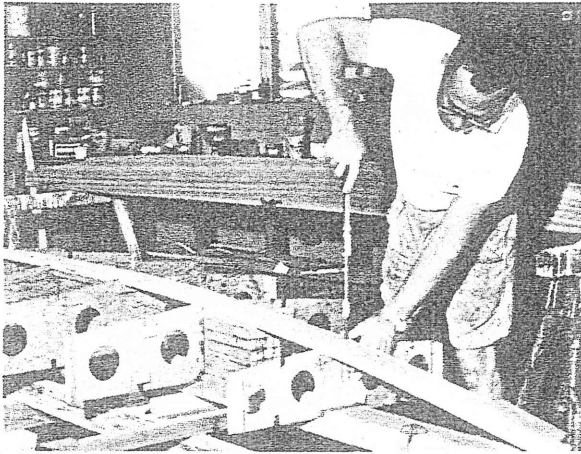


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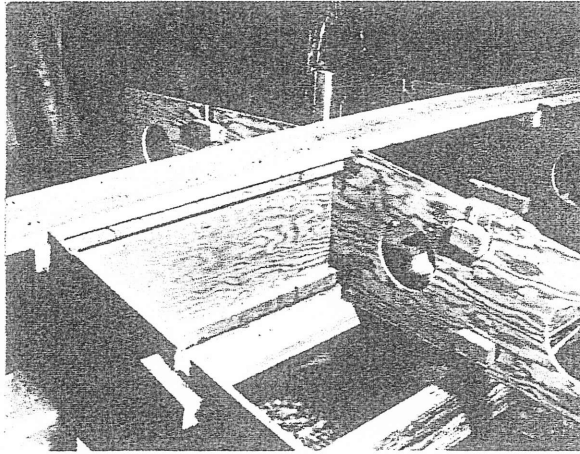
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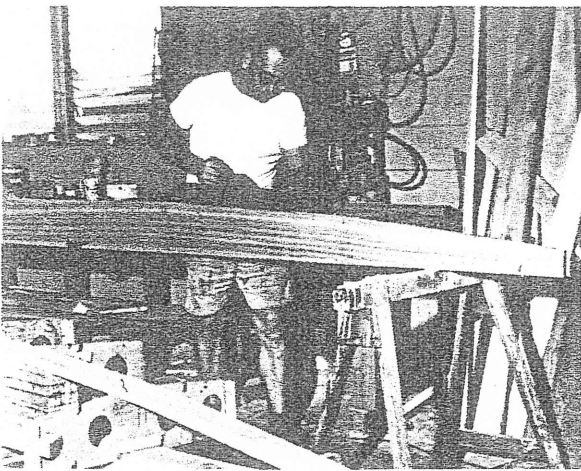
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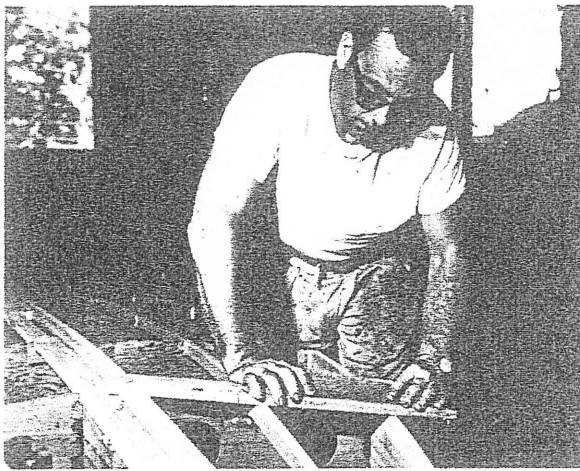
GLUE AND SCREW the keel to the transom and the ribs, two screws to each station.



CENTERBOARD WELL is attached to deck beam, then ribs and keel are fastened to it.



ROUGH-CUT cedar sides to approximate the shape of the hull before attaching to ribs.

