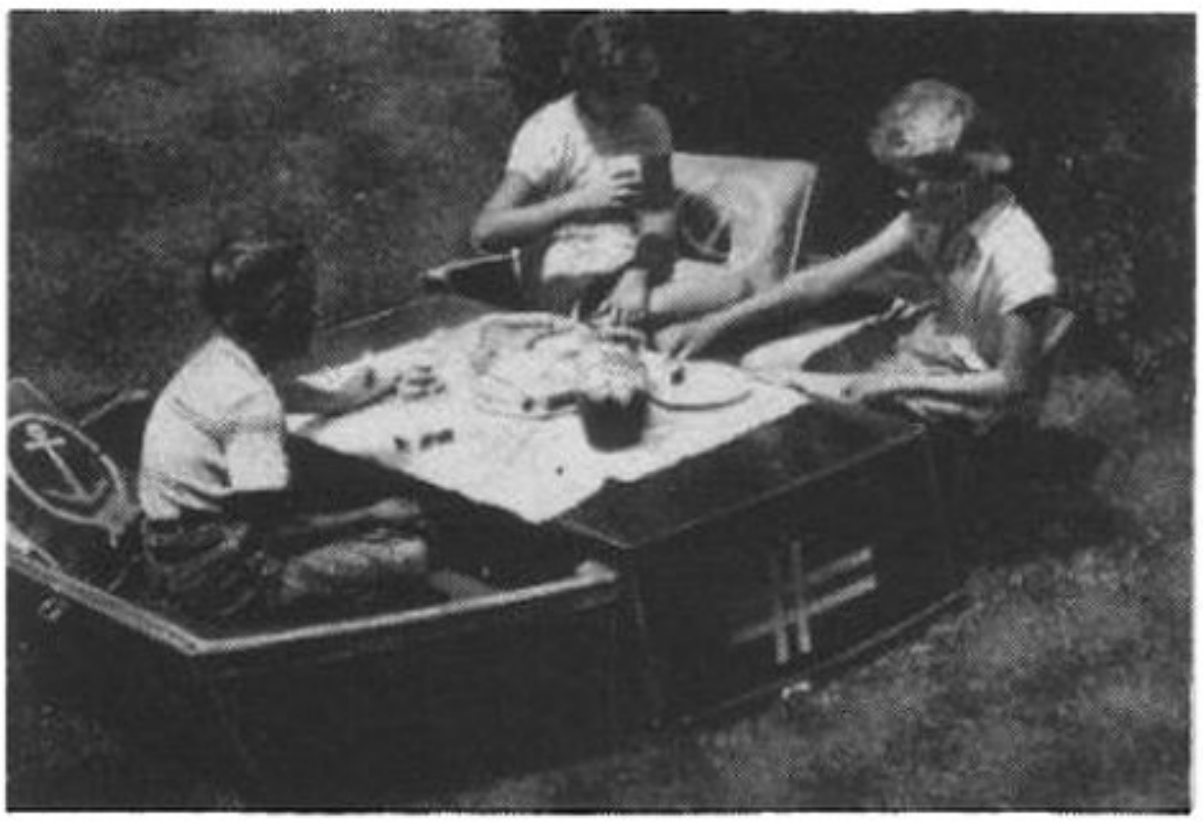
UNUSUAL SMALL BOAT

Above, this little boat is seven feet of safe water fun for children. It's good looking and easy to use



The boat has many uses; among other things it can serve as a picnic table, as above. Below, with the three sections nested, it makes a compact package that is lightweight and fits into most car trunks

HERE IS A SMALL BOAT, which divides into three sections, that is designed primarily for children's fun. It is safe, lightweight and, in addition to boating, can be used as a picnic table or as a back-yard wading pool. For ease of handling and carrying, the three sections of the boat nest one inside the other, making a compact package small enough to fit into the trunk of a car. The boat has unusually good stability, provided by a flat bottom and very wide beam. The heaviest section weighs only 32 lb., and the total weight of all three sections is only 76 lb., all of which make for easy handling and transporting.

