VOL. 49 March, 1947 No. 3

PROCEEDINGS

of the

ENTOMOLOGICAL SOCIETY

OF WASHINGTON

PUBLISHED MONTHLY EXCEPT JULY, AUGUST AND SEPTEMBER

BY THE

ENTOMOLOGICAL SOCIETY OF WASHINGTON

U. S. NATIONAL MUSEUM

WASHINGTON 25, D. C.

Entered as second-class matter March 10, 1919, at the Post Office at Washington, D. C., under Act of August 24, 1912.

Accepted for mailing at the special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 3, 1918.

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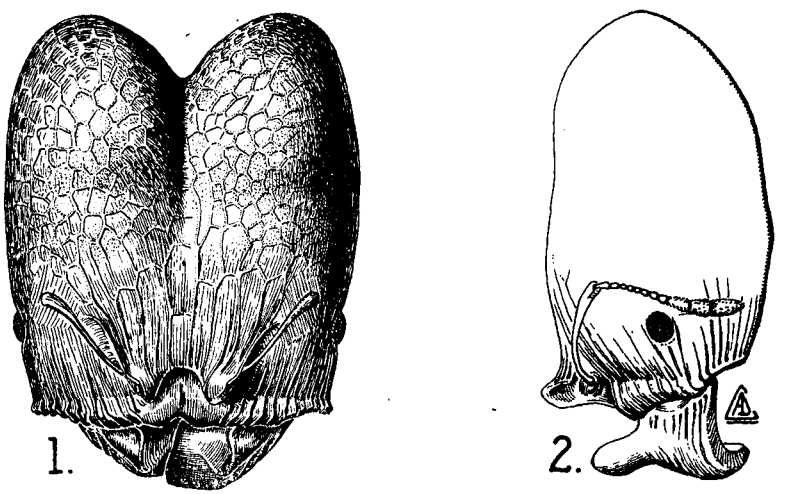
A NEW AND EXTRAORDINARY PHEIDOLE FROM NEW GUINEA (Hymenoptera, Formicidae)

By MARION R. SMITH, *Bureau of Entomology and Plant Quarantine, United States Department of Agriculture*

There are several new and unusually interesting forms among the hundred or so specimens of New Guinea ants collected by Karl V. Krombein and given to the United States National Museum. One of the most extraordinary is a species of *Pheidole* which I propose to name *quadriprojectus* because of the four spatulate processes on the anterior half of the head of the soldier, two of these being formed by the dorsal extension of the frontal carinae, and each of the other two by a dorsally extended process originating on the superior border of the mandible. So far as I am aware no species of *Pheidole* with such processes has been described. One can only conjecture as to the use of these peculiar processes. It would appear that they might aid the ant in seizing, holding or transporting small, narrow, elongate objects. Although the processes are



Pheidole quadriprojectus, n. sp. Fig. 1. Anterior view of head of soldier; Fig. 2. Lateral view of head of soldier. (Drawn by Arthur Cushman.)

the best character for immediately recognizing this species. other good characters are the deep, angular emargination at the posterior border of the head; the unusually short antennal scape, the base of which is extremely slender and curved, and the apex enlarged; the angularly extended anterior corners of the head; the prominent, angular, prothracic humeri; the lateral borders of the postpetiole conical; the subglobular gaster with truncate base; and finally, the erect hairs on the antennal scape.

Pheidole (Pheidole) quadriprojectus, new species

Soldier.—Length 4.5 mm.

