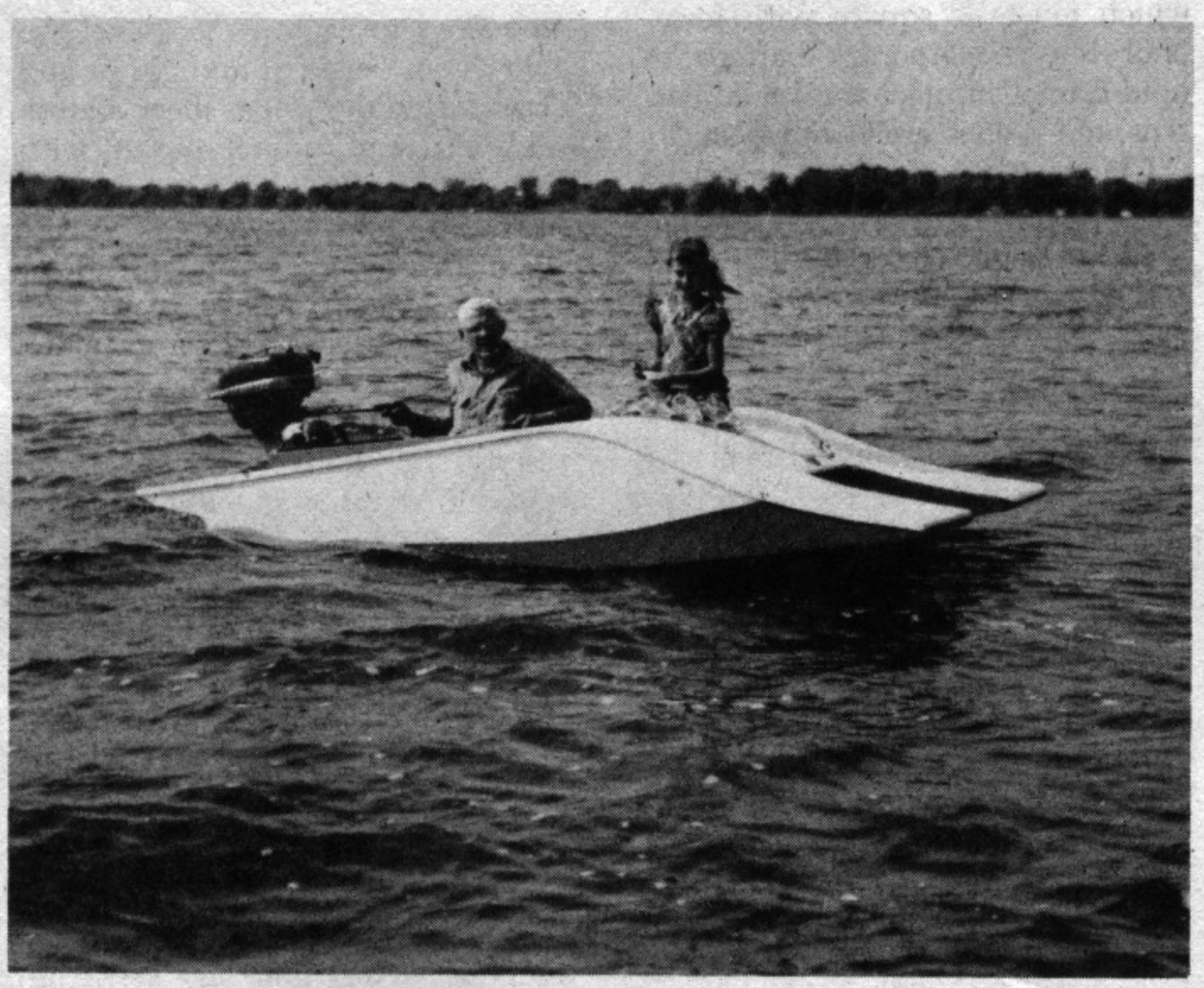


Craft Print Project No. 199

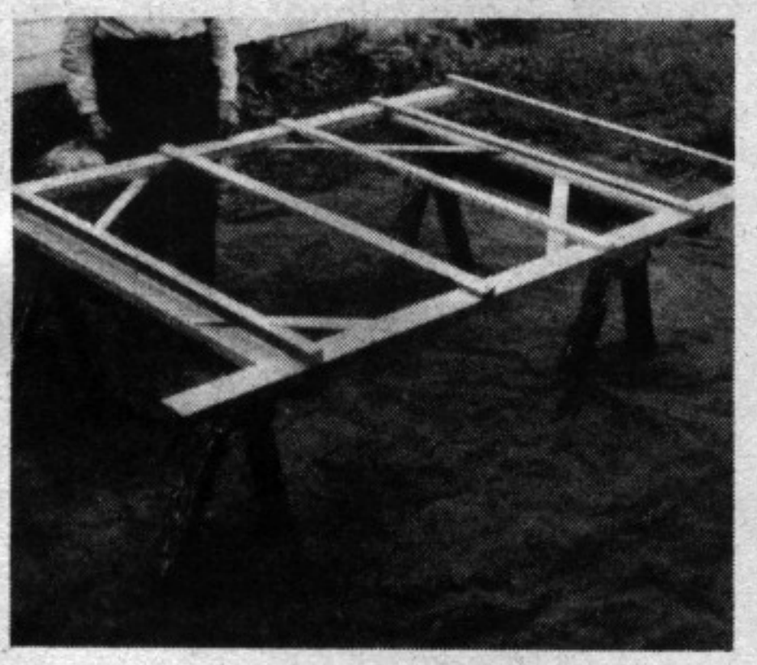
Swift Swoose

This boat makes a stable fishing platform, and its big cockpit makes it safe for family boating

