

shook the bees and queen out into a new hive filled with combs, and set them away in new locations, which they accepted the same as a swarm. Sometimes they commenced to swarm before we got the operation finished, and if we were lucky enough to catch the queen before she took wing with the bees, we could make them return, and if not, had to hive them in the ordinary way.

#### Fertile Workers.

**W**E are in receipt of several letters in reference to fertile workers, the writers of which seem very much puzzled to know how it is that ordinary bees could lay eggs the same as a queen. They cannot lay eggs the same as a queen. A queen can lay worker or drone eggs, but a fertile worker, or undeveloped female bee, can only lay drone eggs, which produce smaller drones than those hatched from eggs laid by a fertile queen. One writer wishes to know how he can tell when it is a fertile worker laying the eggs (or a common bee, as he calls it), instead of a queen. His colony is rapidly changing from workers into little drones, and he wishes to put a stop to this sort of thing. There are various ways of telling fertile worker eggs from those laid by the queen; and for the sake of enlightening beginners, we will devote a little space to this question. The moment you lift a comb out of the hive you can tell by its appearance what kind of eggs are in the hive. Should you suspect something is wrong by the number of small drones in the hive, or around the entrance, you should at once make an examination. Lift out a comb, and if the cappings are rounded like little ant hills all over the combs, instead of being kept flat, or slightly concave, as worker comb is, which gives it a smooth appearance, you may be sure you have fertile worker eggs. You may find combs with a good laying queen that has these extended cells capped like the point of a conical bullet. This usually occurs where the queen is becoming old or has been injured by some means so that she does not lay all worker eggs in worker cells. Scattered drone eggs here and there, as we said above, indicate a fertile queen, while solid patches of brood not raised quite so high indicates fertile workers.

By lifting out the combs and examining, you will further find that fertile worker eggs are not laid the same as the queen lays them. The queen lays the egg in the bottom of the cell, attaching it to the septum, while fertile workers are more liable to attach them to the edge of the cell. The reason for this is that the queen having a longer body, is able to back down into the cell until the point of her abdomen touches the bottom, and the eggs are all deposited very uniformly on the bottom. The body of the queen usually just fills the cell, and as she backs down into it, there being more curve on the top side of the body than on the under, the egg is laid perhaps one-third nearer the side of the cell than the under side of the queen's abdomen comes in contact with. In taking combs out of a hive you can look at the egg in the cell, and see how and where it is attached on the septum, and that will indicate the direction in which the queen was walking when she deposited the egg. For instance, if the queen is travelling towards the top of the comb the egg will be deposited one third nearer the top side of the cell. If she is travelling towards the bottom, it will be one-third nearer the bottom; or if to either side, it will be one third nearer. The course the queen is taking, then, is easily told by a glimpse at the egg. Now, on the other hand, fertile workers being shorter in the body and smaller, are unable to reach the bottom of the cell, and as they back down into it they give their bodies a curve, and the point of the abdomen comes against the side of the cell, and many eggs are attached at the side, while others drop and fall to the bottom. Some of these bees, with a little more experience, back away down until their wings spread out on the top of the comb; this allows them to get down far enough to lay their eggs in the bottom of the cell, but they will not be laid uniformly like those by the queen. Sometimes they lay fairly well, but in the majority of cases, they are stuck all round the edge of the cell, and scattered indiscriminately all over the bottom. Besides, it is not an unusual occurrence to find from two to ten eggs in a cell, and, in bad cases, cells will be found with some fresh eggs laid in them, while others are dried up and turning dark. We think, perhaps, this will be explicit enough, so that you