Solar Extractor for Beeswax; Wintering Hives

Seasonal Notes for the Domestic Beekeeper

BY-PRODUCTS often play an important part in increasing the financial returns of many commercial enterprises, and so it is with the beekeeper. In this article A. W. Bennett, Apiary Instructor, Department of Agriculture, Hamilton, gives a simple method for the domestic beekeeper of turning all odd pieces of comb and cappings into a saleable commercial cake of beeswax.

THE preparation of beeswax for the market by the domestic beekeeper can be very simply carried out by making use of the solar wax extractor. This equipment is very easily constructed and relies on the heat of the sun to melt the wax out of all odd pieces of comb. Cappings can also be reduced into saleable cakes of beeswax by the same means.

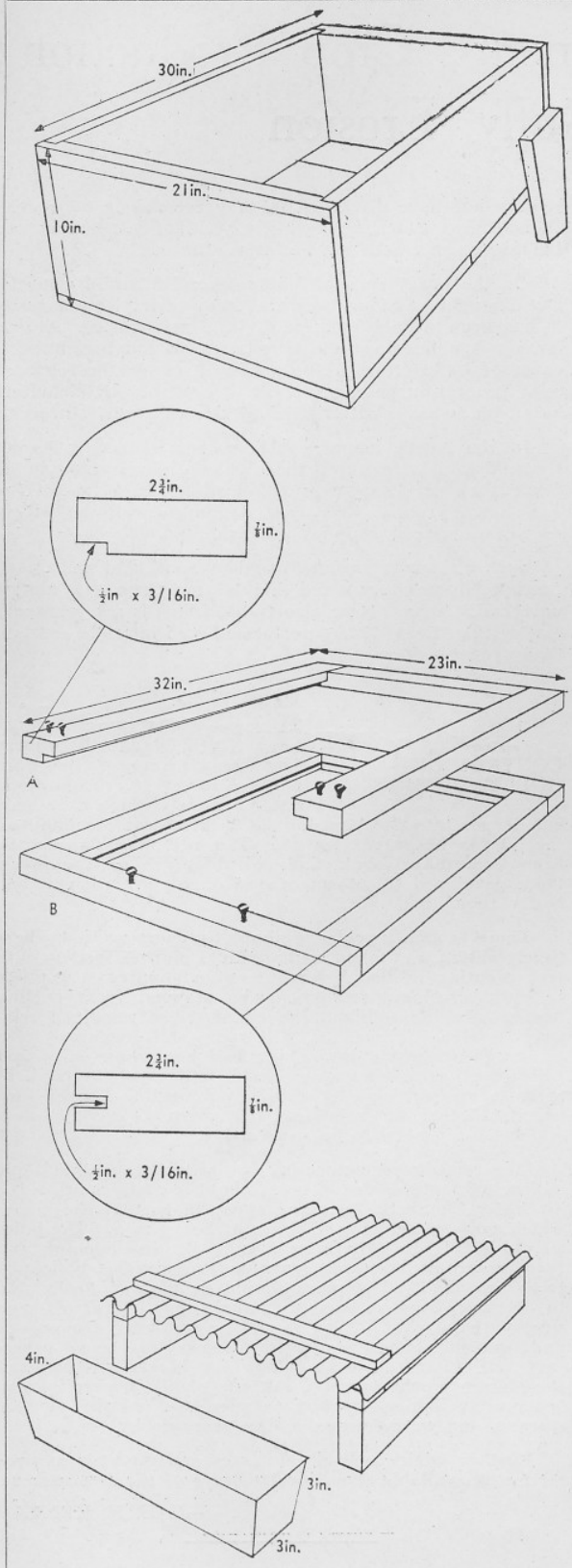
The solar wax extractor is simply a box with a sheet of corrugated iron inside and a small tray to catch the melted wax. Two wooden legs are used to give the box the correct tilt to catch the rays of the sun. To concentrate the heat of the sun on the wax a frame holding two sheets of glass with an air space of about ½in. between them is constructed to fit snugly on top of the box. The diagrams at left show the various parts and method of construction.

The virtue of this type of wax melter is in its ability to deal with the odd pieces of comb as they collect without any fuss or bother. This adds to general tidiness round the apiary and prevents the establishment of wax moth, which can be so destructive to stored combs. This wax extractor can also be used for disposing of cappings.

If care is taken to see that the tray and holding tin are clean, even the honey that is still retained in the cappings can be saved in good order. Sometimes the cake of wax will be perfectly clean, but on other occasions a small amount of rubbish may settle to the bottom of the cake. This can readily be scraped off if the wax is left out in the sun for a short time to soften a little.

Wintering of Hives

At the end of the season hives that have not given a good return under normal conditions should be inspected



