

disadvantage in two ways, the first of which is, that you have to handle more combs for the same amount of honey, turn the extractor more carefully so that the unsealed brood may not be thrown out with the honey (thus making a sickish looking mess of the product before it is strained), as well as endangering the life and limb of the queen in getting the bees off the combs; this latter being quite a serious matter, according to my experience.

Then, again, the bee-escape boards are of no use in freeing the combs of bees where the queen is in the upper story, for the bees will not go below and leave her, no matter how good the escape is. Also, the queen will lay the given number of eggs which nature has prepared her to lay, much sooner than she otherwise would, so that the queen arrives at old age, and must be superseded much oftener than is necessary; and all for what? This brings us to the second disadvantage (which the reader probably has already divined), which is that nine times out of ten this brood is only reared at our loss.

Where the queen has access to the whole amount of room given, she increases her egg laying on the arrival of the honey harvest until she often has brood in every frame used. This brood requires much of the honey brought in from the field to rear it, and, as I said before, nine times out of ten arrives on the stage of action as mature bees, just in time to become consumers instead of producers, thus taking a large part of our honey crop, not only in the brood stage, but in the adult as well.

How often have I seen hives black with bees during the month of August, when there was no honey in the fields to gather by these super-numerary bees, which are hanging on the outside, in perfect idleness day after day. Far better that they had not been reared, for they have not added a single ounce to our crop of honey, but, on the contrary, have consumed pounds of what we might have had.

Now, the queen-excluders give us the privilege of determining just how much brood may be reared after the harvest of honey commences, and the wisest apiarist will place the amount at the point which will allow him bees enough to secure all subsequent crops for that year; for, as a rule, none of the eggs laid by the queen after a honey harvest commences, will be of any direct use in securing the honey from the bloom of the kind of flowers which are yielding honey at that time, for it takes 37 days from the time the egg is laid until the bee goes into the field as a laborer, where a colony is in a normal condition; while no flora, here at the North with which I am acquainted, gives a continuous

yield of honey for that length of time. Inasmuch as the perforated zinc allows us to adapt the number of laborers to the capacity of our field, I consider it one of the greatest inventions of the age; especially so, as it in no way hinders the work in the surplus apartment, no matter whether we are working for comb or extracted honey.

WHY BEES CLUSTER.

On page 680 I see that Prof. Cook "supposed it settled" that bees always have a home selected when they swarm, and cluster so that the queen may rest her wings, which are unused to flying. No, no, Professor; if such were the fact, why do not the bees go at once to their home, instead of going about the country for days before entering that home, as they are often known to do?

While I fully agree with you that bees "sometimes" have a home picked out before they leave the hive, yet I "guess" you are wrong in supposing that they do always; for I believe that more swarms do not *thus* have a home selected than do, and I will proceed to give the reasons why I believe my guess to be nearer right than yours: In the first place, I have known of very many swarms which have settled "for the queen to rest her wings," and before the one intending to give them had all in readiness, they "went off"—not to their home which they had selected, but from half a mile to two miles, where they clustered again; not to allow the queen to rest her wings, but for the swarm to send out scouts in this new locality to see if a home could not be found—and in one instance the proof is pretty conclusive that this moving was kept up for a week.

Another thing, which I consider still better proof, is the fact, as I believe it to be, that when bees have a home selected before they swarm, all of the bees go to that home after the swarm starts from the limb—when the queen has become rested, according to the Professor—so that no bees are left hanging about the limb afterward, as is the case where no home is selected, and scouts are sent out to find one.

Who has not noticed from six to fifty bees around a limb on which a swarm has clustered for an hour or more, and then been hived, flying about and alighting on the same for from one to three days afterward, apparently homeless wanderers? These, I claim, are the scouts which have returned to find the swarm gone. I wish to thank the Professor for giving me credit for general correctness along the bee line, the same being more than I deserve; but on this point I am not willing to take a back seat yet, as he will see by the above.

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