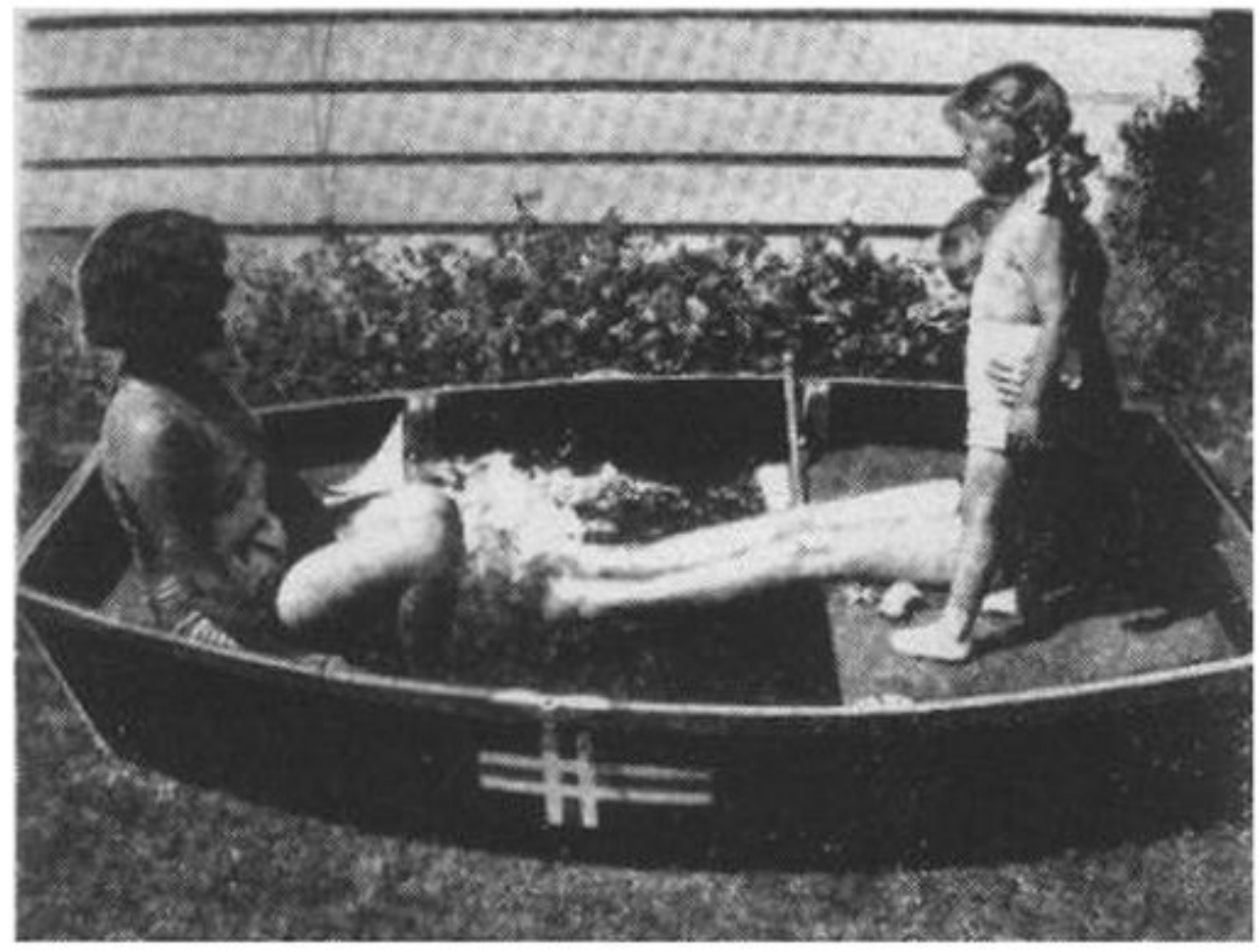
The boat is constructed of ¼-in. exterior plywood throughout. Every effort was made to be economical in the use of this material, and all of the plywood parts can be cut from one 4 x 16-ft. sheet if desired, as shown in Fig. 4. Note dotted lines on ends of sidepieces in pattern. This indicates waste material which should be cut off after each side is in place on the boat. The frame is made from hardwood. On the original model, the chine molding and cross members were cut from white-oak flooring and the uprights were cut from beech. The dimensions of the chine, frame and upright members are given in Fig. 3.

