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Making and Using a Solar Wax Melter  
Leaflet No. 2788

by: Robert Parsons

Published by:  
University of California  
Division of Agricultural Sciences  
1422 Harbour Way South  
Richmond, CA 94804 USA

One copy will be sent free upon request.

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*Making and Using*

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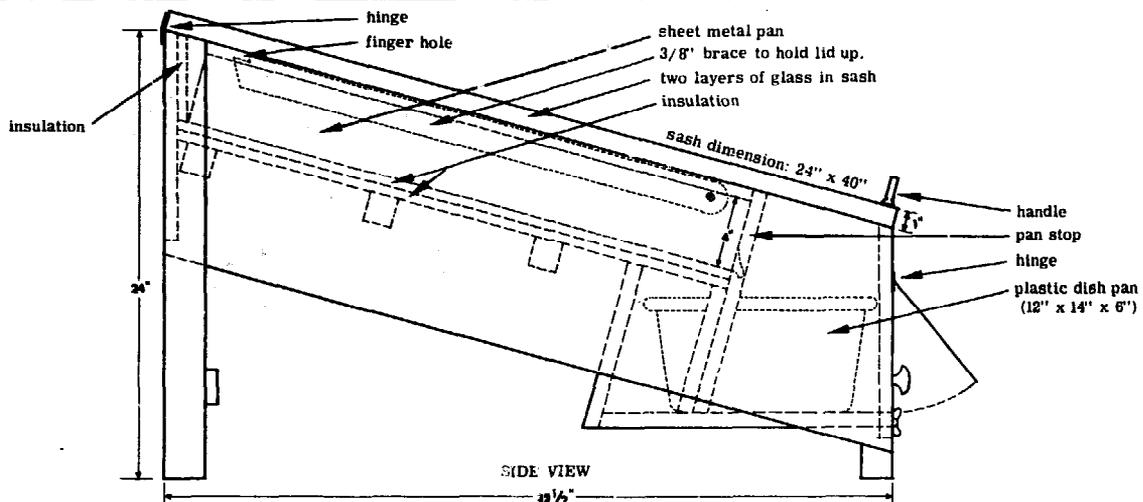
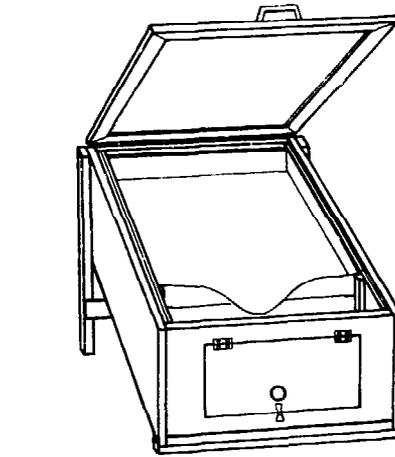
**SOLAR WAX  
MELTER**

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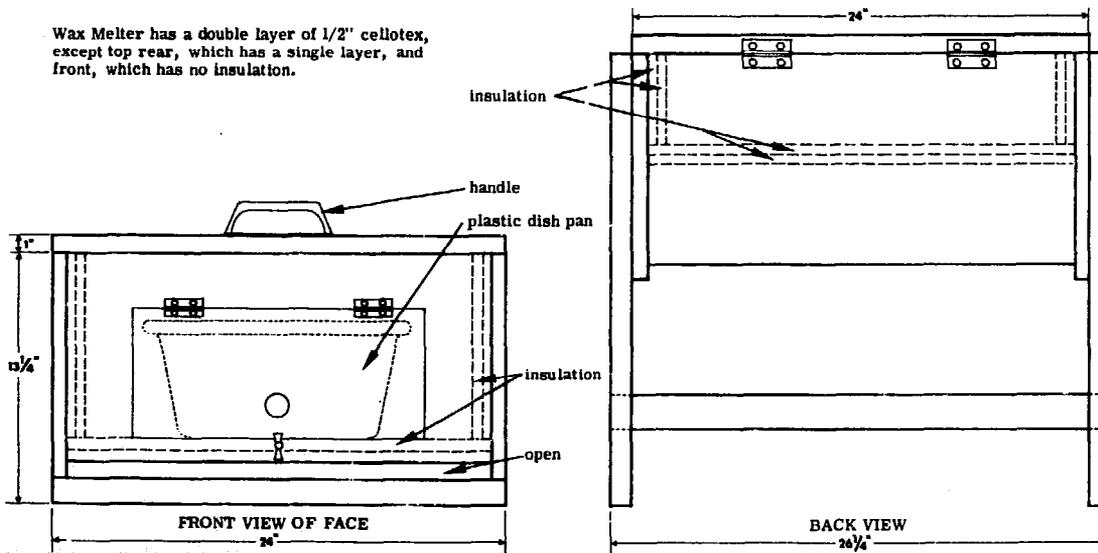
PRINTED NOVEMBER 1975

