

## Apiary

To Members of the Ontario Bee-keepers' Association.

GENTLEMEN:

We regret to find that some of our former members have yet failed to send forward their annual fee, and as a consequence by our constitution must cease to be counted as members. Friends this ought not so to be. The fee is not large, all of us ought to retain our membership even if our ample equivalent were not given in the semi-monthly visits of a first-class agricultural periodical with interesting and useful bee department. The annual meetings held in the past have amply repaid all those in attendance, and will, we trust, in the future be equally interesting. Ontario has hitherto shown by the quantities of honey annually produced that it is entitled to second rank as a honey producing country. Let us have a society ranking second to no other. We respectfully ask every former member as a matter of duty to lend his aid to the attainment of the objects before us. These we cannot hope to accomplish (obtaining incorporation and needful legislation) unless we can shew that we are already an association embracing in membership those who are adding to the wealth of our country by conserving those valuable sweets which a bountiful flora yields, and which would otherwise be wasted on "the desert air." We remain yours respectfully,

J. C. THOM, Pres.,  
JACOB SPENCE, O. B. K. A.  
Sec.-Treas.

### Convention Questions.

Will wax or comb, built while storing buckwheat honey be as pure white as when storing basswood or clover honey?

Mr Wills reported quite as white and good. Others doubted whether the color of honey would not somewhat affect the shade of wax at least so far as the honey might partly be seen through the sealing.

How does Canada (say Ontario) compare with other countries as a field for successful beekeeping?

Mr. Jones considered the measure of heat and cold as well as flora and conditions for yielding both quality and quantity in Ontario extra favorable. Others spoke of advantages of more southern climes in some respects, but upon the whole Mr. Jones' views seemed more generally accepted.

Is fertilization of queens in confinement likely to be successfully accomplished?

No very decided reply was given, but some instances were related which favored the hope that yet further experiments might be worth making. Mr.

Jones believed in breeding pure distinct bees and select crossing by his Georgian Bay separate island arrangement.

Is the increased supply of honey likely to more than keep pace with the demand in the near future?

Mr. Cornell thought that such is the improvement in the popularity of honey as food and luxury, that we have only to cultivate market, each chiefly near home to have ample outlet for all produced. Others hoped for increased exportation.

Other questions and answers held over till next issue. S.

An exchange suggests the following: "Strew tansy around the floor of the honey room or among the hives to rid them of ants."

We clip the following from *Science Record*: "In a recent number of *Pflugger's Archive*, Dr. K. Mullenhof gives an account of the way in which bees form the honey comb, which is especially interesting from the fact that by observation of the act, the author arrives at the same results as did Dr. Wyman from a study of the comb, and that the hexagonal structure, so economical of material is not the result of any mathematical instinct on the part of the bee, but rather a mechanical and mathematical necessity arising from the mutual pressure of adjacent cells.

### Wintering.

The time of putting bees past for the winter is now upon us. There is more importance than most persons think in finishing up early either out or indoors. The going to rest quietly without disturbance of any kind during the cold time which suggests to them the need to form in clusters is a very important element of success, and so is also a quiet awakening in spring.

### Moth Worms.

A writer in the *American Apiculturist* some time ago propounded the theory that "the moth has learned to lay its eggs on the stigmas of flowers, and that the bees gather and bring moth eggs with the pollen." But said writer offers no evidence beyond the statement that he feels fully convinced. As to how he came to be convinced he does not even deign to hint. So may it be quite sufficient reply to say, "I do not feel convinced," but yet further I beg to suggest the utter improbability of any such occurrence. Moth are a nuisance where allowed to harbor, but with strong colonies and moderate care moth danger may be numbered amongst the myths. Some dread moths as the cause of weak hives when they should rather dread weak hives as the cause or favoring condition of moth culture. Combs in warm hives are pretty certain

to be tenanted. However, when fully occupied with bees the moth must look out for quieter quarters.

### Reports.

W. L. Wilson, Elderdale, has had the largest yield this season that he had for past six years, about 200 lbs., all round (Spring Count) and increased from 33 to 52 with plenty of stores to winter. Several other owners of smaller number of hives report also, but rather smaller yield per colony and nearly all agree in calling clover yield extra large and basswood below average. A few have had considerable from early fruit bloom. A few report a few days midling fall flow early in September, and almost all class as in good condition and good stores for wintering.

### Foul Brood.

ITS CURE BY FASTING WITHOUT THE USE OF DRUGS OR CHEMICALS.

BY D. A. JONES.

