"ADY-J"—an All-Purpose Dinghy

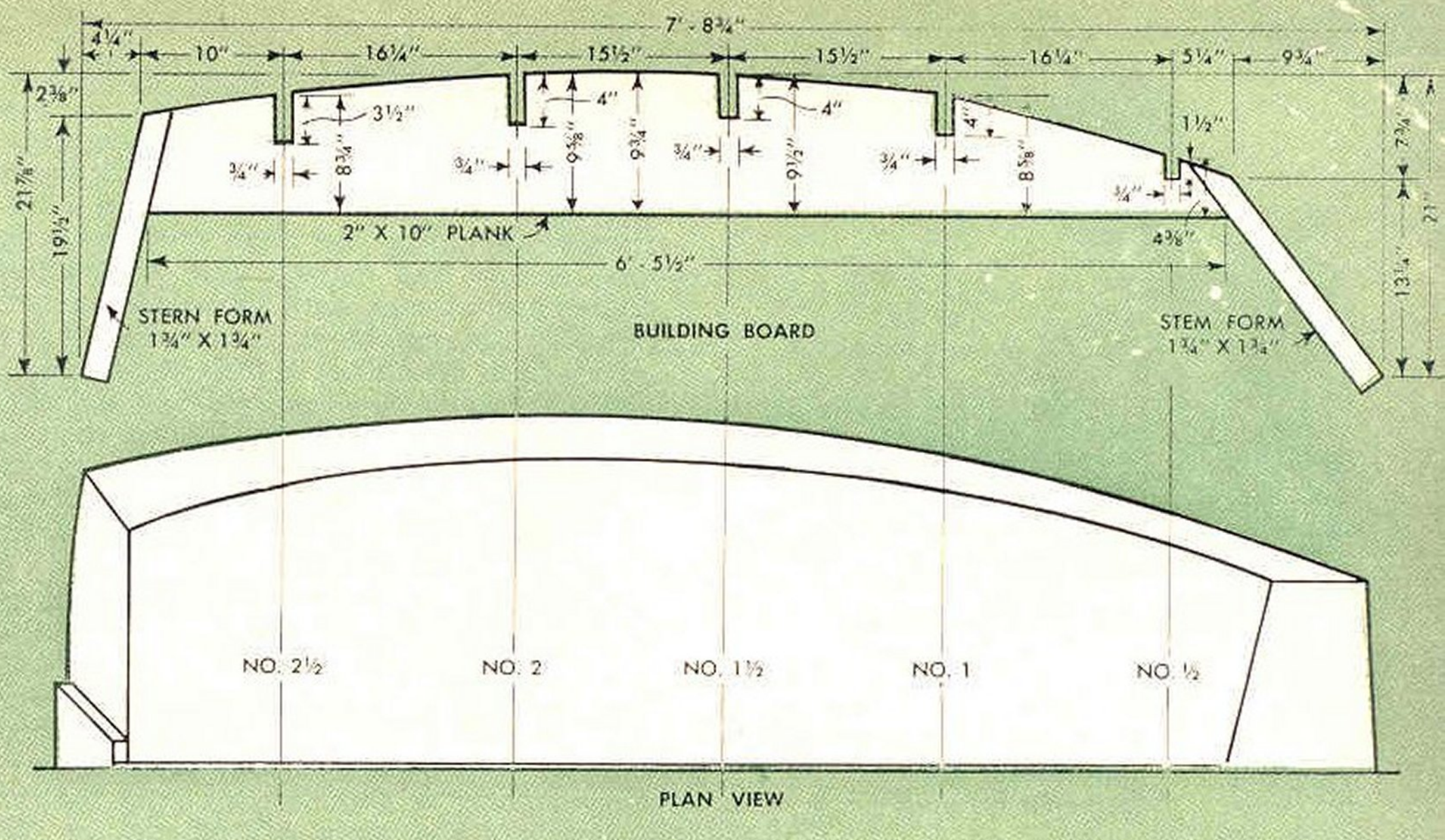
Lightweight, plywood construction and easy portability make this trim, seaworthy boat ideal for the hunter or fisherman who desires a boat that can be carried on top of his car

ANYONE—even the most inexperienced craftsman—can build this lightweight dinghy at small cost. It takes relatively little storage space and can be loaded on a car singlehanded. If you are not interested in a boat for hunting or fishing, but like to take your family on week-end trips to a lake or river, this boat will add to your pleasure. Just load the family in the car, put the boat on top and take off.

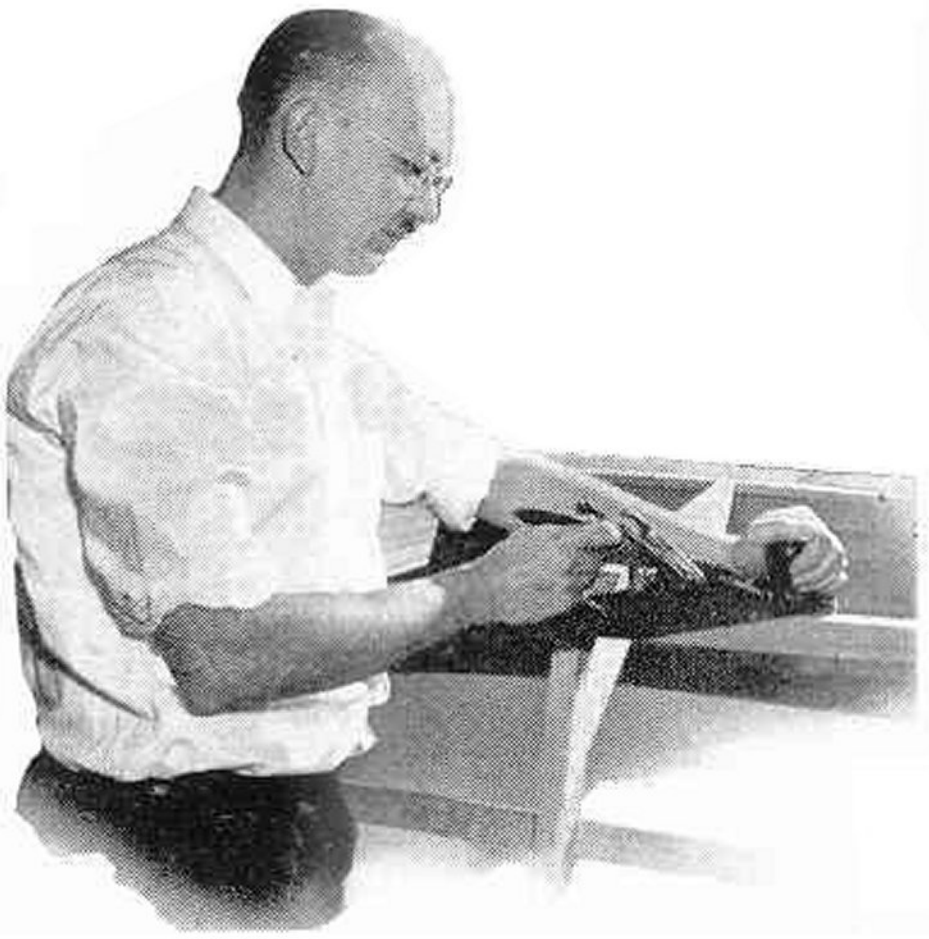
It rides high and level in the water, making it safe for the children to handle, and easy to row or scull in shallow backwaters for fishing or wildfowl hunting. A 25-in. skeg holds the craft steady if you wish to power it with an outboard motor.

The boat is assembled almost completely on a building board. Two full frames, three half frames, and the stem and transom join chines and clamps, or sheer battens, to provide adequate support for the ¼-in. plywood bottom and sides.

To start construction, first set up the building board on a level surface, such as the garage floor, and cut the five notches for the frames. Then make all the frames and attach them to the building board in the order indicated in the detail on the opposite page. Note that the full frames are reinforced with plywood knees, or gussets, attached with screws and waterproof glue. After the frames are in place on the building board, brace them to


7' - 8¾"
4¼"
10"
16¼"
15½"
15½"
16¼"
5¼"
9¾"
2⅜"
21⅞"
19½"
3½"
4"
4"
¾"
¾"
¾"
¾"
8¾"
9⅝"
9¾"
9½"
8⅝"
1½"
2 ⅜"
13¼"
2" X 10" PLANK
6' - 5½"
4⅜"
STERN FORM
1¾" X 1¾"
BUILDING BOARD
STEM FORM
1¾" X 1¾"
NO. 2½
NO. 2
NO. 1½
NO. 1
NO. ½
PLAN VIEW

7' 10⅝"
OARLOCK
7"
CLAMP
SEAT RISER
6"
5"
4½"
¼" PLYWOOD
CHINE
SEAT BRACE
FLOOR BOARDS
¼" PLYWOOD
STEM
60°
KEEL
3"
4"
25" SKEG
16¼"
15½"
15½"
16¼"
31"
31"
31"
KEELSON
¾"
30⅜"
¾" X 2½"
2½"
⅝"
⅜"
30⅜"
1⅜"
FRAME NO. ½
4¾"
42½"
¾" X 4¾"
2½"
41½"
½"
39"
FRAME NO. 1½
¾" X 4¼"
NOTCHED ⅝" X 1¾"
4¼"
1⅞"
⅜"
38"
FRAME NO. 2½
12"
6"
℄
MOTOR BOARD
17⅝"
30"
2¾"
¾"
⅝" X 1½" CLAMP
¾" X 12" SEAT
⅝" X 1½" SEAT RISER
¼" PLYWOOD
½" X 2¾" FLOOR BOARDS
⅝" X 1¼" MOLDING
¾" X 2¾" KEELSON
⅜" X 1¾ CHINE
¾" X ¾" KEEL
MIDSHIP SECTION
1¾"
29½"
NOTCHED
½" BEVEL
¾" X 5¾"
STEM FRAME FRONT VIEW
5' - 1⅜" R.
HALF-LAP JOINT
¾" X 3"
18⅜"
14½"
¾" X 5¾"
2⅜"
2¼" BEVEL
1½"
1¾"
45½"
½"
¾" X 3"
¼" PLYWOOD KNEES, 2 REQD.
FRAME NO. 1
¾" X 4¾"
16½"
14"
2½"
3½"
3"
38½"
48"
1¾"
¾" X 3"
¼" PLYWOOD KNEES, 2 REQD.
FRAME NO. 2
⅝"
1¾"
¾" X 4¾"
⅝"
2½"
3"
1⅜"
3"
42"
42½"
1½"
12"
3"
¾ X 5¾"
HALF-LAP JOINT
TRANSOM FRAME
20⅜"
16"
⅝"
1¾"
⅝"
¾" X 5¾"
1⅜"
⅝"
1⅝"
4¾"
33"



MATERIAL LIST

Marine Fir Plywood

1 pc.	Bottom	¼" x 4' - 0" x 8' - 0"
1 pc.	Sides	¼" x 4' - 0" x 8' - 0"
1 pc.	Transom and stem	¼" x 2' - 0" x 6' - 0"

Oak

2 pc.	Chines	¾" x 1¾" x 8' - 0"
2 pc.	Clamps	½" x 1½" x 8' - 0"
2 pc.	Moldings	⅝" x 1¼" x 8' - 0"
2 pc.	Seat risers	¾" x 1½" x 8' - 0"
1 pc.	Keelson	¾" x 2¾" x 8' - 0"
1 pc.	Keel	¾" x ¾" x 8' - 0"
1 pc.	Top and bottom of transom and stem frame	¾" x 5¾" x 12' - 0"
1 pc.	Transom and stem sides and frame side ribs	¾" x 3" x 12' - 0"
2 pc.	Bottom ribs	¾" x 4¾" x 9' - 0"
2 pc.	Seats	¾" x 12" x 14' - 0"
1 pc.	Seat brace	¾" x 12" x 8"
4 pc.	Knees	1¼" x 7" x 10"
1 pc.	Motor board	¾" x 12" x 21"
9 pc.	Floor boards	½" x 2¾" x 4' - 6"

Building Board

1 pc. 2" x 10" x 7' Common lumber
1 pc. 1¾" x 1¾" x 4' Lumber

Fastenings

1 qt. Marine glue
20 yds. Cotton tape
5 gr. 1" - #8 brass flat-head screws
2 doz. 1½" - #8 brass flat-head screws
2 doz. 1¾" - #8 brass flat-head screws

Paint

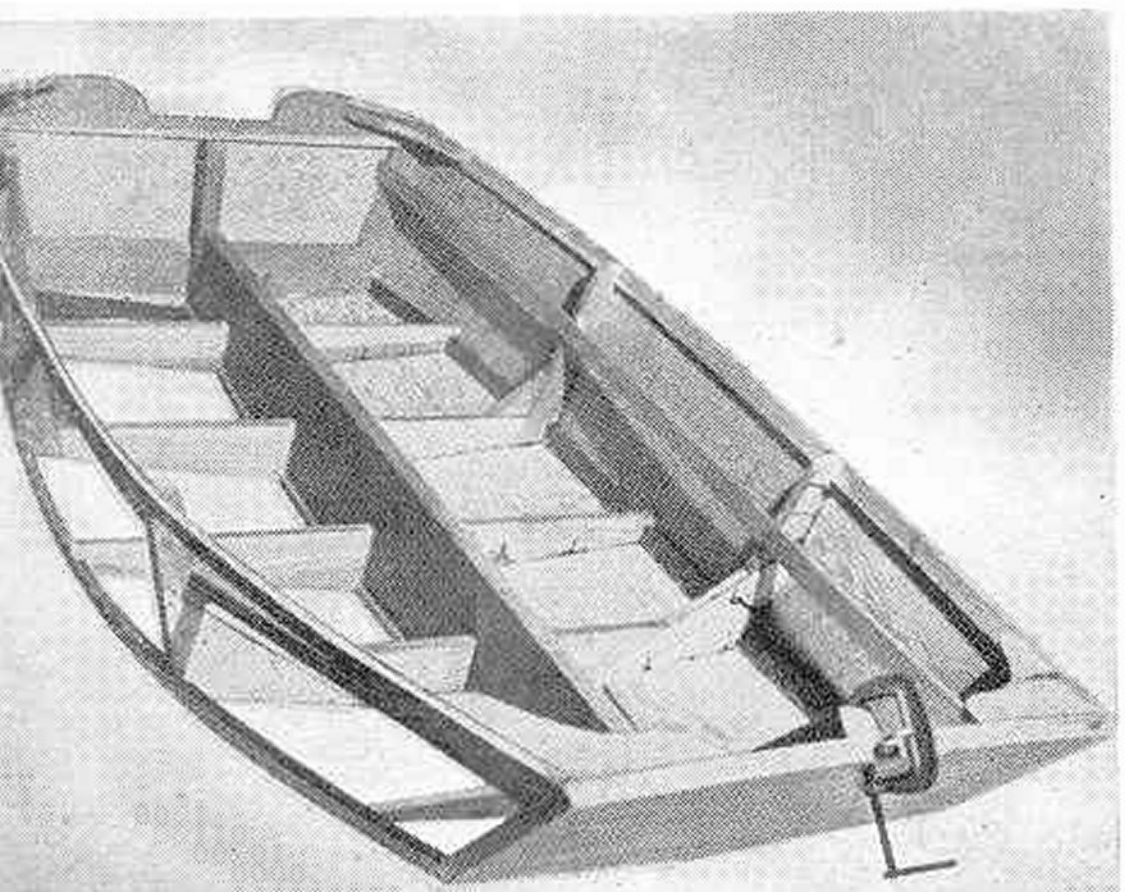
½ gal. Sealer (clear) ½ gal. Paint
1 qt. Spar varnish

