

ment. It is possible; I have tried it, and, granting the possibility of it, it may happen to extend. It is a question which is a very difficult one; it means the taking of blossoms visited by bees from diseased hives and subjecting them to very careful microscopical studies. I have tried it on a small scale, and I am convinced, personally that such is possible, though to what extent it takes place under natural conditions I am unable to give you any information.

Mr. Byer—What proof have we that foul brood has been transmitted by using foundation made from the wax?

Prof. Harrison—I cannot say that it has been transmitted, but I can say I have examined wax which was being used for foundation in which the spores of bacillus alvei were found. So if the spores were found there, it is possible that they may produce infection. Under the natural conditions you can only look to all these probabilities. We don't know exactly how the infection takes place, but we must recognize all these channels, and if we find foul brood germs in foundation, that must be looked upon as evidence, and positive evidence at that.

Mr. Craig—The wax you refer to had not gone through any process of manufacture? The examination was made before the wax was made into foundation?

Prof. Harrison—This is wax which had been boiled and ready to be made up into foundation.

Mr. Craig—In the manufacturing of comb foundation the wax is kept at boiling point for several hours.

Prof. Harrison—Is that always the case, Mr. Craig? That may be from your standpoint as a manufacturer of bee supplies, but is that the case with those bee-keepers who make their own foundation?

Mr. Craig—I would not like to say that it is.

Prof. Harrison—I know that it is true from the manufacturer's standpoint, but I don't know how true it is with regard to the bee-keepers.

Mr. Craig—Would the addition of sulphuric acid, which we use for clarifying the wax, have any effect?

Prof. Harrison—Certainly.

Mr. Byer—About ten years ago we were making foundation, and we received about 100 pounds of wax from a yard badly diseased, and, sooner than take any chances, we made that into foundation and used it in our own yard, and there has never been a sign of foul brood.

Mr. Dickenson—How long was the wax heated?

Mr. Byer—I couldn't tell you that. I don't think we heated it nearly as much as in the Weed process.

Prof. Harrison—I think the danger is small. I have arranged them practically in the order of their importance. I have put the ones which are the worst first, particularly the bees robbing diseased colonies. I consider that probably one of the chief reasons. But in making these up I considered that there was evidence in each case. I have not elaborated on each of them, because I thought the paper would be too long if I did so, but there is a probability; just how much of a probability that is I can't say. It is a channel, however small it may be.

Mr. Holtermann—This matter of the queen transmitting the disease is one which has been up for a good many years, and it certainly is an important matter. I am one of those who would not ignore practical results and scientific investigation. I know Mr. McEvoy says that the disease is not transmitted through the ovaries of the queen, and that he has again and again taken queens out of badly diseased stocks and put them into healthy colonies, and that the disease has not developed in the stock. We should