We have already learned that the egg from which a queen is to be raised differs in no way from that from which the ordinary worker develops. Furthermore, it hatches out the same, and for three days the young larva is fed like a worker-larva, but on the fourth day the latter is put on a less nutritious diet that prevents the development of the sex organs. The food of the royal larva remains unchanged; its quantity is lavish; with the result that the full development of the insect is secured, not only organically but in actual size. Since she is to be larger than either worker or drone, the ordinary cells of the hive are not big enough, hence the bees must build a special cell for each young queen, which is known as a queen-cell. Fig. 23 will show how they look. In ordinary course a populous hive will make preparations for swarming by starting a number of royal cells, usually placing them on the edges of the comb that are not

Fig. 23. Queen Cells.

attached to the bars of the frame. When complete they somewhat resemble a small peanut, and are about an inch in length. When first started they rather suggest an acorn-cup: in fact, after their usefulness is past they are usually trimmed down to about the same size. While all other cells are horizontal, queen-cells always hang perpendicularly, with the mouth downward. The number in a hive varies greatly; sometimes there are only a couple, generally about six, occasionally as many as a dozen.

In due course an egg will appear in each cell, but not all at the same time, as two queens cannot be free in the same hive together. One will certainly kill the other.

When the first cell has been capped over the first swarm will come forth, accompanied by the old queen. A week later the second swarm is due, this being headed by the first of the young queens. Others may follow at intervals of a day or two. As each virgin hatches out she tries to get at her rivals in the cells, and if successful stings them to death. Whether she reaches the others or not depends upon the bees, who hinder her progress or give free access as suits them. In any case she issues a challenge, in the form of a shrill peep-peep-peep, which is responded to by the most advanced of the others, but since they are confined in a close chamber the sound is more like qua-qua-qua. When a second swarm is due one can hear both sounds by placing one's ear in contact with the side of the hive. The second swarm having departed, another queen is released. Should both sounds be again heard, a third swarm is likely. But if the bee-keeper feel there has been enough of swarming, the other queens will be killed. Many bee keepers, after the first swarm has issued, open the hive and destroy all cells except the largest one, and so prevent any more.