

and almost immaculate orange secondaries. On the under surface of both pairs of wings the markings are the same as above, but the ground colour of the wings is much lighter than usual, and is of a lovely lemon yellow; the abdomen, thorax, head, antennæ and legs are the same as in the typical form.

Of this form, I have seen several examples in various collections, and I believe that it is a sufficient variation to have at least a name of its own. I therefore claim the pleasure of dedicating this pretty form to the memory of my deceased friend, Frederick W. Klages, who was preparing for a second collecting trip to Jamaica, when he was taken ill and died.

### PARTIAL PREPARATORY STAGES OF HEMILEUCA CALIFORNICA, WRIGHT.

BY G. H. FRENCH, CARBONDALE, ILL.

The eggs are sub-globular, between that and sub-quadrate, shaped much like *Luna* and its allies; length, .06 inch; width, .06 inch, by .05 inch in height; smooth, the apex flattened, but the base rounded. Colour, olive green; those on one side of the twig, red tinted. They were placed round a twig of food plant (willow) with one of the long ways across the twig. They were from California, and were deposited about the last of October. As they hatched the middle of the following April, this would give six months as the duration of this period.

Young Larva.—Length, .12 inch. Sub-cylindrical, largest at the anterior end. Body black, or, we might say, orange-black; each joint with six fleshy, cylindrical tubercles, nearly as long as the diameter of the body, from each of which arise two white hairs. Head black; venter, legs and anal segment orange. Duration of this period, 8 days.

*After 1st moult.*—Length, .16 inch. Shaped as before. Uniform brownish-black, the tubercles and all; hairs grayish-white. Duration of this period, 11 days.

*After 2nd moult.*—Length, .25 inch. Of a uniform black, about the same shade as before; the two dorsal rows of tubercles orange with black bases, those on the posterior part of the body with the black extending well up on the tubercle, two pale hairs for each tubercle.

During this period all died. Though I had several thousand of them, I failed to get any past the third moult. They were extremely gregarious in their feeding, huddling together on the food plant, and moving but little.