of the sand, I found nothing but workers of the ordinary size and form. At the time I was under the impression that I had succeeded in excavating many of the nests very thoroughly, but as I never unearthed a queen, and as ant-nests in sand are apt to extend far below the surface, I admit that *semirufus* may develop repletes in chambers to which I failed to get access. Nothing is known concerning the habits of the var. *testaceus*, but it, too, probably lives in pure sand.

6. **Myrmecocystus mexicanus** var. **horti-deorum** *McCook.*

The earliest account of this insect was communicated by Capt. W. B. Fleeson of Santa Fe, New Mexico to Henry Edwards (1873). This account, which may be more properly called a fanciful improvisation, impressed Edwards as being so valuable that he communicated it to Charles Darwin and published it both in the 'Proceedings of the California Academy of Sciences' and the 'American Naturalist.' McCook, who a few years later, as we shall see, made a careful study of *horti-deorum*, was inclined to reject the story, but Romanes (1883) republished the whole article, together with the absurd diagram accompanying it, in his book on 'Animal Intelligence,' as a sterling contribution to the study of ant psychology! One may reject lucubrations like those of Capt. Fleeson, Lincecum, Buckley and other exuberant observers of ants, with a few vehement comments, pass them by without remark, or accord them a certain amount of interpretative study. On the whole, I find the last to be the preferable course.

According to Edwards the colonies observed by Capt. Fleeson at Santa Fe "consist of three distinct kinds of ants, probably of two separate genera, whose offices in the general order of the nest would seem to be entirely apart from each other, and who perform the labor allotted to them without the least encroachment upon the duties of their fellows. The larger number of individuals consists of yellow worker ants of two kinds, one of which of a pale golden yellow color, about one third of an inch in length, acts as nurses and feeders of the honey-making kind, who do not quit the interior of the nest, 'their sole purpose being, apparently, to elaborate a kind of honey, which they are said to discharge in the prepared receptacles, and which constitutes the food of the entire population. In these honey-secreting workers the abdomen is distended into a large, globose, bladder-like form, about the size of a pea.'" The third variety of ant is much larger, black in color, and with very formidable mandibles. For the purpose of better understanding the doings of this strange community, we will designate them as follows: