

No. 2618 (Delaware County, June 5, 1938). This nest contained a normal dealate nest queen, the ergatogyne with undeveloped wing stubs, which is figured (Fig. 4), and two workers with eyes slightly larger than those of other workers but no wing development. In the same nest were 55 normal workers. This was a nest of the slightly larger, darker form which on comparison with types may prove to be *rugulosum* Wheeler (1915). The type material of *rugulosum* was collected by Dr. W. S. Blatchley at Wyandotte, Indiana.

The mouthparts are shown in detail because they are so minute in an ant 2-3 mm. long that they have been little studied and seldom figured for ants so small. Figures 5 and 6 show the labrum, which the ant keeps folded into the mouth. The mandibles of the male (Fig. 6) are without teeth as compared with those of the worker or of the queen (Fig. 5). What is probably a hypopharynx (Fig. 7) dissects out of the floor of the mouth of the male. It may occur in the female castes but was not found.

Figures 8, 9, and 10 are views of the maxilla, of male (Fig. 8), and queen (Figs. 9 and 10). The maxillary palp in the male is four-segmented, while in the queen and workers it has one segment. On the galea, revealed by transmitted light, is a comb-like series of sense organs. This is termed the "maxillary comb"; in the male it has 25 to 30 parts, while in the queen there are about 40. In larger ants these organs appear to be rigid hairs lying tight against the inner surface of the galea. Here they appeared to be more deeply embedded and less like free hairs. We have shown them, as seen by transmitted light, in Figures 8 and 10 and did not determine whether they were more closely associated with the internal or with the external surface of the galea. In Figure 9 the maxillary comb has been omitted to show better the hairs on the inner surface of the maxilla.

Figures 11, 12, 13, and 14 show the labium in the male and queen. In both the palpus is two-segmented. The inner surface is well supplied with long bristles (Figs. 11 and 14).

Figure 15 is a view at high magnification of the size of the pubescent hairs, showing their spacing as compared with the size of the ocellae of the compound eye. The area figured is between the eye and the base of the antenna of that side. We have been trying to develop some method of figuring the surface texture, pubescence, longer hairs, etc., of ants, as these items are used so extensively in describing species. The written terms are so susceptible of more than one interpretation. The checking by a figure of these parts against the size of the ocellae of the compound eye is one method of making a more accurate record of size and spacing of the pubescence.

The sting of the female (queen) is shown in Figures 17 to 20. The pair of cercus-like organs are considered appendages of segment X and are not cerci or appendages of segment XI. Before it has been lost by use, the apex of the sting bears a bifurcate membraneous cap (Fig. 20).

Segments VII-X are highly modified in the female. Apparently the sternite is missing from segments VIII, IX and X. The sternite of segment VII is twice as long as those of segments V and VI, which suggests