The first step in the assembly of the boat is to cut out all of the plywood pieces. Check over-all dimensions in plan view,

Fig. 2. Next the ¾ x 1-in. cross members are installed. They are glued to the bottom sheets and held by ¾-in. No. 7 flatheaded brass screws driven in every 2 in. Note that cross members are set in 5/16 in. from the ends to provide a seal for the partitions to be installed later. Now the chine pieces are cut to size. To make them easy to bend to the shape of the plywood bottom, rip each of these lengthwise vertically through the center. The outer half of each chine is then glued and screwed in place, being bent as you go. The inner half is then placed against the outer piece and fastened to it and to the bottom with glue and screws.

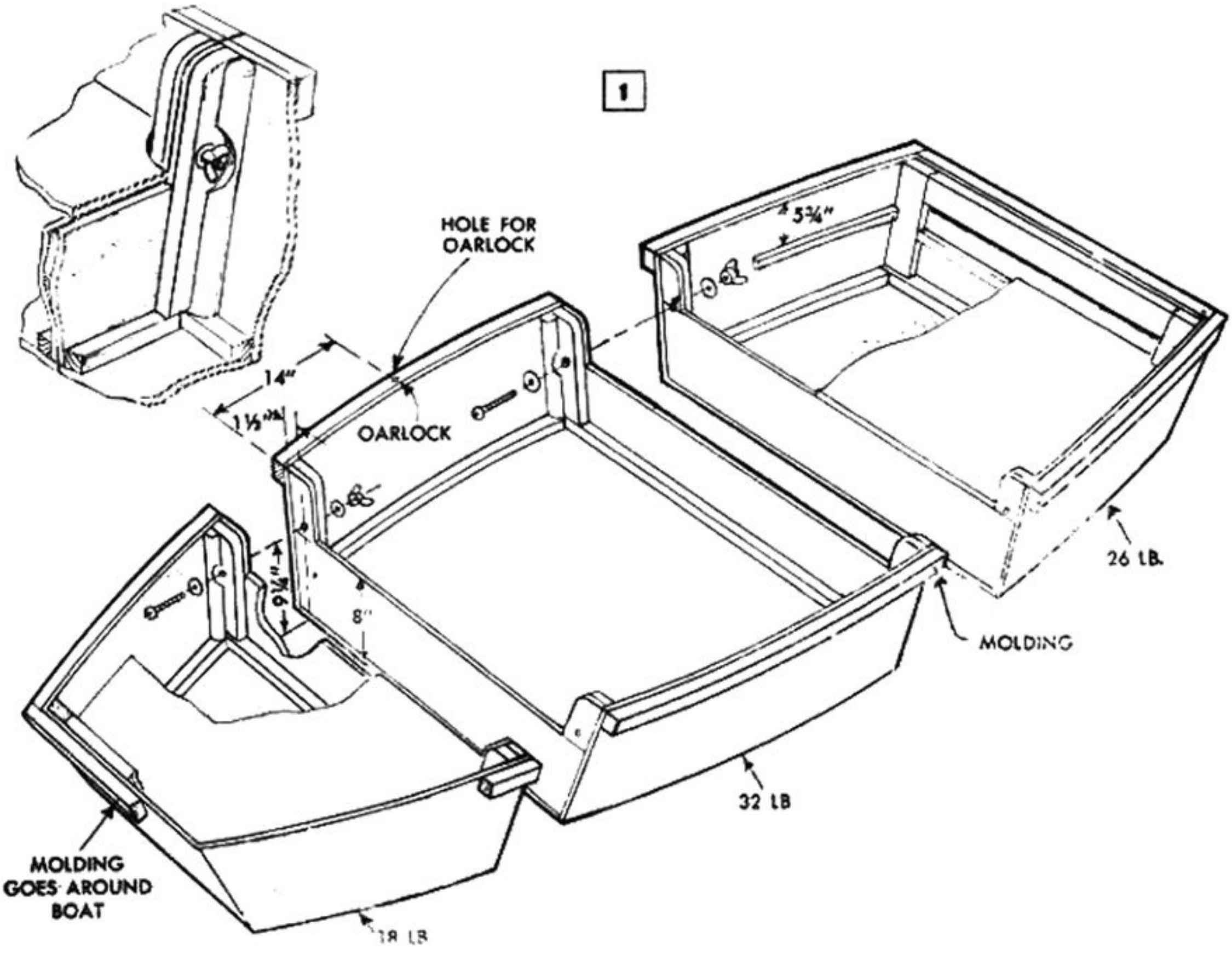
The bulkheads, bow and stern pieces can now be installed. They are attached to the bottom frame and the upright members of the frame are attached to them and to the bottom frame. Then temporary braces are used to hold the endpieces at the proper angle, as shown in the photo on page 271. With this much of the three sections of the boat complete, they are placed on the floor and, with cardboard between them to provide ⅛ in. of spacing, they are clamped together while the sides are put on.

