

with a loud, humming sound, like that of a bumble bee, for which it is often mistaken. During the summer months it is not seen, but a new brood appears about the middle of September. The beetle is a general feeder, occurring upon flowers, eating the pollen; upon cornstalks and green corn in the milk, sucking the juices; and upon peaches, grapes, and apples. Occasionally the ravages are very serious." (Comstock's Manual for the Study of Insects, p. 565.)

Although this beetle is so common, and has been known for more than a hundred years, nothing was recorded of its earlier stages (beyond the fact that it occurred in its various stages in the nests of ants) until December, 1894. Then Mr. Chittenden (Insect Life, VII., 272) recorded the rearing of the beetle from larvæ found in manure on Long Island. When found, July 9th, the larvæ were encased in cocoons, and the last week in August these cocoons contained living adults.

On June 19th and July 8th, 1896, I received a large number of grubs from Mt. Kisco, N. Y. They were found in a manure pile that had not been disturbed since the preceding August, and from the soil beneath another pile made in October and moved in the following April. One of these grubs is represented, twice natural size, at *c* on the plate. When compared with a white grub (*Lachnosterna*, sp.), it was found to be considerably shorter and thicker-set; its legs were not more than one-half as long, and its head was also much smaller than that of the white grub. The dull leaden hue of the body, due to the contents of the food-canal, indicated that its food consisted of dead vegetable matter rather than living roots, as in the case of the white grub. When they were placed on their feet or venter, they would crawl an inch or so and then roll over and crawl with considerable rapidity, with a wave-like motion, on their backs. I also found several similar grubs in a pile of rotting sod and manure which had not been disturbed for a long time. I have seen no evidence of their eating the roots of living plants.

The grubs were placed in cages containing rotting sod and manure, in which they quickly buried themselves. Twenty days later, July 28th, the grubs had changed to pupæ in earthen cocoons of the somewhat peculiar and definite shape shown, twice natural size, at *b* on the plate. Evidently the grub forms an earthen cell in the soil by rolling and twisting about, and then cements together the particles of earth composing the walls of the cell so as to form an earthen cocoon, which retains its form