

35

JUST A BOAT

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Photographs and plans by the author



A home-made boat that cost, without sail, \$10

IF YOU want a canoe, go and buy one. A young house-carpenter confessed to me the other day that he had just spent \$35 for material in trying to imitate a \$30 canoe!

Also, if you want a yawl, or a jolly-boat, or a sharpie, or a cat-boat, or a ketch, or a full-rigged ship, or a coal-barge, go and buy one—unless you are a regular ship-carpenter. But if you want just a boat—as I did—very likely you can make it yourself—as I did. This is the material you need: Two 16-foot cypress boards, 14 x 3/4 inches, for sides; one 2-foot cypress board, 14 x 1 3/8 inches, for stern; 40 feet (board measure) of 3/4-inch North Carolina pine flooring, for bottom;

one 3 x 4-inch piece of oak, 2 feet long, for stem; one 4-foot hemlock board, 12 inches wide, for centre-brace; one 16-foot cypress board, 3/4 x 4 inches, to go underneath bottom; one 5-foot cypress board, 3/4 x 3 inches, for keel; two 16-foot cypress strips, half-round, 1 1/2 x 3/8 inches, for gunwales; one 12-foot cypress board 3/4 x 8 inches, for rowers' seats; one 10-foot cypress board 3/4 x 16 inches, for bow and stern seats; two pounds each of 8-penny and 12-penny wire nails; three dozen 1 1/2-inch screws; one galvanized ring-bolt (or else a plate staple and ring); paint, oarlocks, hardware for lockers, and the oars. All lumber except the centre-brace must be "surfaced" both sides.

The stem-piece is the first job, and the hardest. Cutting the grooves in this is the only thing about the whole boat that requires any especial skill. Follow carefully the dimensions given in Fig. 4 for this, making it about 2 feet long. If you feel at all uncertain, give some carpenter the benefit of the doubt, and let him make this piece for you; he will possibly charge a quarter; but you would have wanted \$3 at least, before you were half-way through!

Next cut one of the side-pieces (Fig. 1), then lay it down on the other board, and mark from it, to be sure that both are exactly the same.

Screw the side-pieces into the grooves on the stem-piece, with four screws to a side, allowing the bottom of the stem-piece to project a couple of inches.

Now cut the centre-brace (Fig. 2) and the stem-piece (Fig. 4); turn your side-boards upside down, set the centre-brace exactly in the middle (Fig. 1), and pull somewhat into shape with a trunk-strap or a rope. When they are nearly in position, drive four stout stakes firmly into the ground (Fig. 5), and tie each pair together with rope; then drive in wedges until the side-pieces fit snugly against centre-brace and stern-pieces. Screw the sides to the stern-piece with four screws each; but two each will answer for the centre-brace, as it is only temporary. Don't use nails; the sides will draw them out most neatly, as soon as you knock away the wedges! Now set a nail exactly in the middle of stern and centre-pieces; sight on a third nail in the stem-piece. If the three do not line up, drive two stakes in position to hold the bows steady, and manipulate the stern wedges until all three nails are in line.

Plane off the edges of the side-pieces until a flat surface is made, to receive the bottom boards.

Then begin to nail on the bottom, starting at the stern and working forward, testing your sights occasionally, to see that the hammering has n't jarred things awry. Use two eight-penny nails to each board end; after the bottom is all on, go back and drive a twelve-penny between these. If you do this sooner, it will very likely split things.

When you have worked about two feet or so from the stern, stop and "flatten out" the midships section; that is, you notice that the bottom curves regularly from bow to stern; if you leave it so, the boat would draw too much water amidships. Measure 3 feet 6 inches each from bow and stern (Fig. 6), stretch strings connecting these points, and plane down the sides to the level of the string. Then finish nailing on the bottom.

White-lead all joints, especially between sides and floor, before putting together; this is important, and makes a much tighter boat.

Next, fit the 4 x 3/4-inch strip to the bottom, outside, getting it carefully centred, and screw it every 6 inches or so. This "false keel" strengthens the bottom wonderfully.

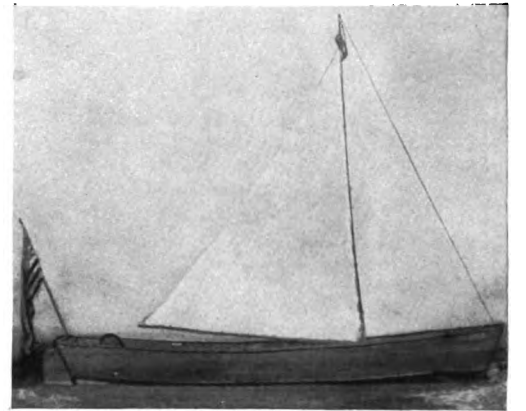
Now pull up stakes and turn the boat over. Fit the half-rounds to the gunwale, and nail them on with 1 1/2-inch brads, using a heavier nail at the ends. Fit in the bow and stern seats (Fig. 7), forming lockers under them. Also fit in the oarsmen's seats, as shown in Fig. 7, bringing

the tops at about half the height of the sides. The midships seat comes against the temporary centre-brace, to forward; after it is firmly nailed in knock the brace out. The forward oarsman's seat is shown higher than the others; this is to brace properly the foot of a mast, should you ever want one. These seats are spaced 3 feet on centres; that gives just about the proper space to swing an oar.