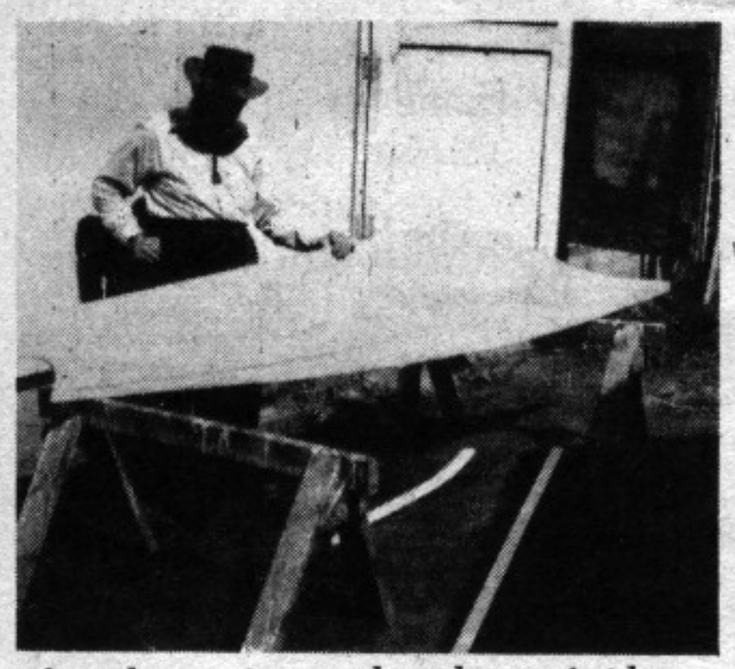
An odd looking craft, the *Swoose* –but she'll do up to 45 mph, is stable as a church pew and she becomes practically airborne when heading into a stiff breeze full tilt. When planing, the *Swoose* rides on only 12 sq. in. of bottom, distributed between both hulls. It's the air flowing through the tunnel between catamaran hulls that lifts the *Swoose* almost clear of the water and keeps water surface friction to a minimum.

Materials for building *Swoose* are available at most lumber yards –fir for framing, oak or yellow pine for longitudinal structural members and AB grade DFPA exterior plywood.

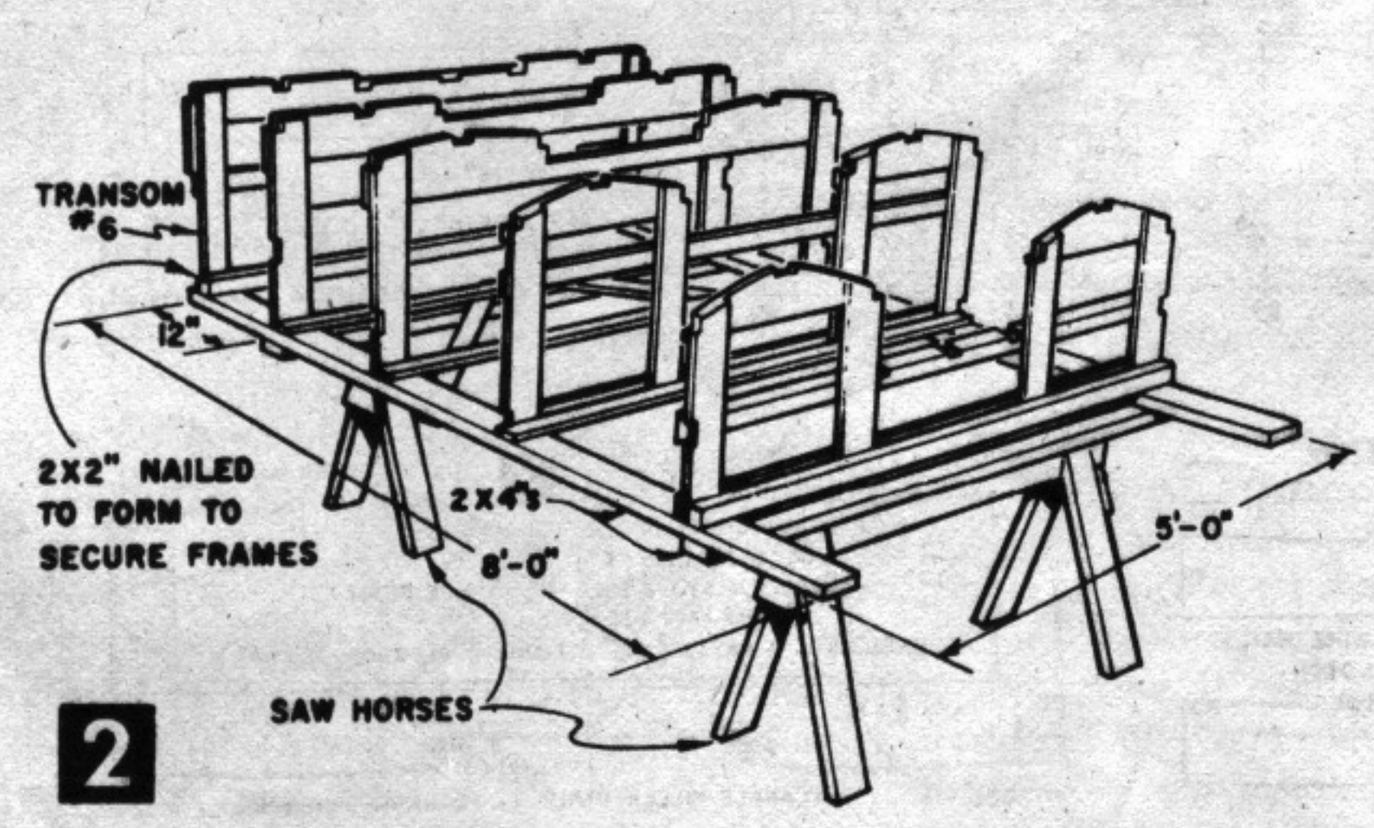
Swoose is built upside down on a form (Figs. 1 and 2) laid over sawhorses. Cross pieces to locate frames are attached to the form later along with frames. Build frame subassemblies #2 through #6 according to Fig. 11. Sides are vertical and exactly 60 in. apart.



Simple rectangular form locates frames.



Sheer batten is sawed to shape of side.