← SOLAR WAX BOX

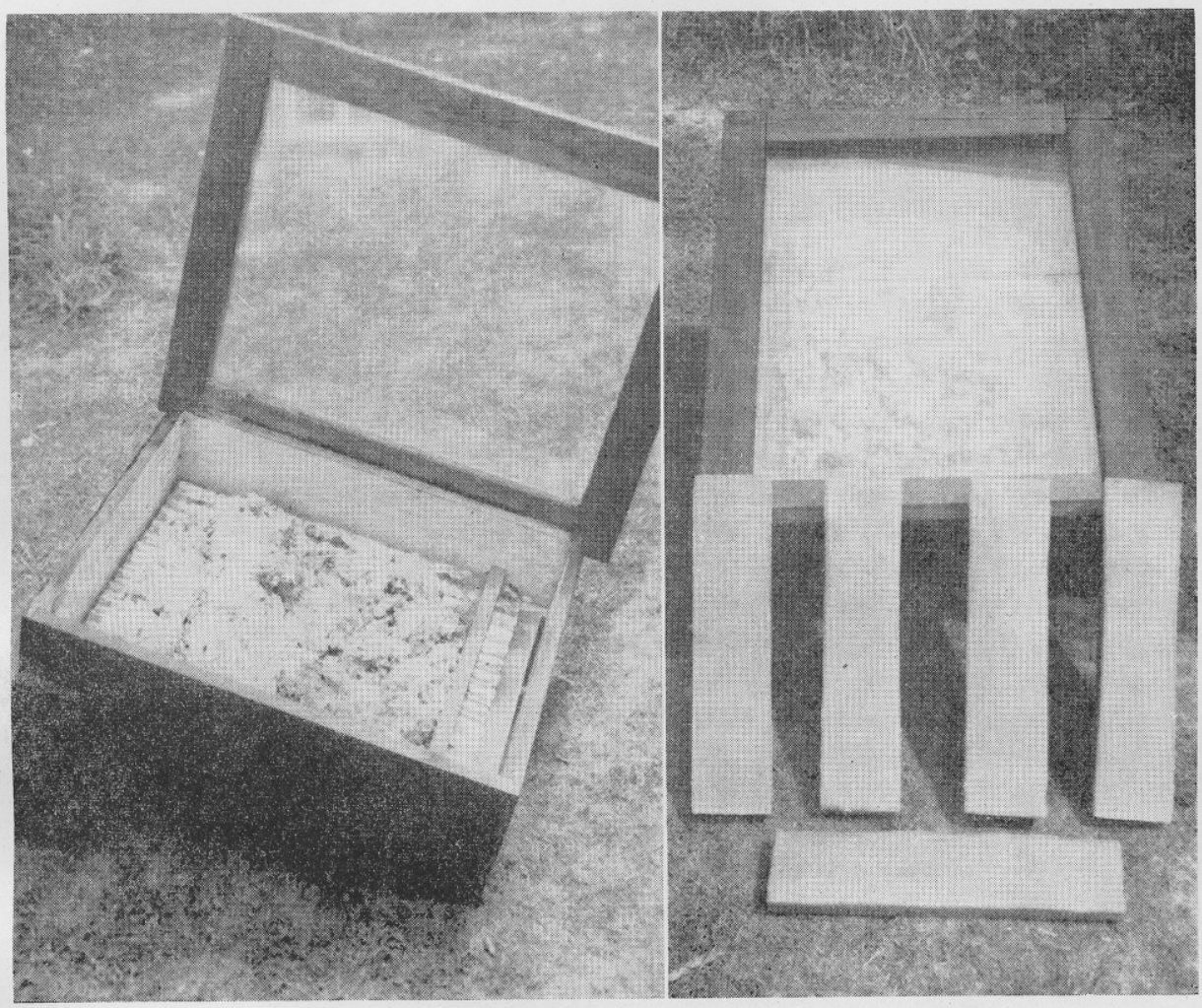
This box is made of ⅞in. timber with rabbeted ends. The bottom can be fitted inside the box, thus making a more weatherproof job. The dimensions shown are suitable, though the size can be varied to suit individual requirements.

← FRAME TO HOLD 2 SHEETS OF GLASS

This double frame holds the glass and is constructed to allow quick replacement if the glass is broken. The top glass is removed by unscrewing 2 screws in B. The bottom glass is removed by taking out 4 screws at A, when B will come away, allowing ready removal of glass. This frame should overlap the box all round by about 1in.

← METAL TRAY AND CONTAINER FOR MELTED WAX

A sheet of corrugated iron is fitted to wooden runners. The bar on top of the corrugations prevents the old combs and slum gum from sliding down into the tray. Wax drains down underneath this bar to the tray. The corrugated slide should be about 2½in. shorter than the inside length of the box. The wooden runners are cut from 3in. x 1in. timber.



Left—Solar extractor, showing cappings evenly spread over the corrugated slide. Right—Extractor operating; in front are cakes of beeswax suitable for market direct from the extractor.

for the cause. If the queen is old, a new, young, vigorous queen should be introduced at once. Combs to remain in the hive should be looked over, and any with drone comb showing should be removed and good worker combs given in their place. At the same time the brood should be inspected for any sign of disease.

Hives should be wintered in 2 supers with about 50lb. of stores (honey and pollen). The amount of stores required will vary according to district. The queen should be young and there should be plenty of young bees. Brood and queen should be put in the lower super with pollen and honey on either side of the nest, the balance of stores (honey and pollen) being put in the upper super. The amount of honey in a deep comb well filled will be about 5lb.

Hives should be sound, waterproof, and standing well up off the ground. Grass and weeds should be kept well clear of the entrance. A good idea is to lay a piece of asbestos sheet on the ground in front of the hive.

Hive mats can be removed and two strips of wood about 10in. long and about $\frac{3}{8}$in. thick placed across the frames. Mats can then be replaced. This will give easy ventilation and bees will be able to move freely over the tops of the frames in a mild spell. An alternative is to have $\frac{3}{8}$in. x $\frac{3}{8}$in. strips of wood fitted inside the roof, leaving the mat off the hive. This again is an excellent form of passageway over the frames and gives excellent ventilation, provided the entrance is clear. If the hive entrance is kept clear of weeds and there is good ventilation in the hive, bees will consume much less food, because the inside of the hive will be dry. This is very necessary for safe wintering, and pests such as slaters will be kept down to a minimum. Entrances should be reduced to $\frac{3}{8}$in. deep and closed down to about 4in. wide during cold spells.

Floor boards can be given a slight tilt of about 1in. from back to front. This will allow any rain-water or condensed moisture to drain off the alighting board, and so help to keep the hive dry and also prolong the life of the floor board.