

BUILD

MAXIMUS

By William D. Jackson

This 12'6" runabout can be built for as little as \$35. A two-seater, it'll do 38 mph with a 20-hp outboard and can be used to tow water skiers

■ No forms are required to build this zippy little wake-maker, just two saw horses to support the frame assemblies. Paper patterns can be dispensed with too (with the exception of sheer plates and stem) by drawing the framing outlines directly on the pieces to be cut.

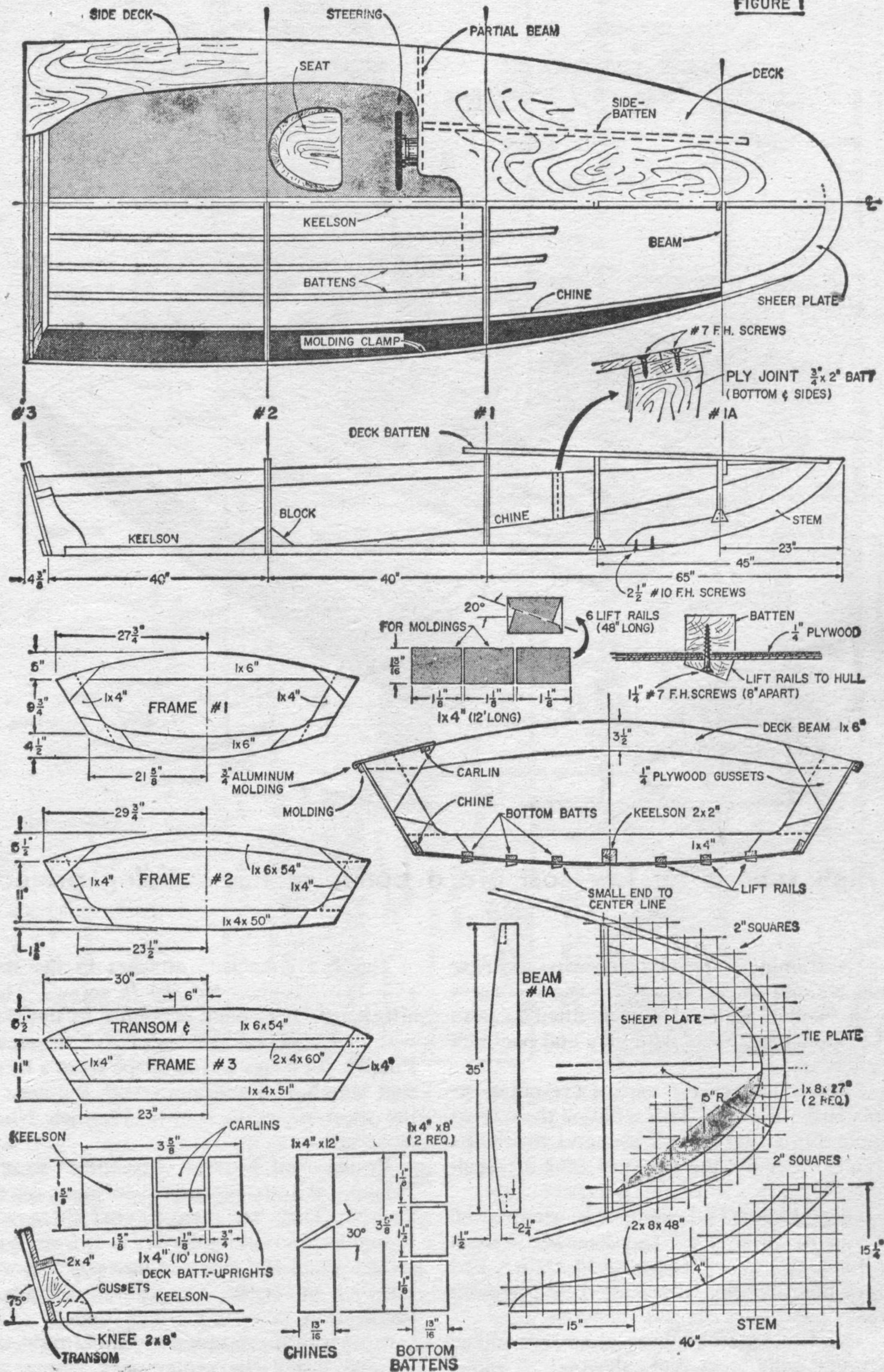
The transom is first. This is made of $\frac{3}{4}$ -inch plywood and is cut to the same dimensions as frame #3. It is fitted with a motor

board of 1 x 6 lumber and with a 2 x 4 thrust piece secured with $1\frac{1}{2}$ -inch flathead screws.

