

inch, and the second laterals .9 inch; color red-orange, with a broad medio-dorsal band of greenish-black, and a broad, slate-black band which occupies the space between the dorsals and first laterals, and reaches to the farther sides of and embraces the tubercles of these rows; the base of body slate-black, so that the orange is restricted on dorsum to two narrow stripes lying between the dorsal and the two lateral bands, and to another stripe running with the spiracles (these bands widened much after the moult and as this stage proceeded), the whole upper surface highly glazed; feet and legs black; head obovoid, deeply cleft, with high conical vertices, on each of which stands a stout spinous recurved process, .15 inch long, black, in all respects formed like the body spines, except that it is less tapering, the upper two thirds being of about uniform size; the tip conical and giving out a short fine bristle; a few other like bristles about the sides; sides and back of head rounded, but the front much flattened; sparsely pilose; color of front black, with two vertical orange stripes, one on either side of and very near the suture; color of hind head, between the horns and down the sides greenish-yellow, the lower part of the side black; also a black stripe runs back from base of the horn. There was some variation in color at maturity; some larvæ had a gray line or stripe below spiracles; on one this line was white and extended the whole length, in another it disappeared at 5; the color of the dark band on upper part of side was greenish-black, or slate-black, varying with the point of view. From fourth moult to suspension 59 to 72 hours; from suspension to chrysalis 13 to 15 hours.

CHRYsalis—Length 1.05 in.; depth from dorsal to ventral side .34 in.; breadth at base of wings .26 in.; breadth across abdomen .2 inch; long, slender, the thorax much compressed laterally, and the wing cases very prominent, forming a narrow carinated hunch, which rounds abruptly on posterior end; head case high, cylindrical, compressed transversely, the top sloping on the ventral side at about 45°; on each vertex a short (.05 in. long) ear-like process, excavated on the dorsal side, and crenated at the top; between these the top of head is twice incurved; at the base of head case, on dorsal side, a depression; the mesonotum large, prominent, compressed, carinated, followed posteriorly by a deep and broad depression; wing cases smooth, a little flaring at base, depressed in middle; abdomen slender and tapering; a row of minute medio-dorsal tubercles, and on either side of these a row of large, rounded ones, those of the