

The Bees belong to a very large order of insects known as the Hymenoptera or membrane-winged insects. When wings are present there are two pairs, with but few veins and having the upper and lower wings on each side held together in flight by means of a series of hooks.

The mouth parts are constructed both for biting and for sucking, the tongue often being developed into a long organ for lapping up nectar and other liquids. The mandibles of the honey bee form useful little trowels by means of which the wax is shaped into cells. The ovipositor of the females in the Hymenoptera is remarkably modified according to its required uses. Among the Ichneumon flies it is sometimes enormously developed for placing the egg where the young grub will find its food on hatching. In the genus *Thalessa*, two species of which are not uncommon at Ottawa, these egg-laying organs are upwards of three inches in length and can be driven down through as many inches of solid maple wood. Among the sawflies this organ is modified into a pair of saws, by means of which the eggs are inserted into the tissues of leaves or of stems; and, then again, among the bees and ants, as a sting it becomes a weapon of defense and the eggs are passed out close to the base instead of through the tip.

It is not quite known what all the purposes are of the poison injected by the stings of Hymenoptera. It is supposed that it is of an antiseptic nature, and that a small quantity is introduced by bees into honey before sealing up the cells, which has the effect of preserving the honey from decay. It is interesting to note that the stingless bees of the genus *Melipona* make honey, but that this honey will not keep. Among several of the Solitary wasps, the sting becomes a very important instrument; for by its means the food of the young, which consists entirely of other insects, is paralyzed, and it has been found that the venom of bees and wasps is chemically almost identical in composition with chloroform; consequently, caterpillars or other insects stored away as food for the young wasps, after having been stung, remain alive and fresh, but perfectly senseless, for a long time. I have sometimes taken caterpillars from sand wasps which had stung them and were dragging them away to their nests, and these have remained almost without motion, but evidently alive, for many days; they have even, in one or two rare instances, gradually recovered so as to be able to crawl away.

The stings, then, of wasps and bees, it may be remembered are provided for useful purposes and not for stinging careless and thoughtless people. There is no doubt that bees are much