

FOR THE CANADIAN BEE JOURNAL.

HOW THE BEES HAVE WINTERED.

MR. EDITOR.—As promised, I will, present my report as to how my bees have survived the past severe cold winter, giving as nearly as possible, the manner of preparing them, and the result of the different kinds of material used. It is to be understood that all wintered well out of doors, and that the whole numbered 72 colonies. The amount prepared in the fall, are still alive at this writing (April 10), and so far as I can at present judge, all will pull through and give more or less surplus honey, providing of course there is nectar secreted in sufficient quantity. One colony only was found queenless, but was soon after supplied with one.

In regard to the preparation, the first thing done was to see that each colony had ten pounds of good well ripened stores of some kind, over and above what would bring them through until the bees could secure more in spring, consequently all had from thirty-five to forty pounds of sealed stores on the 15th October. In some instances the fall complement of eight L frames were left, while with some others five, six and seven solid sealed combs, or nearly so, with division boards to fill up the vacant spaces.

With the exception of six colonies, all occupied a separate outside case, made of $\frac{3}{4}$ inch material, and sufficiently large to have one (1) inch of packing under the hive, and four (4) inches around it, according to the material used for packing. The entrance was three inches long, by three-eighths deep, and was protected by a board leaned up against the hive or case front, so as to prevent the cold wind or snow from entering. This board when not in the position stated, is used for an alighting board, but is not permanently attached to the case. The material used for packing consisted of, first, forest leaves; second, flax, chaff or, more properly speaking, that part of the woody fibre not utilized in the preparation of the flax for market, and third ordinary oat chaff.

Notwithstanding all that has been said for and against the different kinds used, I must confess I can see no particular difference in this instance in the condition of the colonies, and am therefore more inclined to believe that more actually depends on the quality and quantity of the food and the strength of the colonies (I don't want them too strong), and their timely preparation, than on the material used in protecting them, although I by no means ignore the latter under all circumstances. Further, I have no doubt that the absorbent employed applies more particularly to the top of the brood nest, than around it, consequently cork dust which I have not at any time used may answer best of all.

But to resume. The first twenty colonies were packed with dry forest leaves, *a la* McEvoy, with about one foot on top of the brood nest, and after being pressed down, the hive cover was then laid on top of the leaves, to hold them in position. This method I find as good as any, the only objection being that the leaves are not always available. About twenty-five colonies were next packed with flax chaff as described, with about eight inches on top, and were prepared about the 1st November, while the balances were put in shape, having the oat chaff for protection about a foot thick on top, pressed down, but nothing laid on top of this or the flax chaff, as in the case of the leaves. Those packed without chaff had all clean cotton duck quilts, while the others had on polished quilts two and three years old.

Hill's device, or something similar, was used on one half the colonies, while nothing but the quilt, laid directly on the frames, were on the other half. None of the colonies had a cleansing flight from 1st December until 11th February, and the hives were all more or less covered with snow, except that the entrances were not allowed to become closed with dead bees or other obstructions. The first real fly of any benefit took place on March 8th, the ground being covered with snow sufficiently hard to enable the bees to