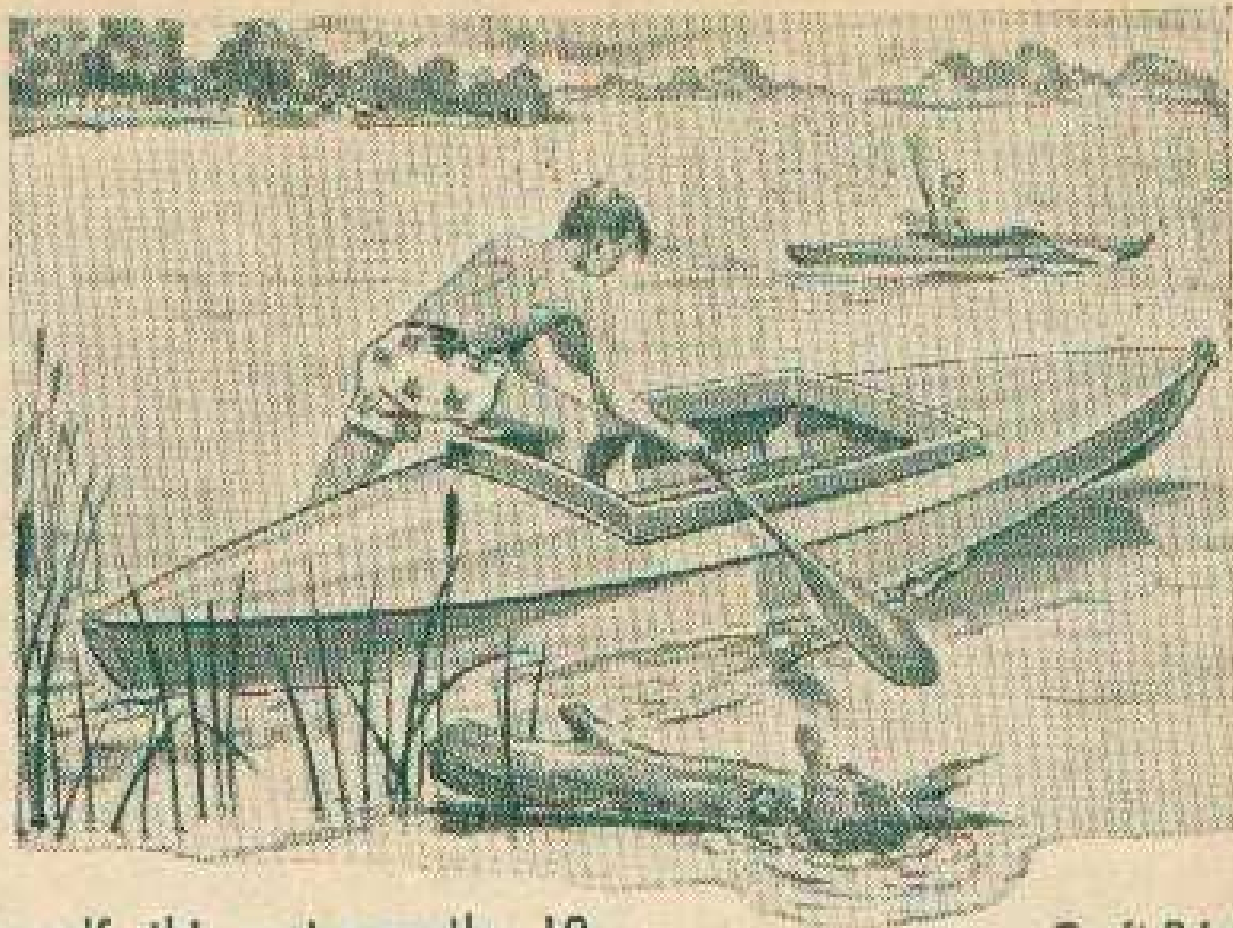


CANVAS KAYAK

for
Junior

By
HI SIBLEY



If you want one for yourself, this waterworthy 10-footer can also be constructed in adult size

