

ed from the hives and the sealed quilts were left on. Purposely, the quilts had not been removed since the bees sealed them; and said quilts rested flat on the top bars, having no passage from comb to comb over the frames. Manilla tissue paper was now taken, of a sufficient size to cover the top of the hive, and put on to the depth of one inch, making 672 thicknesses of this paper. Ten thicknesses of newspaper were then put over this, all large enough to allow the edge to extend over the sides and ends to within an inch of the bottom board. The flaps or the corners were folded and all held tight to the sides of the hive by a cord. A bridge made of wood, the length and width of the alighting board, and one half inch strips were placed at the entrance, to give the bees free passage out and in, after the packing was placed about the hive. The hives were now thoroughly packed at the sides and ends, and finally on the top, to a depth of eight inches, as nearly as such packing could be measured. It will be seen that in this arrangement the bees were thoroughly protected by packing, with the exception of the entrance, the width of which was controlled by entrance blocks. It will also be noticed that the bees were packed, to avoid the condensation of moisture in the upper part of the hive, and to prevent the absorption of moisture above, with the object of securing its condensation in the lower part of the hive or as it leaves the entrance.

Clamp 2. A similar clamp with ten colonies was also packed, weights as follows:

No. 11, 62 lbs.; No. 12, 57; No. 13, 59; No. 14, 56; No. 15, 58; No. 16, 58; No. 17, 55; No. 18, 54; No. 19, 57; No. 20, 61.

The bees were prepared in every respect the same as before; but the manilla tissue paper was omitted, and according to my usual custom four thicknesses of newspaper were laid on in its place on top of the quilt. The quilt, before packing, was broken loose by raising, thus preventing any slight sealing. Eight inches of planer shavings were then added, this, with the quilt, making the top packing.

In both experiments, the entrance by which the bees went into winter quarters was five inches wide. The only precaution observed during the winter, was to see that the entrance and passage to the entrance, was kept clear of dead bees and snow. When necessary, dead bees were carefully and noiselessly removed by means of a beat wire.

Observations.—Many times, during November and December, it was markedly noticeable that the bees in No. 1 clamp were

flying, when those in No. 2 were perfectly quiet, and that their flight indicated a restless condition. There was, however, no outward signs of disease during these months. Towards spring, the bees in No. 1 clamp showed decided signs of bee-diarrhoea. When they flew, there was spotting. Some of the entrances showed signs of spotting; hives 2, 3, and 10, markedly so. The bees in No. 2 clamp did not show signs of bee-diarrhoea to anything like the same extent. In fact, there was a marked contrast between the two clamps. It will be remembered that a portion of the winter unusually severe, the temperature dropping at Brantford to 22° below zero. An examination was made on April 18th; and, as might have been expected from external appearances, with the exception of No. 1, every hive in clamp 1, showed more or less signs of dysentery. Nos. 2 and 3 perished, leaving their combs badly daubed and also leaving small patches of brood in the combs, an indication of exhausted vitality among the bees and an effort to recuperate by breeding young bees. No. 9 in the same clamp, was weak and queenless; but, as a note went to show that this colony had been queenless in the fall and that a queen had been introduced before going into winter quarters she might have been temporarily accepted and then destroyed. No. 9, should, therefore, be left out of consideration. In the following list of hives in Clamp 1, XXXX denotes a choice colony, covering, fairly well from seven to eight frames, XXX covering five to six, XX covering three to four, X covering one to two:

No. 1. XXXX; No. 2. Dead; No. 3. Dead; No. 4. XXX; No. 5. XXX; No. 6. XX; No. 7. XX; No. 8. XXX; No. 9. Queenless; No. 10. X.

The next examination was made April 26th. At this time there was no marked difference in most of the hive, except that No. 7 and No. 10 had perished, having been robbed either just before or after their death. Another examination was made June 1st.

Number of hive.	Nur.ber of cor with aes.	Amount of brood. Langstroth frames.
No. 1.....	8	7
No. 4.....	6	5
No. 5.....	3	2½
No. 6.....	4	3
No. 8.....	4	2½

It was not the intention to carry this experiment to test of the amount of honey