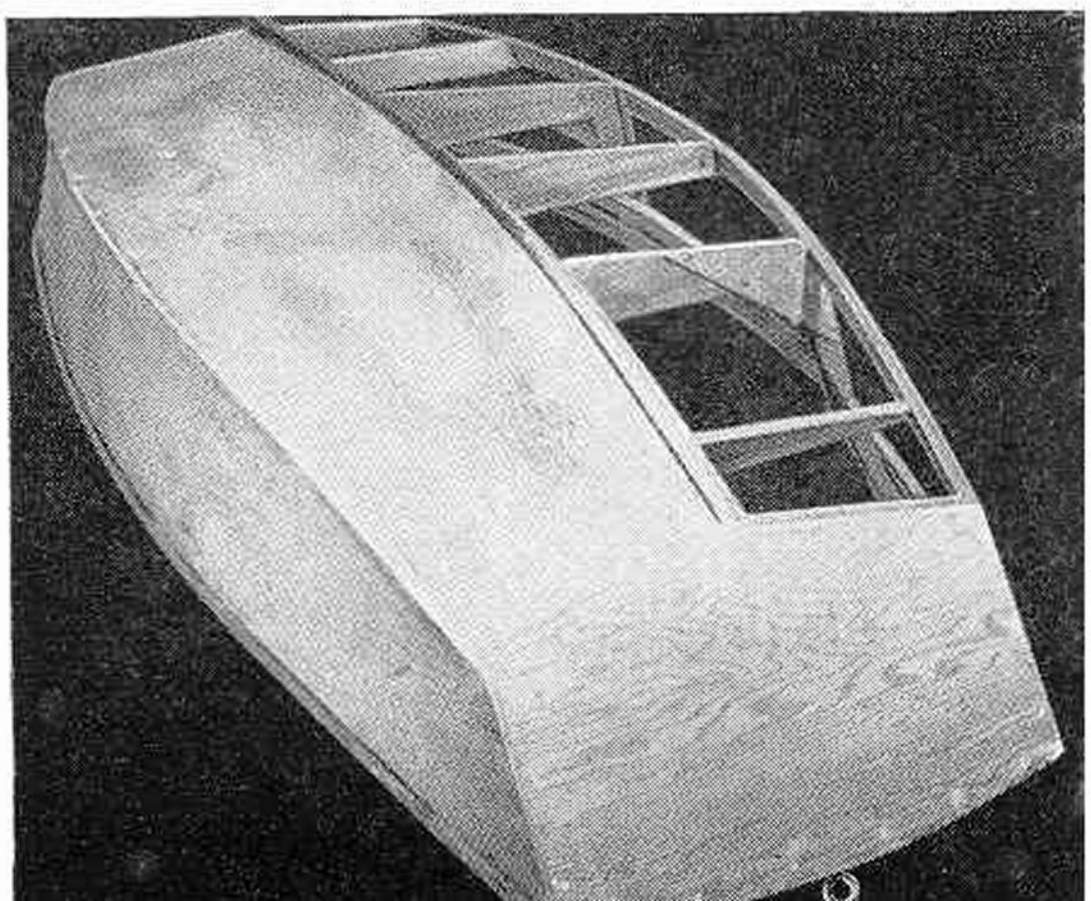
Fittings

1 pr. Oarlocks 1 Eyebolt
2 Lifting handles

the floor in the level position with small strips. Now, cut and fit the keelson, making sure that the bottom of each notch is properly beveled so that the keelson is a snug fit in each lapped joint. Join the keelson to the frames, including the stem and transom, with screws and marine glue. Install the chines and clamps with the same method of fastening, but be sure to make an accurate fit of the chines in the notches, especially at frames Nos. ½, 1 and 2½ and also at the stem and transom. In this case, it probably will be necessary to bevel the bottom of each notch to receive the chine and clamp with a full bearing across the width of the frame stock.

Next, the frame members and chines must be faired in—hand planed as in the photo at the left—to take the sides and bottom with a full-width bearing. This means that the outer edge of each chine and one edge of each frame member must be beveled slightly so that the plywood bottom pieces and the sides will lie flat on the chines and frame members. This is an important operation as the structural strength and seaworthiness of the boat depend on the fit of these joints. Be sure that the keelson is beveled in two directions before fitting the keel and skeg. Join the latter two parts to the keelson with screws and marine glue, wiping off the excess glue after the joint has been made. For added strength, drill a 5/16-in. hole through the skeg and keelson at a point just aft of frame No. 2½ and fit a 5/16-in. galv. or bronze bolt. Due to the absence of a stopwater at this point, it is advisable to set the bolt in marine glue. It's regular practice on a boat of this type to use cotton tape in all joints where the plywood joins the frame. Spread a coating of marine glue, lay the tape over the glue, then apply a second coat of glue before joining the parts. Use this procedure when joining the plywood to the frame. Now, cover the stem and transom frames with ¼-in. marine plywood, joining with screws, marine glue and tape in the manner described.





Fair the exposed edges of the plywood into the curve of the bottom and sides. Cut, fit and join the side planking, using the same material and method of fastening. Fair the edges of the plywood to the angle of the frames. At this point the boat can be removed from the building board.

Cut the plywood bottom pieces to the rough size and bevel plane to a perfect fit at the keel and skeg. Then join with screws, marine glue and tape, applying the glue liberally where the bottom pieces join the keelson and butt against the keel and skeg. Drive the screws flush and in straight rows. Space all planking screws approximately 1½ in. apart. Plane the edges of the bottom pieces flush with the sides and finish the upper edges of the side planks flush with the clamps. Sand all joints and exposed edges smooth. Fit oak corner knees fore and aft as in the lower left-hand photo on the opposite page, and join to the end frames and clamps with long screws driven through from the outside. Use a water-resistant resin glue in these joints. Before fitting the half-round molding at the chines and gunwales, apply a coat of fir-plywood sealer to all inner and outer plywood surfaces. Fill the exposed edges of the plywood with marine putty and sand lightly after the putty is dry. Then sand all surfaces lightly and round corners to prevent splintering of the wood. Use fine sandpaper for this job. Coat the frames and interior plywood surfaces with marine enamel or spar varnish as desired.

Install the floor boards and join to the frames with screws only. Do not use any glue in these joints. Then add the seat risers and seats and install the motor board. All these parts should be of selected oak and finished with a natural wood filler and two coats of spar varnish. Install the half-round molding at the chines and gunwales, spacing the screws about 3 in. apart. Apply a copper-base paint to the bottom, and finish the sides, stem and transom with two coats of marine enamel. Finally, install the fittings given in the material list.