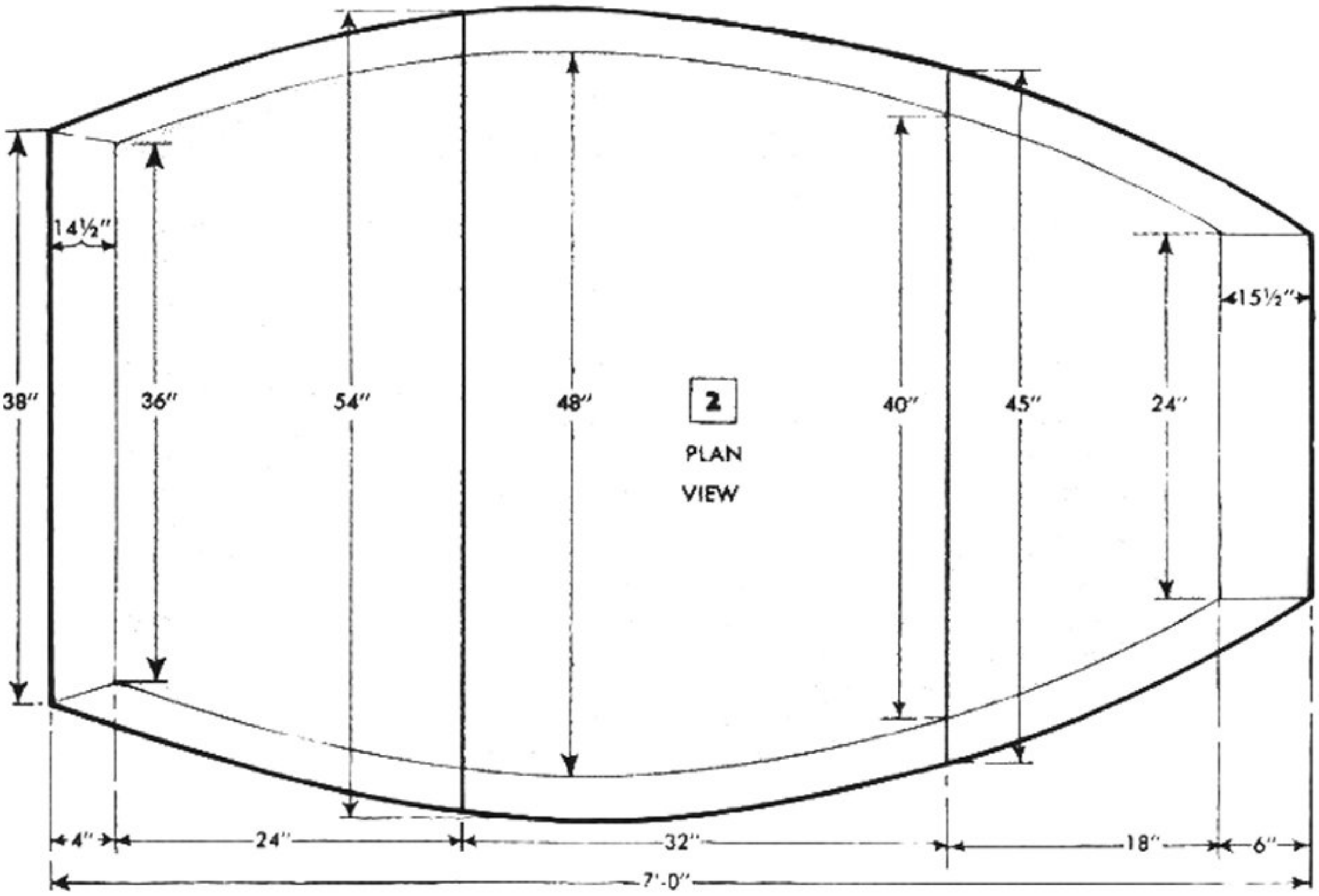
The sides are temporarily positioned on the boat. They are held in place by drilling holes through the excess material at the ends of the sidepieces and running wires through them. The wires are drawn taut between the two sides until the sidepieces are drawn snugly against the uprights. Once they are in position, they are carefully marked and removed. Along the top and bottom edges, the sides are cut to within 1/16 in. of the marked line. The ends are not cut, since they must be used to hold the sides in place as the glue sets. Once the sides are trimmed, they are replaced on the boat, held once again by the wire. All joints are flooded with glue, and then screws are driven 2 in. apart into all of the upright members and into the chine molding.

