

Three of the six *Myrmica* queens, together with the *Leptothorax* males, were preserved in alcohol, as the nest was somewhat over-crowded with the former species and the latter were continually escaping. The three remaining *Myrmica* queens stationed themselves some distance apart in the galleries, and each was soon surrounded by a coterie of devoted workers. The larvæ and pupæ were being cared for in two or three different portions of the nest.

The *Leptothorax* in their small central nest passed their time in fondling and feeding one another or in lying motionless as if asleep, covering the two larvæ which had been placed in the bottom of the nest. The queen was assiduously fed by the workers and was never seen to leave the nest after once taking possession of it. On several occasions she was observed to throw one of the workers down on its back and to hug and kiss it in the most animated manner. It was not easy to decide whether this behavior signified maternal affection, the presence of some form of the play instinct, or the more prosaic feeling of hunger. I incline to the last possibility, although the action certainly resembled the affectionate struggles of a cat with her kitten.

During the remainder of this day (August 26) the *Leptothorax* nest remained in the condition represented in Fig. 4. By 8 o'clock the following morning, however, the bottom of the nest had been dug somewhat deeper, its narrow entrance had been closed up and a new one, equally tenuous, had been opened in a different position (Fig. 5 *r*). The two larvæ had become male pupæ. By noon the queen had laid three elliptical white eggs of rather large size. At 1 P.M. the *Myrmica* workers discovered the hiding place of their little companions, and two of them in single file shouldered their way through the narrow passage, *r*, enlarging it as they proceeded. As soon as the head of the first *Myrmica* appeared in the chamber, the *Leptothorax*, which had been attending to their morning toilet and to that of their larvæ and to the careful arrangement of their eggs, turned to meet the intruders. For an instant I fully expected to see a fierce battle, but I had misjudged the *Leptothorax* character. To my surprise the *Myrmica* and