

ing worked for, is to put on the sections before the swarming season has been reached, thus giving room in advance of the bees' requirements; but this is only partially successful: the brood nest becomes crowded with both brood and pollen, and a great many swarms issue. Therefore, as a farther aid to prevention while working for

COMB HONEY

the bee-keeper will be compelled to relieve the brood chamber with the extractor? Oh no, that will not remove the pollen; but, by occasionally withdrawing the two outer combs, and at the same time inserting near the centre two frames with guides only. Mind, these two frames are not to have empty combs or foundation, or they may be choked up at once to the exclusion of the queen.

PREVENTATION WITH EXTRACTED HONEY

has generally been a far more simple matter where the bee-keeper will only keep on hand plenty of empty combs and extra sets of hive chambers that can be tiered up freely when the good time comes. The brood nest is not cramped, and the bees are never allowed to have all the combs completely capped before the honey extractor relieves the surplus combs of their accumulating stores.

But after all prevention is not always secured with such unlimited space. For one reason bee-keepers keep queens until they are too old, and worse than that, such as are reared at quite the wrong time of the year to ensure the best results,

YOUNG QUEENS

reared in autumn will top all that has been urged so far as aids to prevention of swarming, though, as a matter of fact, such queens will always be found at the head of far stronger and more capable colonies than any with ordinary swarming queens.

The young queens should be reared in nuclei towards the latter part of the season, by the side of the respective stocks, and unite them before the general clearing, or where you expect a later harvest shortly before that occurs. Try it once, you follow it always.

But above all, and in connection with the last named condition, the

FOREMOST METHOD OF PREVENTION

it has been my lot to discover, is the placing of an empty chamber under the usual stock chamber before the latter becomes crowded. The frames of this lower chamber have $\frac{1}{4}$ inch guides only. The surplus is worked as usual above the stock chamber, when no combs are completed below,

even if left without attention the whole season, providing the former receive due care. There are no traps and no constant shifting of heavy weights; the bees feel that their brood combs are never complete, and the natural desire for swarming is lost.

Before the plan is tried, the frequent query is "How can I possibly get the bees to work in the surplus chamber with so much room below?" I have never found the least difficulty. When working for extracted honey, with plenty of combs above, there can be no difficulty. And, when is there anything in the way of bees going up into the sections? Only when you do not use full sheets of foundation in sections; and who in these days can afford to use anything less than full sheets? If you use only

STARTERS IN THE SECTIONS

then the combs are finished off with drone cells in many cases, with its coarse, irregular capping. The drone comb there has been the only inducement for your queens to go up and brood among the nice combs of honey; then some of you felt you must use the queen excluder zinc, with its added expense and inconvenience. Use nothing but full sheets of foundation in the sections, give empty frames below the stock chamber, and you will find perforated zinc one of the greatest shams ever put into a bee hive.

NATURAL VS. ARTIFICIAL SWARMING.

We next come to the question, "whether it is advisable to prevent natural swarming in all cases." Decidedly, yes. It is opposed to all the first principals of scientific breeding, and in northern latitudes we do not want our queens reared at the usual swarming time, as already shown. We want at all times to keep our bees well in hand that we can make our increase at the time it is going to interfere the least with the main work of honey gathering; and we just want every single queen reared and mated by selection.

IN SOUTHERN LATITUDES

I should still want to control the swarming impulse, but whereas in the north but limited increase is desirable, in tropical and semi-tropical climes, the highest results are only to be obtained by swarming artificially.

It is impossible in the latter case to keep up a sufficiently large and continuous working population to secure the enormous amount of honey generally abounding throughout a lengthened season, with a judicious process of increasing, which shall do away with the pollen-bound