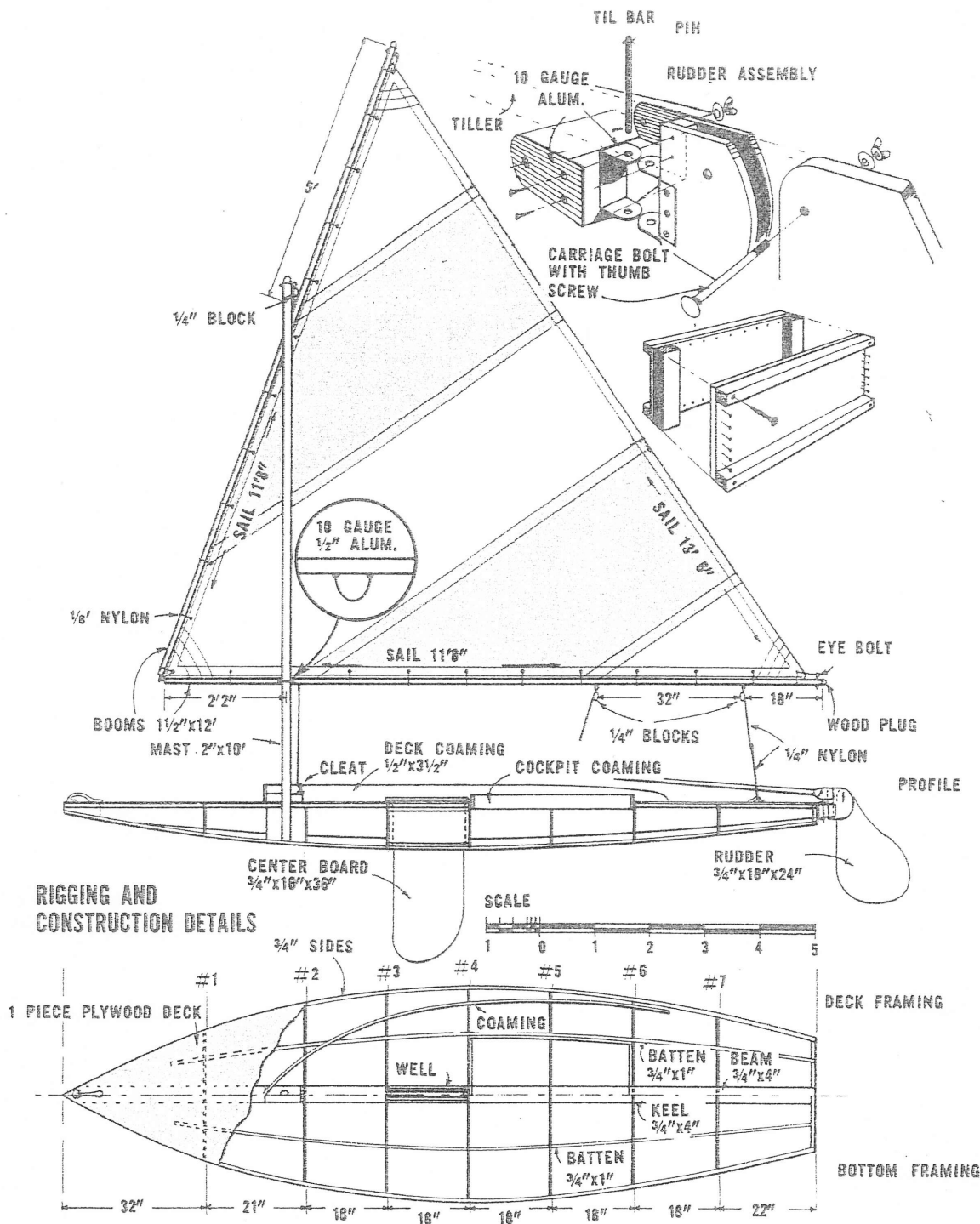


FINISH sanding with coarse sand paper wrapped around a 30-in. length of furring.

FROM stem to stern, Fun-Fish is just what her name implies. She makes small boat sailing a real joy. Easy to handle, she will plane in even a slight breeze. She also takes kindly to car-top travel and is stored easily during the off-season.

The hull, with a Fiberglas bottom, can be built for less than \$80. If you make your own sail, Fun-Fish can be yours for well under \$125. This is about one-third of what a comparable ready-made boat would cost.

Before starting construction, review



each step carefully, making sure that all details are clear to you. This will save time and wasted material. Sides and framing are white cedar. Deck, bottom and ribs are all of quarter-inch exterior or marine plywood.

It's a good idea to work with full-size paper or cardboard templates of the ribs. Actually, you need make templates of

only half of each rib, since the template can be flopped to give you the other half.

Use hand tools to notch the ribs. The lightening holes can be cut best with a drill press and circle cutter. While these openings won't save much in weight, they will reduce the incidence of dry rot.

After cutting and notching the ribs, glue and nail all blocks in place. All nails

used in this project are $\frac{7}{8}$ -in. No. 16 Monel Anchorfast nails. Battens, deck beam and keel will be fastened to these rib blocks.

Set up your jig at a comfortable working height, about 30 inches off the floor. The jig can be a single 2x6, approximately 12 ft. long, used as a strongback. Mark rib positions and cut the opening for the centerboard well before clamping the deck beam to the strongback. Let the beam extend at each end.

Glue and screw the ribs and transom to the beam, using two $1\frac{1}{2}$ -in. No. 7 zinc chromate flat-head screws to each station. The transom is $\frac{3}{4}$ -in. cedar with quarter-inch plywood forming the back.

Install the centerboard well next. This is glued and screwed as a unit and fitted between ribs two and three. It must be

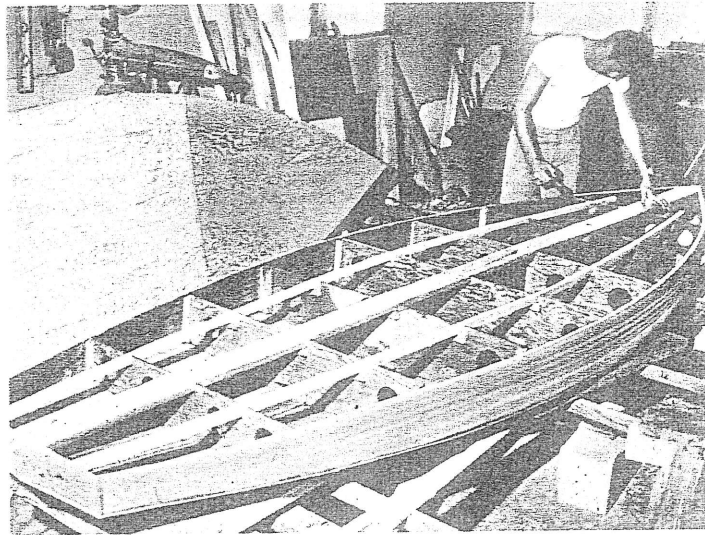
PLANS AVAILABLE

Large-scale plans for building Fun-Fish are available. They are complete with text and additional large photos and drawings. To get your copy, send \$5 to Mechanix Illustrated Plans Service, Pawcett Building, Greenwich, Conn. 06830 (Zip Code). Please ask for Plan No. B-3-64, Fun-Fish, when ordering. Be sure to remit payment with your order.

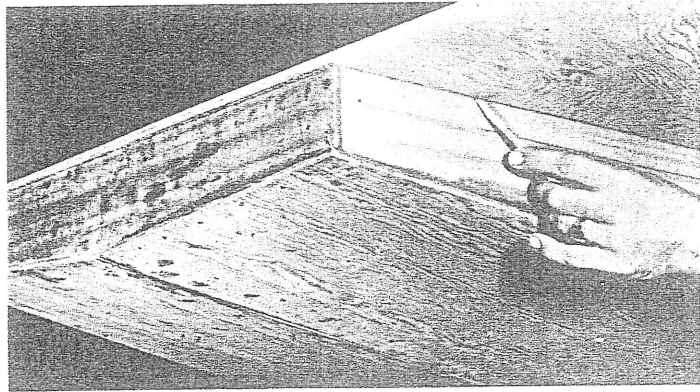
flush with the deck beam and with the bottom of the groove for the keel. In constructing the centerboard well, make it at least $\frac{1}{8}$ -in. wider than the centerboard.

If you have a bit long enough to go through the mast block and the deck beam you have it made. Otherwise, you'll have to tackle the mast block in segments, drilling through each layer and then gluing the pieces together to build up the block to the proper thickness. If you plan to use a two-inch mast, make the hole about $2\frac{1}{16}$ -in. in diameter. After the glue has dried, fair for the keel.

