

## THE MILCH-COWS OF THE ANTS.

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The above title, which forms the subject-matter of the present article, is one that has claimed the attention of the most eminent naturalists of all time. Although much has been said and written upon the subject, still there is room for more. As science advances in its onward march new facts are developed; some of these have a tendency to subvert long established principles, others to confirm pre-existent notions.

It is well known to naturalists and others that the Aphides secrete, or rather excrete a sweet, viscid fluid, which affords a rich repast for various species of ants. Ordinarily these little creatures are visited by the ants upon the tender branchlets and leaves of plants; but it has been asserted that they even keep them as human beings do cows. By many this has been deemed partly imaginary.

Formerly I was disposed to drift with the popular opinion in this particular, but latterly some few facts, which accidentally fell under my notice whilst searching for Carabs, have confirmed me in the opinion that such is the case in at least one species of *Formica*.

Whilst exploring a neighboring thicket lately, I was led to raise every stone that lay across or on the side of my path, as experience had taught me that the objects of my search were generally to be found in such concealed places. It was on one of these occasions that I noticed a nest of *Formica sanguinea*. Disturbed by this unexpected intrusion, the colony soon presented a scene of activity. My interest being at once excited, I decided to change my occupation for the time, and instantly seated myself down upon a slight mound where I could command a view of the nest, and observe the minutest details of ant life. I was not long in perceiving that the community consisted of full-grown neuters, larvæ in various stages of developement, and a small species of white Aphis that is ordinarily found adherent to the roots of plants. Not a single male or female was to be seen, they doubtless were occupying at the time the subterranean galleries. The working portion of the community was evidently divided into three classes, each having a separate and distinct part to perform. The first class had the exclusive care