and one of the principal features of th discussion will be "How far apart shal they be located." Mr. Hutchinson says:

"We have been told repeatedly that, ordinarily, three miles mark the limit of a bee's foraging grounds, hence, if apiaries were placed six miles apart, there would be no encroachment. But it must be remembered the pasture ground of each apiary is *circular* in form, and that they might be moved towards each other to considerable extent withont one encroaching upon the other very much. Lay two silver dollars side by. Lift the edge of one and slide it over the other. Notice how far it may be pushed over without covering a very large portion of tne under dollar. Just so in establishing out apiaries; they may be nearer together th an one would imagine. We believe that four miles is plenty far enough apart. We cannot always secure the exact spot desired for an apiary, hence we should not hesitate to shorten the distance to three miles, and, unless the apiaries were large, we think the loss by so doing would not be material.

Providing that the out-apiaries are not going to be too large—say not over 100 colonies—and there is a fair amount of pasturage a distance of three miles from the home apiary will not interfere at all. For years we had two out-apiaries within less than that distance of our home yard—one two miles west, the other about three miles north—and we are quite satisfied that none of them encroached to any appreciable extent on the home field. We occupy neither of these at the present time—our lease for both having expired—and we notice no difference.

BEESWAX FOR MAKING SCREWS AND NAILS PENETRATE WOOD.

A correspondent in *Gleanings* asks the editor if he ever tried puting a little beeswax on a nail or screw that he wished to drive into hard wood. The editor mentions that the idea is kown to some extent, and instances a case of his own where the use of wax assisted very much.

"Some time ago we purchased a new and expensive machine for punching holes in our A B C books for wirting the paper covered ones. The machine could not be made to work. There was not power enough in the thing to push the awls through such a great quantity of stiff, hard paper. One of the girls, however, suggested that we first push the awls through a very thick sheet of beeswax, I do not know where she got the idea, but, presto! after they had been waxed they went through the whole book without any trouble at all.

MILLER'S METHOD OF INTRODUCTION.

Dr. C. C. Miller writes on this subject and gives a plan of introducing which will be accessible to any one. He also writes regarding baiting sections, which is also reprinted below:—

The plan of introducing queens by means of the Peet cage, letting the bees eat through the candy, thus liberating the queen, presents some advantages over any other method I have tried. It is especially advantageous in an out-apiary, Kill your old queen, put the new one caged in the hive, and if you don't look at her again for a week it doesn't matter. But the Peet cage doesn't work equally well in all hives, for the simple reason that there is not room for it. My hives have flat board covers, so there is not room between the top-bars and cover, and the only way to do is to put the cage between the combs, which spaces them so far apart as to make trouble.

I send you herewith a simple introducing cage that I have been using this season with a great deal of satisfaction. It is not a shipping cage, of use only for introducing, but it takes up so little room that, if left between the top bars or combs for a year, no great harm would be done. Generally, however, I push it into the entrance of the hive, under the bottom bars, and prefer this unless it is so cold that there is danger of chilling the queen. It is so simple that any one can make it.

Take a block 3 inches long, 1½ wide and ⅞ thick; two blocks I inch by $\frac{7}{8}$x$\frac{7}{8}$; two pieces of tin about an inch square; a piece of wire cloth 4½x3½; 2 pieces of fine wire about 9 inches long, and four small wire nails ½ or ⅝ long. That is the bill of material. Lay down the two small blocks parallel 3-8 of an inch apart, one piece of tin under an one over them. Nail together and clinch. These two blocks, being 3-8 inch apart, make the hole to fill with good candy, through which the queen is liberated. A good way to make sure of having this cage all right is to lay between the two blocks, when nailing, a third block 3-8 square. Put this nailed piece at the end of the large block, and wrap the wire cloth around it, letting it come flush with the end of the small piece, and it will come within about half an inch of the end of the large piece. Wind one piece of wire within about a quarter of an inch of one end of the wire cloth, and fasten by twisting, and wind the other wire at the other end. Play the large block back an forth a few times, so it will work easily in the wire cloth, and trim off the least bit of the corners at the end of the block so it will enter easily. To provision it, let the large block be pushed clear in, fill the hole with candy, and tamp it dwn. When to be used, after putting in the queen, push the block in far enough to allow the queen a room about 1½ inches long. After the bees have had it for some time it will be so glued that the plug must be scraped off before using again. There is nothing brilliant about this cage, and nothing really original, but it has the merit of such simplicity as to be easily made by any one, and of being of such size and shape as to be used where others cannot be used.