

of its strongly-chitinized head against the tin. The sound invariably ceased when the box was touched, or even when one walked near it. Probably this species has the habit observed in the case of *Hepialus sequoiolus* (Williams, 1905, Ent. News, 16: 284).

The larvæ were not noticed to mutilate each other when kept together, as those of *H. sequoiolus* are known to do (Williams, 1905, Ent. News, 16: 20).

The larvæ and pupæ are to be found chiefly in the bases of healthy and dying stems, although the main mass of the stem will usually be found pierced by numbers of old tunnels. The larvæ apparently worked mainly in the younger tissue near the surface of the ground.

Several parasitized pupæ were obtained, but the ichneumons contained therein died in the pupal stage. No other parasites were found.

Description of the pupa: The length varies from 3 to 4 cm., the width from 7 to 8 mm.; colour dark reddish-brown, with head and dorsum of pro- and mesothorax black. The shape is cylindrical; the wings, legs and antennæ adhere closely, the thorax and abdomen are equal in width, and the sides are almost exactly parallel. The head tapers to a rounded point ventrally; the abdomen is broadly rounded behind. A very few inconspicuous yellow hairs are scattered over the surface. The head is very strongly chitinized, black, with flexuous corrugations, and with four irregular prominences and a median sulcus dorsally. This sulcus gives off a branch on each side which runs cephalo-ventrad behind each anterior prominence. Along these lateral sulci the cuticle splits upon transformation.

The prothorax is very strongly chitinized, black, and strongly, longitudinally corrugated dorsally, with a distinct median carina, more strongly marked cephalad. This carina is a continuation of the line of the dorsal sulcus of the head, and is continued as a narrow smooth line across the meso- and metathorax. The cuticle splits along this line at transformation. The mesothorax and metathorax are also strongly chitinized and corrugated dorsally, more strongly on the sides of the disc. The corrugations are transverse on the middle of the disc and irregular on the sides. The colour becomes lighter behind. The wings extend less than one-half (17/39) the length of the pupa. The tips of the third pair of legs project caudad between the tips of the wings. The first six abdominal segments are transversely and finely corrugated, more strongly cephalad. The