

mandibles, the large fleshy laterally arranged maxillae, and the ventral labium (figs. 2 and 3). The maxillae possess two pairs of palps; the conically-shaped, sclerotized galea, and the more posteriorly situated maxillary palps (fig. 2). The latter, are broad, roughly ridged and sclerotized. On the anterior surface of the labium, and slightly elevated, is the horizontal, slit-like opening of the labial glands, or sericteries. Just lateral to this opening are the minute, conically-shaped, slightly sclerotized labial palps (figs. 2 and 3).

This description of the mouth parts agrees with the previously reported mouth parts for the larva of *E. burchelli* (EMERY, 1899 and 1901, and G. C. WHEELER, 1943).

The labrum, mandibles, maxillae and labium appear first in the largest (.604 mm) larvae at earliest stages (last statary and third nomadic days), and in all larger and older samples they are found throughout the size range. Throughout the nomadic phase of development the mandibles are heavily sclerotized in larvae of all sizes. The galea and maxillary palps, in contrast, first appear and subsequently become sclerotized at a different time, a fact which is found to serve as an index to larval maturity.

The galea and maxillary palps also develop precociously in the largest larvae, as is indicated by the fact that their most sclerotized condition is observed first in the largest larvae of each successive sample. In the sample of the thirteenth day, in which distinct signs of maturity are noted throughout the larval brood, even the smallest larvae exhibit an advanced degree of development in these structures. Of course, at all stages these structures, and others as well, exhibit size variations related to overall body size.

These studies indicate a developmental precocity which is greatest in the largest larvae, very probably the potential workers major, and least in the smallest larvae, or potential workers minima. However, there are indications that although the smallest larvae are last to complete the initial period of slower overall developmental acceleration, in their case the rate of development of these structures is subsequently greater than in the larger larvae (intermediate and major castes). This point may be better examined with respect to the imaginal leg discs, which make their first appearance at different times and undergo their subsequent growth at a different rate in larvae of the three size groups selected for study.

D. Imaginal leg discs.—G. C. WHEELER (1938), in describing the vestigial legs of the army ant larva, has referred to the relevant imaginal discs. These are three pairs of round or oval patches of hypodermis located on the ventral surface of the thoracic segments (fig. 4). The first appearance and progressive enlargement of the imaginal leg discs occur at a different time and at a different rate in larvae of each of the three polymorphic size groups. In our earliest samples (i.e., from the last statary and first nomadic days) the discs are found only in the largest larvae; in subsequent samples they are found successively later in the