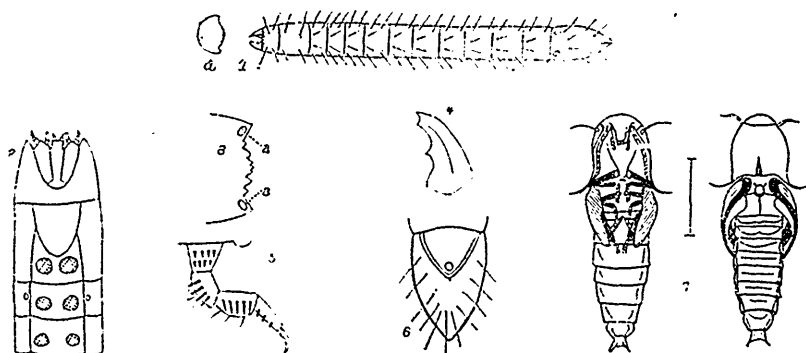


vation of a large number of larvæ, which appeared readily separable into *two sizes*, corresponding to those originally collected for breeding. Westwood, in his "Modern Classification of Insects," (vol. 1, 238), states respecting the larva of an allied species (*A. obscurus*) which, in Europe, feeds upon the roots of wheat, rye, oats, barley and grass, that according to Bjerkander, a Swedish Naturalist, "it is *five* years in arriving at the perfect state." Curtis, in his "Farm Insects," (page 161) makes a similar statement upon the same authority, and adds that those which he had himself feeding for ten or twelve months scarcely increased in size during the time. As already stated, however, I am of opinion that our species is by no means so long lived, but that it attains maturity in three years—a period quite long enough, the agriculturist must think, in which to inflict damage upon the crops.

Through the kindness of Dr. Horn, of Philadelphia, I am enabled to offer to the readers of the CANADIAN ENTOMOLOGIST the following careful description of the larva and pupa which, together with the accompanying illustrations, he has prepared from examples that I furnished him. I need only add that I have now another batch of larvæ in breeding, and that I hope next season to be able to afford some further information on points of interest connected with the life history of this destructive insect. The imago is described in Say's Entomological books, vol. ii., p. 111.



1. Larva much magnified, (natural size |-----|) 1 a. Transverse section. 2. Underside of head and first three or thoracic segments, showing the parts of mouth and the position of first spiracle. 3. Margin of front; a. Position of antennæ. 4. Mandible. 5. Leg. 6. Terminal segment beneath. 7. Pupa, upper and under view. The line between represents the natural size.

**LARVA (Fig. 1.) Form.**—Elongate subcylindrical, dorsal surface more convex.

**Tegment.**—Partially corneous, colour testaceous.