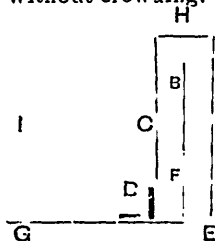


bottom, for if at the top only water would come through.

I could easily try the thing with a Miller feeder. I took one of the original pattern stuffed cotton rags under the board where the syrup passes through, put a mixture of hot resin and beeswax in the corners so nothing could get through except at the bottom, put it on a hive, poured in sugar then water, at the rate of five quarts of sugar to four quarts of water, and found it "all my fancy painted it."

Having a goodly number of Miller feeders. I didn't need to get up any other feeder; but with what experience I had I felt I wanted to make at least one feeder such as I would now make if I had none. I made one a little simpler than either the original Miller feeder or the one with Warr's improvement, but on the same principle. The old Miller feeder had two feeding-places for the bees, one on each side; the new one has two feeding-places in the middle. The percolating feeder has one feeding-place, and that is at one end. This allows by having the hive tip a trifle, a full supply at the feeding-place just as long as any feed is left and I find one end gives room for the bees without crowding.



Those who are familiar with the Miller feeder will need no further description. Others may understand it from the diagram showing a transverse section of the one end of the feeder, the only end where any feeding is done. Take a T^{sup}er

or a box that will nicely fit over the hive, with a bottom $\frac{3}{8}$ inch short, leaving the passageway E for the bees to get up through $\frac{3}{8}$ inch from the end A of the super put in another wall, B, extending to within $\frac{3}{8}$ inch of the cover H, and fitting tight at the bottom. A third wall, C, with a $\frac{3}{8}$ inch space between it and B, comes clear to the top and down to the bottom; but in putting it in, two thicknesses of flannel are put under it, or between it and the bottom G.

When the feeder is put on the hive, the mixture of sugar and water is put into the main compartment; it soaks through the cloth at the point D into the small compartment F, where the bees get at it, coming up from the hive through the opening at E.

On the very night after I had finished making this feeder I had a visit from the junior editor of *Gleanings*. In the morning we went out and put it on the hive. I carried the sugar, and he carried the water and a quart cup. I put in 10 lbs of sugar,

and said to him, "Now put in four quarts of water."

"Why not put in five quarts?" said he "H. R. Broadman has come to the belief that it is better to use equal parts of sugar and water in feeding."

"All right," said I, "Five quarts it is. H. R. Boardman is a pretty solid sort of man to follow. Very likely he is right."

I had thought I was pretty radical to use, for every 5 lbs. of sugar, 4 lbs. of water instead of two, the orthodox quantity; but it seems to work all right with equal quantities, and, as Doolittle would say, its more according to nature, for nectar is pretty thin stuff.

I was anxious to have that feeder show off in good shape while Earnest was here: but the bees didn't touch the feed till I baited them in. Then they worked it in good shape, and in about 48 hours it was dry. I wish I had 40 like it. But I'll stuff in rags and make the old Miller feeders do.

Marengo, Ill.

[In my opinion, Dr. Miller has made what promises to be one of the most important improvements, in the way of feeding, that has been made for many a year. Of course, the idea of using dry sugar and pouring just simply water on it, to make bee-feed, is old. Years and years ago, the senior editor of this journal experimented a good deal, but he did not succeed in attaining satisfactory results. In all his experiments the sweetened water would be taken by bees, leaving the dry sugar to stick to the feeder. In order to get the bees to take up all the sugar, it required constant moistening with water. This took so much time and bother that he concluded it was better to pour boiling water on the sugar and make an actual syrup, the same to be poured into the feeders from a syrup can. But Dr. Miller has taken a long step in advance, in what apparently is a success. That being the case, all he has to do is to carry the dry sugar and a pail of water; pour an equal quantity of each into the feeder, close the hive and the work is done. You will observe he has simply the percolator idea to the feeder; and herein lies the success of the plan.

We have been trying the plan outlined above by Dr. Miller, and so far we are pleased with it.

Although I saw the plan working successfully at Marengo on my recent bicycle trip, when I got home one of the first things I asked our apiarist to do was to try this new way of feeding. I was in such a hurry that I could not wait to get common flannel but asked him to go to the book-binding room and get some common cheese-cloth