

their chamber and its entrances, we are justified in concluding that these little guest ants must be in the habit of constructing similar lodgings for themselves in the midst of the natural nests of the *Myrmica*. In their natural environment the *Leptothorax* would not be cramped for space as they were in the artificial nest, and they would probably dig their cell where they would not be so frequently disturbed by their inquisitive hosts.

While making the observations above recorded I was much impressed with the poverty-stricken appearance of the *Myrmica* colony. Although it originally contained no less than six fertile queens, the number of workers, larvæ, pupæ, and eggs was disproportionately small. Furthermore, many of the workers were of rather diminutive size, and a few of them had crippled abdomens. I began to suspect that the *Leptothorax* might be appropriating the liquid food regurgitated by the *Myrmica* workers on the mouths of their larvæ. With this in mind I closely watched the larvæ and the inquiline ants. Once I saw a *Leptothorax* lick the mouths of two young larvæ that were lying side by side, and on another occasion a *Leptothorax* licked the body of one of the larvæ. But finally, on September 3, I made an observation which convinced me that the regurgitated food is not stolen from the mouths of the *Myrmica* larvæ. On the morning of that day four *Myrmica* workers were found tugging at the head of a large larva. Under the lens I could see that a mass of regurgitated syrup had hardened over the face of the larva like a mask, and that the four workers were trying to remove it. At last one of them succeeded in pulling it off, and while she was moving away with it the mass stuck to the roof-pane for a moment, and I could see that it was quite hard and glutinous and must have remained on the face of the larva for some time. As the *Leptothorax* were continually roving about the galleries in search of food, they could hardly have failed to appropriate so rich a morsel if they were in the habit of obtaining their food in this manner. If any conclusion can be drawn from the single nest to which my observations have been confined, it would seem to be that the poverty-stricken condition of the *Myrmicas*, notwithstanding the number of fertile queens, must be brought