

FOAMY

You build her with a razor blade!



SHE's beautiful. She's shapely. She's unsinkable. She's 8 ft. long. Yet she weighs just 27 lbs. and the major tool you use to build her is a single-edge razor blade. Foamy is quite a boat, indeed. Even her own outboard outweighs her.

When you put Foamy together her sides shape themselves without the need of a jig.

The inside of the hull is glassed before assembly and with the sections flat. Anyone experienced in fiberglassing can appreciate the advantages this offers. And flat glassing is a cinch for beginners while glassing the inside of a curved hull is next to impossible for a neophyte. The usual problems with overlapping are taken care of after assembly with fiberglass tape.

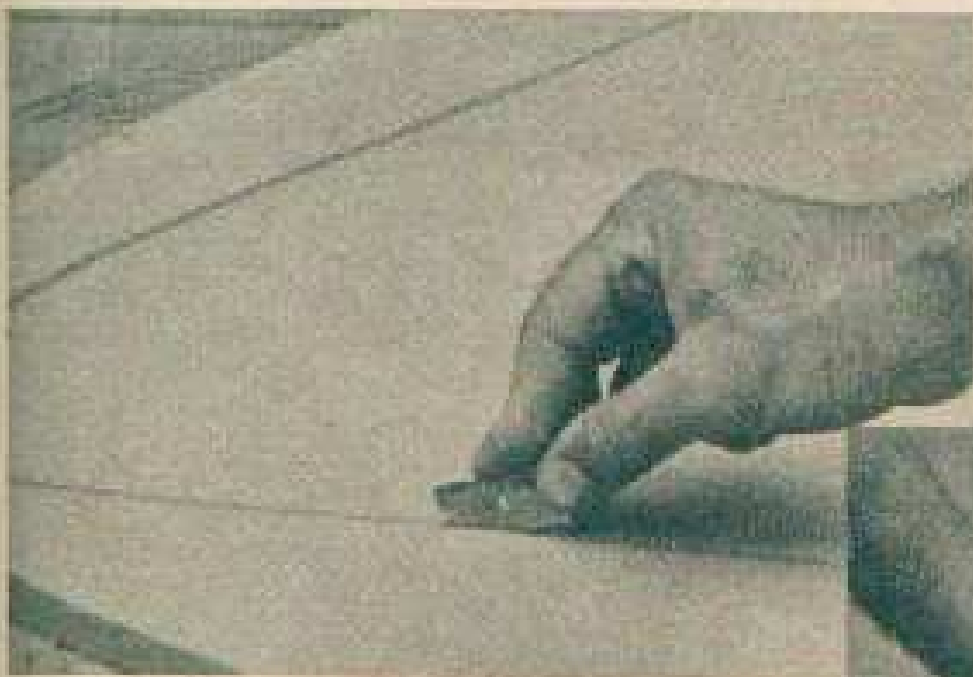
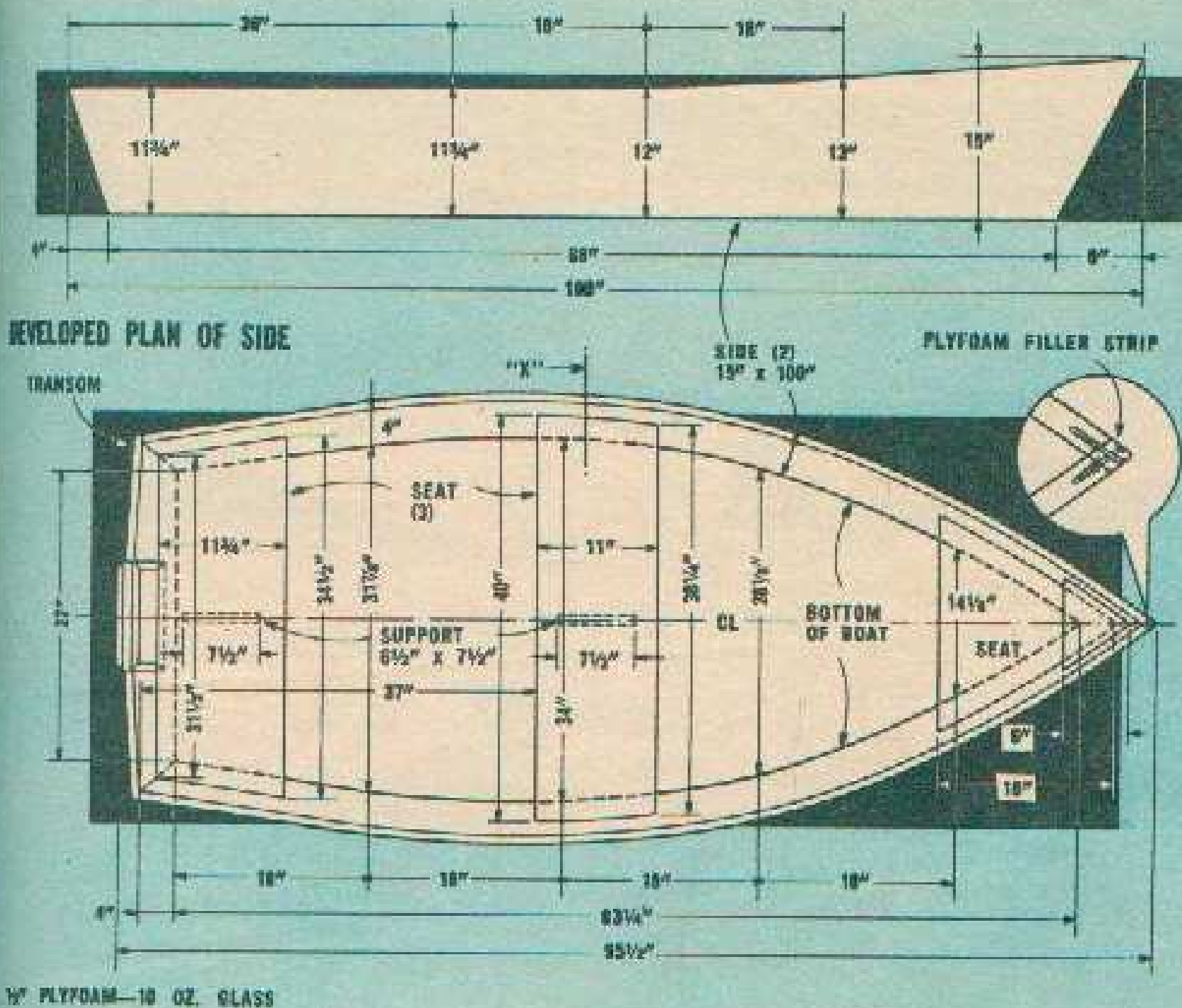
Credit for this revolutionary method of fiberglassing goes to Hal Adamson of

