

ber, being nothing more or less than the two sides and two ends of the said brood chamber nailed together between which go the queen-excluding honey-boards, on each side of which is the half bee-space, by which means the proper width is maintained.

COMBINATION HIVE SUPERS.

The supers are nothing more or less than four plain pieces of board four and seven-sixteenths inches wide and cut in width and length the proper outside dimensions of the hive. When cut to four and seven-sixteenths inches deep they are used in conjunction with the reversible honey-boards and reversers. They are cut a quarter of an inch deeper when adapted to skeleton crates or \perp rests.

HAND-HOLES IN HIVES OR SUPERS.

I believe I have not before mentioned that all the hives I have been writing of are supplied with hand-holes cut in the sides or ends as the case may be. These are indispensable to a good hive.

THE HIVE I PREFER.

I believe that all the readers of the CANADIAN BEE JOURNAL are aware that this is the hive I prefer, and I regret that so far we have been so remiss as not to have an engraving made of it.

When I say that this is my choice of all the hives I have written about, I must qualify the statement by saying for "all purposes."

Were I going to take nothing but extracted honey I venture the belief that I could be just as successful with the deep frame hive as with any other hive that I know of, and some of the most successful honey-producers in the Dominion I believe would back me up in this assertion, yet what we want is not a hive that a few can be successful with, but one which, because of its great simplicity and conformity to the natural laws of the honey bee, adapts itself to the requirements of the merest novice as well as the skilled apiarist. We want, too, a hive which is inexpensive and which will reduce to a minimum the cost of the production of honey—and we have it in this hive.

THE SIZE OF BROOD CHAMBER.

This is probably the first item which should be considered, and just here it is

hardly necessary for me to state that in this department the eggs are laid, the young bees hatched and the food stored for winter.

I have always maintained, and I see no reason after many years of experience to change my views very materially, that the nearer a square the frame the more of it will be utilized by the queen, the eggs being laid in a circle. So long as there is sufficient room for a winter's supply of food, above and at the sides of the brood on each frame, the less distance the queen has to travel in her egg-depositing duties the better.

Just here I might mention that the Messrs. Dadant in their Revision of Langstroth say with reference to this very subject of frames:

"If they are large, they are unhandy, and their depth makes them difficult to take out *without crushing bees*. We have used some sixty hives, American frames 12 x 12, for eighteen years or more, and *this is our greatest objection to them.*"

The italics in the above are so put by me. Do you not see the great beauty of the projections on the bottom-bar of the frame as we make it? If this be their greatest objection to deep frames (12 x 12), then frames a little wider and some two inches shallower would seem to be just about right. And speaking in this connection they say:

"The Langstroth Simplicity frame is long enough, but hardly deep enough. The Quinby frame (the one they most largely use) is deep enough (eleven and a-quarter inches) but would be better if a little shorter."

There are eight frames in the brood-chamber, which gives us a cell space of about 59,000 cells. At the outside edges of the frames will be as much room as is likely to be needed for stores for breeding purposes, and the queen will thus even in a good season have plenty of room to "spread" herself.

Before the queen is likely to occupy all the space in the lower chamber with eggs and brood, the season will have advanced sufficiently and the honey harvest will be so near that a second storey will have been added, and a frame of brood may be taken from the brood-chamber and placed in the surplus chamber to allow the brood to hatch, or in case of working for comb