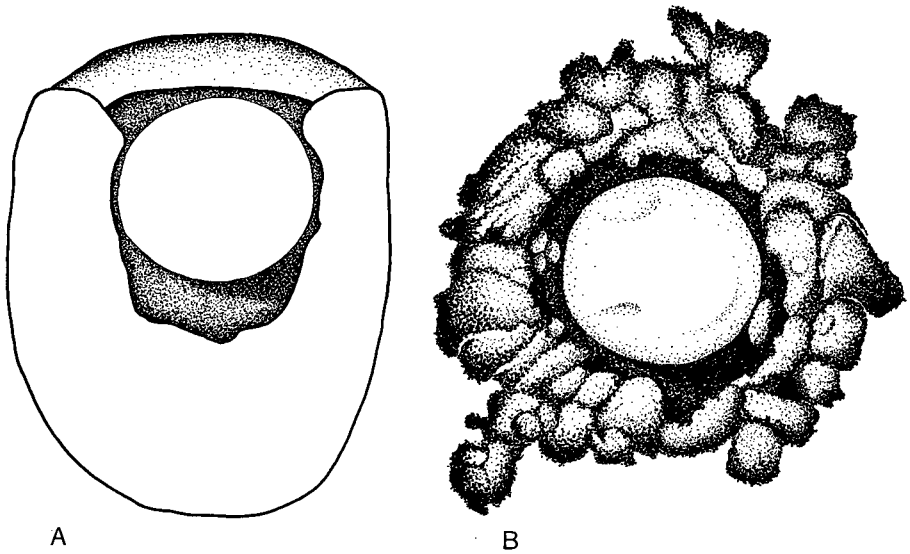

Figure 3. Diplopod eggs as found in the field. A) Diagram of slide of egg covered by earth coccon (cap removed). B) Drawing of the same from above

to 40 cm deep in the soil. Although we did not measure the distances between eggs, their distribution in the area we studied seemed rather clustered.

Nest architecture

Opening the second nest found we were able to confirm that there was no other entrance to the first chamber (Fig. 4). The sinuous tunnel leading to this chamber had a diameter of 3–4 mm and a length of *circa* 40 cm. We observed along the tunnel three irregular expansions, up to 10 mm high, and many dead ends. The tunnel reached the first chamber at one of its corners. This chamber housed only workers, had an irregular floor, and measured 67 × 10.5 × 10 mm. In the corner opposite the entrance there was a pile of refuse, mainly diplopod egg shells. Near the center of the first chamber roof, we noticed a funnel-like structure 10 mm long, acting as an opening to the main chamber above. This funnel seemed to have been constructed by the workers and was almost 10 mm in diameter below, 2 mm at its upper end. We observed that the funnel is placed in such a way that to gain access to the main chamber a worker would have to walk upside down on the chamber roof and then "climb" the funnel outer border. The main chamber, with a much more regular pavement, housed the queen, all the immatures (10 ant eggs and 50 larvae) and workers. We found no prey eggs within the chambers. The total worker population of this colony (hereafter called Colony 1) was 76.

Anísio M. Diniz collected part of another colony (Colony 2) in the same area, in January 1991, and found a single chamber 7 × 4 cm, within a brick wall at a depth of