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## Solar Beeswax Rendering and Hints for Exhibiting Wax Blocks<sup>1</sup>

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When it comes to rendering beeswax, nothing works like a solar wax extractor or melter. The melter can be made from almost any materials found around the beekeeper's establishment and adapted to any size apiary.

The principles of wax extractor design are always the same, although the details of each specific apparatus may differ. Bits of wax, old comb and other scrapings from the hive are placed on a slanted (usually metal) tray inside a box. The box is then covered tightly with a glass top and oriented toward the sun. As the temperature rises inside the box, the wax melts and drips off the tray into the collector pan. This pan usually has slanted sides, facilitating removal of the wax block once it hardens. A suggested plan for building an extractor is shown in Figure 1.

Usually, the inside of the box is painted black to absorb as much radiation as possible, facilitating heat buildup inside the melter. The melter should always be bee tight; honey bees are usually attracted to the odor of melting wax (often there is honey adhered to the wax) and this may promote robbing during nectar dearths.

It is generally agreed the best way to put up good beeswax for show in fairs and other events is to use a

solar wax extractor. Wax is judged on several criteria including: color, cleanliness and freedom from honey, propolis and other adulterants; uniformity of appearance; and freedom from cracking and shrinking.

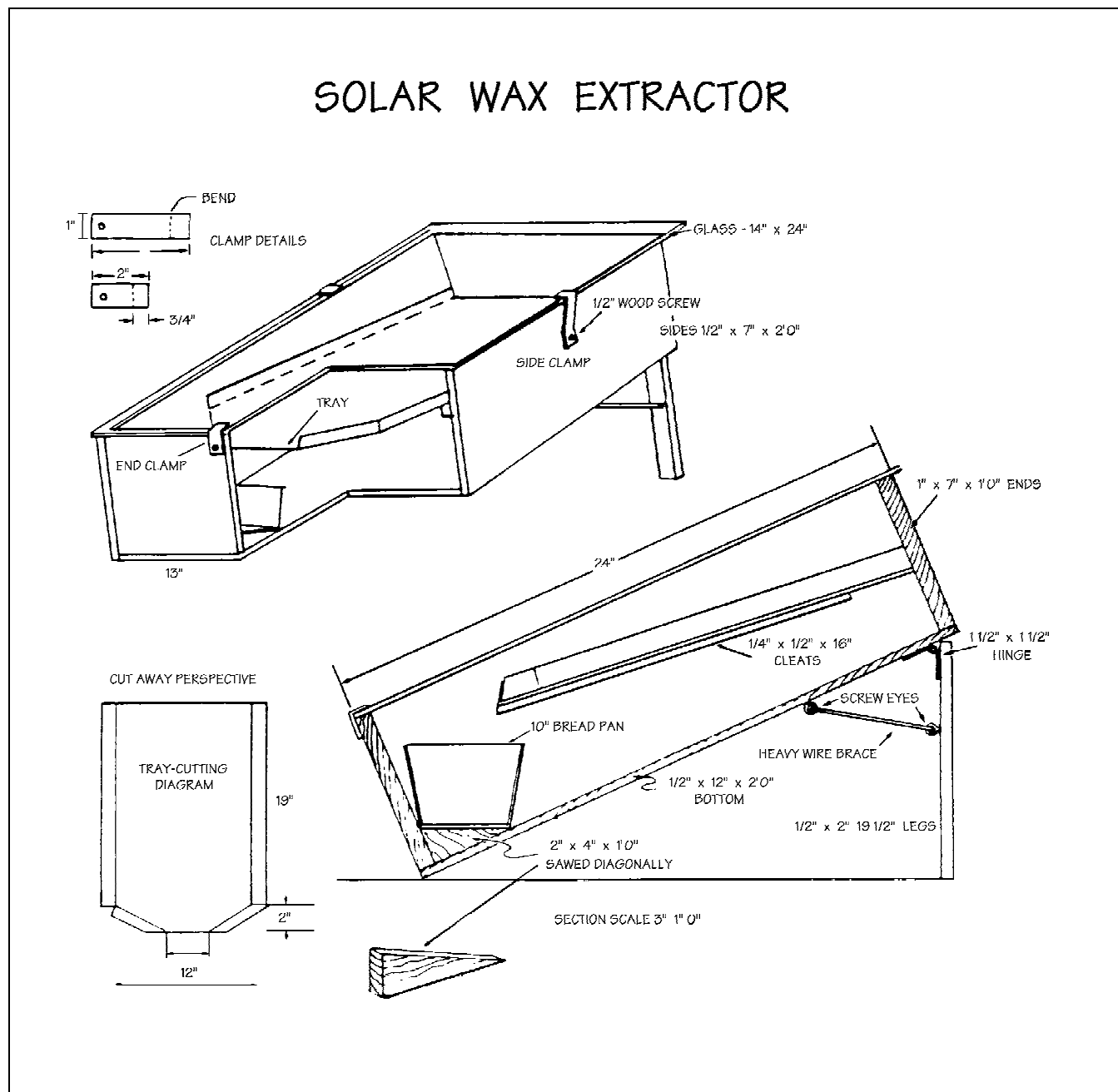
The best-colored (light yellow) beeswax comes from that rendered from cappings; wax from old combs is often quite dark. Bleaching in the sun will often lighten the color of rendered wax.

Generally, wax from a melter is extremely clean. The longer it stays liquid with the resultant settling of foreign materials, the cleaner it will become. This can be accomplished in the wax extractor or in a warm turned-off oven. Once a cake of wax has hardened, detritus can be scraped off the bottom and if necessary, the cleaning process repeated.

Uniformity and absence of cracks in a wax block because of shrinkage is minimized by allowing beeswax to cool very slowly. The preferred mold is a bread pan with slanted sides. Once a cake is ready for submitting to a judge, do not touch it (fingerprints will cause points to be subtracted), but wrap it in plastic. Good luck!

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**Figure 1.** Solar Wax Extractor. Source: Beekeeping Equipment, Cooperative Extension Service, Ohio State University, Bulletin 587.