

material received from Professor Shapley a very interesting series of pseudogynes was noted.³ Since this series may be of significance in tracing the evolution of the wingless worker from the winged form, this description is offered.

The typical female of *P. californicus* Buckley is rather a large form (Fig. 1, A) about 8-9 mm. in length. It is much larger than the workers and pseudogynes, the difference in size being most noticeable in the thorax and gaster. The thorax is of the typical Myrmicine type, being characterized by the presence of a large parascutellar region on either side of the mesonotum and by the absence of a distinct metathoracic spiracle. In the mesonotum the prescutum is fused with the scutum. The notauli are absent and the parapsidal furrows extend but a short distance forward from the transcutal suture. The lateral and sternal sclerites of the mesothorax are fused and modified so as to make their identification rather difficult. In the mesopleuron the epimeron persists as a narrow region bordering the postero-dorsal margin of the episternum. The episternum is secondly divided into an upper (anepisternum) and lower (katapisternum) plate. The metanotum is reduced to a transverse plate and the metapleuron is almost indistinguishably fused with the propodeum.

The modifications noted in the series selected for study are as follows. Fig. B is a lateral view of one of the larger winged pseudogynes. In this form fusion of the sclerites in the notal region has taken place although the mesonotal region is still enlarged, while the mesopleural region is practically unchanged except for a reduction in size. Vestigial wings and poorly developed tegulae are present. The metanotum persists as a transverse plate almost indistinguishably fused with the mesonotum and propodeum. In the form next to the true worker (Fig. C) fusion of the pleural region as well as the notal region has taken place, yet the pronotum is still separated from the enlarged mesonotum, the promesontal suture persisting in its entirety. In pseudogynes similar to this one vestigial

³Shapley considered these forms to be pterergates, but a comparison of a large number with the typical worker shows them to be pseudogynes.