Cut and fit the 1 x 4 framing pieces to the sides and bottom of the transom, then cover all mating surfaces of transom and framing with Weldwood glue, joining the sections with $1\frac{1}{2}$ -inch No. 7 *fh* screws spaced about three inches apart.

Frames #1 and #2 are marked directly

FIGURE 1



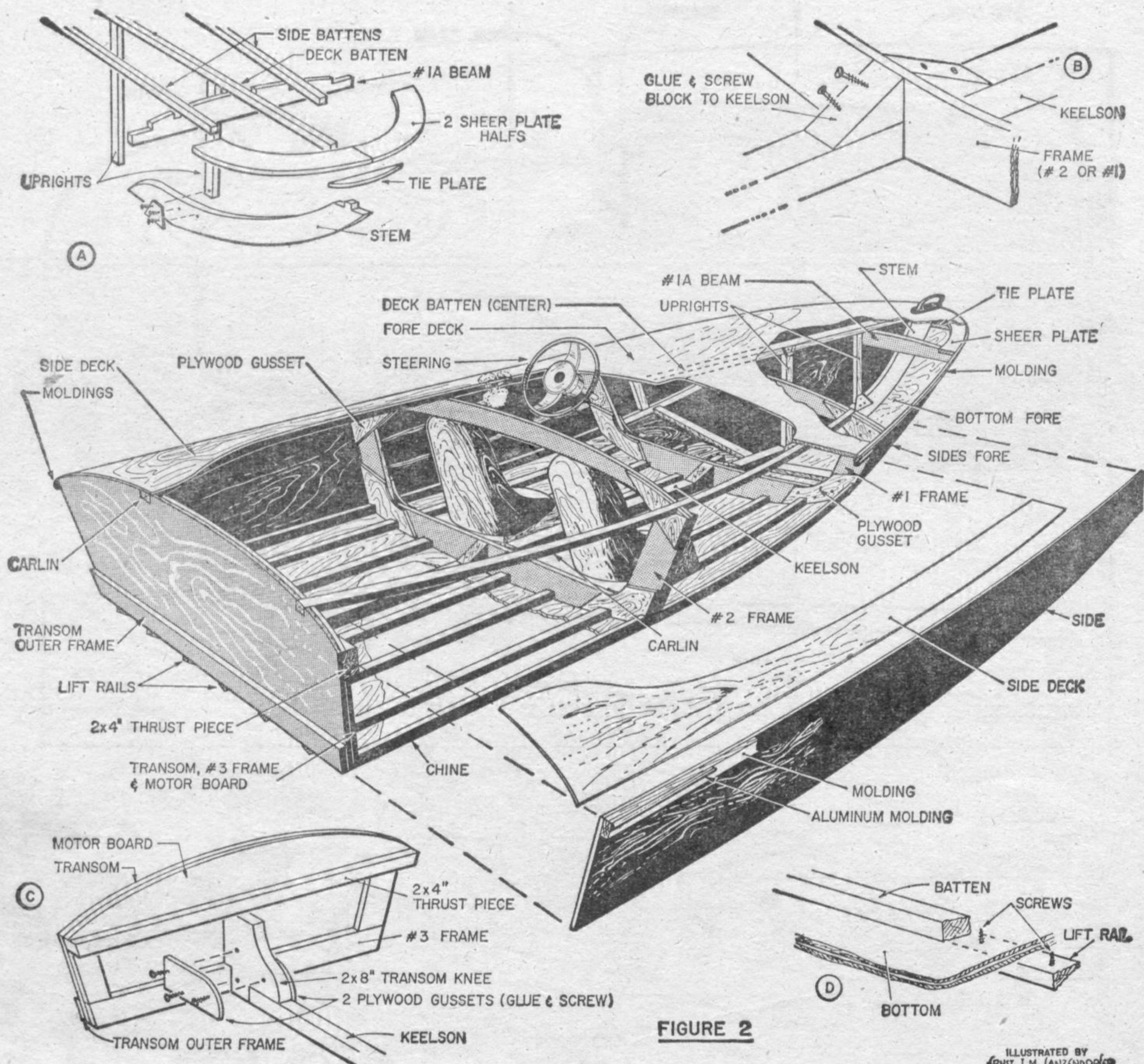


FIGURE 2

ILLUSTRATED BY
RICH. J. M. LANZENDORF

High speeds for low cost are a bonus of this building project

on the framing material, then sawed to shape and secured at the chine and sheer corners with $\frac{1}{4}$ -inch plywood gussets fitted to both the fore and aft sides with glue and one-inch *fh* screws.

Chines, battens and carlins are cut from standard 1 x 4s and 2 x 4s. Notch the frames and transom for the chines; and notch the frames—but not the transom—for the keelson.

Sheer Plates And Stem. The stem is cut from a four-foot 2 x 8, the sheer plates from a five-foot 1 x 8. As mentioned earlier, first draw the full-size patterns for these pieces on heavy paper.

The two separate sheer plates are joined together with a $\frac{1}{4}$ -inch plywood tie plate. This is first glue-coated, then secured to the sheer plates with one-inch *fh* screws.

The 2 x 2 keelson attaches to the stem with two $2\frac{1}{2}$ -inch No. 10 *fh* screws. Then attach the sheer-plate assembly to the stem with glue and two $2\frac{1}{2}$ -inch No. 7 *fh* screws. Finally, cut beam 1-A to shape from a three-foot length of 1 x 4 and attach the ends of the sheer plates to it with $1\frac{1}{2}$ -inch No. 7 *fh* screws.

Frame And Keelson Assembly. Frames #1 and #2 are positioned in place on the keelson. They are then secured there with triangular reinforcing blocks (cut from 2 x 4 scrap) glued and screwed into position with two-inch *fh* screws. The transom secures to the keelson with a 2 x 8-inch knee.

Now turn the framing assembly right side up and install the center deck batten, the uprights from keelson to center deck batten and the side battens.