LEAFLET  
2788

# Construction Details SOLAR WAX MELTER



Wax Melter has a double layer of 1/2" cellotex, except top rear, which has a single layer, and front, which has no insulation.



## MAKING AND USING A SOLAR WAX MELTER

E.R. Jaycox<sup>1/</sup>

A solar wax melter is a glass-covered box that uses the heat of the sun to melt beeswax and separate it from honey and other materials with which it is found in honey-bee colonies. The melter can be used to render old combs, cappings, burr comb, and other hive scrapings containing wax. It is also handy for removing beeswax from excluders. The melter produces wax of high quality and eliminates the need for the sometimes hazardous job of rendering wax in the home.

The sloping top surface of the solar wax melter provides maximum exposure to the sun and allows honey and melted wax to drain quickly into the storage pan. Before use, the entire unit, including the sheet-metal pan, should be painted black for maximum heat absorption. The glass cover with two sheets of double-strength glass about one-fourth inch apart helps to retain the absorbed heat. The cellotex, or fiberboard, insulation also serves the same purpose. Internal temperatures well above the melting point of beeswax (about 145° F.) are maintained on warm, sunny days. Place the melter in a sunny, sheltered spot for best results.

The plan on the reverse side is meant to provide ideas on how to build a melter. You need not copy the plan exactly. For this reason, many dimensions are not given, especially the less important ones. A melter of the size illustrated will handle all the wax from up to 60 hives of bees. Modify the dimensions to fit your needs, or the materials available, but beware of making it too small. The sheet-metal pan should be 4 to 6 inches deep and big enough to accept excluders (16-1/4" x 20") or at least two full-depth frames (19" x 20"). Consider the possibility of making one or more cappings baskets of "expanded" metal that will fit into the sheet-metal pan.

The pan to catch the hot honey and melted wax should be relatively large to prevent accidental overflows. The one illustrated is an inexpensive plastic dish pan readily available in many stores. The wax can be easily removed because it does not adhere well to the smooth, flexible plastic. The sloping sides of the pan also make it easier to remove the cake of wax.

The wooden brace is designed to support the lid while you clean out the slungum, or residue, that remains after combs are melted. It lies between the exterior box and the interior layer of insulation. The finger hole, or notch, is used to pull it up into place. Cut the free end at an angle so that it makes firm contact with the lid frame when the lid is a suitable height to work beneath.

The melted wax will flow more easily down the pan if the combs, excluders, and cappings baskets are set on lengths of metal rods or angle iron. You may also want to put a coarse screen across the outlet of the pan to keep unmelted pieces of comb and other debris from flowing into the pan of molten wax. The honey collects beneath the wax in the pan. It is darkened and unsuitable for human food, but can be used to feed bees in early spring (*not* in the fall). The slungum remaining in the sheet-metal pan contains beeswax that can be removed only by a hot water press. If you accumulate 100 pounds or more, it is worthwhile having it rendered commercially.

The melter is highly attractive to robber bees because of the odors given off by the warm honey and wax. It should be kept tightly closed except when loading it or removing the filled collecting pan.

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<sup>1/</sup> Extension Apiculturist, Department of Horticulture, University of Illinois at Urbana-Champaign. Material reprinted by permission of author.

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. James B. Kendrick, Jr., Director, Cooperative Extension, University of California.