

2, submitted for analysis, and will report as soon as we can. We may say that up to the present time we have had no communication from R. E. Smith, though he has had an abundance of time to furnish us with the information asked for.

### Foul Brood.

For THE CANADIAN BEE JOURNAL.

I HAVE just been reading in Bulletin XXXIII Bureau of Industries the account of your method of treating foul brood. It is a matter of which I have had no personal knowledge. My object in now writing is to make a suggestion merely for your consideration. It seems to me very improbable that the theory by which you seek to explain the success of your method of treatment can be sound. May there not be some other explanation of the facts? Have you ever tried the same method of treatment minus the starving, removing the bees from the hive into the box covered with sieve, placed on its side and kept in a cool cellar for the usual number of days, while still continuing to feed them? May it not be that the reduced temperature at which the cluster of bees are kept in the cellar for so many days is the essential part of the treatment? True, you have proved that a low temperature, or even many degrees below zero does not serve to disinfect honey that has been contaminated by the contagion, or efficient cause of the disease. But it must be borne in mind that spores of contagious diseases, some of them at least, are very tenacious of life, being capable of resisting very low and a few of even very high temperatures. Let us suppose that when you remove the bees from their hive and put them in the starving box you at the same time transport the contagion, whether in the honey in their abdomens or otherwise, from the hive to the box with them. The conditions that existed in the hive have manifestly suffered a change. As a consequence, it may be, that, while the spores undergo the usual change of growth and development up to a certain point they then die because the conditions necessary for their perfect development and the reproduction of another generation of spores no longer exists as it formerly did in the hive. In other words may not the effect of your method of treatment in destroying the contagion be somewhat like that of a hot bed in destroying the vitality of the seeds contained in the material of which it is composed. The starving may, of course, be an essential

part of the treatment, and yet the rationale of its action may be different from what you suppose. It seems to me that this matter is worthy of the closest, most exact investigation, and might with profit be taken up by the skilled working bacteriologists. There would seem to be no great difficulty in detecting and demonstrating the specific microbe that is the true and only cause of the disease, and by tracing it through its life history in determining how your method of treatment acts and what are its essential features.

Yours truly,

W. O. EASTWOOD, M. D.

Whitby, Aug. 5, '90.

P. S.—After reading the Bulletin the question occurred to me why, if this disease can be so easily and so certainly eradicated, are the inspectors authorized to be appointed under the Act, given the power to have infected hives and bees destroyed? Why not have provided against the spread of this evil after the same manner in which the law provides against the spread of thistles and other noxious weeds? If a farmer endangers his neighbor by permitting thistles to go to seed some one may be sent on to his land to cut them down at his expense. I certainly think the owner of the bees ought to be given the option in such a case, of having the cure carried out at his expense, or of having the bees and hives destroyed. There seems to be even less excuse for the destruction of the hives than of the bees.

If I had given the history of the number and various experiments that I have tried in endeavoring to cure foul brood it would make a large volume. Cold will not destroy the disease in the honey, neither will it destroy it in the combs. No amount of cold will effect the disease as far as I have been able to test the matter. It seems to lay in a dormant state when chilled and immediately revives when the temperature is raised sufficiently. We know no spores more tenacious of life than are those of foul brood. No, I have proved that they *do not carry the disease on their bodies*, at least it does not so spread; they carry honey in their honey sacs, and until every particle of that honey is digested by the bee there is a danger of the disease. To one who has not had much experience in this direction, it may seem strange that while it is so contagious, the bee which uses it for food does not become diseased. Some of our scientists believe that they have