

and left 4 or 5 days. At the end of this period the comb will be found full of eggs etc., if the conditions are right. The bees are brushed off, and it is prepared as follows: Beginning at the upper end of the comb, having it lying flatwise upon a table, destroy 2 rows of cells with a knife, mashing down the cells and cutting to the midrib; leaving one row, and again destroying 2, thus following down to the bottom or as far as there is brood, destroying 2 and leaving one alternately. Now with small chisel remove those destroyed or mutilated rows of cells all over the comb in such a way that you will leave every third row of cells containing eggs or larvae uninjured.

Now, we must not leave all this brood and give it to our cell-building colony, or we would have many queen-cells built and joined together. We want these cells separate, so that we may be able to cut them out conveniently. Therefore, we take a small tool, or a match and knock out 2 cells in the row and leave one uninjured, continuing thus until we have treated each row of cells which have been left intact after the previous operation, in such a way that only every third cell is left untouched.

The cells from which queen-cells may be made by the bees are now evenly distributed over the comb, and this latter is ready to be given to the cell-building colony, which, of course, must be queenless with no brood, or only sealed brood, in the hive. It is a disputed question which is best, sealed brood or none at all. There should be an abundance of young bees in the hive, for only such produce chyle or larval food.

Mr. Dines dequeens about 6 or 7 days before he gives the prepared comb, or combs, and at the expiration of this period destroys all queen-cells which the bees have started. He thinks the colony is then in the ideal condition to go to work on the prepared combs. Mr. Case dequeens only one or two days previous to giving the comb of eggs and larvae,

then he takes away all brood, giving combs with some honey and pollen instead.

The prepared comb, with young larvae, is placed flatwise on the top-bars of the frames, with space enough under the comb to give room for the queen cells.

With the hanging frame having projecting top-bars, a specially constructed arrangement to hold the prepared comb, and hold it in just the right place is very desirable. Mr. Dines showed such an arrangement at the Syracuse convention, mentioned before, and the same received the endorsement of many distinguished bee-keepers present. It consisted of a narrow rim, the same size as the hive he uses. We might call it a very low brood-chamber, $2\frac{1}{2}$ inches high.

The illustration will show how the prepared comb is supported therein by having a little notch cut in it to receive the projections of the top-bar; the other end of the comb rests upon two nails driven in the proper places. Without having tried such an arrangement myself, I believe it will be a good thing to use, and may be made for any style of hive and any size of frame. Mr. Dines uses a very shallow frame, requiring two to cover the top surface of his hive.

After giving the prepared comb to the cell-building colony, in a hive with standard frames, the comb is covered with cloth and cotton batting, or other similar material. I am not sure that it will make very much difference whether or not the bees have access to the upper surface of the prepared comb. If they do, the brood therein develops, and when the queen-cells are ready to be cut out on the 10th day, the worker-brood is sealed and will be destroyed in the operation of cutting out the queen-cells; whereas, if they do not have access, the brood does not develop, and the cutting out of the queen cells is simpler. Apparently Mr. Dines has allowed the bees to take care of the brood on the upper side of his prepared combs, as he places them between two sectional

hives with sealed brood and the other below it would be difficult to get the bees away from the prepared comb.

I hope that I have explained. Mr. H. L. Case had over 100 fine queens on one comb, and a large number hatched from these. The unconsumed royal food would indicate that the bees lack food at any time to hinder their development.

The honey-producer who rear his own queens should, he wishes to reap the benefit of the honey season, use the above method a large number of queens, rear the cells in the flow, the most favorable place for them, and have them in the place of removed queen-cells, mated or otherwise improved, better placed to select the best than the honey producer. This requires close watching and careful record. Here the producer often fails.

Naples, N. Y.

—From the American Bee Journal

BACK ENTRANCES

By C. W.

After experimenting with the back entrance on Mr. Holloway's hives, I wish to point out the advantage of back entrances to give an idea which is as well as a good man

The Advantages of

In very hot weather hives keep much cooler and refreshing air has only one entrance and it goes in without any hindrance to the bees. In the preparation of the bees that are made the bees