

Insect Wings

Rapidity of Vibration in Flight.

(Scientific American.)

We should be decidedly remiss if in the study of this interesting insect we failed to investigate his means and powers of flight. His very occupation necessitates some rapid means of locomotion, and with this nature has abundantly endowed him. So great are their powers of flight that bees have been

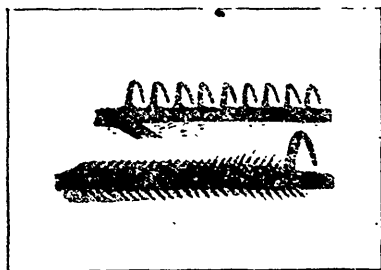


Fig. 1.—HOOKS FOR COUPLING THE WINGS OF THE BEE.

known to gather honey from buckwheat fields (a favorite pasturage) seven miles from their nearest possible habitation.

Not only are they capable of flying with great speed, but of carrying loads when on the wing which seem incredible.

Very often during the annual slaughter of the drones (the males, as before explained) have I seen a "worker" drag his victim, at least once and a half his own weight, from the hive, and after one or two efforts as if to secure and properly balance his load, sail lightly away and drop his burden only after going a long distance from the hive.

When we consider the difficulty of a person carrying a proportionate load, though sturdy of limb and with earth for a footing, we can realize the difficulty en-

countered by an insect with only the air for his support.

Nor is flight the only function of these useful members; they are equally indispensable in what might be termed the commonest drudgery of the household.

It must be borne in mind (notwithstanding the old rhyme) that bees do not make honey, they only gather it; and very rarely is it found in the nectaries of flowers in proper consistency to store for winter use. Falling dews and rains dilute it until, if stored in that condition in their warm hives, it would soon be vinegar, for which they have no use in their domestic economy.

Bees even gather, with great avidity, the maple sap from troughs in the "sugar bush," many gallons of which must be boiled into one to reduce it to keeping condition; it must be "boiled down," so to speak, and the wings are the only means by which that toilsome process is performed, since they are therefore but half performed when the liquid has been

Visit the hives in the honey making season, night or day, and you will hear the incessant hum of their tireless wings.

As in the absence of blotting paper you sometimes blow upon the newly written page to promote evaporation, so by the vibrations of their wings the bees pass air

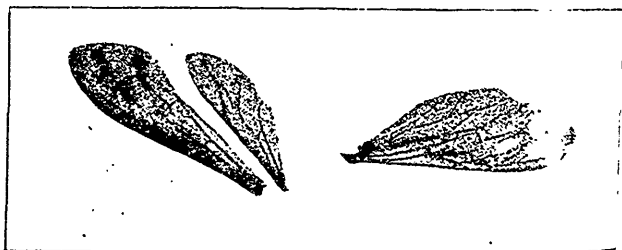


Fig. 2.—WINGS OF THE BEE (ENLARGED)

currents over the honey to accomplish the same result. Never until honey is thus "ripened," to use the phrase of the tea-keeper, will the cells be sealed or "capped"