Barnegat Bay Sneak Box

a 12-foot duck boat with a history

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Naval Architect

ALONG about the year 1836, Captain Seaman, a New Jersey boat builder and hunter of wild fowl, built for his own use a radically new type of hunting punt. His design speedily earned the name of "sneak box" and ever since has always been identified, because of its origin of birth, as the Barnegat Bay Sneak Box.

Captain Seaman built his boat in the manner of his day: with planking over steam-bent frames. Our replica is plywood covered, minus frames save one. Despite these structural innovations, it retains all the good qualities of the time-tested orthodox craft with the added advantage of being light in weight—only 105 lbs.—so that it can be carried atop an automobile (Fig. 10) to distant hunting grounds, or used as a general-purpose craft on protected waters (Fig. 1-A and B). The transom will take up to a 3-*hp* outboard motor for a greater cruising range than the original builder ever dreamed possible.

First, get all the materials needed (see Materials List). Use #2-grade fir (sound knots) for all solid-lumber construction, and exterior-type, AC-grade, ¼-in. fir plywood (knots on inside) for the bottom, decking, etc. If fir for the frames, side planks and battens is unobtainable, use yellow pine or hemlock. A building form is not needed, since the boat framing itself serves as a form.

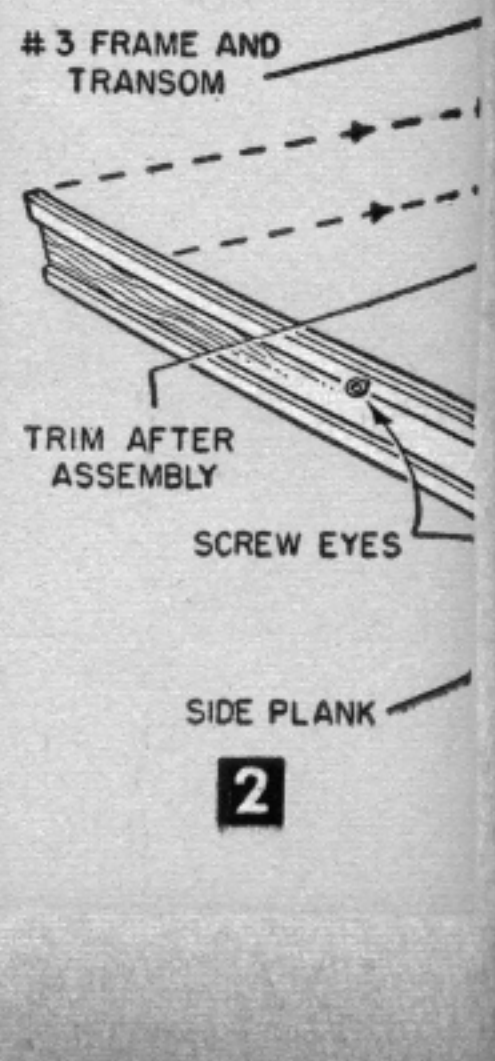
Start construction by making full-size drawings of the frames (Fig. 3A, B and C) on paper. To lay out curved frame lines with true arcs, proceed as in Fig. 3E. Clamping the straightedges with a bolt facilitates adjusting the angle of the strips. With the exception of temporary frame #2 (Fig. 3B), glue all contact surfaces with *Weldwood* glue and fasten members with #8 x 1½-in. *fh* wood screws, 4 to each side piece on the #1 frame, and about 4 in. apart for #3 frame to splined transom boards (Fig. 3A). When glue has dried on #1 frame (Fig. 3C), cut out notches for deck batten and inside keel (Fig. 4A).

Next, construct the fore-end assembly: stem, inside keel, deck batten and upright with gussets, as one unit (Fig. 4A). A full-size drawing of this as-



1A

Craft Print
Project No. 291



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STATEMENT OF USES

USES: A general purpose duck boat for hunting and fishing on protected waters. Design derived from original Barnegat Bay Sneak Box models 122 years old.

LENGTH: 12 ft.

BEAM: 3 ft. 10 in.

WEIGHT: approx. 105 lbs.

SEATING CAPACITY: 2 persons.