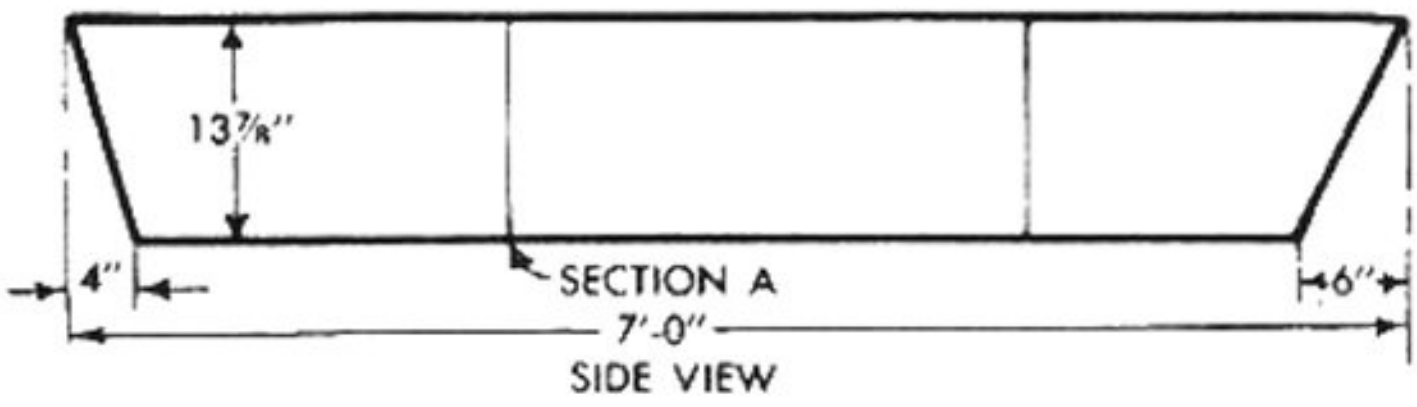


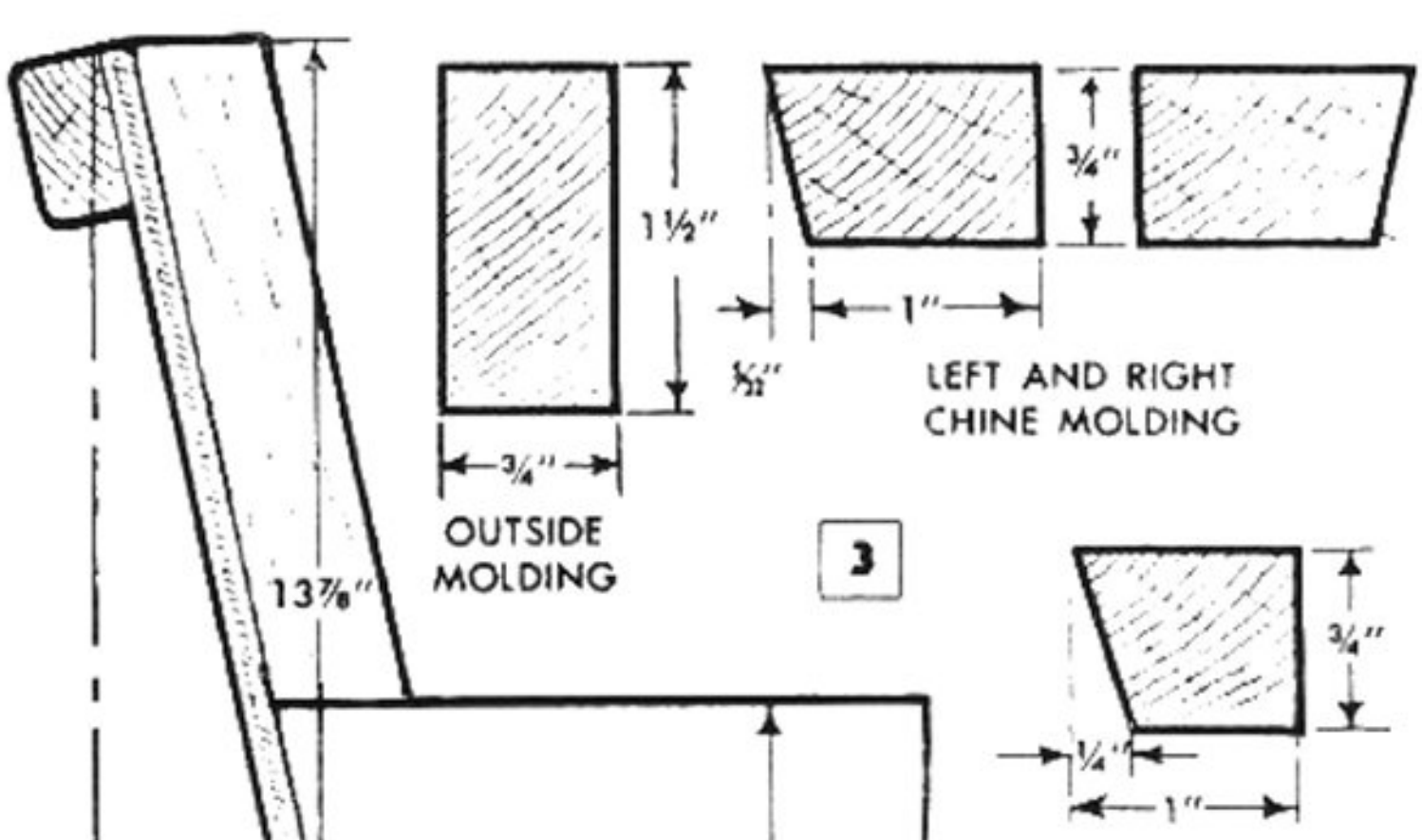
When you can't take the boat to the water, bring water to the boat and you have a little wading pool

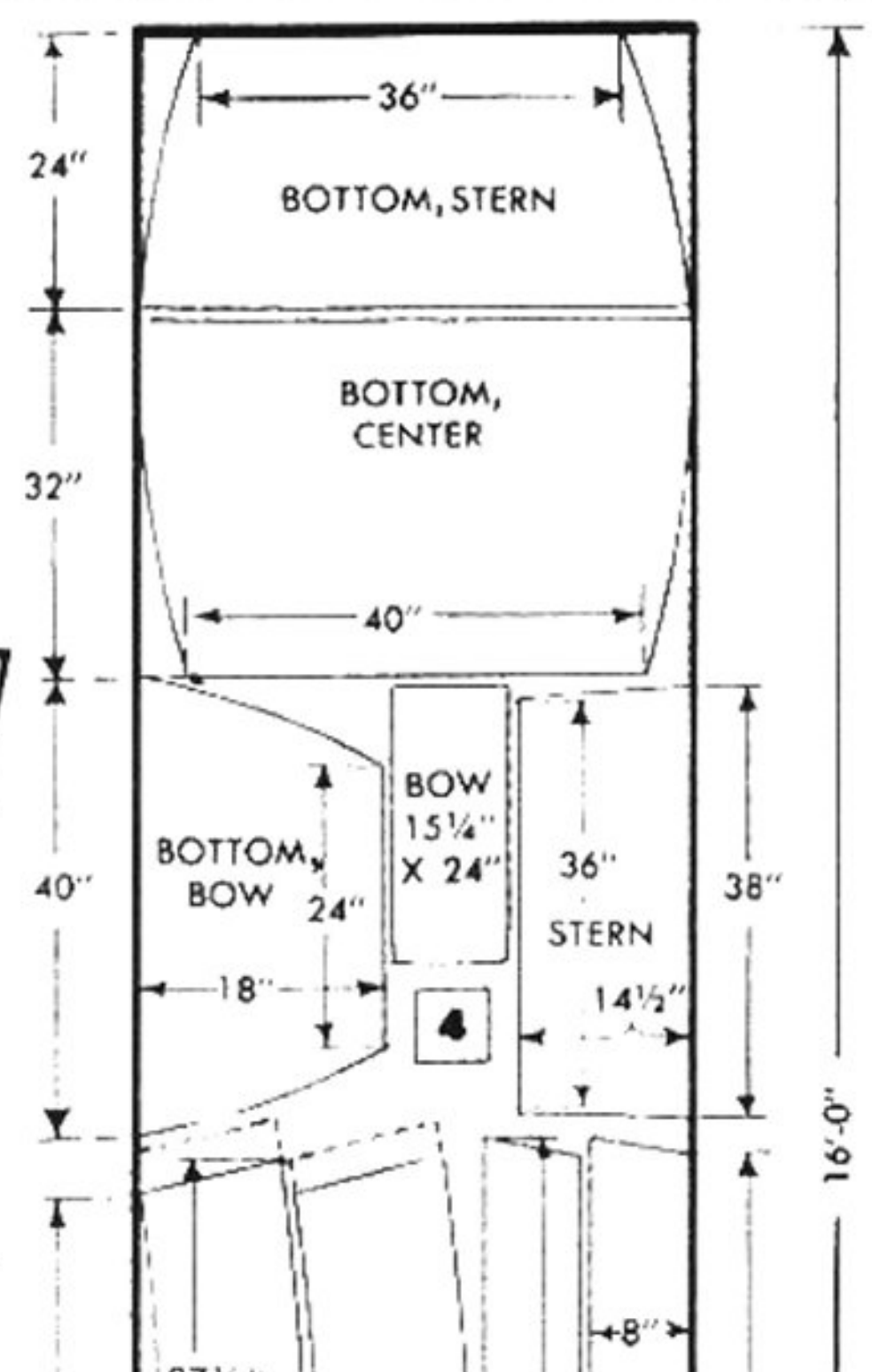
The outside molding is now put on. The bow and stern moldings, see Fig. 3, are installed first. The side moldings are ripped in half lengthwise so as to be easier to bend around the curve and held with screws driven from the inside of the boat. Note