Craft Print
No. 43

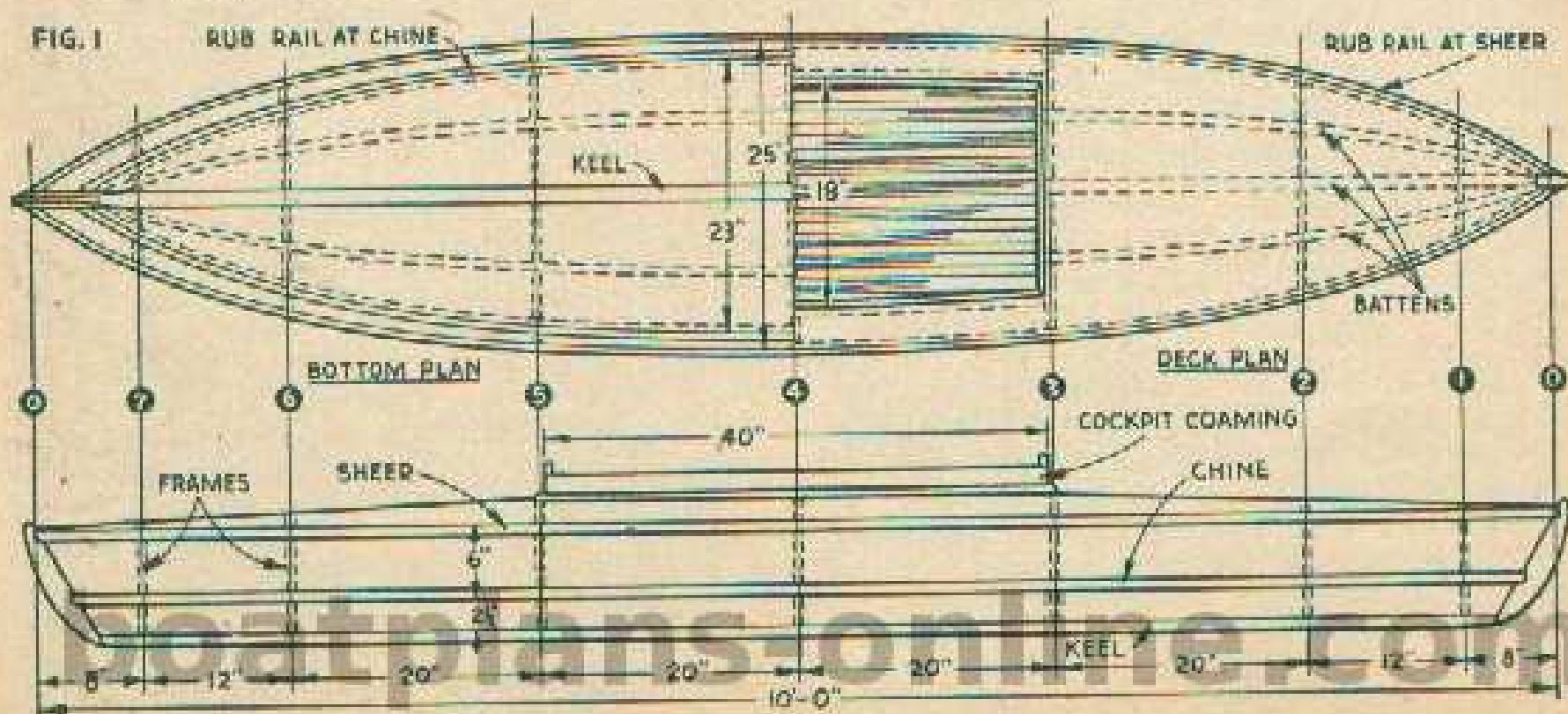
WHILE this 10-foot kayak is designed primarily for the 6-to-12-year-olds it can be built to accommodate an adult by increasing the distances between the frames and using heavier battens, but retaining the same beam. It is by no means a toy; its construction follows accepted practice.

