

Solar Water Heater & Pasteurizer Made From Everyday Recyclables

TOOLS and EQUIPMENT:

- Scissors
- Knife
- Glue
- Thermometer*

MATERIALS:

- 1 or 2 liter clear plastic soda bottle.
- 12 oz. aluminum soda can
- Piece of corrugated cardboard 1/4" x 24" x 32"
- Aluminum foil or reflective plastic from inside chip bags, etc...

INSTRUCTIONS:

From a 1 or 2 liter clear plastic soda bottle (A) cut off the top, 1" below where it becomes straight.

Cut 4 tabs 1/2" wide x 1" long into the top (fig.1)

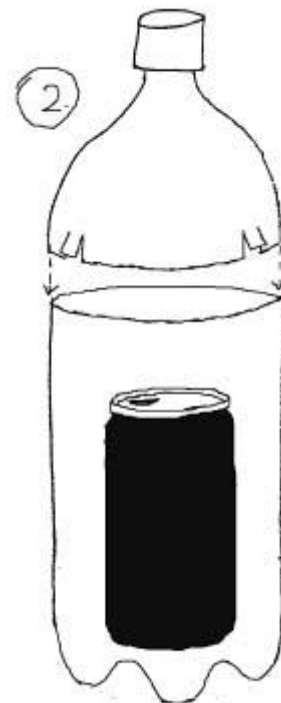
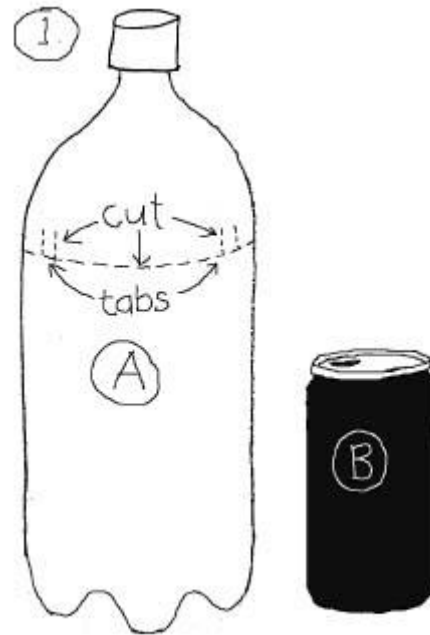
Paint a 12 oz. aluminum can (B) with black paint . It is also possible to coat the can with carbon black from a candle or wood fire.

Put the can filled with water into the plastic bottle bottom and insert top with tabs folded out (fig.2).

To make the reflector (C), start with a piece of corrugated cardboard 1/8" x 24" x 32".

Cover the cardboard with aluminum foil or potato chip bags with silver coating facing out (use wheat paste, glue or tape to adhere to cardboard).

Cut and fold cardboard as shown. Make slots a little too small and narrow so that tabs fit snugly.



Place bottle on reflector (C) and place in sun. Keep bottle shadow centered on back of solar panel (D).

To pasteurize, water must be heated to 158 degrees F for at least 15 minutes.

* [Reusable Water Pasteurization Indicators are available from Solar Cooker International](#)

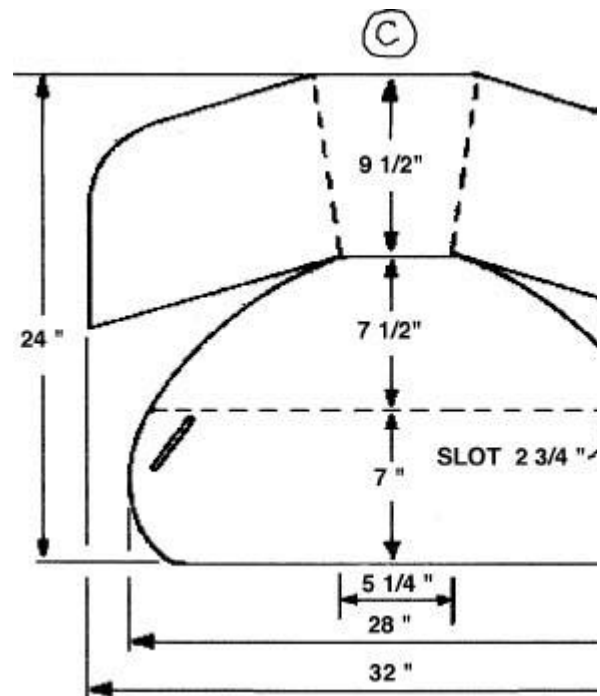
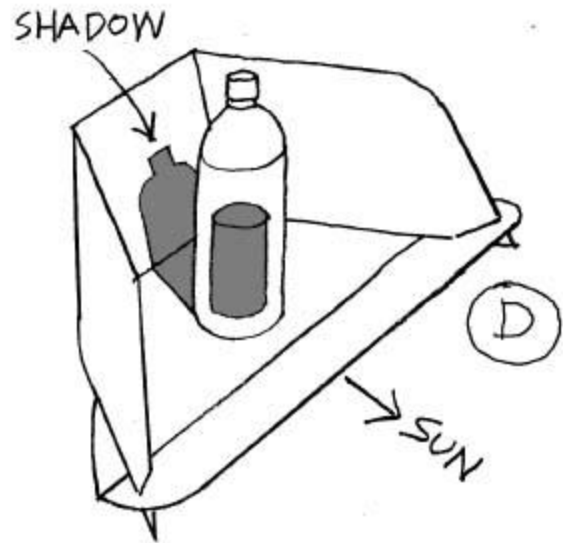
For over 30 more projects made from Everyday Recyclables go to:

<http://www.larnedmarlow.com/Marlow/MarlowRecyclables.html>

or email, larnedmarlow@earthlink.net

with "Recyclables Kit" in subject line.

A copy of this project may be made for educational uses only. All other rights are reserved. © Eric Marlow 2003



©Eric Marlow 2003