2

USES: Powered adaptation of Polynesian Outrigger Boat. Wide beamed, fast sports catamaran for use on sheltered waters, with outboard motors from 5 to 25 hp. with speeds up to 45 mph. Safe due to wide beam.
LENGTH: 10 ft. Over All
BEAM: 5 ft.-½ in. Over All
DEPTH: 22-in.
WEIGHT: complete 150 lbs.
SEATING CAPACITY: 4 persons
CONSTRUCTION: Plywood covering framework.
TYPE: Streamlined twin hull shape, with specially designed tunnel to produce lift.

Swift Swoose

No. 6 transom and frame is faced with ¾-in. plywood outer skin over the frame. Coat contacting surfaces with *Weldwood* glue and nail plywood to framing with 1-in. galvanized or aluminum nails, spaced at 2 in. If you prefer, use #8 x 1-in. *fh* screws. On frames #2 through #5, secure chine joints with ⅜ x 2¼-in. *rh* stove bolts with washers under heads and nuts. Secure cross pieces to #2 and #3 frames with #8 x 1½-in. *fh* screws. Temporarily screw 1 x 2 extensions to #6 frame to reach form. Other frames' side members extend to frame. Trim flush with top after planking.

Lay out sides from dimensions in Fig. 4 directly on the plywood. Saw out one side and use it for a pattern to saw the opposite side.

To start assembly, mark form to locate frames #2 through #6. Temporarily screwfasten frames to 1 x 2 cross pieces; then nail these cross pieces to form to locate frames, which must be square with form. Nail 1 x 2 temporary battens to hold frames in place until final battens and chines are notched in.

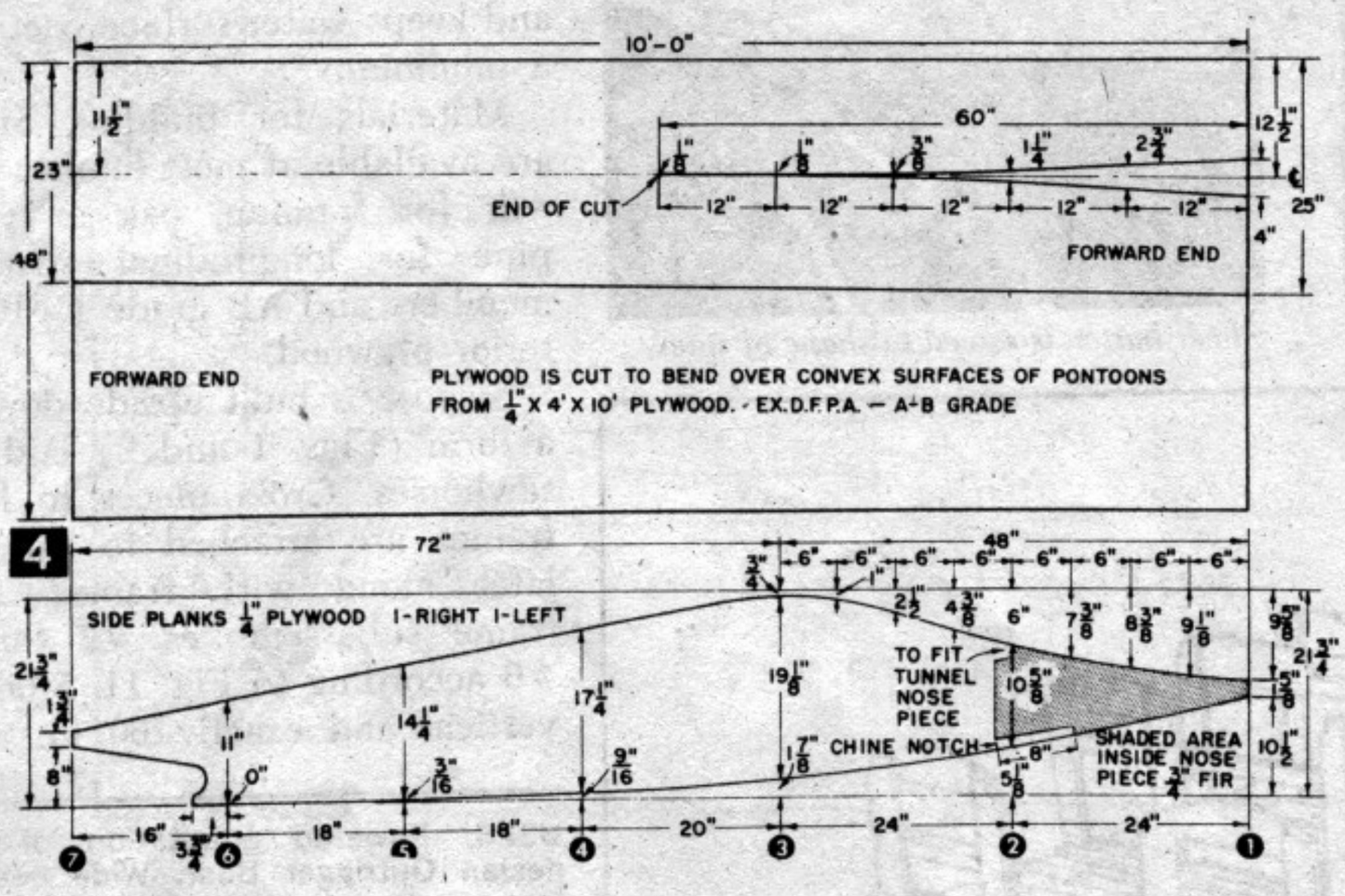
Clamp side planking in place and check to see that all framing lines up properly; then take the framing apart, unscrewing frames from form cross pieces. Notch frames for chines and keels (Fig. 11) and notch the #2 frame for the aft edge of the tunnel planking forward of #2 frame.