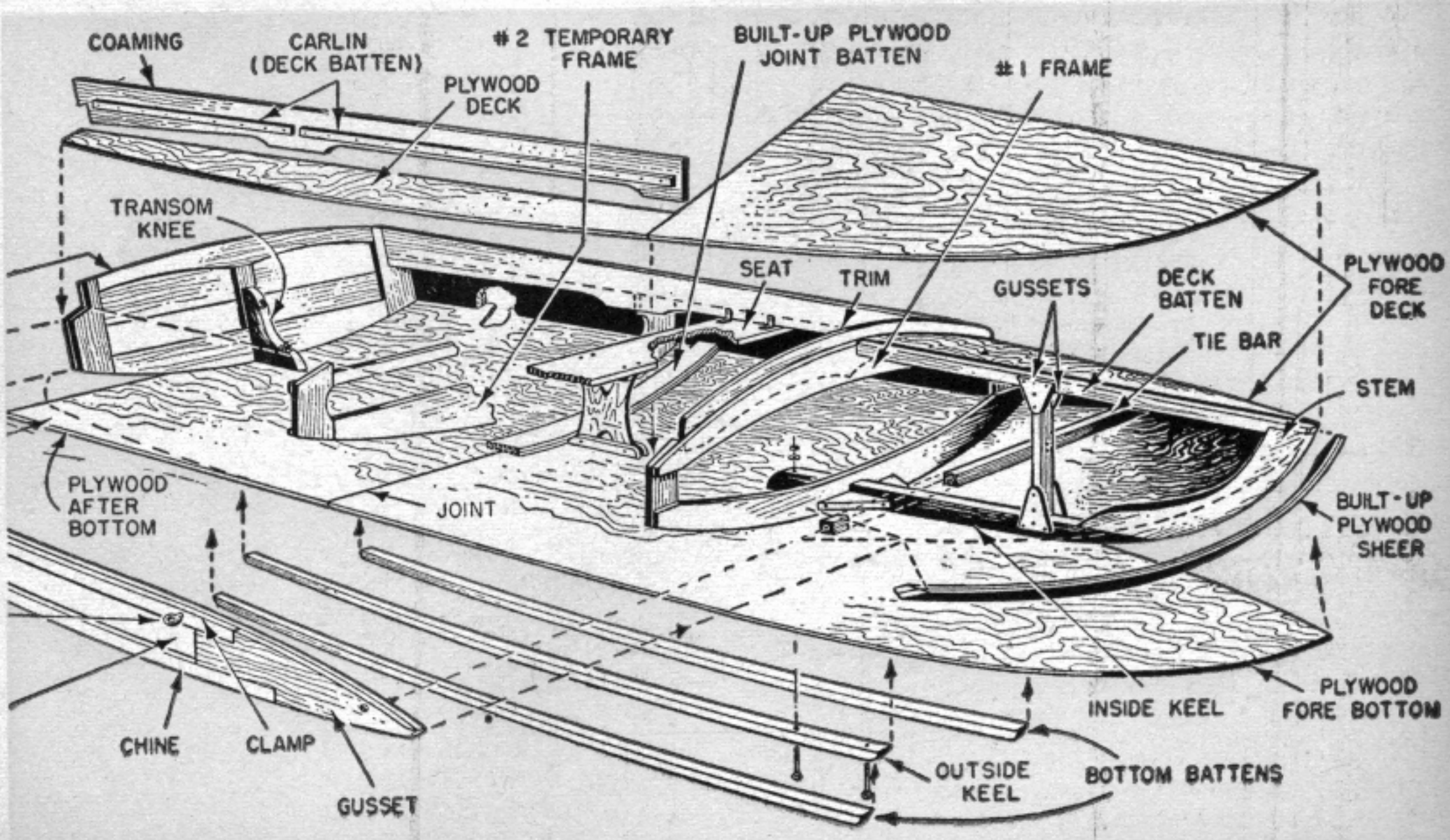
POWER: 1 to 3 hp outboard motor

CONSTRUCTION: New method of utilizing plywood, makes a light weight craft with a minimum of framing. Clear unobstructed space is afforded inside cockpit.

ADDITIONAL USES. The three runners on bottom of hull (outside keel and battens) if shod with ⅛ x 1 in. steel strips will enable Sneak Box to be transported over snow or ice as a sled. Original models were so equipped.

