

we take a sample of honey that will test fourteen and a half pounds per gallon, imperial measure—I have an instrument and have tested it at home, and it is a pretty stiff sample of honey—and add twenty-eight pounds of water to it, we still have a mixture that will weigh thirteen and a quarter pounds per gallon. What did you say would be a test per gallon?

Mr. Hall—I said twelve pounds to the wine gallon.

The President—That is the result, and any person who has gone far enough in arithmetic, can satisfy himself, if he tests his honey by the specific gravity test, as to the percentage of water it contains over and above what it ought to contain; if he cannot work it out there are certain tables which any person can get. The instrument which I spoke of registers just like a thermometer and he knows whether his honey is heavy or not.

Mr. Holtermann—I have a motion, that you appoint from amongst yourselves one or more, I do not know that it is advisable to have many, and that that representative or those representatives co-operate with the representatives appointed by the Department of Inland Revenue at Ottawa, the Dominion Experimental Farm and the Ontario Agriculture College at Guelph, and that that committee try to secure a dozen or more, as they see fit, samples of honey capped in the hive and that in those samples the percentage of water be found and that they report to this meeting a year from now. That will give us somewhat of a data to work upon and I believe we will be acting in the right direction.

Mr. Frith—In regard to this matter, it is going to be a very difficult matter. In the first place we have really no such a thing as honey. I do not know whether that is new to bee-keepers or not, we have no element by the name of honey.

Mr. Holtermann—We have no element by the name of pork and butter.

Mr. Frith—But we have a compound, made of different things, and that varies in different honeys in proportion; the proportion of these things mixed together varies in honey not only from year to year, but from locality to locality; these specific gravities all vary; it is greater in some and less in some. Water has one specific gravity, glucose has another, grape sugar has another and cane sugar has another, and these are all in honey.

Mr. Holtermann—What about milk?

Mr. Frith—I do not see how we can arrive at this matter; by the report of the

Inland Revenue Department, it varies from fifteen to forty-two per cent.

The President—That is a mistake: thirty-three per cent is the highest.

Mr. Frith—I do not know how we are going to arrive at these figures; I am not a chemist.

The President—That forty-two per cent is of sucrose.

Mr. Frith—There is honey that is produced by the best keepers in this province and perhaps in Canada, in which the percentage of water was high and the specific gravity low.

Mr. Holtermann—That is a mistake; I find in all these tests here that the percentage of saccharine matter varies according to the specific gravity.

Mr. Frith—Do these experiments which have been presented to us to-day vary in accordance with the water? Can you say fifteen per cent of water will give a certain specific gravity?

Mr. Holtermann—Very closely; I would like to ask Mr. Frith one question. That objection in regard to the percentages varying holds good to even a greater extent in milk, and there is legislation in regard to milk, and why shall we not have it in regard to honey?

Mr. Frith—We may get it; I hope we can.

Mr. M. B. Holmes—Prof. Shutt has told us that the specific gravity test is the practical one, and the same thing as analysis, and, that being admitted, it does seem to me, and I do not want to go on record as being opposed to everything good, that an order-in-council regulating the quantity of water admissible in honey might easily convey a wrong impression to the world. Would not people be inclined to question something like this: "Oh, we didn't know that you put any water in your honey, and we see an order-in-council stating just how much water you will be allowed to put in your honey!" Might there not come a danger just there? And then, another point: inasmuch as it is pretty generally admitted that there is a very great difference in honey that has been sealed over, might there not be a danger of treating someone unjustly by an order-in-council?

Prof. Shutt—The fact that the specific gravity test gives the same result as to the percentage of water, needs some qualification. If the rest of the honey outside of the water is genuine, then the specific gravity test will give you the percentage of water or the percentage of honey sugar in it. That is to say, supposing that the only adulteration suspected is that of