Plyfoam, Inc. He conceived the idea some time ago but was always too busy to try it. When he heard I was going to build this boat with foam, he suggested his material.

The unsinkable feature of Foamy is brought about by the use of $\frac{1}{8}$ -in. Plyfoam, an expanded polyvinyl chloride in sheet form. It is cut and shaped easily, weighs only four lbs. per cubic foot and will not absorb water because of its closed cell structure.

With the hull filled with water and several passengers aboard, Foamy will not sink. She will submerge, of course, but she will not bottom. The passengers can remain seated in the boat with the upper part of their bodies high and dry. This is not intended as a new water sport but it does point up the safety feature of the boat.

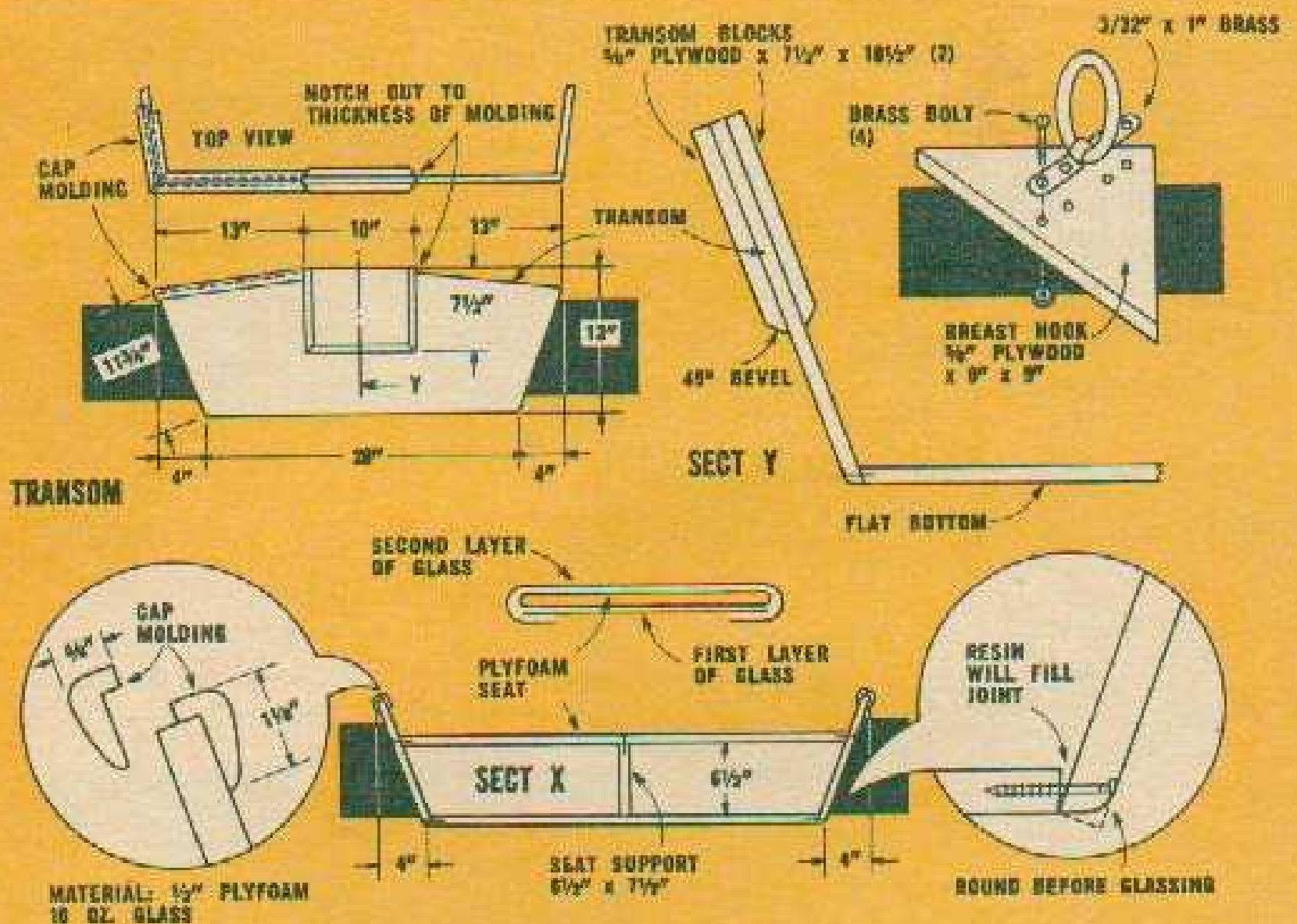
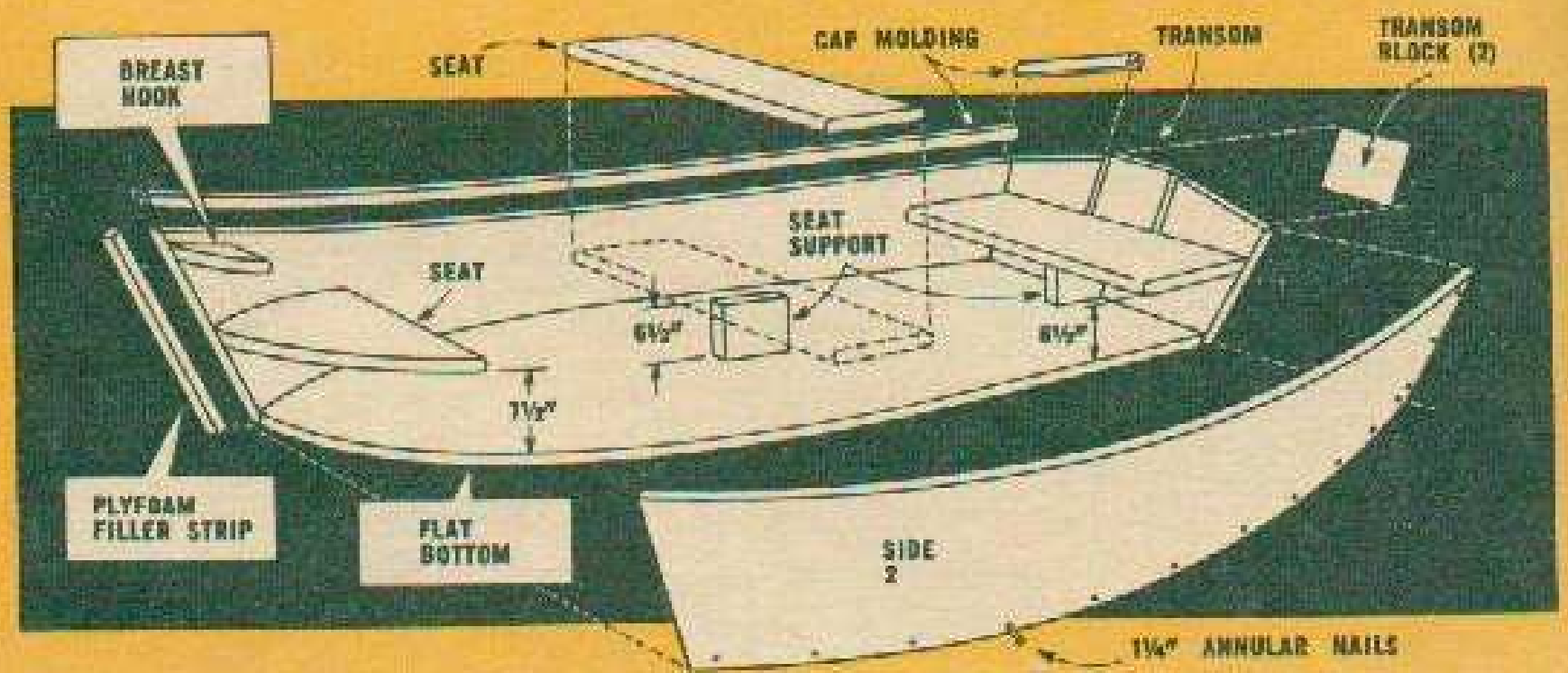
In fiberglass construction, rigidity is