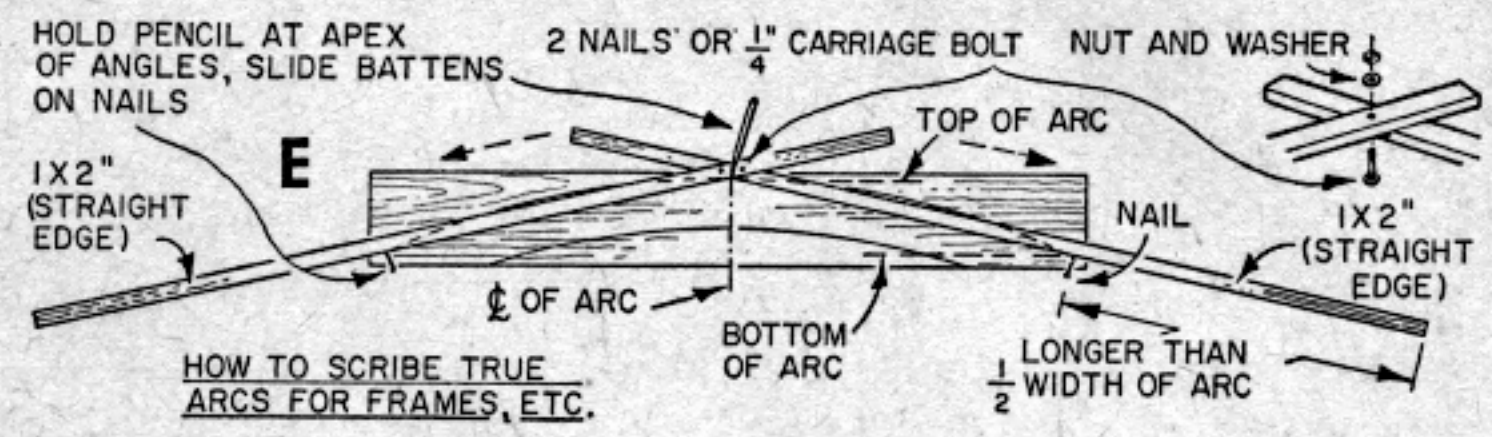


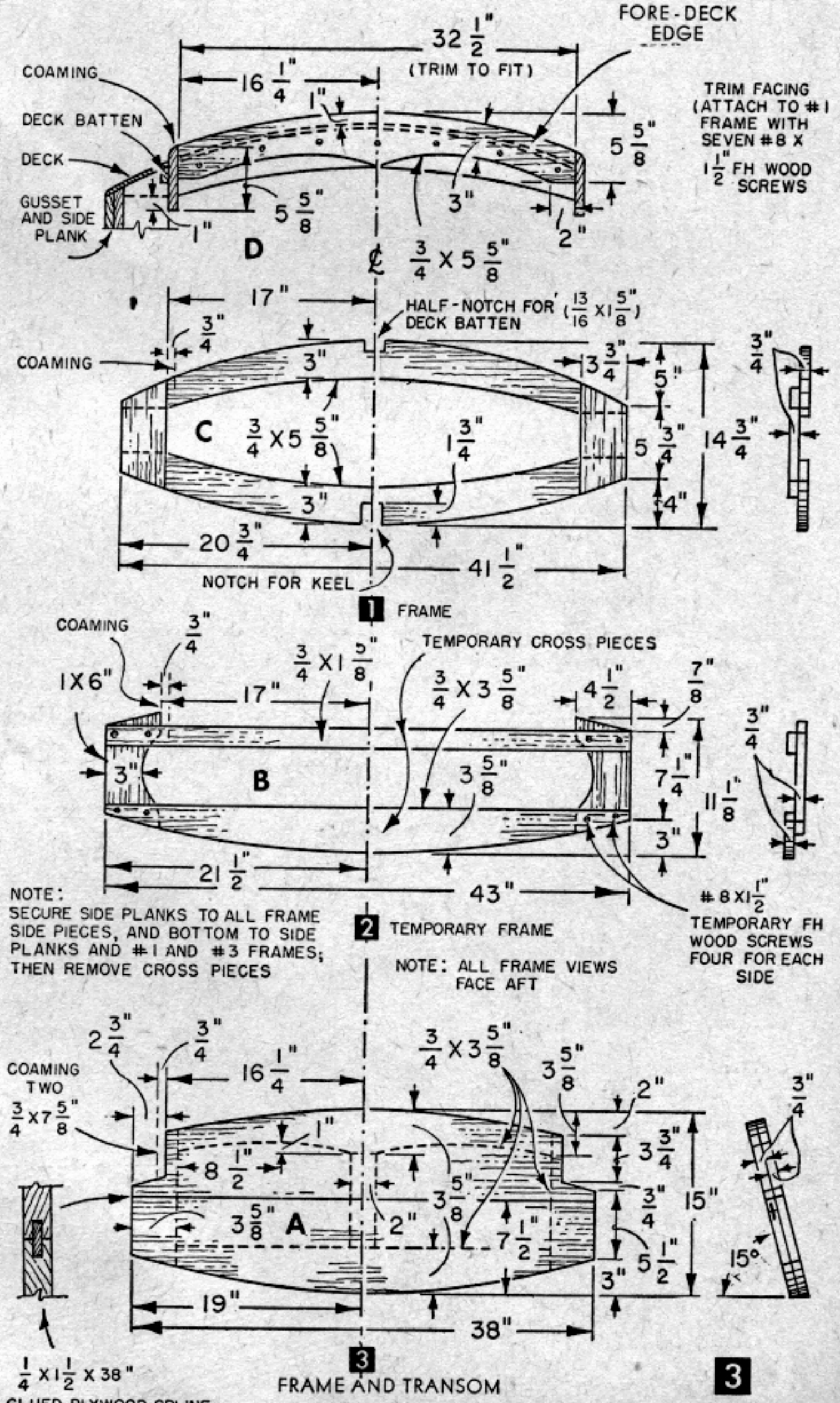
Waiting for a live one.
Three rails on underside of hull
makes it easy to beach as in inset above.



sembly on a piece of wrapping paper as a pattern will greatly aid you in constructing this part. Apply glue to contacting surfaces of stem and keel and secure these members with two #12x 2¼-in. *fh* screws. Now, position #1 frame on keel; mark location and notch out keel 1 in. deep to receive frame. Secure keel to frame with glue and a #12x2¼-in. *fh* screw. Next, half lap the end of the deck batten (Fig. 4A), and fasten to #1 frame with glue and a #8x1¾-in. *fh* screw, and to stem with a #12x2¼-in. *fh* screw. Fasten two brackets with glue and finish nails to keel and frame (Fig. 4B). Now, make four ¼-in. plywood gussets for the ¾x1⅝ in.-upright (Fig. 4A), and fasten to keel and deck batten with glue and #6x¾-in. *fh* screws. Next, install the 1⅝x1⅝x40-in. tie bar, gluing and screwing to upright with two #8x1¾-in. *fh* screws. When placing side planks in position, trim ends of this bar to fit flush against planks.

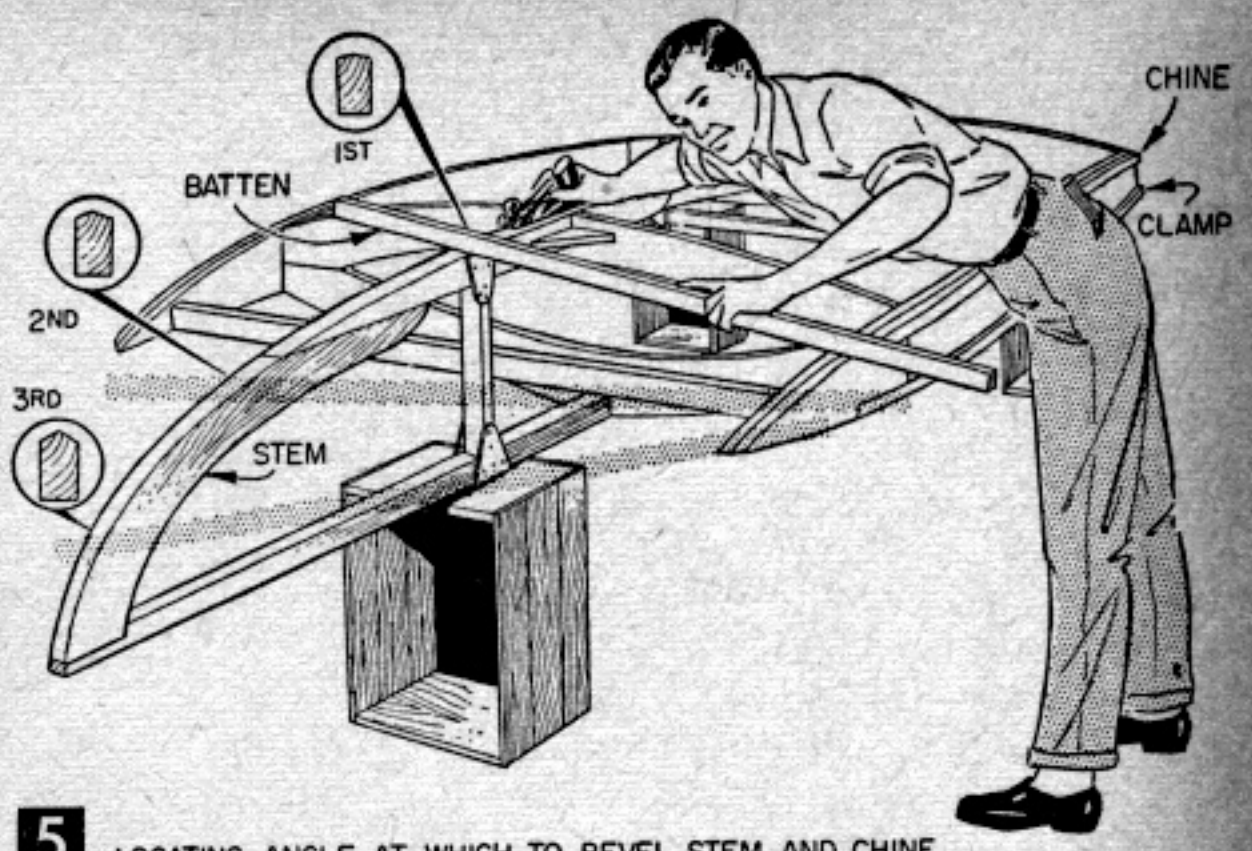
Lay out the side planks on two 10-ft lengths of ¾x7⅝-in. stock as in Fig. 6C. Draw the bottom curve of these planks by bending a ½x¾-in. batten against 6d nails driven at the four measuring points. Clamp both planks to #1 and #2 frames with adjustable bar clamps or, lacking these, make clamps (spanish windlasses) as in Fig. 4D. Coat contact surfaces at all frames with caulking compound or *Tarp Seal* (a rubber-base sealer) and fasten each plank to #1 frame first with three #8x1¾-in. *fh* screws. Continue with #2 frame in a similar manner, fastening both sides simultaneously to avoid warping hull out of shape. Lastly, clamp planks to transom-frame #3, but before securing, trim contact edges to fit flush with planks; then secure each plank with three #8 x 1¾-in. *fh* screws. Now, secure fore-end of planks to tie bar with glue and one #8 x 1¾-in. *fh* screw to each side (Figs. 2 and 6A). After planks have been secured, attach to them outside chines, clamps and gussets (notching gussets as in Figs. 2 and 6C) with glue and #6 x 1½-in. *fh* screws or 4d galv. nails about 4 in. o.c. Trim clamps so plywood decking will lie flush along entire length (Fig. 9C). Now, place the framework upside down on sawhorses





