

CHAPTER XI.

Preparing for Winter.

Since bees fly at 48°, the ideal temperature for wintering is one a few degrees less, say 45°, for in this they would consume the minimum of stores, since honey is to them, of course, the source of heat. In regions where the temperature falls below zero it is a common practice to winter the colonies in a cellar, most of which is underground, but with careful packing the bees do all right out of doors in the same localities. In the dry belt of this Province, hives that are to be left on their summer stand, must be packed for the winter. The easiest way is to construct a bottomless box out of cheap material large enough to give a free space of 6 inches all round the hive when it is in position, say 24 x 32 inches, 20 inches high. Cut out enough from what will be the front to give free access to the entrance.

Now get a sufficient quantity of dry leaves, straw, excelsior, or shavings. First pack tight underneath the hive, then place the box in position, fitting in a piece of wood to prevent the packing coming down over the entrance. Now fill up all round the hive, ramming the material in tight; next over the top. The latter is the most important part of all, because heat travels upward, so be sure to get enough protection on top. When full, nail on a cover, which must be watertight. Use paint, tar-paper, or canvas to keep out the wet.

The size of the entrance for winter is one of these points on which bee-keepers differ very decidedly, some advocating one the whole width of the hive, while others prefer one about 3 inches long by $\frac{1}{2}$ inch high. The tendency is apparently towards giving plenty of air but without draughts.

In the coast regions many bee-keepers content themselves with no special protection at all, simply leaving the hives as they happen to be at the beginning of winter. Others place two or three strips of lathing across the frames to make easy travel from one part of the hive to another in the warmest part; on these a quilt of sacking; then an empty super, which is packed with anything that will hold in the heat. The cover must be fastened securely, so that it cannot be blown off in the winter gales.

Still another method is to wrap thin tar building-paper round the hive. Take off the cover, put on a few layers of sacking above the frames, then put the paper round the hive, leaving the surplus sticking up above it. Strings are worthless for protecting the paper; strips of wood are much more satisfactory. Place one along the edge of the overlap, fastening with a couple of nails. Fold the projecting pieces of the paper over the sacking and replace the cover. Finish off by nailing strips of wood, such as lathing, on the paper at the lower edges of the hive. This covering need not be removed until well along in May, when the bees are strong.

CHAPTER XII.

Queens.

The average beginner naturally makes no effort to control his bees in their natural impulse to increase by swarming, but one season's experience of retrieving swarms, and of investing money in new hives, with not infrequently very little returns in the shape of honey, will soon arouse a desire within him to become master of the situation, so that increase shall be when he wants it and to the extent that will suit him. To attain this desirable end he must learn a few simple facts about the life history of the queen, from the egg to the time when she begins to lay.