Forms should be made of ¾-inch by about 5-inch wide fir or other similar lumber. All forms should be made from full-size sections made from the laying down floor (see Motor Boat Building), getting all the dimensions from the offset table. Do not be fooled and think that a boat can be built accurately to plans by working directly from the scale-size blue prints; it cannot be done.

The stem will be made of white oak sided 2½ inches and molded as shown. The rabbets for the side planking should be cut before the stem is set up on the building floor (again the book will come in handy). The stern will be made of 1¼-inch thick white oak, or, if one wishes, mahogany. It will be made up of two or three planks, depending upon the source of supply. Dowel the planks together with the drift bolts as shown on the plans. Do not glue the planks together, rather fit tight with a slight outgauge to take a few strands of cotton caulking, pay the seams with varnish and stop with suitable seam compound. Cut the side and bottom bevels on the transom from the angles shown on the full-size drawings of the lines.

The side planking will be made of 9/16-inch thick white cedar. There should be four planks each side. The seams will be lapped. Lapped seams are not only stronger than other types of construction, but are (with a little practice) the easiest to fit and to make watertight. No caulking, stopping, or close-fitting edge seams to be made; and no planing or deep sanding to be done after the planks are on. Copper boat nails are used for all the fastenings, and copper boat nails are inexpensive compared to bronze screws. Broken lines on the construction elevation show the widths of the side planks (again consult the book).

The chine pieces will be made of ¾-inch by 1¾-inch wide white oak. These will be notched into the bottoms of the forms as shown, into the short doubling below the seat riser on the stern and tapered neatly against the sides of the stem knee. Use screws for fastenings; fastening into the forms must be withdrawn before the first plank is put in place.

The bottom planks will be made of ¾-inch by about 5-inch wide white cedar and laid athwartships. Lay the first bottom plank at station 6 and work out towards the ends of the boat. The edges of the planks should have a slight outgauge (say about 1/16 inch) and draw each plank hand-tight before fastening to the chine pieces and side plank. No caulking required; the slight outgauge provides room for expansion of the planks after they have swelled. This room must be provided; otherwise the panks will buckle. There should be three fastenings to each 5-inch wide plank; use either copper or galvanized boat nails, not screws or wire nails of patented varieties.

The keel will be made of ¾-inch by 5-inch white oak and will be fastended from the planking into the keel with bronze screws. Take particular notice of the way in which the most forward of the bottom planks and the forward end of the keel fit into the heel of the stem. This arrangement protects the planking and the end wood of the keel against damage. The best practice specifies a ¾-inch, half-oval bronze stem band extending from the nub at the stemhead to a point about 18 inches abaft the heel of the stem.

The skeg, a very important fixture, will be made of ¾-inch white oak. A long notch must be cut down the center of the after end of the keel to the same length as the skeg. The skeg then fits into this notch and will be fastened from the inside with bronze screws. There is a light stern post attached to the after end of the skeg and extending up the transom as indicated on the construction elevation drawing.

The side knees will be made of ¾-inch thick white oak. At the heels these will be 2¾ inches wide, at the heads 1¾ inches. The knees must be scribed against the planking and, while one is about it, the inside edge of all the frames should be sawn to the slight sweeps shown. The frames do not stand square across the boat; they are canted as shown. There will be eight frames on each side of the hull. Fastenings will be copper boat nails from the laps in the planking into the frames; copper boat nails riveted over burrs through the planking, chine pieces and heels of the frames. There will be seat risers between several of the side frames as shown.

Thwarts and Sternsheets

The thwarts and stern sheets will be made of ¾-inch thick white cedar to the widths and dimensions indicated. Mahogany may be substituted for the white cedar; in this event the boat will be increased in weight. The sheer moulding will be made of white ash, this to be 1⅛ inches thick where it fits against the top strake, 1½ inches deep amidships tapering toward the ends to ¾ inch, and finishing along its outer edge to a width of ¾ inch. Fasten through the planking and frame heads with copper boat nails riveted over burrs.

Sanding the various surfaces, painting, and general finishing should present little difficulty. My only caution here is to use well tried paints, well thinned and stirred because five thin coats of any kind of paint or varnish is far better than three heavy coverings.

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