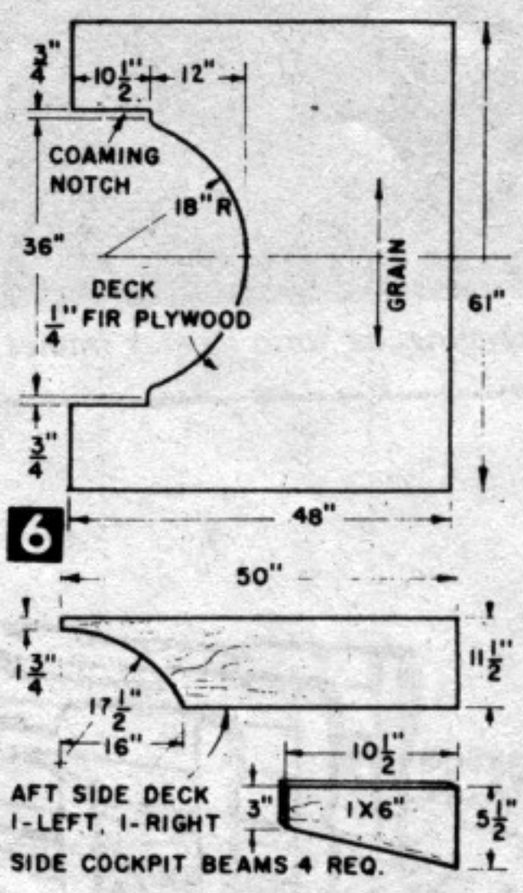
Shape fore end of tunnel planking, using side as pattern. Return frames to form again temporarily and use side to mark shape of a sheer batten ¾ x 2¼ in. Saw batten to shape with a joint between curved forward part and straight section just aft of #3 frame (Figs. 3 and 10). Position side planking along upright frames and mark each frame along top sheer edge. Remove side planking again and notch sheer battens flush into frames. Glue and screwfasten sheer batten to frames with two #8 x 1½-in. *fh* screws at each joint. Screwfasten fore end tunnel pieces to #2 frame with four #8 x 1½-in. *fh* screws to each piece. Bevel the two stem ends (Fig. 11) and screwfasten between sheer batten and fore end tunnel pieces with one #10 x 2-in. *fh* screw at each joint.

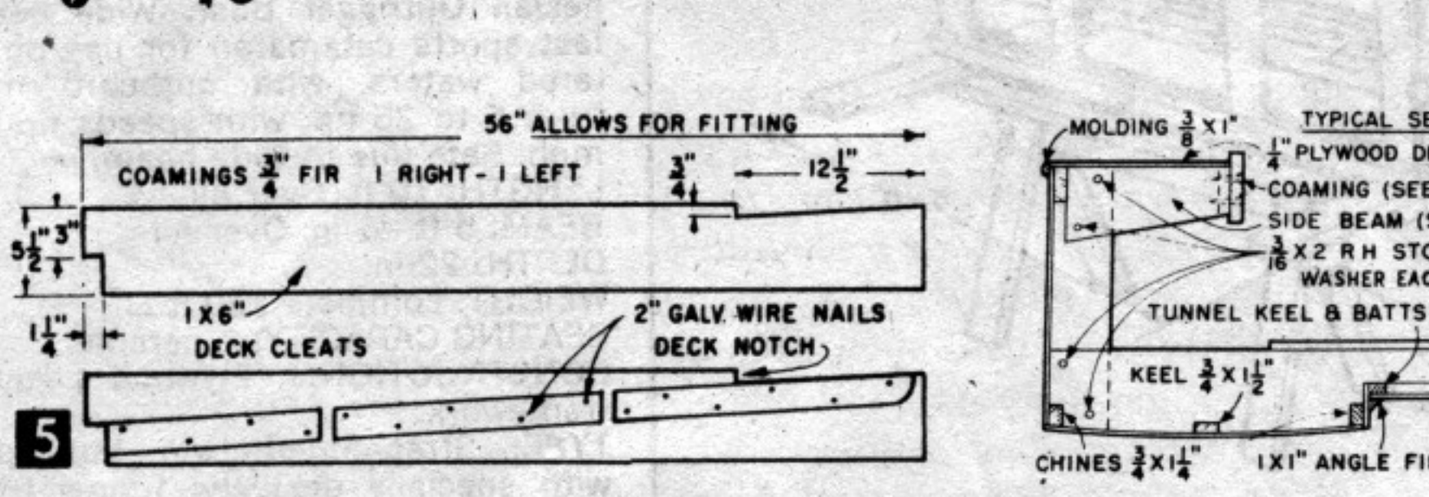
Fit the four chines and screwfasten them in their respective positions with one #8 x 2-in. *fh* screw at each joint except the fore ends which are secured with two screws. Let chines extend aft of transom about 4 in., filling chine notch with Kuhl's *Bedlast*. Fit 1 x 4-in. filler between chines (Fig. 10) and screwfasten with two #8 x 1½-in. *fh* screws. Coat transom liberally with *Bedlast* around these pontoon extensions.

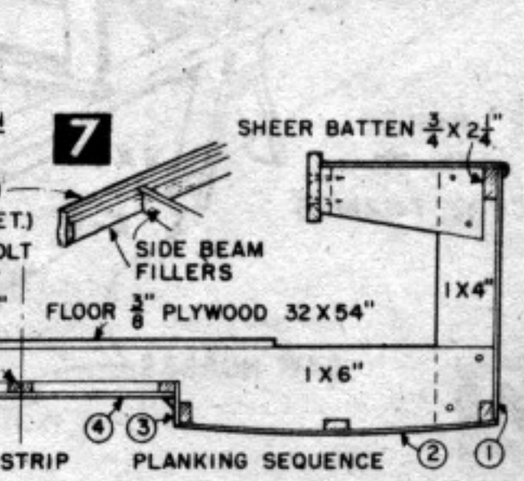
Now you're ready to apply side planking. First coat all contact surfaces with *Weldwood* glue, set planks in position and screwfasten with #8 x 1-in. *fh* screws at 2-in. intervals. When glue has set, trim plywood evenly along chines and fair framework so plywood lies evenly at all points.

