

above the convex posterior margin of the clypeus and between the bases of the antennal scapes, is shown. The ants are normally rugose here and this condition is indicated by short irregular lines. The dotted lines constituting the margin of each figure represent the frontal carinae which are expanded anteriorly as frontal lobes covering the insertions of the antennae. In the middle of each frontal area posteriorly lie the paired ocelli. Each pair is in the position of the normal single anterior ocellus of the functional female caste of the species. In the female of *A. coronatus globoculis* Forel, for example, the lateral ocelli lie immediately outside the frontal carinae in the position indicated in the figures by a pair of short, converging, dotted lines forming the most posterior portion of the drawings.

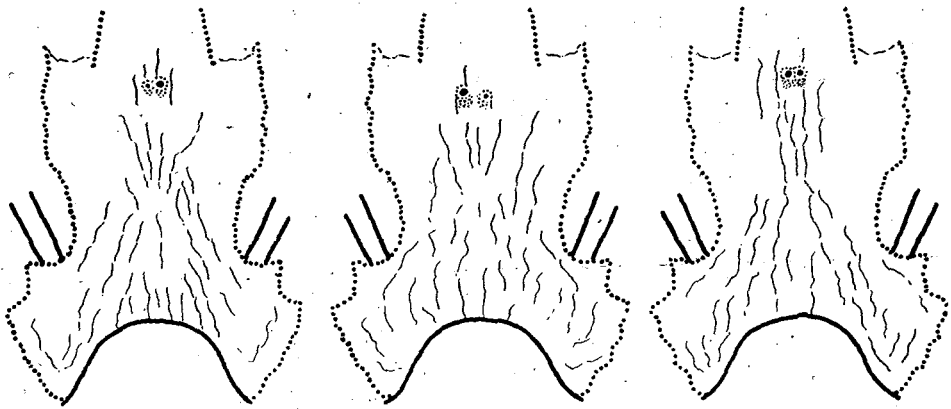


FIGURE 1

Other species of fungus-growers in my collection show binary anterior ocelli or other variations from the usual absence of ocelli.

Soldiers of *Atta cephalotes* from Peru show the condition described by Dr. Wheeler. The three mounted maxima soldiers of the type colony of *A. cephalotes isthmicola* Weber from Panama have large binary anterior ocelli and vestigial or no lateral ocelli. Three smaller soldiers of the same colony have each a minute anterior ocellus and no lateral ocelli.

Out of three soldiers of *Atta sexdens rubropilosa* Forel (det. Gonçalves) from Rio de Janeiro, only the largest shows ocelli and these are a minute lateral pair. Three soldiers of *A. sexdens robusta* Borgmeier from Rio de Janeiro (Gonçalves) show minute anterior and much larger lateral ocelli.

Large soldiers of *Atta laevigata* (F. Smith) from Venezuela, Brazil and Bolivia have a variable anterior ocellus which in some is smaller, in others larger, than the lateral ocelli. Several of the anterior are binary.

It may be pointed out that all of these records, now comprising four genera, are from the subfamily Myrmicinae which occupies a position about midway in the phylogeny of ants.

## LITERATURE CITED

WHEELER, WILLIAM MORTON, 1936. Binary anterior ocelli in ants. *Biol. Bull.*, 70: 185-192, 3 figs.