14½"
38"
36"
54"
48"
40"
45"
24"
15½"
2
PLAN VIEW
4"
24"
32"
18"
6"
7'-0"


13⅞"
4"
SECTION A
6"
7'-0"
SIDE VIEW


13⅞"
1½"
¾"
1"
3/32"
¾"
LEFT AND RIGHT CHINE MOLDING
OUTSIDE MOLDING
3
SECTION A
8" BULKHEAD
¼"
1⅛"
¾"
3"
¾"
¼"
1"
BOW MOLDING
3/16"
¾"
1"
STERN MOLDING


24"
36"
BOTTOM, STERN
BOTTOM, CENTER
32"
40"
BOTTOM BOW
BOW 15¼" X 24"
24"
18"
36"
STERN
14½"
4
38"
16'-0"
87⅛"
8"
48"
51½"
4'-0"
76¾"
3"
SIDE
SIDE
43½"
BULKHEADS
40"
8"
8"

that the stern molding is made wider so that it will support an outboard motor.

When all the glue has dried thoroughly, the three sections of the boat are cut apart by sawing the sides through at the junction points. The excess material is trimmed off the ends and all edges are sanded smooth. The three sections are held together with clamps while holes are drilled for the bolts and wing nuts which hold the sections together. The holes are 9/16 in. in dia., and into these are fitted ½-in. cap screws, 2½ in. long. The screws are fitted with standard wing nuts and washers.

The seat rails are ¾-in. quarter round, and 1¼-in. quarter round is installed to strengthen upright members and notched to clear the wing nuts. The seats are cut from ordinary ¼-in. plywood, and another section of floor is cut for the center section of the boat from the same material. See details in Fig. 6. This floor is glued in the bottom of this section because of the hard wear it gets. To prevent excessive wear on the underside of the bottom, two strips of 5/16 x 1½-in. white oak were run the length of the bottom, spaced 24½ in. apart. The boat was finished by sanding it completely and staining a deep red mahogany. The molding was painted green. Several coats of spar varnish completed the boat.

Collapsible oars are made by sawing 7-ft. softwood oars in half and fitting them with aluminum ferrules as shown in Fig. 5. Small tubing fitted to the end of one oar section fits into larger tubing fitted to the other oar end. The two are held together by a cap screw. The position of the oarlocks is given in Fig. 1. ★ ★ ★

Above, the three sections are nested. Below, the boat is ready to have sides put on. Note that bow and stern are held at proper angle by temporary braces. Next step is to clamp sections together