Pupa.—Much like the mature insect, but with rudimentary wings. All brownish-yellow, the legs, cases and antennæ darker, eyes blackish.

The flies emerged in August.

Cræsus latitarsus, Norton.

(The white birch saw-fly.)

 $E_{ggs.}$ —Laid closely along the midrib or larger veins on the under side of the leaf, about half enclosed in median saw-cuts which are distended by the eggs so that they lie obliquely in contact. Soft, translucent white; seen to be very minutely punctured under a magnification of 60 diameters. Size, 1.4x.6 mm.

First stage.—Eating holes through the leaf, which soon become conduent; lashing the body. Head round, a little higher than wide, full at vertex; shining black; width, 0.4 mm. Body light shining greenish. Tubercles very obscure, not setiferous, only the subventral ones distinct and nearly concolorous. Thoracic feet blackish; the segments of body obscurely annulate.

Second stage.—Head very smooth, even brownish-black, pale above the mouth; width, 0.55 mm. Body olive-green, the subventral ridge and feet blackish. No setæ seen.

Third stage.-Head black ; width, 0.75 mm. Much the same.

Fourth stage.-Head, 1.05 mm. wide. Markings much as before.

Fifth stage.—Head round, full at vertex, well rounded, not pointed, without trace of sutures; flattened in front over clypeus, with a few slight clypeal dents. Entirely shining black; width, 1.6 mm. Body indistinctly 4-annulate, watery shining smooth; no dots, but minute black setæ represent them. Thoracic feet large, spreading, black, pale centrally. Abdominal feet present on joints 6-11 and 13 (20 feet), with a medioventral eversible gland, posterior to each pair on joints 6-10. These glands are longer than the feet, when everted, are coloured rather darker than the body. When disturbed the larva throws its body up over its head and the ventral glands are quickly everted and retracted. Ground colour honey-yellow heavily shaded with greenish black, the yellow appearing on joint 2 anteriorly, stigmatally and on the abdominal feet.

Sixth stage.—Width of head, 2.2 mm. As before, but smooth; no setæ seen. Joint 2; the dorsal and stigmatal irregular bands and abdominal feet honey-yellow, leaving the black shading most distinct subdorsally