

end of the cage by driving a wire-nail through the centre of it and into the cage. This is adjustable, and works on the principle of a button to a door; and when it is turned crosswise, as shown in the cut, the cage will hang between the combs, and thus will be held in position and prevented from falling down. The queen should be put in through the mortise hole, which should then be fixed with a mixture of sugar and honey. By the time that the bees have removed this honey they will have become acquainted with the queen. The bees must have been queenless three days before introducing virgin queens. If a little tobacco-smoke is used to scent the bees at the time the cage is put in, I think the undertaking will be rather more successful. Laying queens may be introduced by the same process.

Virgin queens are considered most difficult of introduction to a full stock, but Mr. Alley states that he 'introduces hundreds of them every year, and has no trouble in so doing.'

Thirdly. *By the Pipe-cover Cage.*—Of all the cages I have tried—not excepting the one that bears my own name—I consider the pipe-cover most satisfactory. By means of it I have introduced many hundred queens. During the summer of 1882, between April and November, but chiefly in September and October, with this cage alone I introduced sixty-seven queens of all varieties—Italian, Holy Land, Syrian, Cyprian, Carniolan, and black—without a single failure, and since that date have introduced many more. The general method pursued was to remove the queen of the hive, and cage the stranger at once, during the same operation; after twelve hours imprisonment and the blowing in of a little smoke, the hive was opened and the queen released. On two or three occasions only was she seized by the bees, and again caged for another period of twelve hours.

The queen of the hive being found and removed, a central frame (near the middle of the cluster of bees and the hive) containing sealed honey and brood, is placed as represented, quietly and without any jarring or disturbance. The alien queen, having been previously put in readiness, under the small cage on a piece of cardboard, and carefully covered to prevent chill, is now placed upon the comb, covering a cell or two of sealed honey, and close to brood; the cardboard is withdrawn with the left hand, while the cage is pressed into the comb with the right; a long needle is then passed through the base of the cage into the midrib of the comb, to prevent the bees from gnawing out the cage, and, the hive being closed, the operation is complete.

To liberate the queen the frame is raised, as before, the needle gently withdrawn, one side of the cage is sufficiently raised to allow the queen

to walk out, and, if favorably received, food is offered by the bees, and she is allowed to go wherever she pleases.

But the operation of caging and liberating queens must be performed skillfully, and with much care and judgment. An old and experienced hand can tell, before releasing her from the cage, whether a queen will be accepted or not, and can introduce one successfully, while the novice will almost certainly cause her destruction, since he will liberate her when the bees are encasing the cage with evil intent, failing to notice the difference in their deportment when murderously inclined towards, and when struggling to embrace and to feed the imprisoned queen. How many of these gentlemen, having failed in their endeavours, lay the blame on their tools, and on those who recommend them, never for a moment supposing that their own clumsiness and want of tact has caused the failure!

The pipe-cover cage which I first used was of German manufacture, and was supplied to me by the late Mr. Woodbury. It is hand wrought, of the finest wire, and permits free communication between the bees and queen, but not so free as to endanger the legs or the wings of the latter. I found, however, that this small size was an objection; its diameter, being barely one inch, prevented a large queen from moving freely within its precincts.

The one I now use is precisely similar in material and construction, but large enough to contain half a dozen bees together with the queen. In accordance with Mr. Benton's recommendation, I generally cage three or four bees with the queen, as her body-guard to feed and tend her, and find that the practice renders her more quiet, and less inclined, in her novel position, to quarrel with her new subjects.

When liberating a queen from one of these cages, it is especially important that the operator should be calm and self-possessed. If the hand trembles, and the queen or bees are squeezed, or roughly handled, trouble may ensue. Having at hand a strong goose quill, which has previously been dipped in carbolic acid solution, and wiped dry, if the bees begin to surround the queen and bar her progress, seizing her by leg or wing, gently press the quill upon the forming knot, being careful not to touch the queen, and every bee will quickly decamp. Allow the queen again to proceed, and if again seized it is better to recage her at once for another twenty-four hours. Nervousness or timidity will only defeat your object, and there is really no danger of the queen being