

capped, and a comb having plenty of honey, in the super of a strong colony. At the next visit, a week later, bring Italian queens that have been secured from a reliable queen breeder, or good ripe queen cells of your own rearing, and proceed as follows: First examine the two combs of brood and destroy any cells that may have been started because of the excluder separation from the brood chamber. Do this carefully so as not to drive the bees down out of the super. You now have in this super a proper nucleus, with hatching brood and young bees which will not return to the parent hive, and which will easily accept a strange queen, and because of the week's separation from the queen, there is no open brood to perish from neglect. Now set the whole super gently off on a bottom board, contract the entrance to about two inches, introduce the queen or cell, and carry this hive to its own stand wherever desired. Nuclei should be made as early as possible and not as a rule later than the middle of July. The safest way to introduce a new queen is to a nucleus, and the safest way to requeen a strong colony is to unite with a nucleus.

#### Last Words.

A limited number of photographs of Experimental Groups can be used in publishing results. Any that are sent should have name and address of sender written on the back for identification.

It must be remembered that for this experiment all these operations are to be performed only on the colonies of Lot A. If the management of the colonies of Lot B is changed one iota from the old method it will not be possible to make a fair comparison of results.

This method with slight variations could be applied to Comb Honey Production but experiments in that line will be deferred for a year.

If anyone knows a better way to control swarming than the one outlined

above, or if it looks like too much work, please reserve judgment until you give it a fair trial and afterwards give us the benefit of your candid opinion.

Be sure to have necessary appliances and supplies on hand before the season opens. Always be a little ahead of time with all apiary work.

Examine the bees carefully and study their habits from week to week. After a few years' experience you may be able to prevent swarming and get a good honey crop and leave the bees in the best condition for winter without examining them weekly. But the best training for this is the weekly examination.

Kindly answer to the best of your ability all the questions asked in the enclosed report blank and mail it immediately after harvest to Morley Pettit, Provincial Apiarist, Agricultural College, Guelph, Ont.

#### OBSERVING CHALMER'S OBSERVATIONS.

Indexed

Orel Hershisier.

Writing in Canadian Bee Journal for April, page 104, Mr. Chalmers testifies in his own behalf, that he has recently "wakened up" and is "completely aroused from his slumbers." But marked symptoms of dreaming are noticeable as he proceeds with his observations, and as this condition of the mind frequently accompanies sleep, it would seem to require the testimony of other and disinterested witnesses to establish a prima facie case of complete awakening. However, it may be only in the seeming and hence a few counter observations.

Mr. Chalmers' wax extracting outfit being adapted to both the hot water and the steam or cold press processes, and his preferring to use it in the latter capacity, is, to me, an indication that he has not gone far enough with his investigations. If he will make some further experiments I should expect him to be convinced that

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when the pressure is released, the gum that is immersed in it will absorb the water in it and the hotter the slumgum, the more readily will it absorb the water. I find that when pressure is applied to the hot water as it is exposed to wax with it and if the process is repeated, at short intervals, it will be washed out within a few minutes. Hot slumgum is spongy and absorbs water. If you saturate it with coloring matter and submit it to pressure you cannot possibly get the color. Saturate it with wax and press again and you will get the coloring matter, and in the operation several washes the sponge clean of it. This is just what happens to slumgum in the hot-water press, with insuring. We wash the wax out within fractional limits only in the capillary attraction in the wax. Whether "in Mr. H's eye" or elsewhere, the above is just what happens to slumgum.

Attention may properly be given to the fact that many careful experimenters besides Mr. Chalmers have expressed themselves in favor of the hot water process. From writings and translations of man Greiner, I gather that he uses the hot water process or other in preference. We find in a paper at the Chicago Convention, which Mr. Chalmers refers to, that the process was in very limited use in the United States and Canada, and that it was usual to use it. Since then there has been a considerable change and now the hot water press is the first in the list of processes described in nearly all the bee-keepers' supplies and is used by many of the most prominent bee-keepers. If Mr. C. is fully awake, he should call to mind a prominent Canadian manufacturer of bee-keepers' supplies.