

integuments of the greater number, precludes them from imparting any accurate perceptions of touch.

It has been conjectured that the antennæ of insects are the organs of other senses besides that of touch. If an insect be deprived of its antennæ, it either remains motionless, or if it attempt to walk or fly, appears bewildered, and moves without any apparent object. Huber found that bees are enabled, by feeling with their antennæ, to execute their various works in the interior of the hive, where, of course, they can have no assistance from light. They employ these organs perpetually while building the combs, pouring honey into the magazines, ascertaining the presence of the queen, and feeding and tending the larvæ. The same naturalist observes, also, that it is principally by means of the antennæ that these social insects communicate to one another their impressions and their wants.

The different modes in which ants, when they happen to meet during their excursions, mutually touch one another with their antennæ, appears to constitute a kind of natural language understood by the whole tribe. This contact of the antennæ evidently admits of a great variety of modifications, and seems capable of supplying all the kinds of information which these insects have occasion to impart. It would seem impossible, indeed, for all the individuals composing these extensive societies to co-operate effectually in the execution of many works, calculated for the general benefit of the community, unless some such means of communication existed. There is no evidence that sound is the medium of this intercourse; for none, audible to us at least, was ever known to be emitted by these insects. Their mode of communication appears to be simply by touching one another in different ways with the antennæ. Huber's observations on this subject are exceedingly curious.\* He remarks that the signal denoting the apprehension of danger, is made by the ant striking its head against the corselet of

\* See his "Recherches sur les mœurs des fourmis indigènes."