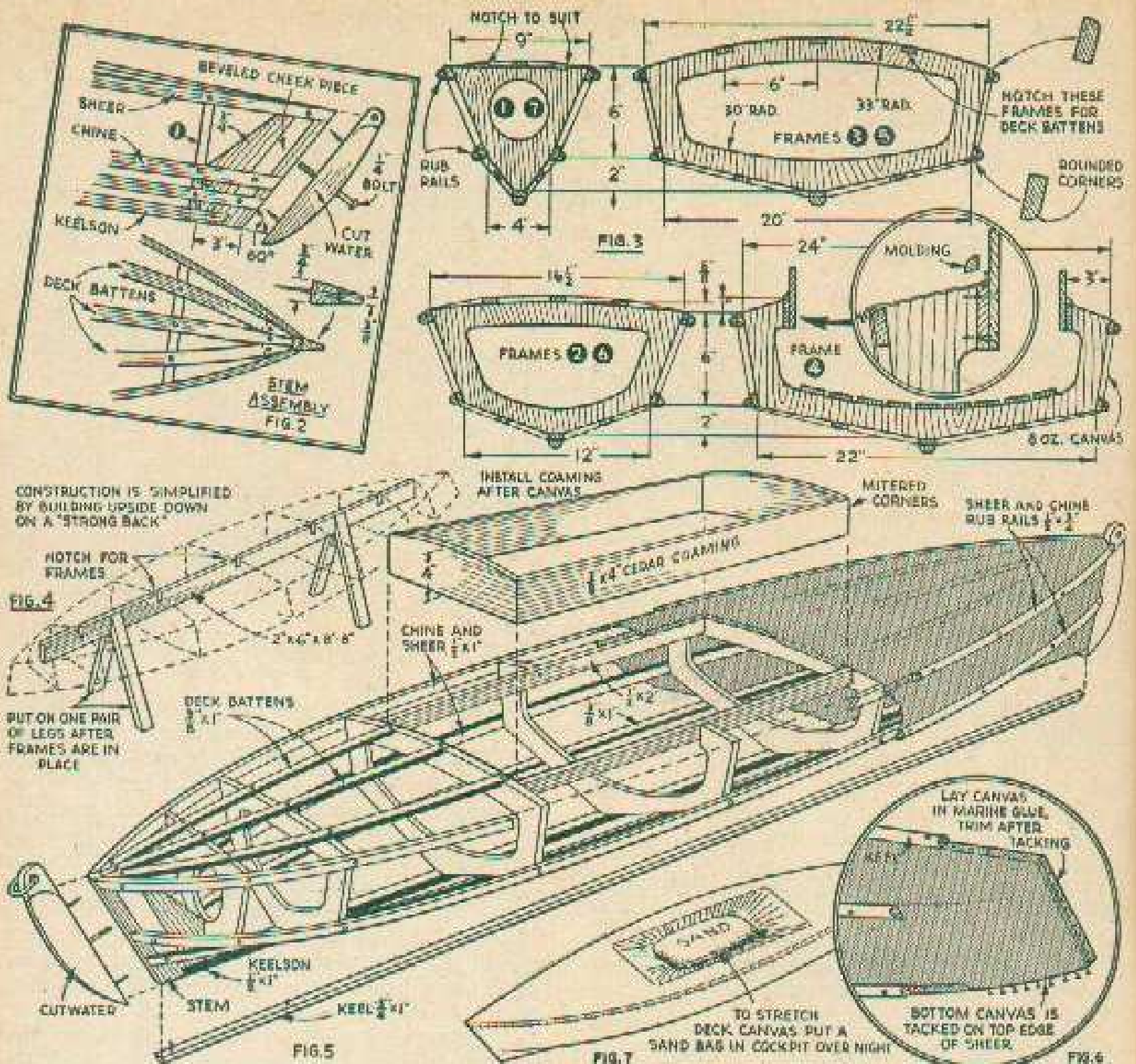
Views of the completed craft are shown in Fig. 1. You will note it has more than average width (the 18-footers usually are 22 inch beam inside the rub-rails) and with the Vee-bottom is very stable. Outside dimensions of the waterproof plywood frames are given in Fig. 3. These are handsawed in pairs, with exception of the single one, No. 4, amidships. Framing of bow and stern are identical (Fig. 2). Use casein glue on all contacting wood surfaces in the stem assembly (Fig. 2); use marine glue elsewhere.

First step is to make a "strong back" upon which the frame can be built upside down. This consists simply of a two-by-six notched for the station frames at the proper distances, and set up on saw horses. One of the latter must be detachable to get the frames on and off (Fig. 4). Frames #1 and 7 are screwed to the square ends of the strong back. With all the frames in place screw the keelson to them with #8 flathead 1 1/4 inch screws, heads well countersunk, so they cannot cut the canvas which will go on later. Each frame must be squared with the keelson; otherwise the kayak will be lopsided.