By
John
Capotosto

LAY OUT patterns for side and bottom pieces, seats and transom on kraft paper, then transfer these to foam planks, using felt-tip marking pen. Make a deep cut along the lines with a new single-edge razor blade (above). The foam will snap off neatly along the lines if it has been scored fully (right). Bend easily until it breaks. Quick motion may ruin piece.





essential and normally this is achieved by multiple layers of glass, adding greatly to weight and cost. In the Plyfoam sandwich method, however, only one layer of 10-oz. cloth is used inside and out. The result is a high-strength, lightweight hull which is fire-resistant,

non-toxic and not affected by gasoline or oil.

The construction schedule should proceed as follows: lay out on foam, trim foam, glass one side (inside), assemble, install seats, glass outside, add trim and paint.



TRACE outlines of sides, bottom, etc., on 10-oz. cloth, cut out, apply to one side of foam pieces (inside) using epoxy resin.



OUTSIDE of hull is glassed after assembly. Bottom and side cloth pieces should overlap each other by about 2 in. at the chine.



At this writing, the Plyfoam is available in 46x56-in. sheets from Plyfoam, Inc., Hauppauge, N.Y. 11787, and the formulation is such that only epoxy resin can be used with it. However, the Plyfoam company is expected to introduce a new foam shortly which will

have the same characteristics as the one used here—except that it will be compatible with the less-expensive polyester resins.

Lay out the patterns for sides, bottom, seats and transom on heavy kraft paper, then trim to size. Make only half a pattern for the bottom since it is symmetrical.

Because the foam sheets are only 56 in. long you will have to make up the bottom and sides by joining two pieces together. Slice the material with a razor blade, then butt the ends, holding them in place with staples. Move the pattern in place, then trace the outline with a felt-tip marker.

Trim the foam with a razor blade, keeping the edge fairly straight. It is not necessary to cut through the foam. A deep score is sufficient since the waste can be snapped clean by bending slightly and slowly.

Cut the two sides, bottom, transom and seats and place them on a flat surface, preferably a garage floor. If any of the staples have worked loose, press them back into place. The staples are not needed structurally. They serve only to hold the foam intact while being glassed. The strength of the joint after glass and resin are applied is as great as that of the rest of the material.

Cut the fiberglass after tracing around the foam. Identify the pieces with the foam, then set aside. Mix the resin according to the manufacturer's recommendations. If the epoxy is used, bear in mind that its pot life is rather short and, unlike the ease with polyesters, hardening time cannot be extended as desired.

