

combs on them: but now that foundation is used in brood frames, is there any advantage in having the lower edge of the top-bar bevelled?

DEEP TOP BARS HAVE MORE TO DO WITH FEW BRACE COMBS THAN WIRE ONES.

Talking of top-bars and brace-combs, James Heddon grasps the situation with a masterly hand, and in the following short paragraph sums up the whole matter in a practical and correct manner.

"You will find that the depth of the top-bars has very much more to do with discouraging brace-combs than does the width of it. If I were bound to space my top bars just $\frac{5}{16}$ ths apart, I would use them only $\frac{3}{4}$ wide, and then put more combs into a hive. Don't you see, that, the more space you give a comb, the more apt the bees are to store honey just below the top-bar! Of course, you know that where the top cells of the comb are used for honey instead of brood, brace-combs are much more apt to be built between the top-bars and between their top surface and the receptacle or cover above."

Regarding the use of the honey-boards he then goes on to say:

"Let me now tell you what I believe I know is the best method, and I have a number of hives arranged accordingly, which I have had in use for years. Use a top bar $\frac{3}{4}$ or $\frac{1}{2}$ deep. Do not space them more than $1\frac{1}{2}$ apart from centre to centre to centre, and $1\frac{1}{2}$ will do very well. Use the break-joint bee space honey-board above them, and any kind of sections you prefer above that. Let your bee-space in the honey-board and in the top of the hive below the honey-board be $\frac{3}{8}$ scant, or $\frac{5}{16}$ ths. Then you are safe against brace-combs above the honey-board. You will have much less below the honey-board; you will have a solid top-bar that will not sag; one in which bees will build nicer, straighter combs when they are not compelled to build them so by the use of wires and full sheets of foundation."

A DOUBLE TOP-BAR.

A correspondent in Gleanings says that by using a double top-bar, he creates winter passages over the frames and prevents burr combs. He writes:

"My first object was to get a permanent bee-passage through the frame—one they would not close up as they did in case where I cut holes through the combs; and, recognizing the fact that heat rises, and that this passage must be in the warmest part of the hive, I simply put in an extra top-bar, just under the original top-bar with just a bee space between the two. This false top-bar just fitted the inside of the frame, and was held in place by nailing through at each end, and in the center a block one inch square (the thickness of the bee space) is slipped in, and a wire nail passes down through both top-bars and this block, which holds the two as solid as if they were one piece. Width

of top bar is $1\frac{1}{8}$ inches; depth, including bee-space, 1 inch. As I have said, I have used this frame two years, and in that time I have never had a brace comb built on top, nor have I had a loss of a single colony of bees wintered on these frames; and, better still, I have never had a queen get above when put on these frames. I consider them far ahead of a solid thick top-bar."

This plan may work very well, as friend Root says. We made and used reversible frames on the same principle some years ago. We will talk on this subject in next issue.

KEEP THE BEES PACKED.

The following sensible advice we clip from the Bee Hive, and publish it as a reminder of what has often appeared in the BEE JOURNAL.

"Do not remove the packing from the bees until the weather has become warm and mild. During the early spring months all the warmth that it is possible to confine to the brood-nest is needed to keep brood rearing going in full force. The more we do to advance egg laying and the subsequent hatching of young bees, the better will be our chances for securing a good crop of honey; for it is these early-hatched bees that put life and vigor into the colony, after its winter's repose; that gather the freshly secreted pollen and the first honey; they nurse the on-coming throngs of workers for the early harvest and are the main spring of the colony; so keep them warmly protected, give plenty of honey, and the first step—a long one, too—is taken toward getting ready for the honey flow."

PUTTING FOUNDATION IN SECTIONS.

"Rambler" in Gleanings, describes a novel way of putting in section foundation which he found practised by one bee-keeper whom he visited.

"The foundation was cut a suitable size and put in by heating the edges. It was put upon a little stand with an edge against a piece of sheet metal. A lamp adjusted so as to keep the edges at just the right temperature, was placed in front. You see, the temperature can be nicely controlled. Mr. B. thinks this the very best way to put in foundation.

This should do very nicely, especially for the amateur or the one who has not very many sections to fill. It is certainly an inexpensive method.

THE SPOT FOR A BEE YARD.

Near a creek or river bottom, where plenty of alder, willow, and soft maple grow to afford early pollen, and near a good deal of pasture land containing much white clover, and near a large body of basswood timber; and if asters and other fall flowers grow thick in the bottoms and wild raspberry on the hills, so much the better.—S. I. Freeborn.