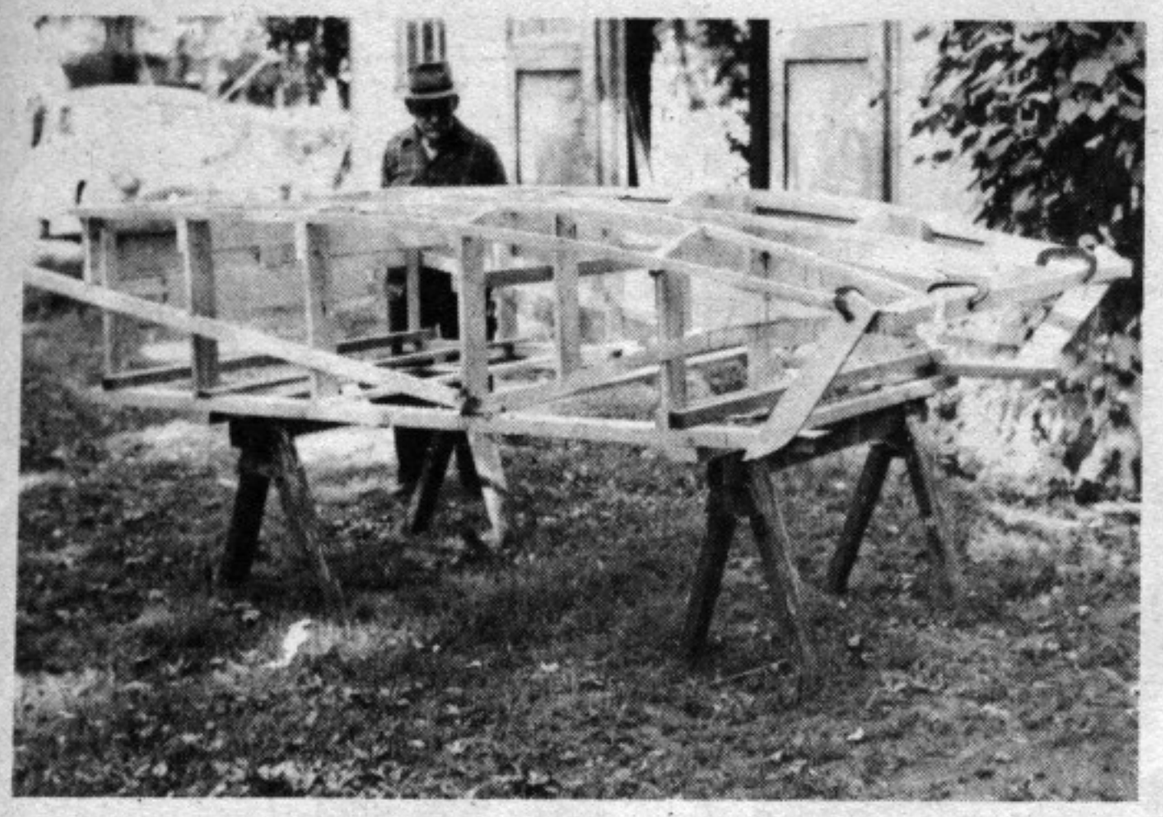
Plank the pontoon bottoms next, coating chine joints with *Bedlast* and contact surfaces on frames