Fit 3/4-inch ribs as shown, before putting the seats in place (Fig. 8).

Carve the projecting top of the stem-piece into a knob about four inches high; this is extremely convenient to grab when hauling the boat ashore, or pushing off, but it is not a necessity.

Turn the boat upside down again, and fit on the small section of keel at the stern (Fig. 7); also screw a 3/4-inch vertical strip against the outside of the stern-piece. Plane up the various rough edges, etc., and give everything three coats of paint; or you can paint only the bottom, giving



Though the construction is simple the lines are not lacking in grace. A sail may be used in quiet weather

the sides, seats, etc., three coats of boiled linseed oil, to show the grain of the cypress.

As a matter of fact, I used California redwood for stern-piece, seats, lockers, etc.; it is extremely pretty, and cheaper than cypress. Do not, however, attempt to use it for the side-pieces; it will break when you try to bend it.

Galvanized rowlocks can be had at any ship-chandler's; they are about fifteen cents a pair. Good oars cost eight cents a foot. Set the rowlocks 18 inches from the centre-line of the oarsman's seat.

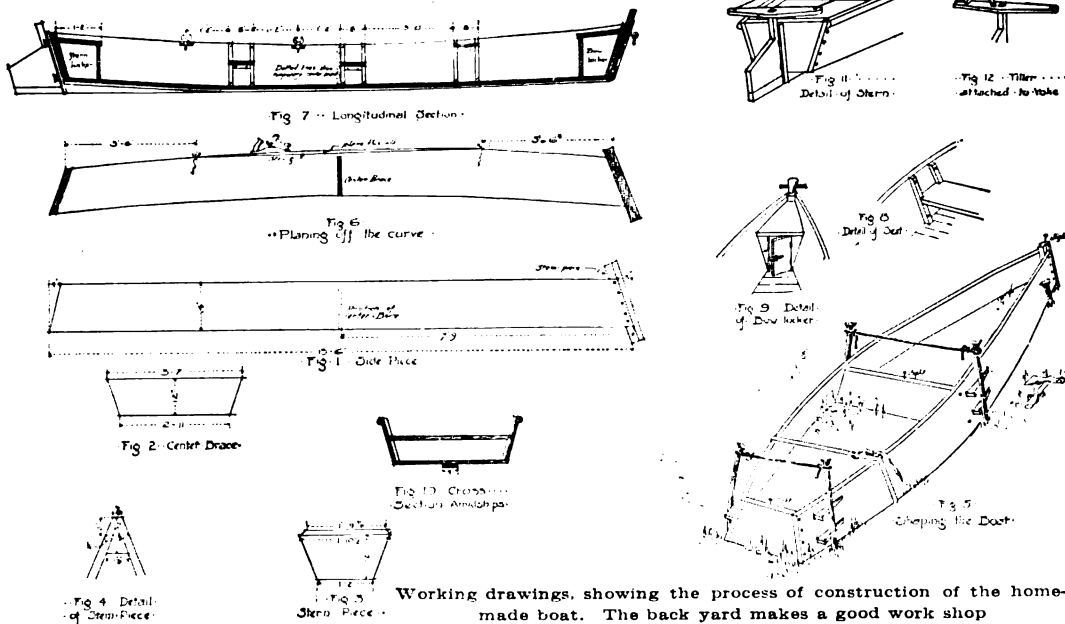
Bore a hole through the stem-piece near the top, and put the ringbolt in place; or else screw on a plate-staple instead.

A rudder is a luxury; make it if you want it. Figs. 11 and 12 show how to do it; the tiller is only necessary when sailing. You can't fit this tiller in the centre, for the stern is too narrow to let the steersman sit to one side; so things have to be constructed as I have shown.

The et ceteras of this type of boat are very simple. A few canvas-covered cushions, stuffed with the granulated cork that white grapes are packed in, will be a great comfort; and they make most excellent life-preservers in an emergency. A 15-foot rope will serve as painter and anchor-cable. Any rough stone makes a sort of anchor; but the best makeshift is the X-shaped casting that separates the lids of a cook-stove; and it is seldom that a lumber-room or a junk-shop will not yield this.

In water frequented by sailing-craft, row-boats must show at night a lantern in the bow, with green and red glasses in the starboard and port sides. An old bicycle-lantern will fill these demands most admirably.

That's all. No, it is n't, either; it's only the beginning. As inevitably as the humble 4-horsepower runabout leads the victim on to the six cylinder racer, so doth the busy little skiff lead to the cruising sloop or the motor-boat.



Working drawings, showing the process of construction of the home-made boat. The back yard makes a good work shop