## THE CANADIAN ENTOMOLOGIST

After remaining in the larval mines for several days the colours become darker and the markings more distinct.

Full grown larva. Length 7.5 mm. Elongate, composed of 13 segments, very little tapering posteriorly. Colour white except the head, most of the first thoracic segment, legs and upper side of anal segment, which are brownish or brownish red. Thoracic and abdominal segments convex above and less so below. Head subquadrate, flat, shining, with median dorsal line groove terminating in an inverted V. Head about 1/2 the greatest width of the first thoracic segment. Antennæ 3-jointed, joints of equal length. First thoracic segment 11/2 times the length of the second. Second and third of equal length. Thoracic segments of equal width, sides arcuate. Sides of abdominal segments 1 to 8 produced into triangular tubercles (giving abdomen a notched appearance) capped with minute globular tubercles bearing several minute hairs.' First thoracic segment bearing a faint, median dorsal impressed line with a transverse, foveiform impression on either side. Dorsal surface of 2nd and 3rd thoracic segments and abdominal segments 1 to 8 each with a transverse, median impression and a short, oblique one on either side. Ventral surface of abdominal segments 1 to 8 similar to dorsal surface except that the transverse impressions are somewhat curved. Nine pairs of stigmata, one pair on second thoracic segments, and a pair each on all abdominal segments except the 8th. Each abdominal spiracle situated at the base of the lateral tubercle a little before the middle of the segment, the ninth pair in the dorsal surface of the anal segment. Thoracic and anal stigmata larger than the others.

Pupa. Length 6.5 mm. Resembles larva in general shape but is shorter and more convex. Colour reddish brown. Abdomen showing lateral tubercles conspicuous in larva, each tubercle bearing 2 or 3 long bristles. Dorsal surface of 1st thoracic segment bearing 6 pairs of minute tubercles arranged in a triangle of three on either side of a fine median white line, each tubercle bearing a long spine-like hair. Dorsal surface of each abdominal segment bears 10 minute tubercles, (4 medially and 3 lateral ones on either side) each bearing a long spine-like hair. A pair of spine-like hairs

399