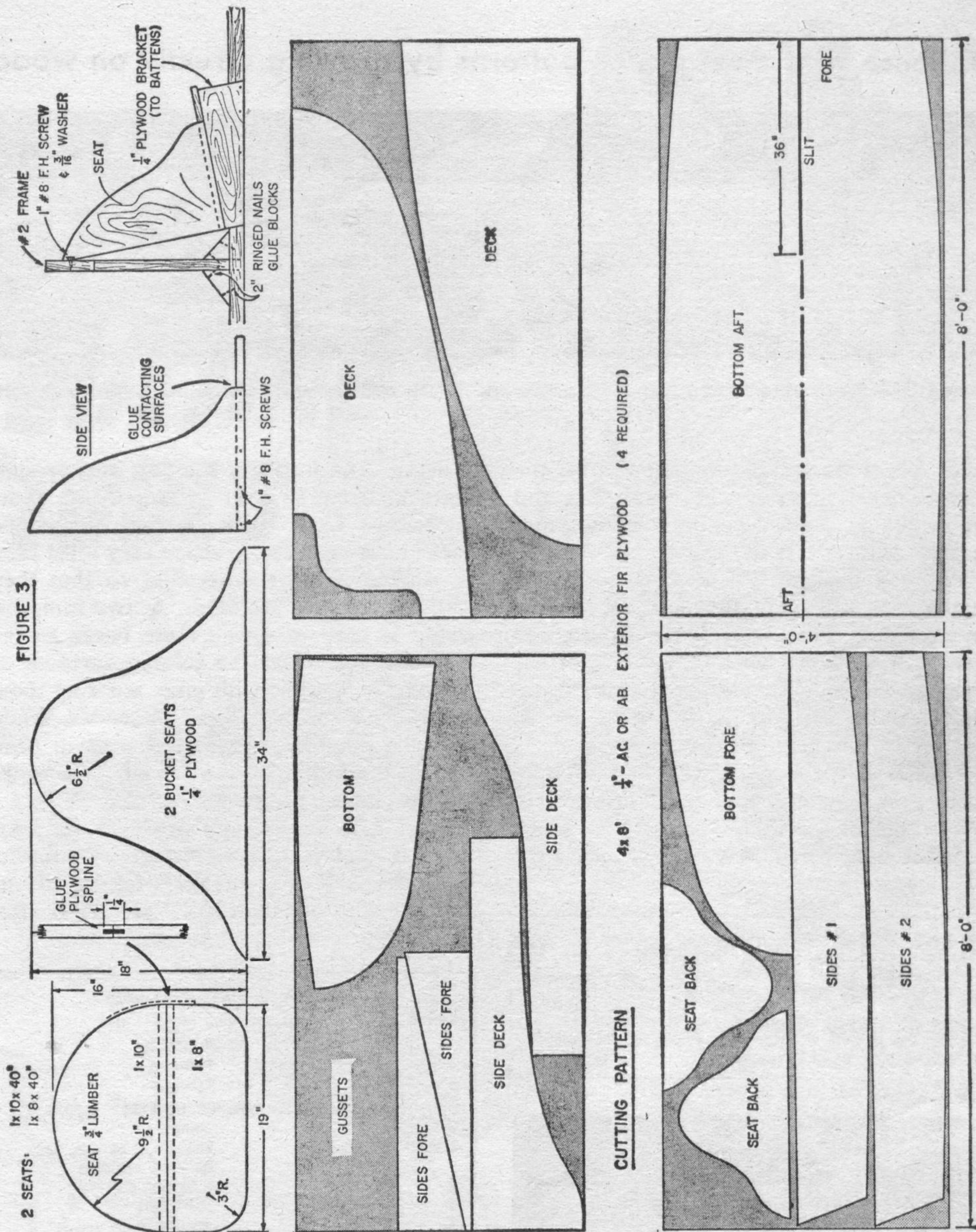


FIGURE 3

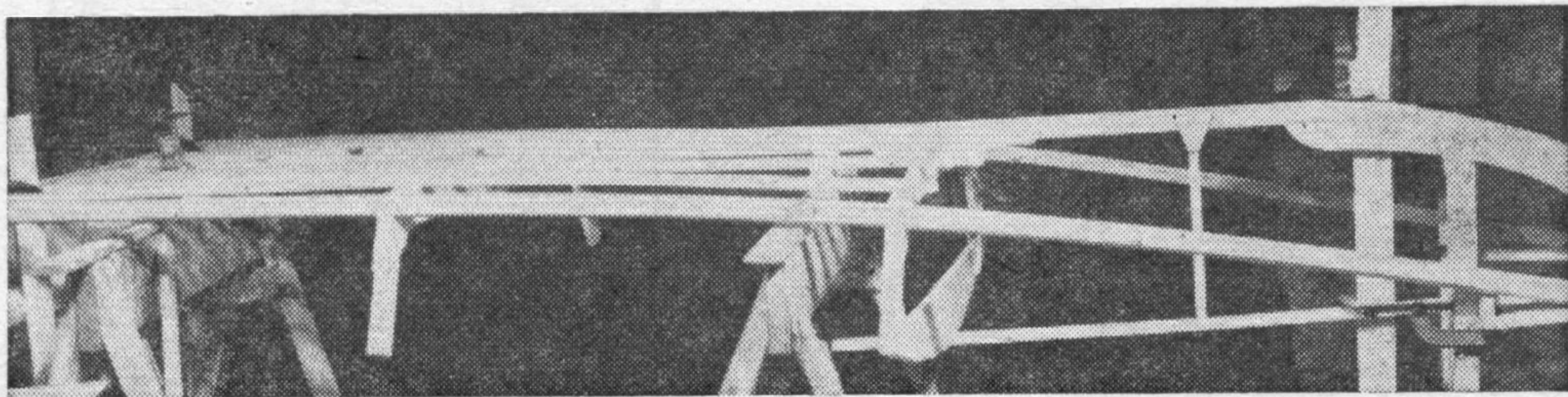
Chine Assembly. The forward ends of the two chines should be tapered to fit flush with the sheer plate. Spring both chines into place at the same time to prevent pulling the framework out of alignment. Secure the chines with two-inch No. 7 *fh* screws—one per joint.