or boxes and bevel the stern and chines using a batten to determine the correct angle of bevel as in Fig. 5.

Lay out the fore bottom planking on ¼-in. plywood as in Fig. 7 and saw to shape. You will have to steam the fore end from gore to stem so the plywood will bend readily without cracking. To steam, soak a towel in warm water and place it over the fore end of the plywood. Then iron with a hot electric iron. This will force the steam into the plywood. When towel is dry, soak again and repeat ironing. About 15 minutes of steam ironing should make the plywood flexible. Now, place the bottom plywood in position over boat form and clamp the ends together at stem. Continue aft, clamping bottom to outside chines. Trim edges of gore to fit if necessary. When bottom fits properly, remove and coat stem, keel and #1-frame edges with glue, chines with Tarp Seal, and replace bottom (it will still bend readily). Secure with #8 x 1¼-in. *fh* screws about 3 in. o.c., staggering screws to prevent splitting. Next, cut after bottom (Fig. 7).

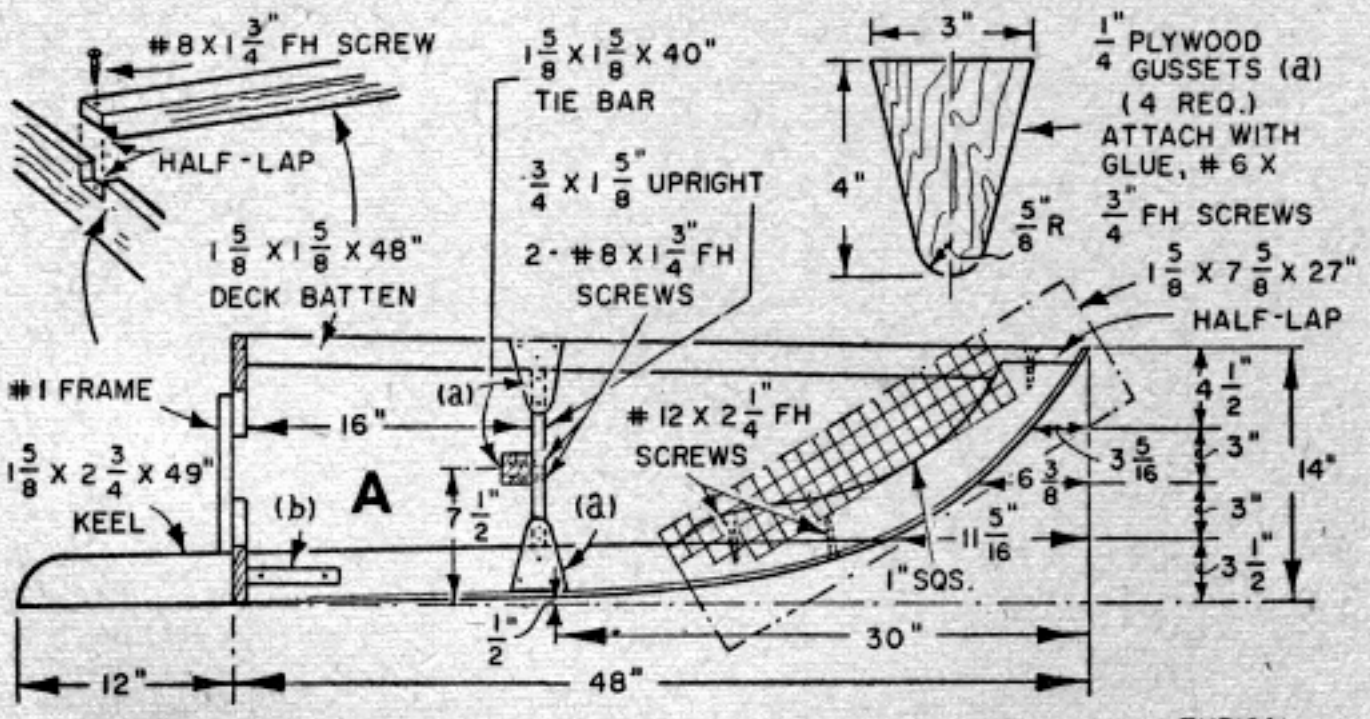


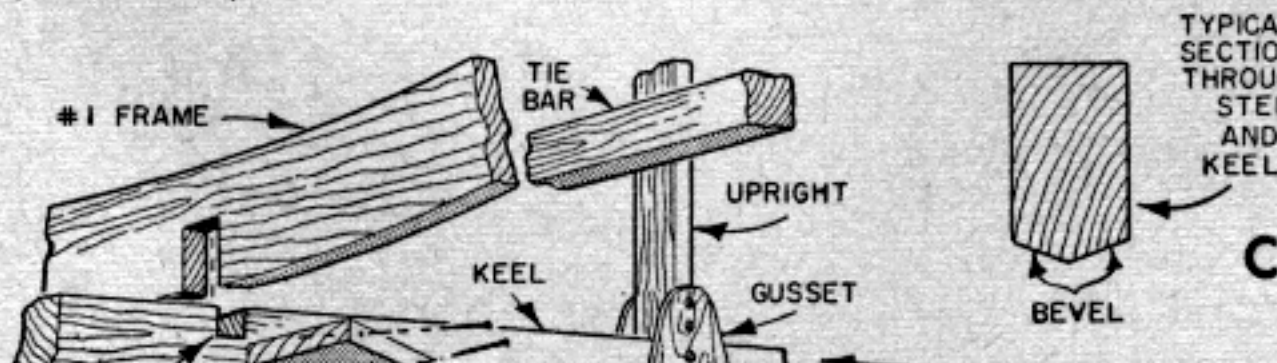
5 LOCATING ANGLE AT WHICH TO BEVEL STEM AND CHINE

To reinforce the seam where fore and aft bottom pieces join, make up a ¼-in. plywood batten of two glued 4 x 48-in. pieces (Figs. 2, 6 and 9A). Fasten half of this batten to fore bottom with glue and #6 x ¾-in. *fh* screws 3½ in. o.c. Now, clamp after bottom in place and when correctly fitted, remove and trim transom-frame bottom edges for a flush fit (Fig. 6). Coat joint batten with glue, chines and transom edges with Tarp Seal, and replace bottom, securing with #8 x 1¼-in. *fh* screws as with fore bottom. Use #6 x ¾-in. *fh* screws to fasten bottom to joint batten (Fig. 9A).

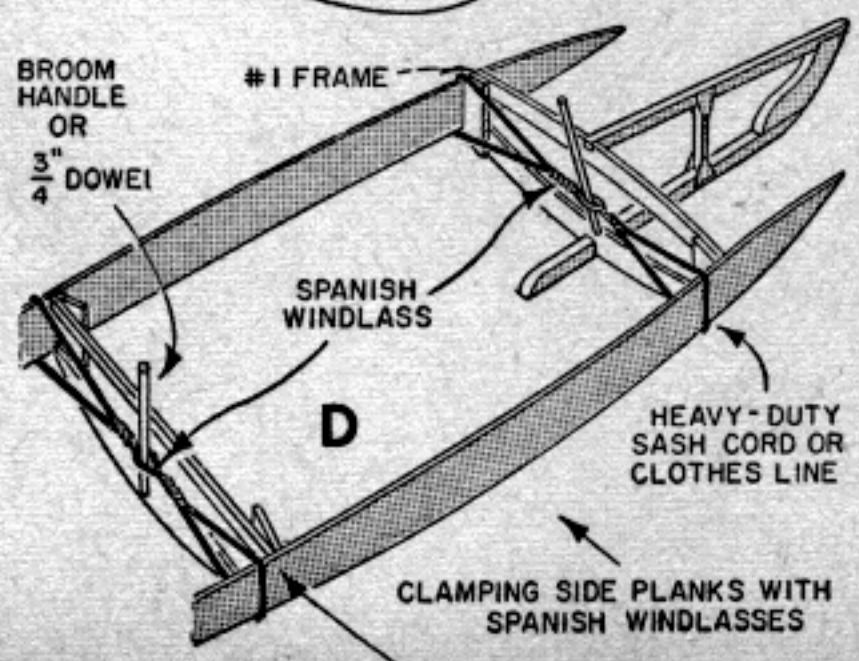
To make the outside keel and battens (Fig. 2), rip an 8-ft. length of 2 x 4-in. stock into three pieces and bevel as in Fig. 9B. Place in position (Figs. 6 and 9C) and mark outlines on bottom. Now, drill #19 holes for #8 screws through bottom, spaced 6 in. apart, centered between outlines. Coat keel and batten contact surfaces with Tarp Seal, and have someone hold them in place while you fasten them from the inside of the boat with #8 x 1½-in. *fh* screws and ¾-in. washers with 5/16-in. holes (Fig. 9B). Secure outside keel first. Bolt this to inside keel with ¼-in. carriage bolts (Figs. 2 and 6).