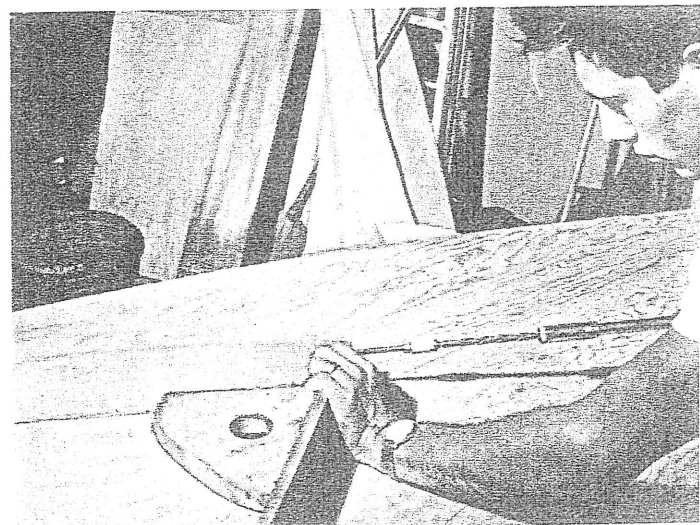
The keel is attached next and is fastened to the transom and ribs with glue and countersunk screws. Start from the transom and work forward. The keel should be fastened also to the centerboard well and the mast block.



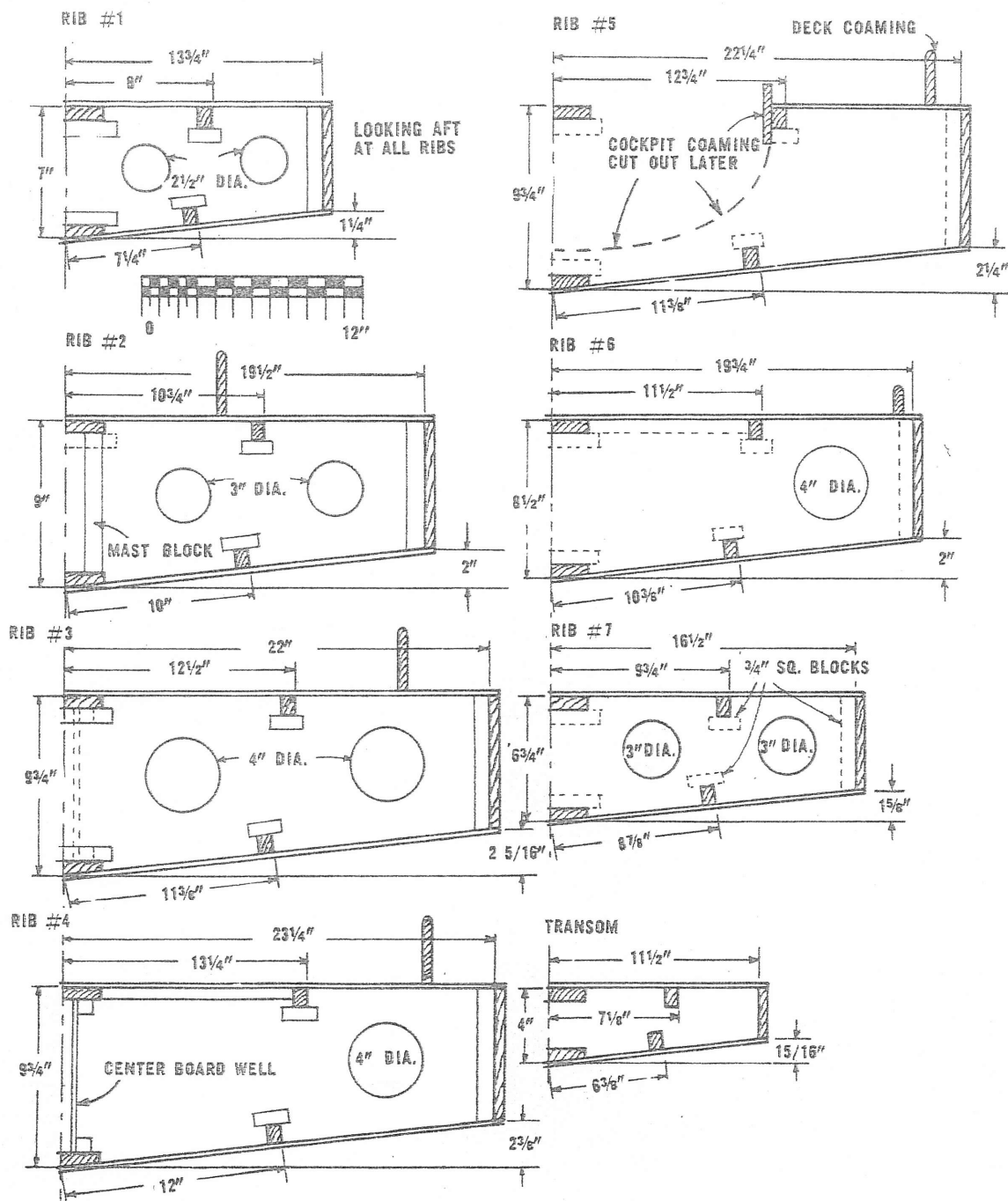
FAIR the framing and varnish the interior of the hull before putting the deck down.



