

acid taste and in its closer adnate gills. Its cap is red, varying from pale red to dark red, viscid when moist, even on the margin when young but somewhat tuberculate and striate when old. Its surface is roughened by minute tubercles or pimples, which sometimes appear to run together and form short ridges. These are sometimes absent from the center of the cap. The viscid cuticle cagily peels from the margin of the cap but not from the center. The flesh is white except just under the cuticle, where it is reddish. It is soft and fragile, and its taste is slowly and much less sharply acrid than in the emetic russula. Its gills are closely placed, attached to the stem and persistently white. The stem is brittle, soft and spongy within, smooth and white. The cap is 2-4 inches broad; the stem 2-3 inches long, 4-8 lines thick.

It grows in woods among mosses and fallen leaves or on the bare ground and appears in August and September. It is an inhabitant of the Adirondack forests. Its slightly acrid flavor is destroyed in cooking and it affords a harmless, tender and agreeable food.

Russula abietina n. sp.

FIR TREE RUSSULA

PLATE 72, FIG. 1-11.

Pileus thin, fragile, convex, becoming nearly plane or slightly depressed in the center, viscid when moist, the viscid pellicle separable, tuberculate striate on the margin, flesh white, taste mild; lamellae subdistant, ventricose, narrowed toward the stem, rounded behind and nearly free, whitish, becoming pale yellow, the interspaces venose; stem equal or tapering toward the top, stuffed or hollow, white; spores bright yellowish ochraceous, subglobose, rough, .0003—.0004 of an inch broad.

The fir tree russula is closely related to the youthful russula, *R. puellaris* Fr., from which it is separated by the viscid cap, the gills rather widely separated from each other and nearly free, the stem never yellowish nor becoming yellow where wounded, and the spores having an ochraceous hue. They are much brighter and more highly colored in the mass than the mature gills. The cap varies much in color, but the center is generally darker than the rest. It may be dull purple or greenish purple with a brownish or blackish center or sometimes with an olive green center, or it may be olive green or smoky green with a brownish center. Olive green and purplish hues of various shades are variously combined, but sometimes the margin is grayish and the center olive green. The flesh is white and its taste mild. The gills are white when

young, or barely tinged with yellow, but they become pale yellow with age. They are neither crowded nor widely attached to the stem and are connected with each other by cross veins, which can be seen at the bottom of the interspaces. The stems are rather slender, soft or spongy within, sometimes becoming hollow and occasionally tapering upward. They are very constantly and persistently white. The cap is 1-2.5 inches broad; the stem 1-2.5 inches long, 3-5 lines thick. This russula grows under or near pine, spruce or balsam fir trees. It occurs from July to October. It is tender and palatable. The stems also are tender and may be cooked with the caps.

Pluteus cervinus (*Schaeff*) Fr.

FAWN FLUTE US

PLATE 74, FIG. 9-19

Pileus fleshy, very convex or campanulate, becoming broadly convex or nearly plane, glabrous or fibrillose, rarely squamulose in the center, variable in color, flesh white, taste disagreeable; lamellae rather broad, close, rounded behind, free, white or whitish, becoming pink; stem equal or slightly tapering upward, solid, glabrous or slightly fibrillose; spores pink, elliptic, .00025-.0003 of an inch long, .0002—.00025 broad.

The cap of the fawn pluteus may be white, yellowish, grayish, grayish brown or dark brown. In the typical form, if we may judge from the specific name, it is grayish red or fawn color, but I have seen no such American specimens. It is sometimes smooth, sometimes adorned with blackish fibrils or small scales, specially in the center. Rarely the center is slightly prominent, and the cap is then almost umbonate. In wet weather it may be slightly viscid. The flesh is white, but its flavor is scarcely agreeable when uncooked. The gills in the young plant are closely packed side by side and may well be called crowded, but with the expansion of the cap they separate and are less crowded. They are rounded at the end next the stem and free from it. When young they are white, when mature, pink. The stem is firm, solid, straight or curved, glabrous or slightly fibrillose and varies in color from white to brown. A form which has both cap and stem white has received the name, variety *albus*. Another form has the stem white but the cap grayish, yellowish or brown. This is called variety *albus*. This variety is sometimes found growing from sawdust in empty ice houses. Its stem in such cases is often elongated. It grows in the dark as well as in the light.