

For the Canadian Bee Journal.

### SOME NOTES ABOUT BEES.

**T**HE *Popular Science Monthly* for November, always friendly to bee-culture and the bee-keeper, has some interesting notes under this caption as follows: A recently published book by Mr. Frank R. Cheshire, lecturer at South Kensington, gives some curious items of information about bees. A lens magnifying fifty times will reveal the tracheæ, and also the beautiful "salivary glands, which a skillful operator may extract through the head, after immersing the insect up to its neck in wax." There is considerable discussion among apiarists as to the uses of these glands, in which is incidentally included the question whether bees feed their young by regurgitating semi-digested food, or by a glandular system producing a nutritive secretion. Mr. Cheshire finds in the digestive system in which "the salivary and gastric secretions perform precisely the same functions in both" \* \* \* a most helpful similarity of physical structure between mankind and bees." Bees have, however, the great advantage over mankind of being able to carry a large stock of food and drink in their insides, and of having the power of feeding upon these stores by means of what is called the "stomach-mouth," at pleasure; or, if they choose, they can convert these provisions into building materials. Their foot is furnished with a very sharp and powerful claw, and with a sort of soft pad that gives out a clammy secretion, by means of which they are able to walk on smooth surfaces. It is by the claws that bees hang one to another in swarming. The cutting off of a bee's head does not apparently of necessity kill it, for "drones in confinement will sometimes live very much longer without their heads than with them." The head, however, is not an important part of the bee, which has a larger proportion of brain than many other insects. The poisonous property of the sting of bees lies in the formic acid it discharges, which is also "probably associated with some other toxic agent." The idea that the bee invariably dies after stinging is a vulgar error. "It will, if allowed time, generally carry its sting away by travelling round upon the wound, giving the instrument a screw movement until it is free." More usually, however, the bee is not allowed time to travel round, "and she loses not only the sting and the venom gland and sac, but also the lower portion of the bowel, so that her death follows in an hour or two." We are further informed that no bee inflicts a wound "until she has examined the nature of the surface to be punctured, using a

pair of very beautiful organs called palpi, elaborately provided with feeling hairs and their nerve-ends." I should think from the "word and blow" manner in which the sting is sometimes given that the preliminary "examination" must be of a rather brief character.

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### A SEASON'S WORK,

OBSERVATIONS MADE BY J. F. DUNN DURING THAT TIME.

**Y**OU ask for my report of the season's work, and I gladly comply with your request—first, because I believe that the poor reports, as well as the good ones, should be published, and second, because I have been intending to do so for some time but have been too busy. After feeding back for winter stores, I did not have much over 25 lbs of honey per colony, a little over one-half of which is comb. As I call less than 80 lbs. per colony, (spring count), of comb honey a *poor* year, it will be seen that this is an exceptionally poor one. We had a dry March and a wet April, then followed a very warm, dry May. Everything came on then with a hot-bed growth, but a cold, wet June was unfavorable for honey gathering. Very little surplus was taken from white clover. Linden bloomed unusually early, and there were days during that flow in which honey came in very fast, then the drouth fairly cooked the blossoms, the thermometer ranging all the way from 86° to 96° in the shade with no rain for three weeks. Fall bloom was fairly good but as we take off the supers at the close of the Linden harvest to get the fall honey stored in the brood chamber, we got no surplus from that source.

#### GOOD WORDS FOR SLATTED HONEY BOARDS.

We have been using about two dozen of the slatted queen-excluding honey boards this season and like them very much, so much so, that we would not do without them for five times their cost.

#### MONEY FROM FRUIT BLOOM.

Some time ago there was considerable discussion in the different bee-papers about the quality of honey from fruit bloom. I have just "taken stock of my locality," and find there are just about 210 acres of fruit trees within a radius of one mile, so you see my bees have a "perfect sea" of bloom to work in, every spring. I have taken as much as 30 lbs. of comb honey from a single colony from this source alone. While not giving any opinion as to the quality of honey from fruit bloom, I will say that it does not sell