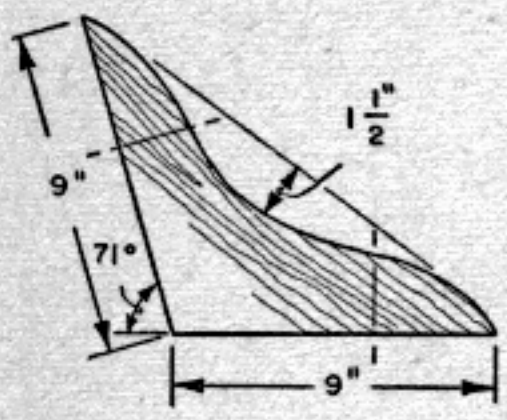
Now, turn hull right-side up and remove temporary cross pieces of #2 frame (Fig. 3B). Make two coamings (Fig. 6D) and secure to transom-frame, #2 side pieces and #1 frame with #8 x 1¾-in. *fh* screws (Fig. 2). Attach carlings (side-deck battens) to coamings between transom and #2 side pieces, and between #2 and #1 frames (Figs. 2, 6 and 9C) with glue and 4d galv. nails about 6 in. o.c., having beveled battens for a flush contact with side decks. Reinforce fore-bottom top edges between side-plank gussets and stem with two pieces of ¼-in.





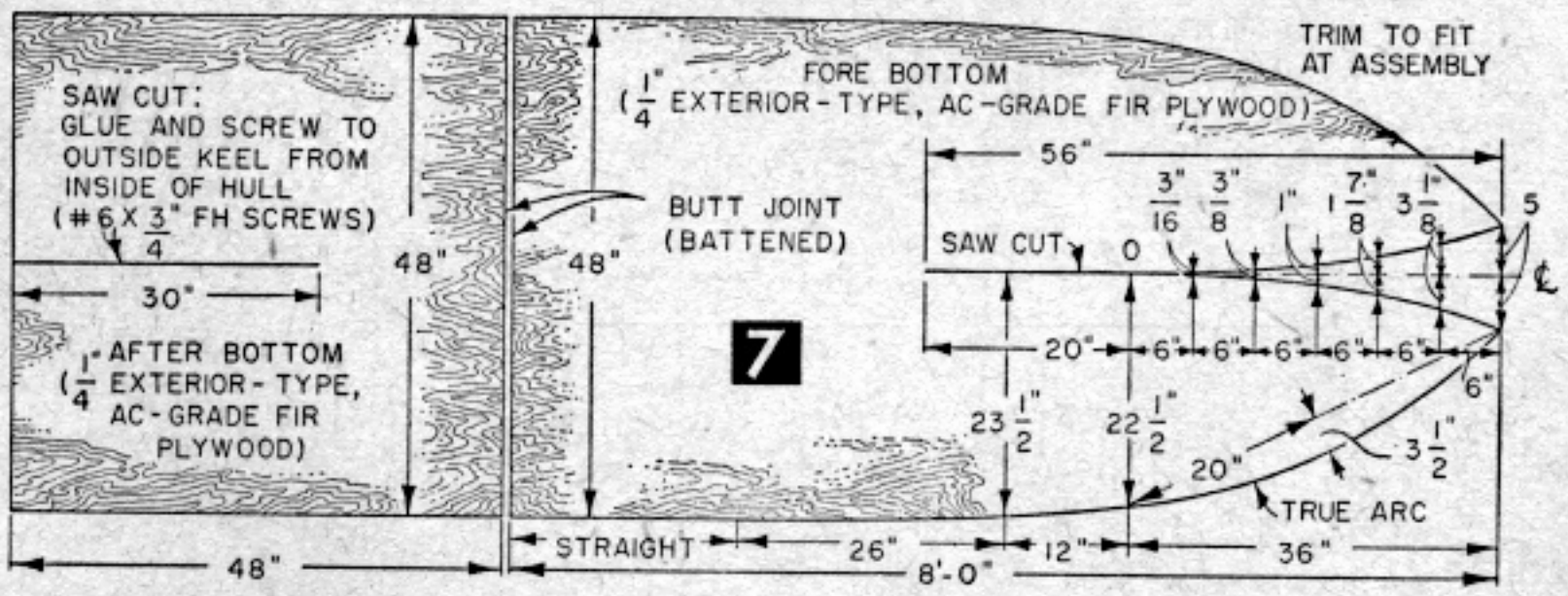
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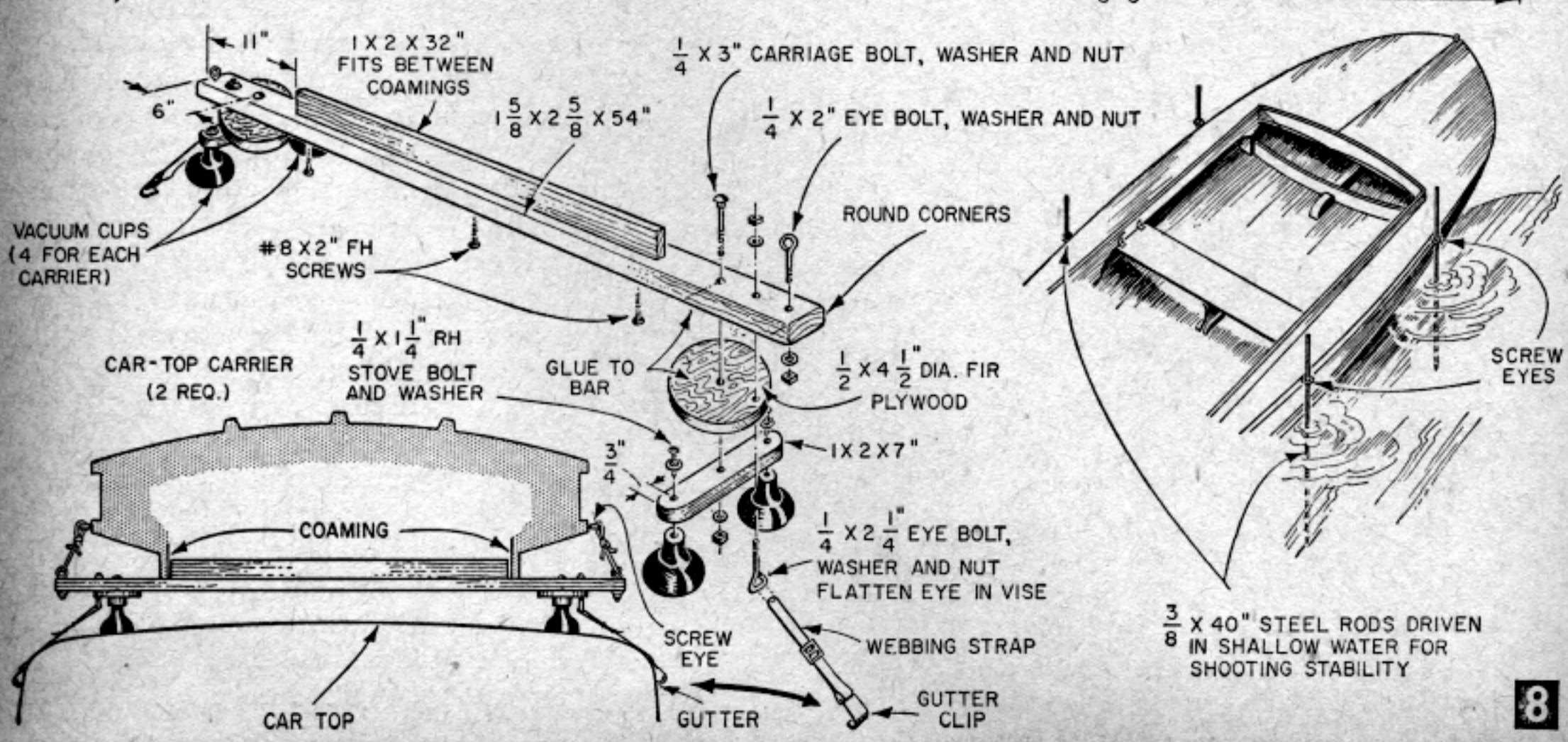




