

The Canadian Bee Journal.

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OUR OWN APIARY.

HOW TO MAKE USE OF UNFINISHED SECTIONS.

AT the Toronto Exhibition it was very easy for a person passing through the "honey house," to perceive the simple and easy method of disposing of sections which had been but partially filled out. Thousands of sections may be sold at every fair by the method there adopted. We think the credit is due Mr. J. B. Hall, of Woodstock, as the first who commenced selling in this way. It is done by cutting the sections from corner to corner, making four triangular pieces, then parting the pieces laying them down on the wood, showing off the honey to the best possible advantage. The pieces sell very rapidly, at five cents each giving you twenty cents for each section. It would not pay to take sections that contained a full pound or more of honey and cut them in this way. Every year bee-keepers are getting more and more into the habit of using thinner sections, and we are becoming convinced that sections more than an inch-and-a-half, or an inch-and-five-eighths are too thick to be profitable. We do not think many of our customers will use sections thicker than one-and-five-eighths inches, perhaps not that thick. Cutting up the sections and selling the pieces at five cents each at the exhibition has become so popular that there must have been twenty-five or fifty thousand people fed with honey during the two weeks' fair.

BEES LIVING ON THEIR STORES.

Rev. D. Beattie.—I would like to send you something like a report of the summer's work so far, but sorry I have not time to at present. In a general way it may be said, brooding has done well, but very little honey has been extracted, and now the bees are living on their stores with plenty of bloom around them—very tantalizing indeed.

Campbellford, Ont., Sept. 16, 1885.

From Gleanings.

SECRETION; WHAT IS IT?

HOW AND WHERE DO THE BEES GET WAX?

AJ. COOK:—Please answer this in *Gleanings*: Do bees digest honey, or do they manufacture honey into wax? Please explain it plainly, as there are parties here who do not agree with your theory in your manual. I have one but it is one of the old edition.

J. W. BITTENBENDER.

Knoxville, Iowa, Aug. 13, 1885.

Answer by Prof. Cook.

The question of Mr. Bittenbender's serves admirably as a text for an article which I have long desired to write for *Gleanings*, but for lack of time have deferred till now. I wish to consider the relation of nectar to honey and to the food of larval bees, the relation of honey to wax as secreted by bees, and the relation of the sap of trees to the nectar which is secreted by their flowers or other glandular extra-floral cells.

Secretion, whether of saliva or spittle, in our own salivary glands, whether of milk by any of the mammals, or whether of wax by bees, is always accomplished by cells specially developed for the purpose. These cells may just be blind sacks of proto-plasm, as the nectar-glands of plants, or they may be cells conducting to tubes when, as in case of our salivary glands, or the glands in the head and thorax of bees (see Manual, p. 87), they are called racemose glands, from their resemblance to a bunch of grapes. It is the function of these glandular cells to take elements from some nutritive fluid, like the sap of plants or the blood of animals, and from some other substance—the secretion—not found in the blood, or in the sap, as the case may be. A secretion, then, is not a substance simply eliminated from sap or blood, which, in the economy of the individual, shall be of some service. Thus our spittle or milk is not in the blood. So, too, the nectar of flowers, or plant-glands, is not in the sap of the plants, but is made by the gland-cells from elements in the sap. True it is, that these cells will sometimes eliminate foreign substances—may be toxic substances—which are in the blood. For instance, we may feed a cow poison, and find the poison in the milk. The poison is no part of the milk; but the glands, like good Samaritans, quickly spring to the aid of the purely eliminating organs, the lungs and kidneys, in the removal of the harmful substance of the blood.

In case of the poisonous honey discussed in *Gleanings*, I said I did not think it possessed the properties of the sap. First, the nectar is a secretion, and so is made from the sap, but is