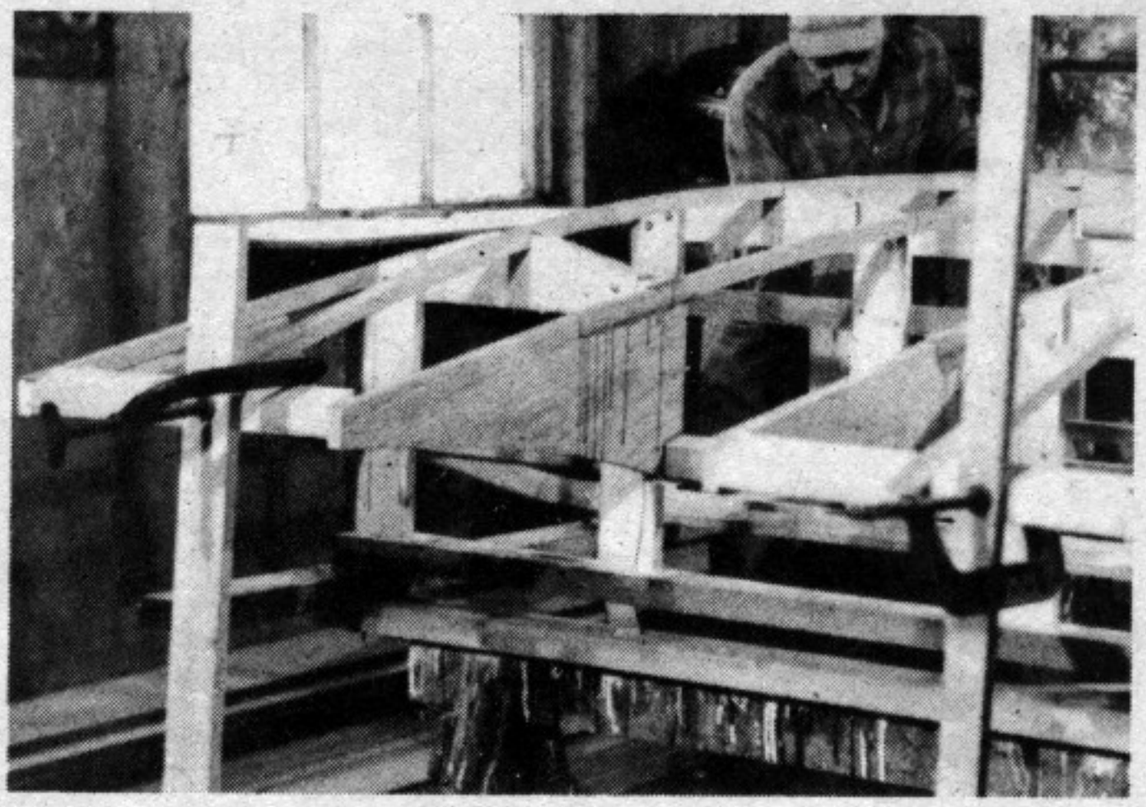




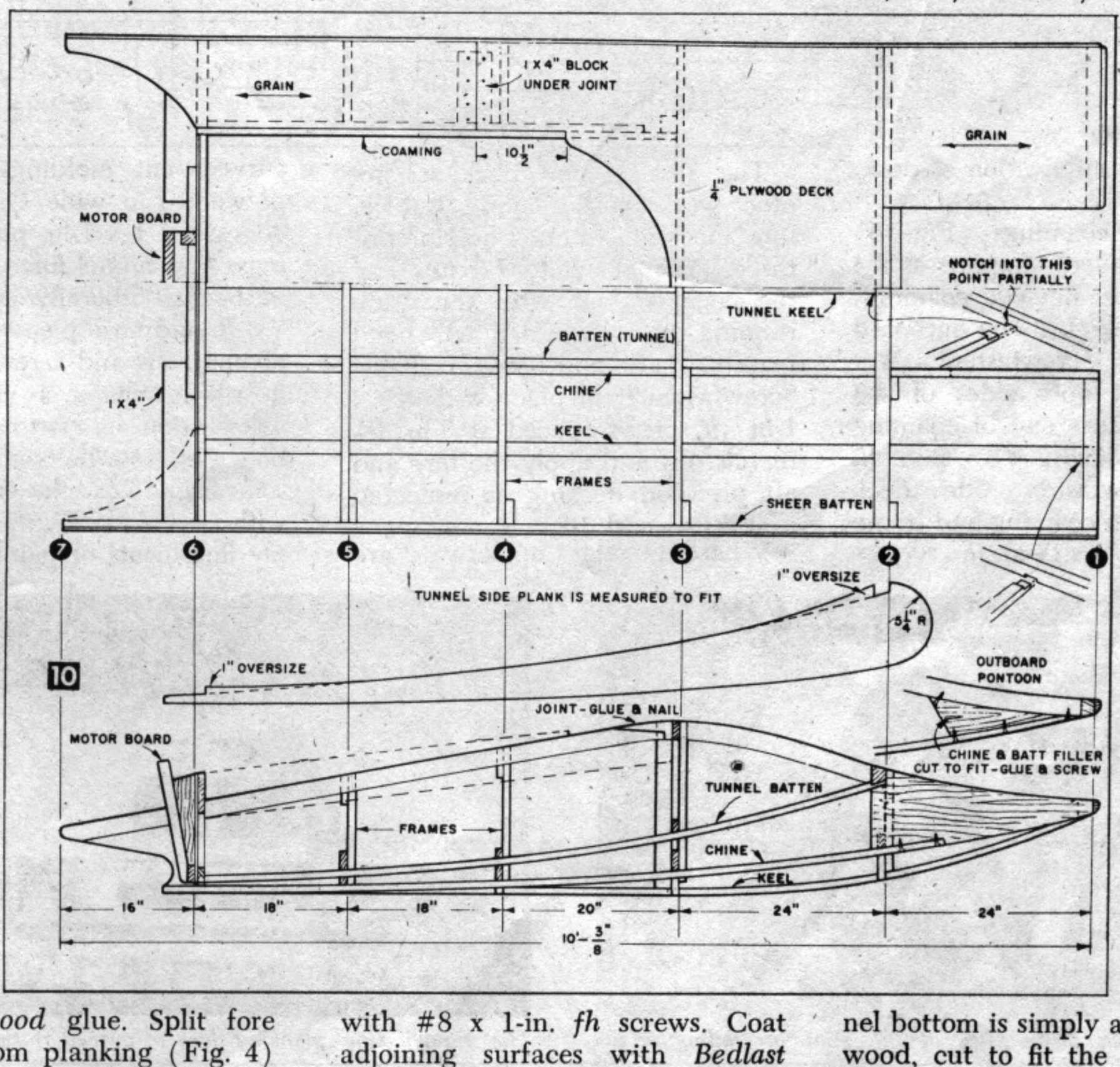




Here is framework upside down ready for the side planking.



The beveled nose pieces fit at fore ends of the pontoons.



