

proportionally smaller than before, and are now situated internally, instead of at the surface, as in the first instar. The eyes on each side are about on a line with and outside of the two dorsal spines which have been mentioned as present on the cephalic region. The vestigial legs and antennæ can be distinctly seen, their relative position being as before. The antennæ are directed directly backward, reaching a little over one-half the distance to the base of the fore legs. They are thick at the base, narrowing toward the apex, covered with numerous minute papillæ. Their segmentation is indistinct, sometimes two and sometimes three segments being evident. They are immovable in this as well as the following immature stages. The legs are short, similar to a truncated cone in form, transversely wrinkled, with no distinct segments, terminating in a rounded knob, which, perhaps, functions as an adhesive disc. A few minute spines occur near the bases of all three pairs of legs. The mouth-parts are as before. The pair of spines at the anterior margin of the prostomial plate is wanting in this instar, but the pair on the ventral surface under the operculum is present as in the first instar. The colour remains as in the first instar. The length varies from .41 to .45 mm.; the greatest width, from .22 to .26 mm.

The second moult takes place in from four to five days after the first.

Third Instar.

In this instar the form, marginal and dorsal spines, marginal wax secretion, rudimentary legs, ventral spines, eyes and colour of the body are as in the second instar. The vasiform orifice is longer than wide, in form resembling a triangle with rounded corners. Operculum nearly semicircular, reaching about one-half the distance to the apex of the orifice. Lingula essentially as in the second instar. The antennæ arise nearer to the bases of the fore legs than in previous instars. They are indistinctly segmented, thick at the base, tapering toward the tip, the basal two-thirds of each is directed directly inward toward the antenna of the opposite side, while the apical third is bent backward toward the base, the whole forming a figure not unlike the letter J.

The length varies from .56 to .62 mm.; the greatest width, from .32 to .38 mm.

The third moult takes place in about five or six days after the second.

PUPA* (Fig. 4).

The form of the pupa is broadly elliptical, the margin finely

*As is customary in describing species of this genus, the specific characters are derived from the pupa. The description of this stage is therefore made complete in itself, and is sufficient to distinguish this from all other described species.