

been bred in." The word "not" was left out when the article was printed, making me say the opposite. By all means use a bright clean comb that has not been used for breeding purposes. You will note that I say, "save every fourth row of cells, and scrape out the intermediate three rows, though the comb in Fig. 1 shows only two intermediate rows scraped out. The illustration shows the comb used in the first trial, which resulted in the jumbled lot of cells shown in Fig. 2. Further experiments convinced me that it would be better to scrape out three rows.

Kill All Eggs in the Intermediate Rows.

After cutting down to the midrib beside each fourth row, the intermediate rows scrape out very easily by using the point of a wide bradawl; but most of the eggs are left behind; and unless these are all killed the bees are as likely to build cells over them as over those in the rows, and make a jumble of cells. A small stiff brush, if run along, will kill them. I prefer a splint dipped in wax for killing eggs in cells, rather than a phosphorus match, as I think the phosphorus does harm.

Dequeening the Colony for Cell-building

I notice Mr. F. Greiner says, *American Bee Journal* for June, p. 176, "Mr. Dines dequeens about six or seven days before he gives the prepared comb." Our plan, which works all right, requires two for the work. One dequeens the colony chosen by making a nucleus colony with the queen, two frames of brood, bees, and a frame of food. The rest of the unsealed brood without bees is put into the upper storey of a strong colony. The other, in the meantime, is preparing the comb; and when ready it is put at once into the hive for queen-cell building, so that the colony is not queenless for longer than half an hour, and in less than 12 hours the queen-cells are well under way.

Returning Queen and Brood

Unless we wish to retain the queen in the nucleus colony we return her and the brood to the hive on the fourth or fifth day, usually on the fourth, after she was taken from the hive. She, of course, is placed in the brood-chamber with a queen-excluder over the frames, and the cells above, where they mature. There is practically no loss of time, as the queen can lay in the nucleus hive if

given an empty comb, and need only be out of the hive for four days.

Comments on the Footnote

The statement is made that, when more than two dozen cells are raised in one colony, the queens are likely to be short-lived. I say yes, most certainly, if they are raised in small colonies with few nurse bees; but as we raise them in extra strong two-storey colonies in the height of the season, with numberless nurse bees, then there will be 60 or 80 cells containing lots of unconsumed jelly after the queens have emerged, and these queens will be healthy and long-lived. Why should they not be? The bees are not unnaturally forced to build cells beyond their inclination by this method; but it is optional with them. Under the conditions mentioned, in the proper season for queen-rearing, there will be a larger number of fine cells built in a natural manner by this plan than by any other I know of.

You say it may be advantageous for beginners and honey-producers who haven't time to learn the intricacies of grafting. I really don't see that there are any difficulties in grafting that cannot be overcome in a very short time. There is certainly more trouble without any gain that I can see, unless you count economy in the number of bees used in raising cells a gain. In my opinion, the grafting system, taken generally, is responsible for more worthless queens than it is possible to calculate. It is possible, no doubt, for as careful a breeder as Doolittle to get the best out of the system; but how many Doolittles are there? Where good eggs are provided, and the cells built over them by the bees in a natural manner in the proper season, one cannot fail to get good queens with a minimum of handling and risk.

Auckland, New Zealand.

HOW TO SECURE A HONEY HARVEST WITHOUT SWARMING

BY H. HARLEY SELWYN.

I wish you had passed comment on Mr. A. C. Allen's article entitled "How to Secure a Honey Harvest Without Swarming," as published in your Aug-

ust issue. At I have gone month any s overcome the peals forcibly have already similar lines t Allen's "plan hold back sw; only for a tin them far enou Instead of empty frames moved up only



SOME MEME

in that way giving twelve frames, whi enough for the yo ing the swarms wh forth. I wish Mr. time in the near opinion as to effec bound to be built super of brood at from which the q eluded. Another q Allen use an eigh frame hive, and ha trolled swarming i