

Foul-Brood Cannot Exist in Foundation.

T. H. KLOER.

I HAVE just read Mr. Corneil's last article on "Foul-Brood Spread by Comb-Foundation," with great interest, as I read all of Mr. Corneil's articles. I am quite interested in this vital question, as I am a maker of foundation myself, and also quite an enthusiastic experimenter in methods of rendering wax from old combs.

Now, while reading, it suddenly dawned upon me—nay, I may say it flashed upon me like an electric light—that none of the parties to this controversy have yet seen the matter in its true nature.

I have often wished I were a scientist, but I am not. Neither can I offer any experiments showing the degree of temperature required to kill the spores of foul-brood in melted wax. But I believe I can tell Mr. C. why it will not be at all necessary to spend much time, and better still in these hard times, any money, to determine that point. This may put Dr. Sterner out of a job, but it will be "all for the better."

I believe that I can assure Mr. C. that every spore of foul brood that has ever been in melted beeswax during the processes of rendering, refining and sheeting for foundation, is as dead as an Egyptian mummy. How do I know? Why, Mr. C. proved it to me in his last article. The funny part of it is he does not see it in the same light as I do, and that none of the veterans like the Dadants and the Roots have "caught on" to the point.

But to the proof: Just turn to page 714 of the American Bee Journal, where Mr. C. quotes a paragraph from Mr. Dadant's article, in which the latter says: "Sometimes we find bits of paper, which, soaked with wax, are so transparent that it seems impossible to separate the two substances, yet, when our cakes of wax are cold, we find the paper altogether clear of wax." See, then, how Mr. C. goes to work and proves, in a very wise experiment, that Mr. D. is mistaken, that paper once saturated with wax cannot be freed from it by any amount of boiling in water, and that he concludes thus: "It must now be clear to the reader that in Mr. Dadant's molds all foreign matters, including foul-brood spores, remain like the paper encased in wax."

Now, mark well the words, "incased in wax" Was it not rather saturated with wax? Was it not so well saturated that no amount of boiling in clean water would free it from the wax? And why should Mr. C. continually talk of

foul-brood spores encased in wax?" Are not dry foul-brood spores certain to be not only encased, but saturated with wax? And, being once saturated, does Mr. C. think that any amount of boiling would ever free them from wax? Remember that Mr. C. himself says, right at the top of page 714, that the dry and indurated spores are the most obdurate to the effects of heat. Now, any one at all used to melting much wax knows how very penetrating hot beeswax is. Stick in a piece of dry wood and it will be soaked so that you can never free it from the wax. Heat your finger and put it, perfectly dry, into wax even moderately hot, and it is next to impossible to get the wax off without taking parts of the cuticle along. Then why should foul-brood spores alone be only "encased" in wax, and not saturated? I think they are saturated. And does any one think that any such saturated spores as remain in foundation can be infused with life? Well, I for one do not. But I am open to conviction.

I will only, in conclusion, state I do not think it requires very hot wax to be penetrating; that, directly after it has passed the melting stage, it will penetrate dry substances of any kind which can be at all penetrated, provided they are of the same temperature as the wax, and left in contact with it for awhile.

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—American Bee Journal.

Handling Hives Instead of Combs.

BRO. HILL, of the Guide, says "There can be nothing new under this heading because before movable hives were invented all bee keepers handled hives instead of frames." It is true that frames were not handled before they were invented, and, at that period, neither were hives handled in the sense in which the matter is now under discussion. The bees were simply hived and left "sitting so." As has been before mentioned, movable combs were needed to enable us to learn the mysteries of the hives; having in a large degree mastered these, there is little need in practical bee keeping to handle combs.

Evidently, bee keeping is on the eve of a change. One man will own and manage more bees. They will be scattered about in different apiaries, and self-hivers or something that will eliminate the difficulty, will enable one man to care for them all. When a hive and system pre-eminently adapted to handling hives instead of frames is offered to bee keepers, most of the criticisms offered come about as the result of viewing said hive and system from the old style frame-handling point of view.—Bee Keeper, Review.