Next install the chine battens, first screwing to #4 frame on one side, then to the other; to #3 on one side and then to the other; to #5 on one side and then to the other; and so on to the ends. The battens should be left long enough

FIG. 1





for trimming at the stem. Sheer batten installation follows the same procedure. Appearance of your completed frame will be as in Fig. 5, showing how the battens are fitted to the stem. The latter is a built-up unit, with beveled cheek pieces which extend just far down enough to receive the bottom battens. The keelson is mortised into the main stem member, both of which are screwed to Frames #1 and 7. Install the three deck battens at each end. These are notched flush in Frames #3 and 5, but sit on top of #1, 2, 6 and 7, and converge atop the stems, to which they are screwed.

In Fig. 3 you will see that the canvas "skin" touches only the battens and not the frames, except on the tops of Nos. 3 and 5, and is protected by rub rails at chine and sheer, and by the keel. Installation of the coaming around cockpit is shown in the sectional view at Frame #4 (Fig. 3). This goes in after the canvas is on.

For covering you will require $3\frac{1}{2}$ yards of 8 ounce canvas 36 inches wide, for sides and bot-

tom; for the top, a $3\frac{1}{2}$ yard piece, 24 inches wide, will do. The job should be done upside down, tacking temporarily on the sheer at #4 frame, using copper tacks; then pull over and tack on the other side. Put one tack temporarily in the keel at #4. Now wet the canvas and stretch toward the ends and again tack temporarily at sheer, keel and stems. As it dries it will assume the shape of the hull. When thoroughly dry remove all tacks except a few along the keel. Now turn boat over and tack along top of the sheer battens, about 1-inch apart, first one side then the other. Draw ends over the stems (with boat upside down again) as snugly as possible after the wood has been marine-glued (Fig. 6) and tack about $\frac{1}{2}$ -inch apart, taking care that there are no wrinkles and the surface is flat to receive the wooden cutwater. The latter is secured with one bolt through the stem, and two screws, countersunk and plugged over.

Now turn boat right side up again! Deck canvas need not be wet, but should be stretched

as snugly as possible and tacked all around the sides of the sheer, lapping the canvas already on. Lay a sandbag over the cockpit to further stretch the canvas overnight. In the morning tack around edges of cockpit, then cut out the material, leaving 1/2-inch all around inside to fold up against the coaming (see circle, Fig. 4) and be covered with quarter-round molding. If the canvas does not seem to be as tight as it