PLYWOOD decking is attached temporarily to facilitate outlining shape of the hull.



COAMING is cut to length and bent in jig before being glued and screwed to decking.



If you have set up the ribs straight and true, the sides should present no problem. They are cut from half-inch white cedar. Mark off the profile of the hull and rough the sides to shape. You will have to fair some of the blocks at the rib ends for a good fit. Glue and screw the sides in place, using two or three screws for each rib end.

The bottom battens are installed next and run from the transom to about six

inches forward of rib No. 1. They are glued and screwed to the blocks attached to each rib.

Using an electric planer or a hand plane, fair the keel, battens and sides. Check with piece of plywood to make sure that the bottom planking will contact all framing elements. Finish-sanding can be done with a 30-in. length of furring with coarse sand paper wrapped [Continued on page 129]

The best way to judge the over-all effect is to stand five or six feet away and take a look. To provide a waterproof finish that won't mar, coat the antiqued surface with a clear non-lifting lacquer.

If you're staining and want to apply finish coats without delay, don't brush on the stain. Use a pair of rubber gloves, dip a cloth wad in the stain and wring it out. Then rub on the stain with the cloth. Where it's too light, give it an extra rub. This doesn't soak the wood and allows for hellacking in about half an hour unless the weather is unusually humid.

Don't hesitate to adapt the unit's design to your own needs. The original was planned to solve a limited storage space problem. You may need a cellaret, file space or a blanket chest. Just add or subtract drawers and shelves to do the job. Wherever you fit it in, our antique secretary is sure to be the bright point of the room. *

Build Fun-Fish

[Continued from page 96]

around it. You will note that the keel has a slight V to it. This and the sides receive most of the fairing.

The bottom is made in two pieces and cutted at a slight angle on the centerline of the keel. Begin with a 4x14-ft. sheet of plywood (the size requires a special order) and cut it in half lengthwise. Screw one half in place temporarily and draw the outline of the hull. At the same time, mark all points of contact with the framing. Remove the planking and trim to shape. Cut out the centerboard well and drill pilot holes for nails, about 2½ inches apart along the battens and keel, two inches at the sides. This will help you complete the nailing before the glue dries.

Coat framing and plywood planking with glue, line up for placement using the temporary screw positions, then nail in place. If you intend to cover the hull with Fiberglas, the nail heads can be left flush. Otherwise, countersink the nails about ⅛ in. and fill in later with a good wood filler.

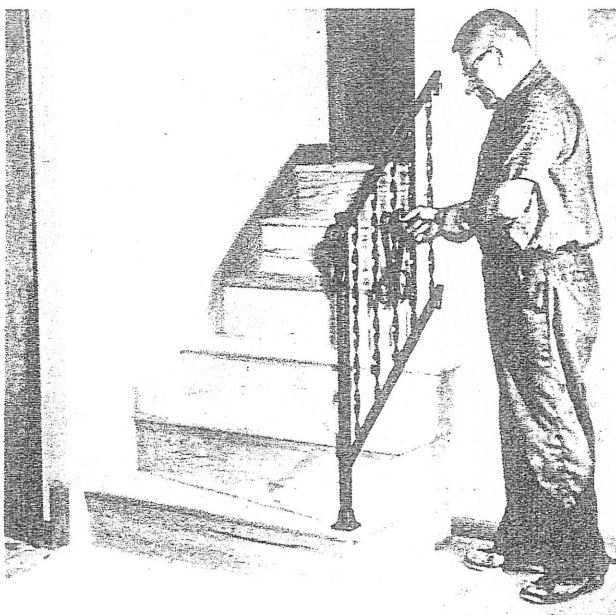
When the glue has dried, hand-plane all edges that project beyond the sides and transom. Round the bottom edges and then sand smooth.