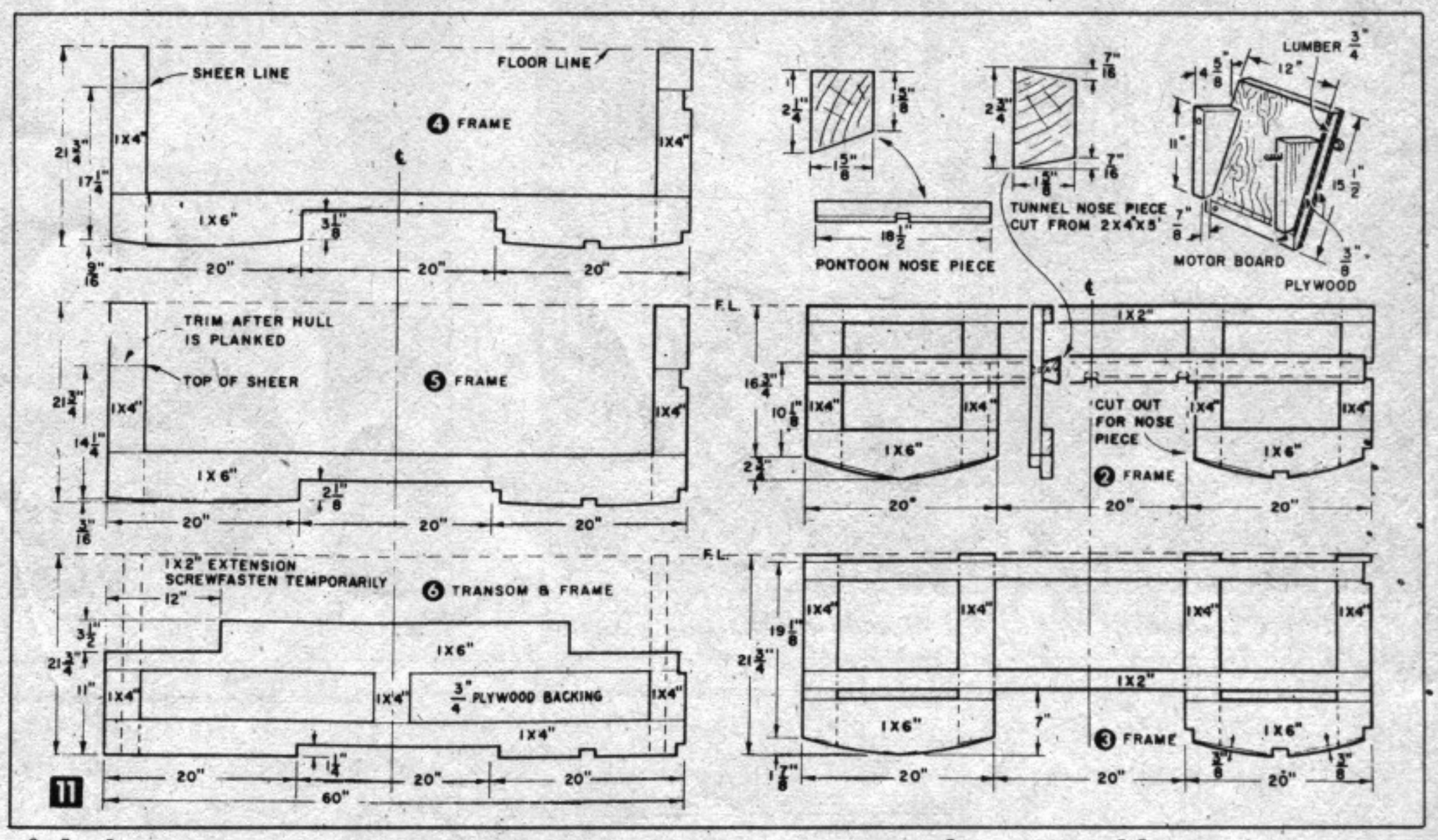
with *Weldwood* glue. Split fore ends of bottom planking (Fig. 4) to fit curved bottom. Cut ends form a neat joint over keel that is later filled with glue and sawdust mix. Screwfasten planking along chines with #8 x 1-in. *fh* screws spaced at 2 in. and 3 in. along keel except where fore end plank is cut; use 2-in. spacing there. When glue sets, trim edges evenly.

Plank the inner sides of the tunnel (Fig. 10) shaping plywood to fit and screwfastening in place with #8 x 1-in. *fh* screws. Coat adjoining surfaces with *Bedlast* and frames with *Weldwood* glue.

Tunnel keel and battens are notched flush into transom and tunnel nose only. At frames #3, #4 and #5, the keel and battens rest on frame cross pieces. Screwfasten keel and battens with one #8 x 1½-in. *fh* screw at each joint. Screw through plywood tunnel sides into battens from inside pontoons, using #8 x 1-in. *fh* screws at 3-in. intervals. Planking for tunnel bottom is simply a sheet of plywood, cut to fit the opening. Before fastening bottom planking in place, coat adjoining surfaces with *Bedlast*. Screwfasten planking to keel and battens with #8 x 1-in. *fh* screws spaced at 2 in.

You're now ready to turn the *Swoose* over, so saw frame supports loose from form. You'll need another pair of hands to help you turn her over and set her upright on the sawhorses. Trim plywood along sheer battens and fair con-

Swift Swoose

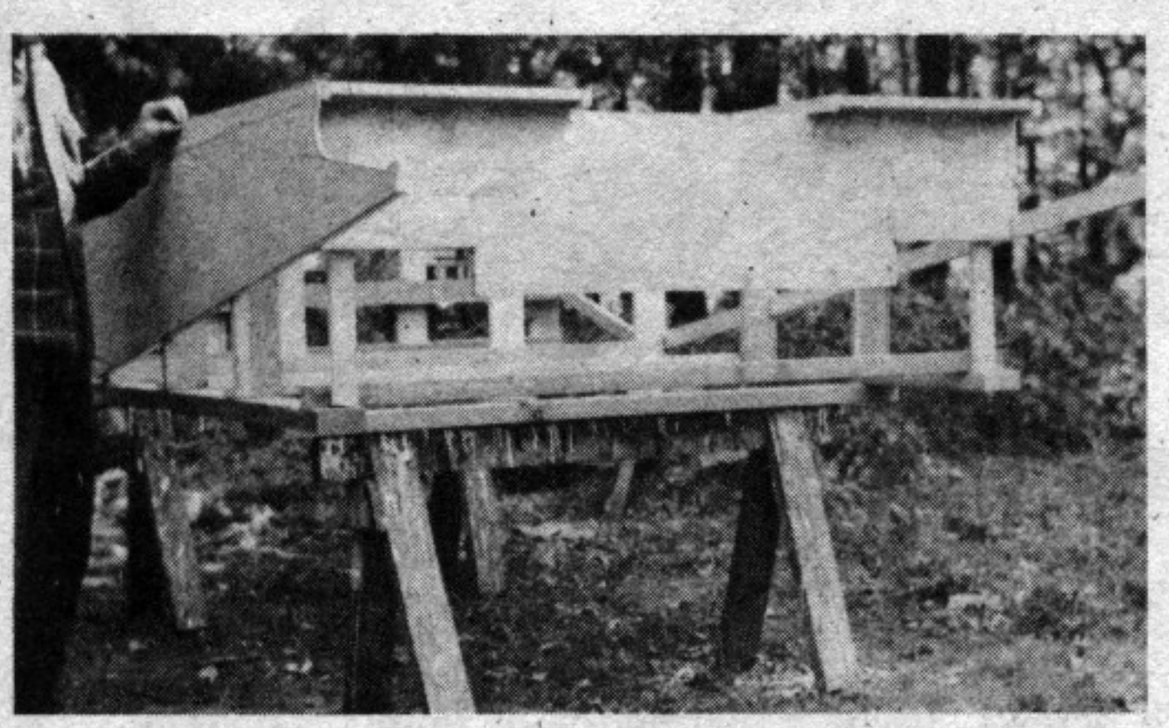


tact points for application of decking.

