

QUEEN-BEE REARING.

NEW MATING-BOX TESTED AT RUAKURA.

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THE question of the most suitable mating-box has proved a prolific field for experiment ever since queen-rearing became a prominent part of apiary-work. The gist of the matter is to mate queens successfully with the least amount of attention and the minimum of worker bees.

During a lengthy experience in beekeeping I may claim to have tried practically every kind of mating-box that other beekeepers have advocated, and before describing my latest experiment it will be advisable to review some of the more prominent appliances that have been used previously.

The first and probably still the most commonly used form of mating-box is the ordinary three, four, or five Langstroth frame nucleus hive; and for practical purposes—particularly in the case of those beekeepers who only need to rear queens for their own requirements—this is still one of the best and safest boxes to use for the purpose. These nuclei, however, require a great many bees for stocking, and as queens can be mated in much smaller nuclei containing far fewer bees it is only natural that the breeders of large numbers of queens should have been constantly experimenting to discover how small a box, with how few bees, can be used to do the same work easily and well.

Over twenty years ago an American beekeeper named Pratt, who wrote for the bee journals and issued a series of pamphlets on queen-rearing under the *nom de plume* of "Swarthmore," used mating-boxes of very small dimensions. These boxes contained two frames little larger than 1 lb. section frames, and were stocked with a queen-cell and a breakfast-cupful of bees only. Many beekeepers, including myself, tried these so-called "baby nuclei," but with only partial success, the fault being that in many instances the bees swarmed out with the young queen when she took her mating flight—and never returned.

The A.I. Root Company (U.S.A.), recognizing that "Swarthmore" had gone to too great an extreme, designed what is known as the "Root Twin Baby Nuclei," which consists of a box $9\frac{1}{4}$ in. by $8\frac{1}{2}$ in. by $6\frac{5}{8}$ in. deep, inside measurement. This is divided in the centre by a fixed partition, forming two compartments with separate entrances at each end. The frames have sliding tin ends to rest on the rabbets of the hive. The sliding ends when pushed back enable three of these frames to be fitted into a Langstroth frame, so that the combs could be worked out and brooded in an ordinary hive. When brooded and stocked with honey two of the small frames are placed in each compartment of the twin baby nuclei, together with a queen-cell and about a pint of bees.

I have used these twin baby nuclei quite successfully at Ruakura, and they are still used in America by many queen-rearers, but for several reasons have not been so successful as was expected. Among