At this point check the keelson for flatness; should a dip or curve exist anywhere, prop up the keelson at that point with scrap wood. Once the bottom and sides are secured to the framing, the boat will “lock” into correct alignment.

Bottom Battens. The bottom battens are now positioned equidistant between keelson and chines and fastened at each joint with a two-inch No. 7 *fh* screw.

Side Planking. Having cut the plywood for the planking, coat the mating surfaces of the framing and the planking with glue. To secure the planking to the framing, first position and clamp it in place, then fasten it with one-inch No. 7 *fh* screws spaced about two inches apart.

Moldings. Sheer clamps are not used, but moldings are run along the outside of the



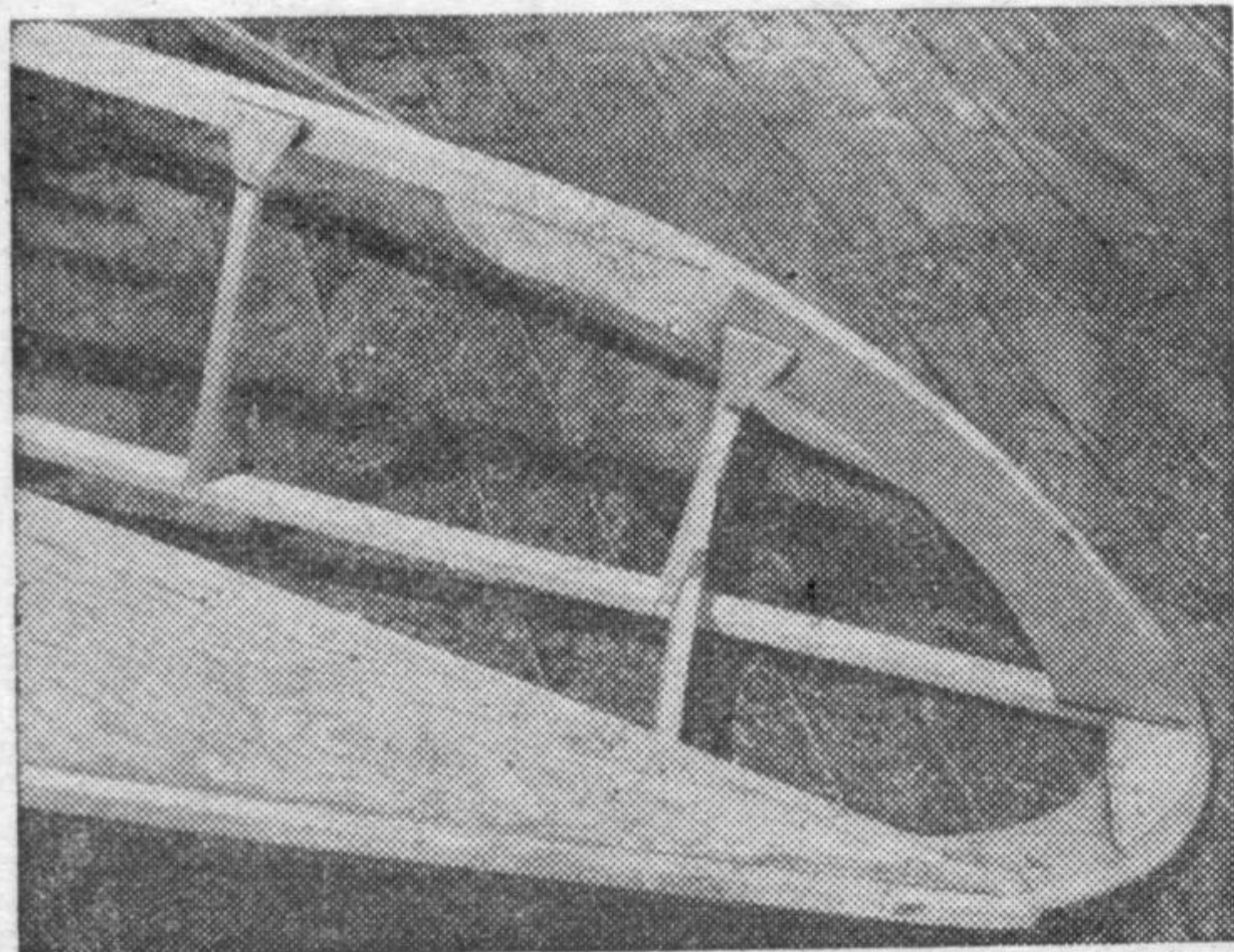
SAW HORSES are used to support the framework while frames are positioned on the keelson.

