

it is imperative that her operations be transferred to a part of the hive remote from the brood-chamber.

In storifying a lot of brood-chambers containing combs of honey upon a colony (without excluders to prevent the queens going up), I found shortly after that she had gone up to the third story, and the bees below in the first story had started queen-cells. The queen was laying vigorously, and her attending bees were flying from the first story and the only entrance.

This liability of the queen to leave the brood-nest will account for the probable fact that colonies of bees in caverns and other places in a wild state have many laying queens, although all of the bees are seen to issue from a common entrance. In no other way can we account for the large number of bees seen to fly from some of these wild colonies. In the instance above noted, of the queen deserting the brood-nest, I put her back in the first story; put on an excluder, and then the seven other brood-chambers I had on this hive. The bees then balled and killed the mother-queen, and raised a queen above and below the excluder.

In two other cases, where I had put swarms containing the mother-queen above the sections, the bees reared young queens below while the mother was laying above. So in this case, where the mother-queen had gone up to the third story, if I had left her there she would not have been disturbed, and there would have been two laying queens in a short time. But I have yet to record a single instance among many cases I have had in the last three years, of a young queen becoming fertilized from an upper story above an excluder, where there was a laying queen in the brood-chamber.

One of the many plans of using the new queen-rearing chamber is to take the old queen from a hive and put her in an upper story, above an excluder, or, wait till she leads a swarm, and hive in the usual manner; then place all above the excluder. Before the queen-cells are ready to hatch, set the combs over the new chambers, so that there will be one cell to each of the compartments, and all of the young queens that hatch will become fertilized, and begin laying in due time.

The many and highly successful uses to which queen-excluding zinc may be put, bails the advent of great changes in our methods and fixtures. My prediction on page 88 of *Gleanings*, Vol. XVI., see the three closing paragraphs, will speedily come to pass, and other much-needed changes with it, not the least of which will be the sacrifice of the present largely used Langstroth brood-frame for one of a smaller

size, or one about 7 x 17 inches. The new conditions and requirements brought about will compel these changes, which are destined to place bee-keeping upon a more successful and profitable basis. It will be soon made to appear, if it is not already apparent, that bee-keeping, as a pursuit apart from other business, is not a profitable one (barring a few exceptions in favored localities), with our old methods and fixtures for handling bees. The new system, with its larger returns, and financial success, will work its own way to popular favor. G. L. TINKER. New Philadelphia, in *Gleanings*.

To Prevent Robbing, Etc.

SEVERAL THINGS TO BE CONSIDERED IN GETTING READY FOR WINTER.

A CORRESPONDENT asks if musk will prevent robbing, if placed in a hive which is being robbed. Musk, spirits of turpentine, kerosene oil, etc., have all been recommended to stop robbing; but I do not believe that, after robbing, is well under way, any of them will do any good. When robbers first attack a hive, a few drops of kerosene oil or spirits of turpentine sprinkled against the hive and on the alighting board, a few inches from the entrance, will often cause robbers to leave in disgust. However, I find that the best way is to contract the entrance at all times when robbing is likely to occur, so that but few bees can pass at a time. I have also tried leaving a pane of glass up before the entrance, as recommended by some of our English friends across the water, where robbers seem determined to enter any hive, but I do not see that it is in any way superior to contracting the entrance, while it seems to bother the bees of the hive much more. If robbers have really got possession of the hive, throw a sheet over it, so that those on the outside can not get in; and if the colony is good for any thing, they will soon drive out those already in, when the sheet is to be turned so as to get rid of them. Leave the sheet on till near sunset, when it is to be taken off so as to allow the few bees out to get into their hives. Fix the entrance so that but one or two bees can pass at a time, and the next morning they will take care of themselves. Something much better than the sheet for stopping robbers is a bee-tent, to be set over the whole hive; and where the apiarist has such a tent, it is hardly necessary for me to tell him to use it in place of the sheet.

FEEDING SUGAR.

Another correspondent wishes to know how to feed his bees on sugar. There are two ways