

which is generally the branch of a near-by tree. Here they cling for quite a while, frequently hours, as if awaiting important news from somewhere; then, if unmolested, they will suddenly decamp to parts unknown, locating in a hole in the trunk of some decaying tree, and there start up the routine of the colony afresh. But in a well-conducted apiary the flight to distant regions is summarily prevented by the bee-keeper, who secures the cluster and houses it in a regular hive. Ordinarily, they accept the domicile, just as pleased as if it were of their own selection. The whole procedure is technically known as swarming.

In a hive in summer-time there are to be found bees of all ages and occupations. The very youngest are nursing the larvæ, making wax, building combs, curling the honey and capping it over; the older ones are field-workers, their business being to carry in nectar, pollen, water, and propolis. An interesting point at once arises, what is the age of the bees that form the swarm? The old queen undoubtedly leaves the hive; that is beyond all dispute; and it is believed that the greater part of the swarm consists of fielders, but there is also a fair proportion of younger ones whose duty is concerned with the inside labour. This should be so, for the best welfare of the new community.

Each bee fills her honey-sac to its utmost capacity before starting out, so that the new colony is provisioned for several days ahead, should inclement weather prevent the gathering of nectar. On arrival at the new abode, part of the swarm starts at once to clean it out; another gathers into festoons and proceeds to secrete wax; while still others collect the wax and build combs. Just as fast as cells are built the queen lays eggs in them, or the workers store honey, so that in a few days the usual routine of a bee community is established.

In the hive from which the swarm emerged there has been left quite a strong force of bees, thousands of young brood in all stages, from egg to those about to hatch, and several queen-cells, from each of which there may come out a queen. If the conditions seem propitious, the workers may decide to send off several swarms, each accompanied by a virgin queen. Since the hive has been decidedly weakened by the loss of the first swarm, the second will be much smaller, the third weaker still, and so on with the others, until the last may consist of a mere handful of bees. Such weak colonies are almost certain to die of starvation during the winter, as they are rarely strong enough to build up a numerous force and lay in sufficient stores before the cold weather sets in, excepting in very highly favoured localities.

RETRIEVING A SWARM.

(For its illustrating this subject see Bulletin No. 42.)

The handling of a swarm is not a serious proposition, provided it does not settle in a rather inaccessible place. Until it does cluster nothing can be done with it; therefore it is utterly useless, so far as the bees are concerned, to beat tin pans, ring bells, or otherwise make a hideous noise. Such strenuousness may provide occupation for the bee-keeper at a time when he feels he ought to be doing something to show he is in control of the situation, but he will display more wisdom if he sedately waits until they settle, in the meantime providing himself with a busbel or clothes basket—best of all, a big dishpan—and a large apron or similar covering. When the cluster is at the end of a low branch the basket is held close under it, then the branch is given a sudden downward jerk that tumbles the bees into the basket, which is then quickly covered with the apron. For a higher branch a step-ladder is almost a necessity, sometimes one must climb the tree to reach the bees. In windy weather they may gather on a thick branch, or even on the trunk, in which case they must be brushed off with the hands. When the branch happens to be a small one the speediest way is often to cut it off. In any case, it is always as well to have a small saw handy when gathering in a swarm, to cut away twigs and sprays that interfere.