

to get mated, and would in time develop into drone-layers. By providing the queen with plenty of empty combs she will be able to cultivate laying at a sufficient rate to keep up a supply of workers, and as the brood hatches out in the upper stories the cells will be at once filled with honey.

Excluders are often condemned as being productive of over-swarming, but in many localities swarming ceases automatically as soon as the honey-flow commences, and if the queen is allowed plenty of room in the brood-chamber and the brood in the supers carefully watched for the production of queen-cells very little harm can

come from the use of excluders, while the immense advantage of being able to extract combs entirely free of brood is worth a great deal to the apiarist at his busiest season.

—E. A. Earp, Senior Apiary Instructor,
Wellington.

Paraffin Wax for Preserving Hive Parts.

BEEKEEPERS are aware that unless hive bodies are protected from the weather with paint or other means the depreciation becomes expensive. Supers need painting every few years, which takes time and is a costly business.

Dipping supers in boiling paraffin wax instead of painting has now been tried out for a number of years and has proved to be quite efficacious. It is less costly than painting, and takes considerably less time.

Bulk refined paraffin wax is sold in New Zealand in two grades with different melting-points, one at 127° F. to 130° F., and the other 150° F. Either wax is quite suitable. This wax is sold in bulk at about 3½d. per pound. One super will absorb just under 1 lb. of wax, which is equal to two coats of paint and lasts as long.

Method of Dipping.

The method of dipping usually adopted is to obtain a shallow tank about 4 ft. by 3 ft. by 1 ft. deep. This tank is better seamed or riveted at the corners; if soldered, the heat will sometimes cause the solder to melt. The tank can be stood on bricks and heated with primus stoves, or a rough fireplace can be constructed, as illustrated. This fireplace should be built well away from any buildings, and a tin or two of dry sand or earth should be kept handy to spread should the wax happen to be spilt and catch fire.

Place sufficient wax in the tank so that, when melted, there will be 4 in. to 6 in. of liquid wax. Light the fire under the tank, and when the wax is boiling dip a super, gradually turning it round so that each side is immersed for fifteen to twenty seconds. The illustration shows the method of operation.

One man should place the super in the tank and turn it, and his assistant should remove it with a pair of tongs, holding it for a short while on the tray



Showing the method of dipping a super in a tin of boiling paraffin wax.

to allow any surplus wax to run off. Some beekeepers stand the hot supers on boards covered with fine sand in order that the supers may grip when added to a hive, but this is quite unnecessary.

Treating Bottom Boards.

Bottom boards may, with advantage, be treated in the same way as supers, except that they are immersed in one operation. All woodwork, supers, or bottom boards must be thoroughly dry before being dipped. They are ready for use within half an hour of being treated.

If appearance is a desirable feature the supers may first receive one coat of paint, and when this is quite dry, they may be waxed. They will then last for many years. On the other hand, they may first be waxed, and after several years they will still take a coat of paint.

One of the advantages of dipping is that the wax penetrates the pores of the wood and all cracks and joints, and seals the end grain of the wood. Hot weather does not make the wax run, but the heat assists to drive the wax into the wood. There are many hundreds of supers dipped in boiling wax in use in New Zealand apiaries.

—D. S. Robinson, Apiary Instructor,
Dunedin.

Examination for Chick-sexing.

AT a chick-sexing examination held recently in Auckland, Mr. D. E. Hopkins sexed 200 chickens in 24 minutes 30 seconds, with an accuracy of 93 per cent., thereby qualifying for a renewal of his second-class certificate.