[Continued on page 130]

PREFAB RAILINGS



PREFABRICATED railings can be used indoors as well as outdoors to dress up and protect an open stairway. The first step in assembly is to install a newel post at the lowest step. Use a post at four-foot intervals for stairs and every six feet for straight runs.



AFTER cutting a section to length, it is bent to required slope by means of a little muscle as shown in the upper photo. Then it is bolted to the newel post and to wall at top of stairs. The railings and newel posts illustrated are made by the Versa Products Co., Lodi, Ohio.

[Continued from page 129]

Turn the hull over and place it at a workable height, using padding so as not to mar the bottom. Glue and screw the deck battens in place. The whole deck should be level so you may have to fair a bit.

Lay the 4x14-ft. sheet of plywood on the deck and secure temporarily with one screw at the bow and one at the transom. Draw the outline of the hull on the plywood, then remove the planking and trim it to shape. Carefully mark off the cockpit, centerboard and mast holes and make your cuts.

You may find it a timesaver as well as good construction to attach the coaming *before* fastening the decking in place. About three days before you reach this point you should have cut the deck coaming (half-inch mahogany) to size, soaked it in hot water and set it in a simple jig to bend it to shape. After three days in the jig (leave it in the sun to speed things up), the coaming will hold its shape pretty well.

Glue the coaming to the decking and screw-fasten from the underside, starting from the mast deck block. This is simpler and stronger than trying to fasten it in place after the deck is down. Screw the two sections of coaming together where they butt.

Before attaching the deck, varnish the inside of the hull. It will be difficult to get at most of these areas once the deck is down.

You are now ready to attach the decking. Mark off the positions of the deck battens and drill pilot holes. The battens are best pulled to the decking with $\frac{7}{8}$ -in. screws spaced every eight inches. Nail the decking to the sides, deck beam and transom, using a nail approximately every $2\frac{1}{2}$ inches.

Saw out the deck beam between ribs four and six to open up the cockpit. If you haven't already done so, cut rib five to shape as shown on the rib drawing. Glue and screw the half-inch mahogany coaming in place around the cockpit.

All nails and screws used to attach the deck should be countersunk and the holes filled with wood filler.

To Fiberglas the bottom, turn the hull bottom up on a pair of padded saw horses. Lay your cloth on the bottom and trim to rough shape, letting it overhang a bit at the sheer line. Remove the cloth and coat the bottom with resin. You can mix the color right in with the resin, doing this before adding the hardener. After the hull has received a coat of resin, lay the cloth in place, apply more resin to cover and roll smooth with a paint roller. With scraps trimmed from the front section, fill in any side areas not covered, overlapping the cloth.

Give the Fiberglas a day to "kick off." Then, with a disk sander, smooth off any ridges where the cloth overlaps and sand along the edge of the sheer to trim off the excess. Also sand out the centerboard well.

Apply another coat of resin and roll smooth with a fresh paint roller. (It's a lot easier to buy an inexpensive roller for each application of resin than to try to clean the old one.)

Right the hull and give the coaming four coats of varnish. Then give the deck a coat of white Firzite. The deck of Fun-Fish was painted yellow to match the yellow in the sail. The hull is red.

You can choose your own colors, but we recommend that you use one of the new non-slip deck paints. With most other paints, a wet deck can be as slippery as a porpoise's back.

Cut the centerboard and rudder to shape from $\frac{3}{4}$ -in. mahogany, planing the bottom sections to a sharp edge. Give them four coats of varnish for a long-lasting finish.

The rudder is pivot-mounted so it will flip up when you hit an obstacle. The rudder hinge is made of 10-gauge aluminum.

The sail can be purchased ready-made or you can make your own out of sail drill, which is available at most dry goods stores and comes in 36-in. widths. Wooden poles for your mast and booms can be bought at the lumber yard if you don't choose to invest in aluminum.

Check the profile drawing for rigging. Good sailing!—Hal Kelly *