

carrying some of the *Myrmica* larvæ. This action on the part of both species was evidently the result of haste and excitement, as I never saw it repeated subsequently except once, when a *Leptothorax* carried a *Myrmica* larva a short distance and then dropped it.

As soon as the excitement had subsided the *Myrmicas* proceeded to dig galleries in the soft earth between the glass pane and the board, and the *Leptothorax* at once migrated into them. A few hours later the earth that had been dumped on the pane was carefully removed and replaced by a piece of opaque cardboard which was only lifted from the glass when the ants were under observation. A small dish containing a syrup of sugar and water was placed near the nest. This was soon found by two of the *Myrmica* workers, which at once gorged themselves with the liquid and returned into the nest, where they proceeded to dole out the store of food to their hungry sisters. It was then that I was able to make my first observation on the mutual relations of the two species of ants. A *Leptothorax* worker was seen to follow up and to climb on to the thorax of one of the food-distributing *Myrmicas* soon after it had entered the nest. In this position the little ant proceeded to lick the back of the head and clypeus of the *Myrmica* with signs of agitation as indicated by the hastening of the tremulous beat of its antennæ and the throwing of its abdomen and postpetiole into stridulatory oscillation. The *Myrmica* paused as if spellbound by this shampooing and occasionally folded its antennæ as if in sensuous enjoyment. The *Leptothorax*, after licking the *Myrmica*'s pate, moved its head around to the side and began to lick the cheeks, mandibles, and labium of the *Myrmica*. Such ardent osculation was not bestowed in vain, for a minute drop of liquid — evidently some of the recently imbibed sugar-water — appeared on the *Myrmica*'s lower lip and was promptly lapped up by the *Leptothorax*. The latter then dismounted, ran to another *Myrmica*, climbed on to its back and repeated the very same performance. Again it took toll and passed on to still another *Myrmica*. On looking about in the nest I observed that nearly all the *Leptothorax* workers were similarly employed. In one