

The chrysalis (fig. 6) is of a dark shining mahogany color, roughened especially on the anterior edge of the segments in the back. It remains

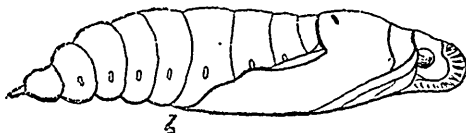


Fig. 6.

in the ground through the fall, winter and spring months, producing the moth the following summer.

#### VARIATIONS IN THE WING EXPANSE OF PEZOTETTIX.

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In the CAN. ENT., vol. ix., p. 112, I have described as a new species, under the name of *Caloptenus volucris*, a long-winged variety of *Pezotettix autumnalis* Dodge. I separated it because of its great length of wing, in which respect it equals many specimens of *Cal. spretus*, while in the typical *autumnalis* the elytra are very short, ovate and pointed. It also exhibited some variations in color. The latter I have since seen paralleled in *autumnalis*, and having found long-winged varieties of two other species of *Pezotettix*, I am now fully satisfied of the varietal character of *volucris*.

All the authorities agree in making the lack of wings, or the abbreviated character of those organs, the principal reason for separating the genus *Pezotettix* from *Caloptenus*. My experience shows, however, that the length of wing in these insects cannot be relied upon as a specific distinction even. It is plain that these long-winged varieties by in-breeding might establish a local variety of what would appear to be *Caloptenus*, but which would in reality be *Pezotettix*. It is possible, then, that all our species of *Caloptenus* were originally *Pezotettix*; that, by acquiring additional means of locomotion, were enabled to survive their ignoble relatives. This would certainly accord with the natural law of the "survival of the fittest."