gallery, which was about 6–10 mm. in diameter. An aspirator device was used for collection, and it is presumed that the whole colony, excluding foragers, was taken. One of the queens was more worn than the others and appeared to be the "mother-queen" of the colony. The specimens were immediately placed in a glass-topped plaster-of-Paris observation cell, in which they survived for six days until the death of the queen and the larvae disrupted their behaviour. A number of eggs were accumulated during this period, at least two of them being laid by the queen. One worker completed its development while under observation.

Various small soil arthropods including assorted Collembola, Symphyla, small immature spiders, larval and adult ants, Diptera, Coleoptera and termites at all stages of development, and various arthropod and other eggs collected from leafmould, were placed in the nest from time to time. None of these organisms were attacked or accepted as food; indeed, the ants usually retreated hurriedly with their brood when confronted by other animals.

The larvae and pharate pupae, still enclosed in larval cuticles, were not placed by the nurse workers on the nest floor, but were attached to the plaster walls or glass ceiling of the brood chamber by the peculiar terminal abdominal suspensory tubercles described above (p. 348), so as to hang head downwards. Eggs and pupae were normally placed on the floor of the brood chamber, but under moist conditions they too were attached to the nest ceiling, presumably being held there by the surface tension forces of the moisture film on the glass. Pupae were invariably placed with the frontal region of the head adherent to the ceiling, and the eggs were attached either directly to the ceiling, or to the bodies of larvae or pupae.

The workers were very active and "excitable", being reminiscent of *Leptogenys* or *Platythyrea* in this regard. They ran quite rapidly and "nervously" when disturbed and, even when settled, were constantly active, grooming themselves and their partners. The larvae were assiduously attended and were almost constantly being licked by one or more of the workers. The suspended brood was usually placed immediately above the main adult cluster, the nurse workers moving on to the ceiling to attend to the larvae.

Workers were not observed transporting their fellows, but the queen was carried about 5 cm. in the jaws of a worker on one occasion. She lay in a pupal posture and was held by the frontal part of the head, lying ventral side uppermost along the underside of the transporting worker. Pupae were always normally carried in this way, although they were sometimes dragged by the legs or antennae when being positioned by nurse workers. The larvae were always carried along the underside of transporting workers and were invariably gripped about the neck of the terminal abdominal suspensory tubercle. This mode of grasping the larvae appeared to facilitate their placement on the nest ceiling by the workers. The newly emerged workers are highly callow, and apparently take about 5 days to attain full coloration.

Probolomyrmex boliviensis Mann (figs. 32, 33)

Probolomyrmex boliviensis Mann, 1923, *Psyche, Camb., Mass.* **36** : 16, fig. 2, ♀. Type locality: Rurrenabaque, Bolivia. Holotype: United States National Museum (Type No. 25906) (examined).

Mann's unique holotype queen of *P. boliviensis* has the following dimensions: HL, 0·66 mm.; HW (behind eyes), 0·43 mm.; SL, 0·47 mm.; CI, 65; SI, 109; WL, 0·95 mm.; mesonotal width, 0·33 mm.; dorsal petiole width, 0·20 mm.; petiole height, 0·27 mm.; petiolar node length, 0·34 mm.; lateral petiolar index, 126. As perusal of the relevant figures will verify, *P. boliviensis* closely resembles the queen of the Panamanian *P. angusticeps*, and there is a possibility that these two forms are mere geographical variants of a single species. At present it does not seem advisable to upset their separate status, which can be clarified only by study of additional material.