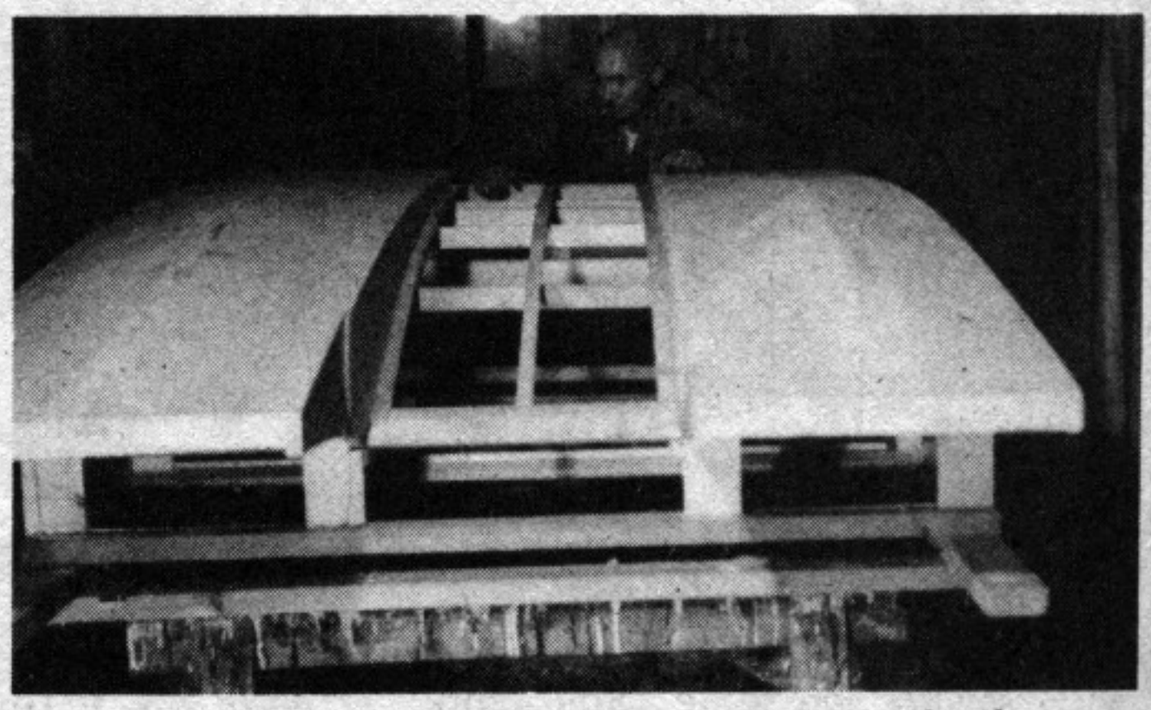
Shape the coamings (Fig. 5) and fit to side deck supports at #4 and #5 frames. Remove coamings and screw deck cleats on outboard side (Fig. 5). Screwfasten a 2 x 2-in. block at both sides of #3 frame; fasten fore end of coaming to these blocks with #8 x 2-in. *fh* screws. Screwfasten side deck beams between coaming and frame uprights with #8 x 1½-in. *fh* screws.

The rest of the decking and other work is clear sailing. But before decking, paint the interior three coats of white *Firzite*. Lay the cockpit deck with the grain running crosswise, so it will bend readily, mark and saw to shape. Screwfasten it in place with #8 x 1-in. *fh* screws spaced at 3-in. intervals. Fit and apply the fore and aft plywood decking as indicated in Figs. 6 and 10.

Where the edges up forward are curved, cut moldings from ⅜-in. plywood 1 in. wide. On straight aft edges, use ⅜ x 1-in. pine for moldings. Add tunnel filler strips seated in *Bedlast* liberally applied (Fig. 7). Round nose pieces at fore ends of pontoons and screwfasten them in place. Shape a motor board, screwfasten at bottom edge and bolt with ⅜-in. bolts at top of transom. Prime coat the entire outside with two coats of *Firzite*, then apply final coats of paint. ■



Flat 1 x 4's fit at ends of the pontoon trailing edges.



The tunnel side planking has a curved forward edge.

MATERIALS LIST—SWOOSE

No. Reqd.	Size	Use
	Plywood Required	
3 pcs	¼" x 4 x 10' (for up to 15 hp engines) or ⅜" x 4 x 10' (for engines of 22 hp or more)	outer skin
1 pc	¾ x 16" x 5'	transom
1 pc	⅜ x 32 x 54"	floor
	Framing	
2 pcs	1 x 4" x 10'	transom framing and frames
3 pcs	1 x 6" x 10'	
1 pc	2 x 2" x 4'	pontoon nose piece
1 pc	2 x 4" x 10'	tunnel nose piece
4 pcs	¾ x 1¼" x 10'	chines
2 pcs	¾ x 1½" x 10'	keels
3 pcs	¾ x 1⅛" x 8'	tunnel keel and battens
1 pc	¾ x 11½ x 30" (1 x 12)	inner pontoon ends
1 pc	1 x 8" x 10' (cut to size)	sheer battens
1 pc	1 x 6" x 10'	coamings
1 pc	2 x 12 x 24"	motor board
	Fastenings	
5 gr	1-in. #8 fh screws	1 lb Weldwood Glue
3 doz	1½-in. #8 fh screws	1 qt Kuhls Bedlast
2 doz	2-in. #8 fh screws	1½ gal White Firzite
1 doz	2¼-in. #8 fh screws	
1 doz	2-in. #10 fh screws	
40	⅜6 x 2¼" rh stove bolts	

• To obtain enlarged plan for building Swift Swoose, Craft Print No. 199, see handy order form on last page of this issue.

