methods, they will abandon rule of thumb queens thenceforth.

In carrying out the work about to be described, I have largely had to take into account the difference in the climate of this county and of America, and the uncertain character of the weather here during the swarming season, which, as we know to our cost, is often very bad. The difference must also be noted in the date of harvesting here and there, besides the length of the honeyflow, &c. In this way we must watch bees the time when the first for evince a desire to supersede their queen and, above all things, to be ready to take full advantage of this desire at once. for should the weather suddenly change for the worse, and the honey-flow stop, steps must be taken to preserve queens in process of being raised, by giving the bees an equivalent to the bountiful sapply they were enjoying, or our beautiful queen-cells, queens, and all, nothing but a bare stick will be left.

In beginning the practical work of queenraising, the first necessary is a full colony of bees, with super on over excluder zinc, and having a laying queen below, bees working hard in super, honey coming in fast, and drones on the wing. These conditions fulfilled, all is ready for a start by preparing your frame, to which the artifical cups are fixed beforehand. If the supers used are shallow-frame ones, a shallow frame is prepared; if the standard size adopted, is use a standard frame of comb free from brood; or a frame of foundation may be used, though I prefer a built-out comb with a little honey in it. Cut the comb in half horizontally, remove the lower half, then take an ordinary top har of a frame and cut it so as to fit between the side bars of the frame, close up to the underside of the cut comb. Fixit in its place with a 2 in. brad at each end, then take the portion of comb removed and cut a piece out of the centre along the now top edge 7 in. long and 1½ in. deep ; fix the half comb so cut back under the inserted bar, so as to leave room in the centre for the cells to be built down; or, if preferred. the original como may be cut so that the bar is made to fit in, and the cells extended downwards, Mr. Doolittle prefers the latter plan, but using as I do the the shallow frame. I prefer the fixed centre bar, with an easily removable bottom bar.

The next operation is to prepare the wax cups. Here again I have slightly departed from the Doolittle plan, because I have succeeded better by so doing. Take a few ounces of pure beeswax that has never been overheated; place same in a small but deep tin vessel (a small milk can will do if

clean), add two ounces of distilled water and a pinch of salt; heat slowly until the wax is all melted, but keep the temperature as low as possible. It will, however, be necessary to have your "dippers" ready be-forehand. And now comes the question of This caused me considerable delay. size. and only after careful observation did I find that the bees were not so particular on this point as myself, provided the cells were not made too large nor too small. By careful measurement I found that the interior of natural embryo queen-cells were very nearly the same size as ordinary drone-cells (new). but they must not be much larger; if they are the bees will build a division in the centre and spoil them by making two of one. On the other hand, if the cells are made much smaller they will remove them altogether. But some of your readers will probably say. "Bees transform ordinary worker-cells into queen-cells." True, but if you watched the process you would find that long before the grub is inconvenienced by the smallness of the cell the bees have enlarged the mouth thereof and extended the same so as to make a three-part formed queen-cell of it at the top of what remains By watching still of the working.cell. more closely we find that the young grub is completely floated out of the worker-cell and its fast growing little form soon fills the royal compartment, the upper part of the chamber (*i. e.*, the worker-cell portion) becoming the store-house for the abundant What is refood supplied at this stage. quired, therefore, is a small rounded stick made to fit nicely into an ordinary drone-cell. Having prepared such a stick, take a sharp knife and so cut the dippingend that the base of the cell when formen is what is known as a natural base; three upward cuts on the end of the "dipper" will do this. It may be another fancy of mine, perhaps, but 1 find in using cups made on cell-formers so cut that the royal food when placed therein with the young grub on top is held much better in position than if the cell is flatbottomed; for should the weather be warm and consequently a very high temperature within the hive when the cells are given, the food liquifies, and the weight af the larva causes it to slip from its position in sliding down the side of the cell. When this happens, it is promptly removed by the bees for such a state of affairs never comes about in nature. It is best to make two or three "dippers" at first; by doing so much time is saved in not having to wait while the wax on one dipper sets, but going on with another two while the first is cooling, and so on alternately. Now place the dip-ping ends of your "formers" or dippers in a little salt and water, that they may get