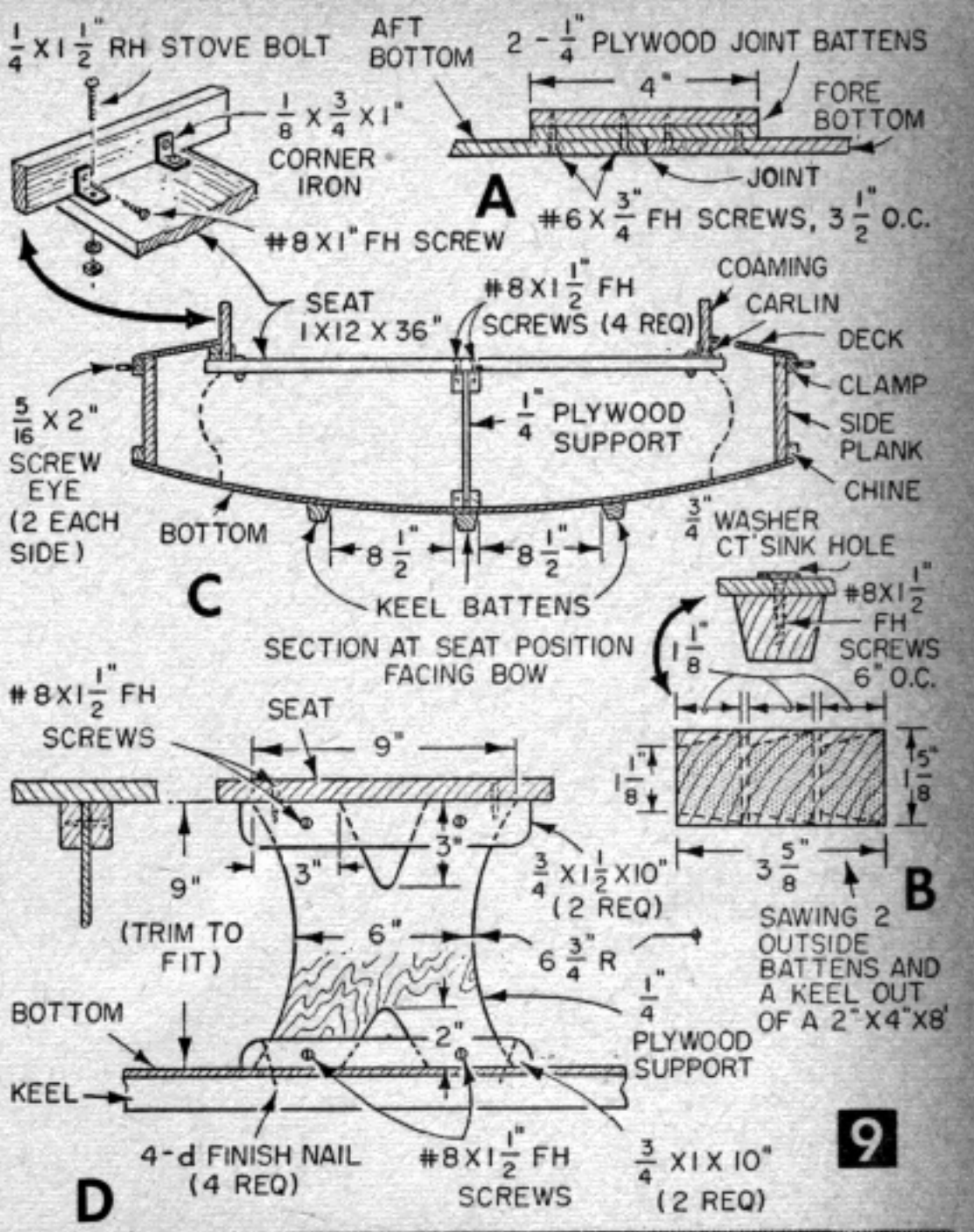
plywood cut and glued as shown in Fig. 6E. Attach to sheer with glue and #6 x ¾-in. *fh* screws 3 in. o.c. When glue is dry, trim edges to conform to angle of fore-deck for a flush contact. Also trim and fair all deck-contact surfaces of hull.