sheer. These are secured by glue-coating the contacting surfaces of the plywood sheer and the moldings, then fastening the moldings in place with *fh* screws.

Plywood Bottom. These sections are cut to shape according to the patterns. Waterproofing Stay-Tite Butyl Sealer is used to coat their surfaces where they contact the framing. The bottom is fastened to the framing with one-inch No. 7 *fh* screws spaced two inches apart.

Now trim the edges of the bottom plywood evenly before gluing the lift rails to the bottom of the hull. These are attached with 1¼-inch No. 7 *fh* screws spaced eight inches apart.

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CLOSE-UP of bow assembly details the technique of attaching the stem to the keelson and sheer plate. Note also installation of center deck batten and supporting uprights.

Seats. The backs of the two bucket seats are cut from ¼-inch plywood, the seats themselves from stock lumber. When the backs have been cut to shape they must then be soaked in water overnight so that they can be bent as required. A two-foot bar clamp is used to spring these backs to the seat bottoms. Coat the joining surfaces of bottoms and backs with glue, securing them finally with one-inch No. 7 *fh* screws. When the glue has dried, place the seats in position in the hull with the top of their backs butting the top of #2 frame.

Decking. Before applying the decking, brush a coat of penta preservative solution onto the hull. Fasten the decking to the framing with one-inch No. 7 *fh* screws after first glue-coating the mating surfaces.

MATERIALS LIST—MAXIMUS

Amt. Req.	Size and Description	Use
FIR EXT-AC PLYWOOD		
4	1¼"x4"x8' panels	planking
1	¾"x16"x5'	transom
LUMBER (SPRUCE OR FIR)		
2	1"x4"x12'	chines
1	2"x4"x10'	keelson, 2 carlins, deck battens, uprights
2	1"x4"x8'	6 bottom battens
1	1"x4"x3'	#1 frame
1	1"x6"x8'	#1 frame
1	1"x4"x6'	#2 frame
1	1"x6"x54"	#2 frame
1	1"x4"x76"	#3 frame (transom)
1	2"x4"x5'	thrust piece
1	1"x6"x54"	motor board
1	1"x4"x12'	moldings & lift rails
1	2"x8"x4'	stem
1	1"x8"x5'	stem sheer plate
1	2"x8"x12'	aft transom knee
1	1"x4"x3'	fore deck beam (#1A)
1 each	1"x10"x4', 1"x8"x4'	seat bottoms
FASTENINGS		
4 gross	1" No. 7 flathead wood screws	
4 doz.	1½" No. 7 flathead wood screws	
4 doz.	1¼" No. 7 flathead wood screws	
2 doz.	2" No. 7 flathead wood screws	
6	2½" No. 10 flathead wood screws	
2 lbs.	Weldwood glue powder	



On the cover is Sue Burnett
of NBC's "Letters to Laugh-
In". See project, page 24.

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