There has been so much said of late on this subject that it would appear to be pretty well worn out, but that there are many apiaries suffering from the malady, where a simple and effective treatment would be gladly tried if known. I have experimented considerably, and found that the disease can be cured without any difficulty, without any medicine, and without any danger of spreading the disease, when properly managed, without any possibility of its ever returning.

Perhaps I may be allowed to describe the disease as I have found it in Canada. In speaking of foul brood I would first distinguish it from all other diseases, such as chilled brood, over-heated or scalded brood, neglected brood, starved brood, dead brood caused by shipping, bees, and another kind of dead brood which resembles foul brood in some respects, and is doubtless what some may call a mild type of foul brood. It would make this article too long to describe minutely the appearance of the various kinds of dead brood above referred to, and the various causes of its appearance. I do not wish to interfere with any other person's system of curing foul brood, but simply to give my own, which has proved successful with myself and scores of others, in the hope that those who have tried various remedies unsuccessfully, may be encouraged to try once more, and with no further expense, and with but little trouble, rid their apiaries of this foul disease. I do not believe, with some, that there is only one method of cure (and that their own.) I know, by experience, that it can be cured in various ways, and I intend to continue my experiments, with the aim of still further simplifying, if possible, the method of cure.

Some imagine that foul brood may be discovered by the foul smell arising from the diseased colonies. This is true as far as it goes, but if one waits until then, there is a probability that very many if not all the colonies in his apiary have become diseased. Before such a condition had resulted the disease would have been running for a long time in some one or two colonies, from which especially in spring or fall when robbing is carried on more or less, the surrounding hives would surely be contaminated and become themselves the centres of infection. A single drop of honey taken from a diseased hive, if fed to the larvae of a healthy hive is sufficient to start the work, of what, unarrested, is inevitable destruction. When the

disease becomes very bad, much of the brood dies before it is capped over, and never is capped after it once dies. I have frequently seen colonies that had become so diseased that a very large portion of the brood had died just before it was capped, and some of the larvae before it had got its full growth.

In examining the larvae just before, and after it dies, I find that a dark spot first appears about its centre, and increases in size very rapidly. Shortly after its appearance short threadlike veins extend from this centre towards both extremities of the larvae and appear to plant two new spots, from which more veins soon radiate. The veins and spots then gradually enlarge until the entire larvae is uniformly affected. The skin of the larvae also commences to wrinkle and shrivel up on the topside, the larvae flattens down and gradually recedes to the back of the cell, and finally becomes the brown putrid mass which distinguishes foul brood so markedly from all the above mentioned maladies.

This brown ropy matter has a sticky, almost elastic consistency, and if a pin head be inserted in it and drawn slowly out it will stretch like india rubber and jerk back into the cell again. The bees make efforts to remove it, but, after a few trials, give it up in disgust, and philosophically endure, what even they, find too incorrigibly obdurate to cure. Allowed to remain this viscid substance in time dries up at the bottom of the cell and would not be noticed except by a close observer.

Diseased larvae that is capped over, is indicated by a sinking of its capping compared with the fuller appearance on the capping of healthy larvae. A small puncture is also made by the bees in the capping in size from a pinpoint to a pinhead. This seems to satisfy them that there is nothing to expect, and the cell is left to itself. If the apiarist opens the cell carefully and finds the contents as above, he may be sure he has foul brood, but if the larvae retains its shape and size, and the skins seem perfect, even though somewhat shrivelled, that is not foul brood. These punctures are sometimes made in merely dead brood capping, their non-emergence at the proper time being doubtless noticed by the bees and thus investigated. Wherever foul brood exists in a colony during the brooding season, the brown ropy matter may be found.

I could describe several methods of cure, but the following I think will be ample, and as it is very simple and easily performed, it comes within the reach of everybody. If the bees have any brood I do not destroy that brood. I remove all the bees that can be spared from the hive, leaving only sufficient to take care of the brood while it is hatching, taking the queen with the bees. I endeavor to have them all filled with honey before removing. They are then shaken in a box with a wire screen lid, and placed in a box in a dark and cool cellar. The box should be turned down on its side; the bees will cluster on the other side which will then be uppermost, and the wire screen forming a side for the time being, will allow of free ventilation. They should be left thus from 3 to 6 days according to the temperature and condition of the bees, which may be determined by watching, and when a few bees fell down and begin to crawl in a weak, stupid manner and those still clustering appear to have shrunk, they may then be removed, placed in a hive and supplied with comb or foundation the same as a swarm. A little honey or syrup should be given them, when they will soon be out foraging again for themselves. I have not