Head measured through its greatest breadth and length approximately one and one-tenth times as long as broad. Posterior corners prominent, subangularly rounded. Posterior border with an unusually deep, angular emargination. Frontal groove extending from this emargination to the frontal area; weakly defined in its anterior half, rather broad and deep in its posterior half. Anterior corners of the head forming distinct, angular projections, posterior to which the cheeks are slightly concave. In profile, head with a distinct but weak transverse impression posterior to the frontal region, but most evident on each side of the frontal groove. Antennal scape unusually short, when fully extended posteriorly its apex not attaining more than approximately two-fifths of the length of the head; extremely slender and curved at the base, enlarged apically. Frontal area distinct, impressed, but without a definite suture separating it from the clypeus. Clypeus with a median carina, also a small but distinct emargination on its anterior border. Each frontal carina strongly extended dorsally as a spatulate process. Each mandible with a somewhat similar, but even longer process extending dorsally from its superior border. Mandible rather small, the masticatory border edentate except for two blunt apical teeth and another blunt tooth at the junction of the masticatory and superior borders. Eye unusually small, placed approximaely twice its length from the posterior border of the mandible. Prothorax with very prominent, angular humeri, the anterior surface strongly sloping toward the head. Promesonotal suture obsolescent. Posterior surface of mesonotum arising almost vertically from the well-defined mesoepinotal impression. Epinotum with a pair of well-defined spines which are not as long as the basal surface of the epinotum. Petiolar node with emarginate, sharp, superior border. Postpetiolar node approximately twice as broad as long, with conical sides. From above, gaster subglobular, with truncate base.

Most of the head irregularly reticulate, shagreened, except for the cheeks and front which are largely longitudinally rugulose. Gaster rather shining although densely shagreened. Clypeus, lower sides of head, posterior surface of each occipital lobe, epinotal declivity, and much of thorax, smooth and shining.

Hairs yellowish or golden, moderately long and abundant on body. Antennal scape with approximately six prominent, erect hairs.

Thorax, petiole, postpetiole, and gaster blackish; head dark reddish brown; legs yellowish.

Type locality.—Along bank of Gama River, Milne Bay, New Guinea; 300 feet elevation.

Type.—United States National Museum No. 58209.

The unique soldier holotype was collected March 5, 1944, by Karl V. Krombein.

A NEW SPECIES OF METAPONE FOREL FROM NEW GUINEA (Hymenoptera, Formicidae)

By Marion R. Smith, *Bureau of Entomology and Plant Quarantine, United States Department of Agriculture*

Among the interesting ants collected by Karl V. Krombein in New Guinea is a new species of *Metapone* which is described below. This is the eleventh recognized species in the genus. In 1919, when Wheeler revised *Metapone* (Ent. Soc. Amer. Ann. 12 (3): 173, 7 figs), he treated seven species. These and their type localities are as follows: *M. bakeri* Wheeler, Mount Banahao, Luzon Island, Philippines; *greeni* Forel, Peradeniya, Ceylon; *hewitti* Wheeler, Kuching, Borneo; *leae* Wheeler, Mount Tambourine, Queensland; *mjoebergi* Forel, Malanda, Queensland; *sauteri* Forel, Sokutsu, Banshoryo District, Formosa; *tillyardi* Wheeler, Dorrigo, New South Wales. Later Crawley 1924, Ann. and Mag. Nat. Hist. 13 (76): 389) described *jacobsoni* from Fort de Kock, Sumatra; Karawajew (1933, Konowia 12 (1-2): 115) described *johni* from Hantana, Ceylon; and Wheeler (1935, Psyche 42 (1): 38) described *gracilis* from Dapitan on Mindanao Island, Philippines.

The genus *Metapone* includes forms of such peculiar structure that the taxonomic relationships and status of the group have not yet been clearly determined. In 1911 Forel placed the genus in a new tribe, the Metaponini, of the subfamily Ponerinae; and in 1912 Emery concluded that the larvae of *M. greeni* were definitely myrmicine and placed the tribe Metaponini along with the tribe Pseudomyrmicini in the section Promyrmicinae of the subfamily Myrmicinae. Finally Wheeler after much study stated, "It should, of course, constitute an independent tribe, Metaponini, as Forel and Emery maintain, but its position among the other tribes of the Myrmicinae is not easily determined. It might be placed provisionally be-