

Mr. Gemmell said bees would take poison. For an experiment mix a little poison with any sweet substance and give it to the bees, when there is no honey to be gathered, it will be found that they will take the poison.

Mr. Humphries said he had lost thousands of bees by poison. After the discussion the following motion was passed by a vote of 19 to 7.

Moved by Mr. McEvoy, and seconded by Mr. J. Alpaugh, that Messrs. Pringle, Gemmell, and E. D. Smith, a fruit grower, be appointed to wait on the Minister of Agriculture in order to seek legislation to prevent spraying fruit trees to the detriment of bees at a season that is of no benefit to the fruit.

Mr. McKnight asked if honey taken from fruit alone sprayed with paris green would kill the bee larvae.

Mr. Cornell thought that the larvae would not be killed.

Mr. McEvoy said that he saw brood that had been killed with poison, he thought that the danger was as great to the larva as to the bees.

Mr. Pringle said he thought that poison taken along with honey would kill the bees if not digested.

Mr. Alpaugh said if there be paris green in the honey, and fed, the bees and brood would both be poisoned.

Mr. Frith said that he thought that the sac for carrying honey would not be affected by poison.

Mr. D. A. Jones said that bees taking whiskey in their sacs would get intoxicated.

A paper by D. Chalmers on hives and wintering was read and discussed.

HIVES AND WINTERING.

BY D. CHALMERS.

Mr. President and Fellow Bee-Keepers: In presenting a paper on this subject, it is not my intention to try to determine any particular styles of hives, but I will dwell more particularly on the requisites in and about a properly constructed bee domicile. The first thing then to be considered is the capacity of a hive. It is very generally considered that that has been carefully tested and properly demonstrated years ago by such men as father Langstroth, the lamented Moses Q. Limby and others, when they placed the area of the brood chamber at about 2000 cubic inches. That estimate however, allowed the bees passage ways between the ends of frames and the interior of the hive—a feature which weighs heavily against open end frames. Take for instance a hive of closed end frames, which will give you as much comb space as an

open end frame would do, and what do we find? We find that a hive 12 inches wide and 12 inches deep made for the former, would not require to be as large by fully 100 cubic inches as a hive made for the latter.

Although I do not use closed end frames myself, yet, I have a strong inclination to believe that better results could be obtained from them than from open end frames.

Those blank 100 cubic inches you specified, may well be classified among the leakages of the hive, and who can dispute the fact that the greater the leakages the more will brooding be retarded. In the use of open end frames, the loss in this way will be less in a long frame than a short one. But another evil here crops up, that is, the sagging of such when filled. If not made of heavier material, and if sagging takes place you all know that passage ways under the frames will be contracted, while those above will be widened—the latter evil inducing the bees to build comb where not wanted, while in the former the comb frames will be glued down solid. To my mind a hive of proportionate dimensions would be 13½ inches long by 12½ inches wide and 12 inches deep. This gives you a hive containing 2000 cubic inches, but a shorter hive by ¾ of an inch to suit closed end frames with equal comb space, and we get a hive which we might term “Anno Domini” 1892, as that is the number of cubic inches it would contain. But while many besides myself favor a hive of this description, others again advocate a much longer and considerably shallower hive. However we should all aim at getting a hive of just the right capacity, and taking it for granted that the previous figures are correct or nearly so, for a hive for brooding and wintering purposes, yet we have to admit that there is not room enough in it for a strong colony of bees during the honey harvest. We then have to resort to tiering up as bee men term it, or in other words place another hive above or a case of section boxes. This is where we get our surplus. The former is used if we purpose extracting, but if honey is wanted in the comb, then the latter is more convenient. In either case the top of the lower frames must be at some distance from the bottom of the upper frames, or sections, otherwise, the bees would glue the one to the other. We should aim too at bringing such parts of the interior as closely together as circumstances will permit. Wherever passage ways must of necessity be left between any two parts of a hive, they should not be less than ¼ of an inch, nor exceed 5/16 in depth, or we would have to contend with evils hereinafore pictured. Such passage ways we