinia biformis

Pileus stipitate, at first erect and cupulate, then curved to one side, often split to the stem on one side and lobed on the margin, tough, gelatinous and tremelloid when moist, tapering downward into the stem, minutely granulose tomentose or subvelvety and grayish or dingy buff externally: the hymenium glabrous, even or with a few folds or ridges radiating from the base, reddish-brown: stems terete or compressed, tough or coriaceous, velvety tomentose, grayish or dingy buff, often seriately confluent at the base.

Pileus 6–12 mm. broad: stem 4–10 mm. long, 2–4 mm. thick.

Decaying wood of deciduous trees. Ames, Iowa. September. Miss Alice Hess.

The species is apparently related to *G. cohaerens* Mig., *G. cochleata* B. & Br. and *G. palmiceps* Berk., from all of which it differs in color. The hymenium when moist resembles raisins in color and when turned to one side it is strongly suggestive of the apothecia of some species of *Peltigera.* The tomentum of the stem is similar to that of the exterior surface of the pileus.

Hypomyces volemi

Subiculum very thin, whitish or isabelline: perithecia minute, brown, nestling in the subiculum: asci very slender, 100–125 μ long, sporiferous part, 4 μ broad: spores oblong fusiform, 12–15 μ long, 4 μ broad, commonly binucleate.

Parasitic on the hymenium of *Lactarius volemus.* Pennsylvania. Charles McIlvaine.

The hymenium of the host plant is changed in appearance by the parasite, but the stem and upper surface of the pileus remain unchanged.

Cordyceps nigriceps

Club subovate, obtuse, minutely papillose from the slightly prominent perithecia, greenish black when fresh and moist, black when dry, about 12 mm. long and 10 mm. broad, the margin free and extending below the attachment to the stem: stem equal, solid, pale cadmium yellow toward the base, suffused with bluish green above, pale yellow at the top, white within, 7–8 cm. long, 5–6 mm. thick: asci 280–350 μ long, 12 broad: spores 8, filiform, hyaline, separating into cylindric segments, each 20–40 μ long, 4 μ broad, generally containing 3–6 minute nuclei.

Among fallen pine leaves. Saco, Maine. November. Charles L. Fox.

The substance on which the specimens grew was not ascertained, but probably it was some subterranean fungus. The species is remarkable for the pileate character of the club by which it may be distinguished from its allies. It resembles *Cordyceps capitata* but may be readily distinguished from it by the free margin of the club and the more narrow spore segments. In drying the green hues disappear.

Macrophoma curvispora

Perithecia minute, numerous, erumpent, surrounded and partly covered by the remains of the ruptured epidermis, black: spores oblong, curved, colorless, 15–17 μ long, 4 μ broad, supported on sporophores as long as or a little longer than the spores.

Bark of apple trees. British Columbia. Collected by R. M. Palmer. Communicated by William Paddock.

The fungus seems to cause the bark of the branches to loosen and crack.

Fistulina hepatica monstrosa n. var.

Subglobose, supported on a short stem or stem-like base, the external surface entirely covered with tubules 2–4 mm. long.

Pennsylvania. C. McIlvaine. In color and texture resembling the common form, but Mr. McIlvaine informs me that there is nothing in the position or place of growth of the specimens to account for their peculiar character. They are 3–4 inches in diameter.