

Preserving Empty Combs.

AMONG the earliest works on bee-keeping that fell into my hands was Quinby's *Mysteries*. The author gave one but little hope of saving empty combs from the war-moth by enclosing them in tight receptacles. Indeed, I think the writer said he had sealed up comb in air-tight vessels and yet had them infested with moth. The impression left upon my mind was that the price of spare comb was like the price of liberty, eternal vigilance. For years I sulphured my spare combs occasionally, and hung them where the air was so free about them that, except in hot weather, it could not rise in temperature to the hatching point; so that any eggs laid upon them remained inert. In 1887 I experienced a bad year and had combs remain without any swarms upon them, and as I was looking for a new location, and was expecting to break up my apiary here, I left them in empty hives, merely seeing that the entrances were well closed. Last year was a worse one; and I moved to where I had no honey-house or any conveniences for bee-keeping. More bees had died during the winter and they continued to starve out during the summer of '88. The prospect was so bad on account of drouth, last spring, that I paid little attention to my empty hives, or rather empty combs until the rains set in about the middle of May. I supposed from the little I had accidentally seen that my combs were all destroyed, but when I came to overhauling my hives, to have them ready for swarms, what was my surprise to find oomb in hives, two stories high, that had been tenantless for two years, quite intact, and with the exception of some mold, ready for bees to put honey in. Fully half my combs, kept in this careless, slipshod manner were so little damaged by moth and mold that bees filled them up in a day, or two after there were put upon them.

Many hives were telescopes, and for some reason that I cannot satisfactorily explain, most of the combs in these hives were wholly destroyed by moth or so moldy that bees cut them out, but in some permanently double-walled hives two stories high, they were as nicely preserved as one could wish. The single-walled hives did the best, though no better made or cared for than the others. Some of the telescope hives, that had the entrance in the cap only fastened up, had the half-inch space about the brood-chamber so full of cocoons that the hives were with difficulty gotten out of the caps, and they present a scarred and sorry sight to-day. Of course combs from the extractor that had been put away with honey on them were all right and ants had gotten into only one or two hives. My

hives are well made, better, perhaps, than the average, and after careful examination I am at a loss to account for the preservation of the combs in some, and their loss in others, all equally tight. In one hive containing 20 combs, I found a colony of large black ants but no moths. Here the combs were smeared with honey from the extractor two years before when put away. Wherever the hive had been cracked or shifted accidentally on the stand, so as to leave an opening large enough to permit the entrance of a moth, the combs were destroyed, unless it was one that contained no pollen and had not been bred in.

I have exposed such combs, in sections for years without having them damaged, and should not expect any trouble in keeping such; but in a large apiary there are but few such combs used in frames. I use the same above that I do below, because I find it best in the spring to transfer all drone combs, or combs that are too largely drone-celled, to the upper story for store comb, and most of these are either bred in before they are lifted, or the queen goes up and lays in them after they are lifted. Except there is a very late honey flow, too, most of the upper story combs are put back on the hives till time to remove supers for winter and are not covered with honey as a protection from either moth or mold till the time comes to use them again. Here, let it be noticed in passing, is an argument in favor of tiering up for extracted honey, that is of using frame of half the depth of those in the brood-chamber and as soon as one is filled, without waiting for it to be sealed, put another super, filled with half frames, underneath the first, and so on until the season is closed, as advised by Dadant, in the revision of *Langstroth*. You are not only clear of brood but you can get out of a set of half frames two thirds as much honey as you could out of a set of full ones; you can handle them easier, and faster; they do not melt down so readily, nor the combs break in linging; while the season being closed you put your combs away from the slinger, guarded with honey till needed again, and then, being covered with sweets they are very attractive to the bees.

Has any one tried putting empty combs away in a light trough, or box, painted with coal tar? WM. CAMM in *Beekeepers Guide*.

PEA-VINE CLOVER.

H. F. HUNT.—Can you say if Pea-vine clover is a perennial? or will it last as long as the common red clover at least?

Villa Mastai, Que. Sept. 6, 89.

Will some of our readers please answer this question.