

FOR THE CANADIAN BEE JOURNAL.

Foul Brood and Its Treatment.

MR. STACHELHAUSEN, of Salem, Tex., voices the opinion of many bee-keepers in regard to foul brood when he says, "If a simple fasting cure would lead to the desired result, the Bacterian theory would be thereby contradicted." As I understand the matter, there is no conflict between the true theory underlying what is known as the fasting cure, and the theory of the cure by feeding antiseptics. There have been instances in medicine in which the true theory of a successful treatment was for a long time misunderstood. I believe such is the case in regard to the fasting cure. I shall attempt to show that, when properly understood, the cures effected by the above methods are both reasonable, and that a combination of the two is better than either alone. I shall first try to show what may be learnt from the successes and failures of some of those who have been obliged to battle with foul brood.

From the position occupied by Mr. E. R. Root as junior editor of one of the most widely circulated bee papers of the day, great weight is attached to his statements as to his experience with the disease, and the method of cure he adopted. He treated his diseased colonies by the fasting method for the greater part of two seasons. He says the colonies so treated seemed to be cured, but he invariably found that the disease spread to adjacent hives. Finding that the disease was increasing in his yard, instead of being wiped out, he decided to try Cheshire's phenol cure, but the methods he adopted for using the phenol was radically different from that prescribed by Cheshire. Cheshire found that the chyle stomach of diseased nurse bees contained bacilli. He mixed the phenol with syrup, which, when fed to the bees, prevented any further growth of the bacilli, and when elaborated into brood food, cured the diseased larvae. Mr. Root believed that the larvae only were effected, and that the disease could be reached by spraying with a solution of phenol in water. He uncapped the sealed brood and sprayed the combs, bees, hives, and everything belonging to them, on alternate days, with one part of phenol in five hundred of water. From time to time he reported progress in *Gleanings*, and from his reports, and subsequent statements, I quote to show the effects of this treatment.

Aug. 15th, 1887. "I will first speak of carbolic acid. This, as far as we are able to observe up to the present writing, seems to prevent the spread of the disease. My objection to

the plan just mentioned (fasting) is that, while a cure is effected for the colony *itself*, this cure is at the expense of giving the disease to neighboring hives."

Sept. 1st, 1887. "The fact remains that ever since we began using carbolic acid, we have checked the spread of the disease in new colonies."

Oct. 1st, 1887. "From my present knowledge phenol seems to be a success as a disinfectant, but as an eradicator in the colonies where foul brood actually exists, so far it is apparently a failure."

Nov. 1st, 1887. "At different times I have mentioned the fact that, while carbolic acid failed to cure the disease, yet it evidently prevented its spread."

December 15th, 1887, "After trying the various acid treatments, I feel sure that, for efficiency and despatch, there is no better method than the starvation plan, coupled with a good antiseptic."

July 1st, 1888. "Every colony, after being treated to the Jones' plan, was sprayed with a solution of carbolic acid, diluted 500 times. The acid does not cure, but prevents the spread of the contagion to other colonies."

Sept. 15th, 1888. "Our bees are wholly free from foul brood, and have been for the last three months."

Whether a cure would have been effected without the use of phenol, Mr. Root does not say, but from his experience before he began its use, it may well be doubted. In his subsequent deliverances on the subject, Mr. Root seems "to forget the bridge that carried him over," as the following selections show:

Oct. 15th, 1889. "Don't try anything else than the starvation plan, or, in isolated cases, complete extermination. These are sure."

Jan'y 1st, 1890. "Later experience has convinced us that the acid methods for curing foul brood are of but little avail."

May 15th, 1890. "I somewhat doubt if it (phenol) did any real good."

Aug. 1st, 1890, "We are pretty sure salicylic acid is about so much time wasted; and the same is almost equally true of carbolic acid."

In regard to the foregoing selections, I observe that Mr. Root's statement of the 1st of Jan'y, 1890, is not consistent with his statement of July 1st, 1888. Between these two dates he had no "later experience," at least, none known to his readers. I observe too, that in the *Review* for Feb'y, 1890, he says they had foul brood for nearly three years, while the published record of experience covers less than two years, Mr.