Next, attach fore deck





in two pieces (Figs. 2 and 6A) with glue and #8 x 1¼-in *fh* screws about 3 in o.c. Now, attach side decks in a similar manner as fore deck, having cut them to fit. (To do this, lay a straight length of plywood against coaming and scribe curvature of outside clamp.) Trim all deck edges flush with hull outline and finish raw edges of fore deck at #1 frame with a trim piece as in Figs. 2, 3D and 6A. Next, shape a transom knee (Fig. 4E), and bolt to keel and transom-frame





No boat trailer needed with special car-top carrier.

MATERIALS LIST

No. Req.	Size and Description	Use
	¼-in. exterior-type, AC-grade fir plywood	
1 pc	4′ x 8′	fore bottom
1 pc	4′ x 4′	after bottom
1 pc	26″ x 7′	fore deck (2 pieces)
1 pc	16″ x 8′	2 side decks
1 pc	12″ x 12″	seat support
2 pcs	4″ x 4′	bottom-joint batten
4 pcs	2″ x 32″	sheer reinforcement
4 pcs	3″ x 4″	fore upright gussets
1 pc	1½″ x 38″	transom spline
	Solid Lumber (fir, hemlock or yellow pine)	
2 pcs	¾″ x 7⅝″ x 10′	side planks
2 pcs	¾″ x 5⅝″ x 8′	coamings
2 pcs	¾″ x 1¼″ x 8′	side-deck battens (carlings)
4 pcs	¾″ x 1¼″ x 10′	outside clamps and chines
1 pc	1⅝″ x 3⅝″ x 8′	outside keel and 2 battens
1 pc	¾″ x 5⅝″ x 4′	2 side-plank gussets
2 pcs	¾″ x 7⅝″ x 4′	transom
2 pcs	¾″ x 3⅝″ x 4′	transom frame
1 pc	¾″ x 2″ x 8″	transom frame
1 pc	¾″ x 3⅝ x 4′	#2 temporary frame
1 pc	¾″ x 1⅝″ x 4′	#2 temporary frame
2 pcs	¾″ x 5⅝″ x 12″	#2 frame sides
2 pcs	¾″ x 5⅝″ x 4′	#1 frame, top and bottom
2 pcs	¾″ x 5⅝″ x 2′	#1 frame sides
1 pc	¾″ x 5⅝ x36″	#1 frame trim
1 pc	¾″ x 5⅝″ x 6″	#1 frame keel brackets (2)
1 pc	1⅝″ x 7⅝″ x 27″	stem
1 pc	1⅝″ x 2¾″ x 49″	inside keel
1 pc	1⅝″ x 1⅝″ x 4′	fore-deck batten
1 pc	¾″ x 1⅝″ x 12″	keel-deck-batten upright
1 pc	1⅝″ x 1⅝″ x 40″	fore tie bar
1 pc	¾″ x 11½″ x 36″	seat
2 pcs	¾″ x 1½″ x 10″	seat battens
2 pcs	¾″ x 1″ x 10″	seat battens
1 pc	1⅝″ x 5⅝″ x 16″	transom knee
	Miscellaneous	
3 gross	#8 x 1¼″ fh wood screws	
3 doz	#8 x 1½″ fh wood screws	
3 doz	#8 x 1¾″ fh wood screws	
1 gross	#6 x 1½″ fh wood screws	
8 doz	#6 x ¾″ fh wood screws	
6	#12 x 2¼″ fh wood screws	
2 lbs	4d galv. shingle nails	
2	¼″ x 5″ carriage bolts, washers and nuts	
2	¼″ x 4″ carriage bolts, washers and nuts	
4	¼″ x 1½″ rh stove bolts, washers and nuts	
51	¾″ iron washers, 5/16″ holes	
4	⅛″ x ¾″ x 1″ x 1″ inside corner irons	
4	⅜″ dia. x 40″ steel rods	boat anchors
4	5/16″ x 2″ screw eyes	
1 qt	Tarp Seal (Tarp Seal Adhesives, 2555 Boston Post Road, New York 67, N. Y.)	
2½ lbs	Weldwood glue (powder)	
2 qts	marine paint	
	Car-Top Carriers (2)	
2 pcs	1⅝″ x 2⅝″ x 54″ fir cross bars	
2 pcs	¾″ x 1⅝″ x 32″ fir side-slip prevention	
4 pcs	¾″ x 1⅝″ x 7″ vacuum-cup attachment	
4 pcs	½″ x 4½″ dia. plywood discs	
4	¼″ x 2″ eye bolts, washers and nuts	
4	¼″ x 2¼″ eye bolts, washers and nuts	
4	¼″ x 3″ carriage bolts, washers and nuts	
8	¼″ x 1¼″ rh stove bolts for vacuum cups	
3	#8 x 2″ fh wood screws	
8	rubber vacuum cups (auto accessories stores)	
4	car-gutter clips and webbing straps (auto accessories stores)	

with two ¼-in. carriage bolts (Fig. 6B). Now, make a seat supported by a ¼-in. piece of plywood and attach to coamings with inside corner irons as in Figs. 6 and 9C. Finally, screw four screw eyes, two on each side, in outside clamps (Figs. 6 and 9C) to serve a double purpose: (1) to lash boat to an automobile carrier (Figs. 8 and 10); (2) for shooting stability in shallow waters (Fig. 8). Finish sneak box with three coats of flat paint inside and out, using a dead-grass color as camouflage if you intend to go in for duck shooting. If you plan to transport your sneak box overland, construct the car-top carriers shown in Fig. 8.

● Craft Print No. 291 in enlarged size for building Sneak Box is available at $1.50. SPECIAL QUANTITY DISCOUNT! If you order two or more craft prints (this or any other print), you may deduct 25¢ from the regular price of each print. Hence, for two prints, deduct 50¢; three prints, deduct 75¢, etc. Order by print number. To avoid possible loss of coin or currency in the mails, we suggest you remit by check or money order (no C.O.D.'s or stamps) to Craft Print Dept. 212, SCIENCE AND MECHANICS, 450 East Ohio Street, Chicago 11, Illinois. See coupon on page 192. Now available, our new illustrated catalog of "196 Do It Yourself Plans," 10¢. Please allow three to four weeks for delivery.

