

trance; if not, they will wander about, crawl into some other hive, or perish in their lost condition.

Sometimes, when hiving a swarm, I dip up a cupful of bees and pour them into the prepared hive; they immediately set up a loud "roar," and swarm promptly *answer*; and they rush into the hive with that joyous hum which thrills the heart of the true lover of bees with joy, that is difficult to describe. Do you say that *vibration* guides the bees, and not *sound*? What is "sound" but an impression made on the *subject* by concussion or vibration of the atmosphere?

To say that sound is not the same thing identically to the insect that it is to animals of higher order, proves nothing, because it cannot be proven that sound is precisely the same thing to the lower animal that it is to the intellectual being. Bees *hear* in a sense which answers all their purposes, and this is all that can be said of other animals.

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Eucalyptus Honey.

AT a meeting of the Pharmaceutical Society in London a sample of eucalyptus honey was shown, and created much interest from the fact of its containing all the essential properties of these invaluable trees. The existence of this peculiar honey was made known in 1884 by a French traveller, M. Guilmeth, who, while exploring the island of Tasmania, noticed at the summit of one of the eucalypts a peculiar formation, which appeared to him to be a gigantic gall. Having examined it through his glass, he was much surprised to notice that it was frequented by a legion of small black bees, which swarmed around the "gall," or hive as it was now revealed to him. A strong desire to possess this hive led him to order his native followers to cut down the tree, which had a girth of seven metres and a height of eighty metres. The men before beginning their work were well protected over the face and hands, while M. Guilmeth retired to a safe distance to watch the proceedings of the bees during the time the men were at their laborious work of sawing through this large tree. At first no notice was taken of them, but as progress was made the explorer was much interested and amused by the sight which met his gaze. A swarm of the bees flew down to within a few yards of the toilers, and after flying around for a time, rapidly returned to the hive, their places being filled by others. This curious behaviour

of the bees continued until the tree was sufficiently cut through to be pulled to the ground by ropes. When the tree was finally laid low the men were instructed to drive away the queen and this they did after a deal of shouting and beating of utensils. They would have fared very badly had they not been well protected, for the bees greatly resented this interference with their home. The hive and several bees which had lingered were captured, and the honey collected. Upon tasting the honey, M. Guilmeth, much to his surprise, found that it possessed the characteristic odour and flavor of the eucalyptus essences. This he thought so important a discovery as to lead him to forward a shipment of it to a French doctor in Normandy for examination.

Upon carefully inspecting the bees that had been captured, they were found to be of a species not known in Europe, and accordingly the name of *Apis nigra mellifica* was provisionally given to them. They were of a smaller size than the common bee of Europe, and quite black, with a far more developed proboscis. Experiments failed to acclimatise it in Algeria and in France. It is curious to note that in Algeria, where the eucalypts have been acclimatised, it was sought to obtain this honey by means of the Algerian bee. All flowering crops were cut down, and the bees forced to turn their attention to the eucalyptus, with the result that the bees gradually died. To prevent a disaster, fresh flowering plants had to be imported. The eucalypts being biennial, this honey is only obtainable every two years; but it does not during that period lose any of its important constituents. It is of a deep orange color, of a transparent syrupy consistence in warm weather; but in this country it is usually partly solidified. It has the characteristic odor of the eucalyptus essences and also their flavor. It is said to contain about sixty-two per cent. of the purest sugar, and over seventeen per cent. of the essential constituents of the eucalyptus, consisting of eucalyptol, eucalyptene, cymol and terpene, all of which play an important part in the therapeutics of the present day. It was thought that a similar honey could be obtained by mixing these ingredients; and experiments were tried in Paris, but without success, as it was found that the ingredients gradually separated and volatilised off.

Eucalyptus honey is designed to take an important place as a therapeutical agent and as an article of food, on account of the unusually large percentage of sugar it contains and of the presence of the eucalyptus essences, the properties of which as antiseptics and deodorisers are