Best way to work with the resins is to measure out several large cups with, say, 500 grams of resin. In smaller cups, pour out the proper amount of hardener. Combine the hardener and resin as you need them, not before.


Mix one batch, then pour over the foam, spreading with the wallpaper brush. Wet the entire surface of the foam. If you need resin, combine another batch of the prepared measured quantities. Work fast and mix the material well.

Lay the [Continued on page 150]

The original "Wedge-type" screwdriver

QUICK-WEDGE

SCREW HOLDING SCREWDRIVER



Hard to get
at places



Awkward
jobs



When you need
a third hand



Double blades wedge into screw slot to hold the screw so firmly it virtually becomes part of the screwdriver. Screws start easier... anywhere, and drive straighter... at any angle. In 14 sizes — Unconditionally guaranteed.

Try one at your dealers or write:

KEDMAN COMPANY, Box 267, Salt Lake City, Utah 84110

ELECTRIC CAR

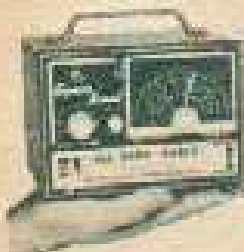
Noisless—Powerful—family Fun car. Dad & Mom can ride too. Year around fun—Rugged heavy duty motor and frame.



E288-800 Complete less battery \$69.95
EM-500 Basic car without electric drive \$39.95

Order direct or from your local hardware store
POWER WHEEL DIVISION—ROC-EDGE INC.
2916—4th Ave. So., Minneapolis, Minn.

ALL BAND BATTERY SHORT WAVE RADIO KIT \$12.95



Listen around the world—Thousands of miles away! Europe—Africa—Voice of America—Russia—London—Australia—Amateur—Police. Also USA Broadband—5 Wave Bands 1.5 to 43 MHz! (Contributed tuning dial). Wt. only 3 lbs. World wide reception.

Send only \$3.00 (cash or M.O. and pay balance \$9.95 C.O.D. plus or send \$12.95 for 19" dial in O.N.A. Basic Kit as shown includes plastic case and 19C coil FREE. Long distance antenna, if you order NOW. Available only from Midway Co., Dept. 88M-3, Kearney, Neb.

Unimat



Convertible precision lathe is vertical miller, drill press, surface grinder, patcher too! \$139.50. Includes motor & parts. Request free catalog, or send \$1 for 40 pg. or titled handbook.

AMERICAN EDELSTAAL, INC.
Dept. J-C7 / 350 Broadway / NYC 10013

Foamy

[Continued from page 101]

glass cloth on the wetted foam, spreading it evenly. Use a broad knife to work the resin through the pores of the cloth. Work from the center out and remove all excess resin.

Repeat this procedure on one side of all the sections, including the seats.

When the resin has cured, trim the excess cloth flush to the foam. Then assemble the sections to form the hull. Use 1 1/4-in. annular ring nails to join the parts. Space them about a foot apart except for the stem and transom, where they should be closer. Drill pilot holes through the glass, then drive the nails home with light hammer blows.

Place the hull upside down, draping the remaining cloth over it. Cut the cloth for the outside bottom, adding about 2 in. to the perimeter. The sides and transom cloth are cut with a 2-in. overhang at the ends and bottom but flush at the top edge.

Prepare the seats by rounding the edges with a file or rough sandpaper. The Stanley Surform tool is excellent for this.

Use a strip of thin wood as a temporary seat riser to locate and align the seats. The riser is used only to mark the location and is not attached in any way. When the seats have cured, pin them in place with annular nails. Have an assistant spread the sides when installing the center seat. With the center seat in place the hull will take on its final shape, causing the front and rear bottom to curve up slightly.

Add 3-in. fiberglass tape to the inside corners along the bottom and transom sides. Add a triple layer at the stem and double layers at the seat edges as well as the seat supports.

The breasthook and transom blocks are cut from 5/8-in. plywood and are added after the main glassing with each getting an extra layer of cloth.

Guard and sheer clamp can be assembled from ready-made cap molding, available at most lumber yards. Screw them together with 1 1/4-in. #8 bronze screws.

Sand entire hull smooth and wash with detergent to remove the waxy deposit left by the resin. Finish off with several coats of marine paint. Add bow ring and oar locks if desired.