

cemented together with a glue-like secretion, and within this enclosure it is transformed to a chrysalis of a yellowish white color. Through the partially transparent membrane the limbs of the future beetle are dimly seen, and in due time the beetle bursts its filmy enclosure and emerges to the light of day.

As this insect affects only old and decaying trees, it seldom does much harm. The use of alkaline washes, applied to the bark of the trees in July, would probably deter these beetles, in common with others, from depositing their eggs on the trees thus coated, and any mischief they might otherwise do be in this manner prevented.

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#### DESCRIPTION OF THE PREPARATORY STAGES OF PAPILIO PALAMEDES, DRURY. (*Calchas*, Fab.)

BY W. H. EDWARDS, COALBURGH, W. VA.

EGG—Spherical, a little flattened at base; color greenish-yellow. Duration of this stage four to five days.

YOUNG LARVA—Length .1 inch; near the end of the stage .28 inch, and then cylindrical, greatly thickened from 3 to 6; after 6, tapering to 12, then thickening to end, the back and sides after 6 a little incurved; 2 has a thin square ridge and on each curve of same a thick fleshy process, longer than others on body, thickly beset with straight hairs; there are two rows of similar processes, sub-dorsal, smallest on the narrow segments, colored as the segment they stand on, those on 12 and 13 considerably larger than any others except on 2; besides the subdorsal rows, are two dorsal, running the whole length of body, and one row on side, another along base; all these are small, simple tuberculations with hair on end; color of body brown-yellow marked with white; a white band, not very clearly defined, especially on its lower edge, passes along the side of segments 3 to 8, turning up on 8 to edge of dorsum, the two extremities there not quite meeting; 12 and 13 are white; under side greenish-brown; feet and legs same; head obovoid, a little depressed at top, smooth, shining, color yellow-brown, a shade darker than body. To 1st moult about 4 days.

After 1st Moulting—Length .33 inch; same general shape, at first the