LIST OF MATERIALS—CANVAS KAYAK

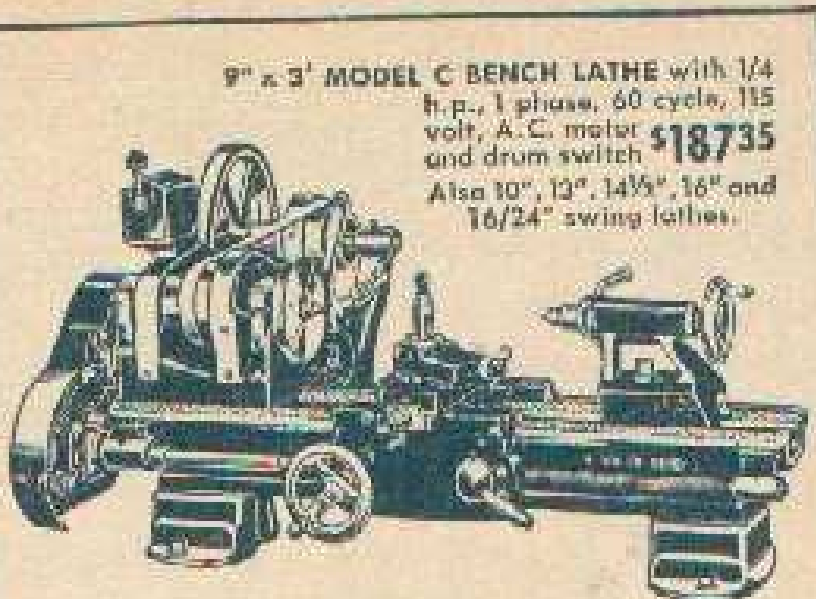
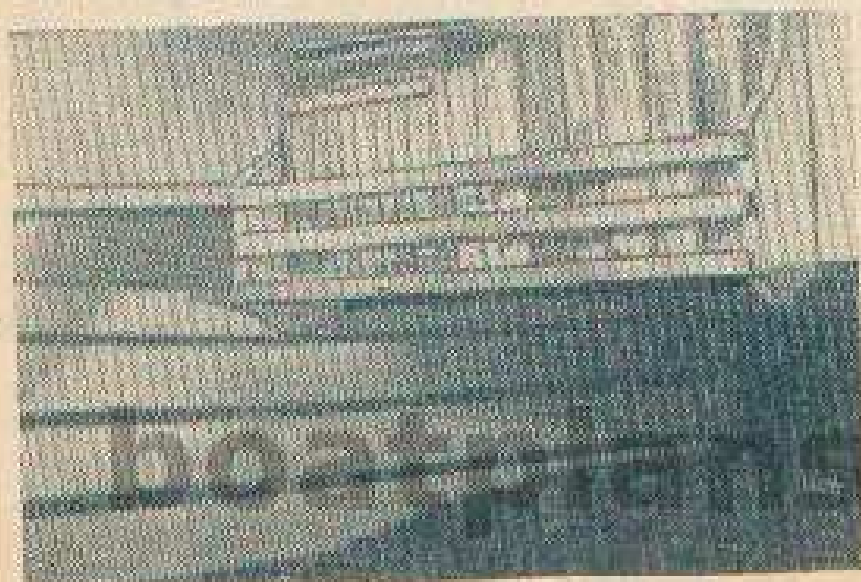
- Battens: 40 lin. ft. 3/4" x 1" spruce
- Shear
- Chine } 54 lin. ft. 1/2" x 1" spruce
- Keelson }
- Keel: 10 lin. ft. 3/4" x 1" spruce
- Rub rails: 44 lin. ft. 1/2" x 3/4" hardwood
- Stems: 8" x 18" x 1/2" pine
- Cutwaters: 1" x 2" x 24" hardwood
- Frames: panel 5/8" x 36" x 72" water-proof plywood
- Coaming: 10 lin. ft. 3/4" x 4" cedar
- Molding: 10 lin. ft. 3/4" quarter-round
- False bottoms: 32 lin. ft. 3/4" x 1 1/2" pine, redwood or cypress
- Screws: 1 gross No. 6 flat-head, galv. 1 1/4" wood screws; 2—1/4" x 8" bolts (cutwater to stem); 4 No. 8 flat-head, 3" galv. screws
- Tacks: 2 boxes, copper or galv.
- Canvas: 1 1/2 yds. 35", 8 oz. duck
- Marine glue, paint, etc.

should, apply airplane wing dope or canvas cement over the entire surface. Allow ample time for it to dry and then paint the color combination of your choice. After applying marine glue, rub rails and keel may then be installed permanently, and then finished in natural wood with spar varnish. Your craft is now completely finished and ready for its launching.

● Craft Print No. 43 in enlarged size for building the kayak is available at 25c a set. Address Dept. B-57, SCREWER AND MECHANIC, 430 East Ohio Street, Chicago 11, Illinois.

Marine Book Case

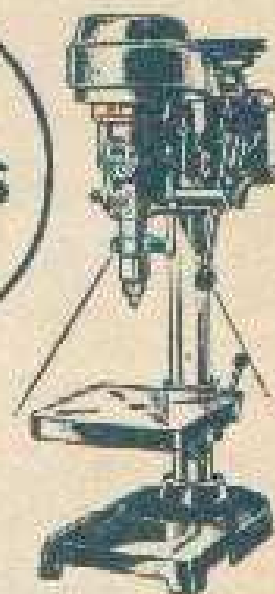
THE original book case shown in the illustration was attached to the forward cabin bulkhead of Gypsy—the motor sailer shown on page



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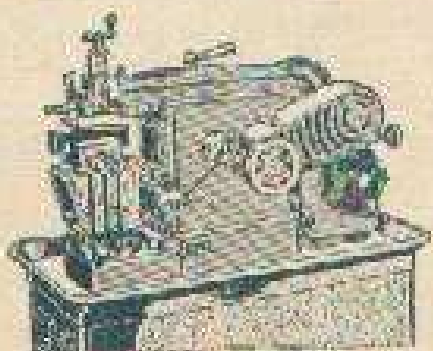


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