

USES: A lightweight, speedy, outboard runabout, adapted to carrying atop an auto or by trailer. Powered with outboard motors up to 12 hp.

LENGTH: 9 ft., 10 in.

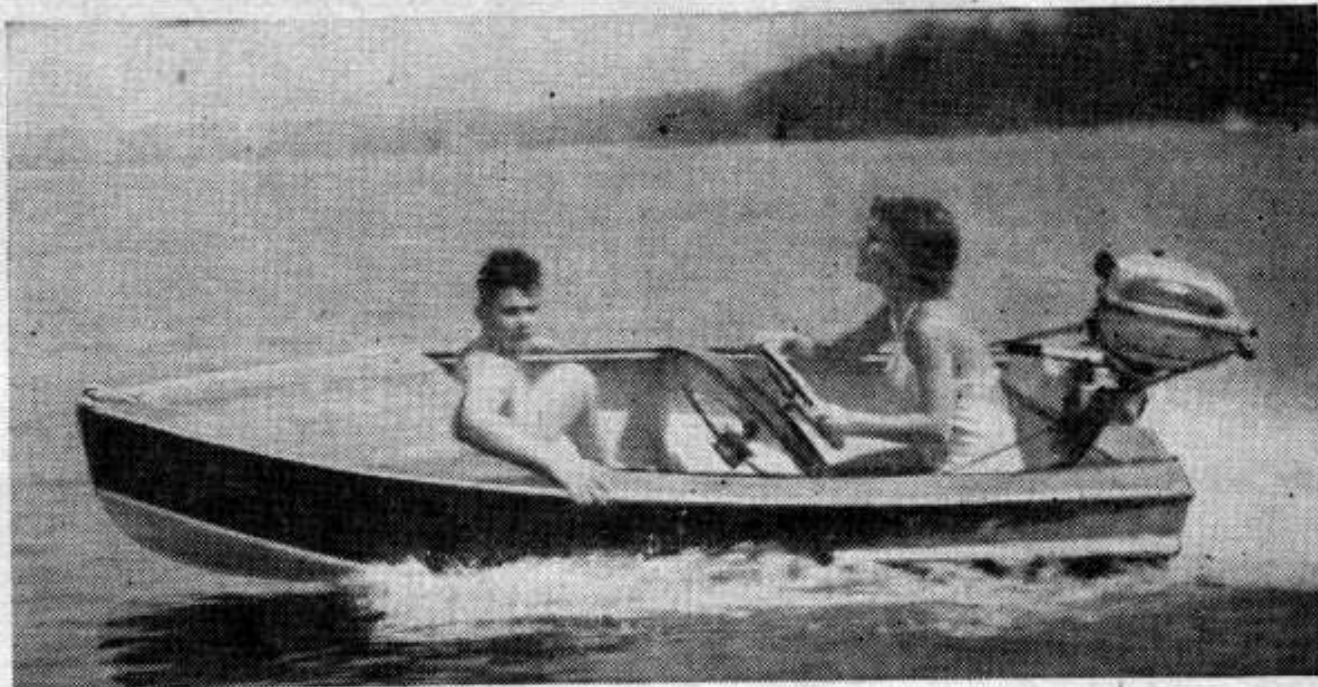
BEAM: 51¼ in.

DEPTH: 17 in. (forward).

WEIGHT COMPLETE: 125 lbs.

SEATING CAPACITY: 2 people (3 in a pinch).

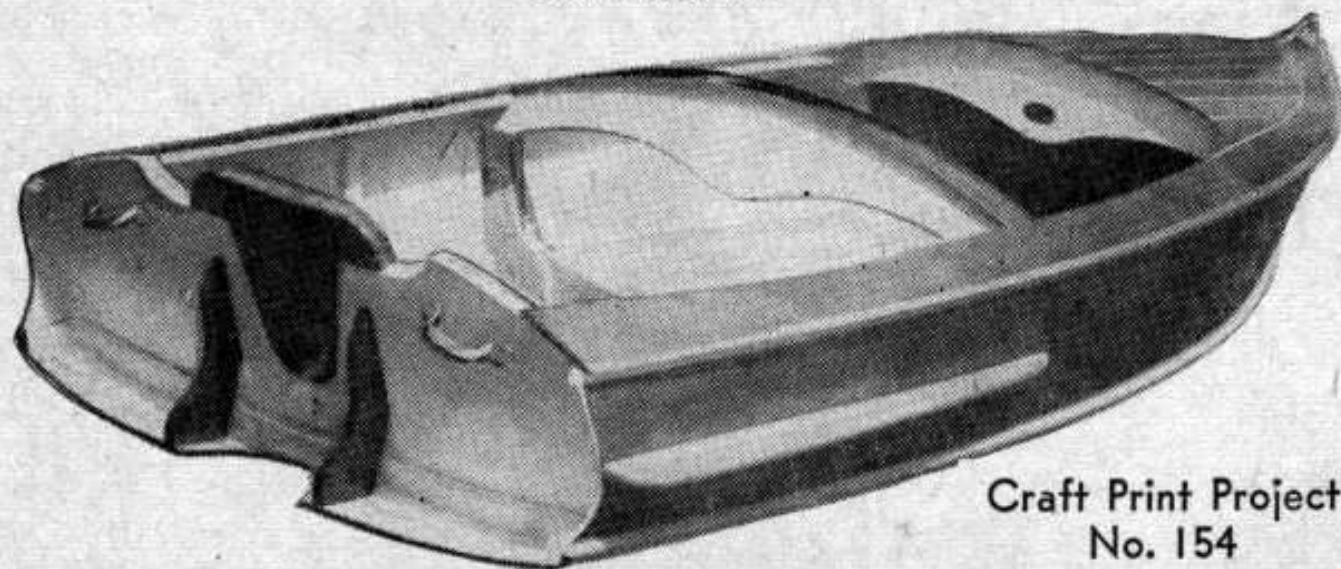
CONSTRUCTION: Uses ¼ in. exterior plywood over a strong framework. High speed bottom is planked with one single 4 ft. width of standard size plywood.



Size the Mustang to Your Needs

The first of three outboard speedboats, all using the same basic design, is this 10-footer

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Craft Print Project
No. 154

YOU can't build 3 boats for the price of one, but you can take a sound, basic design and vary the dimensions to produce 3 boats whose sizes vary to meet different needs. In this 2-section article are contained plans for constructing sleek-looking 10, 12 and 14 footers, all based on a design tried and proven in over 20 actually constructed boats. And, if you're building boats for profit, you'll find it quite an advantage to be able to offer one popular design in 3 of the most popular sizes.

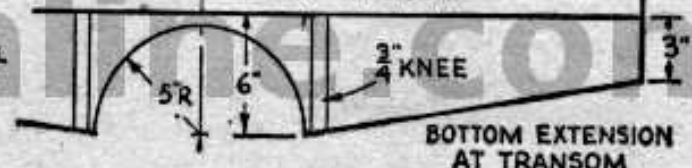
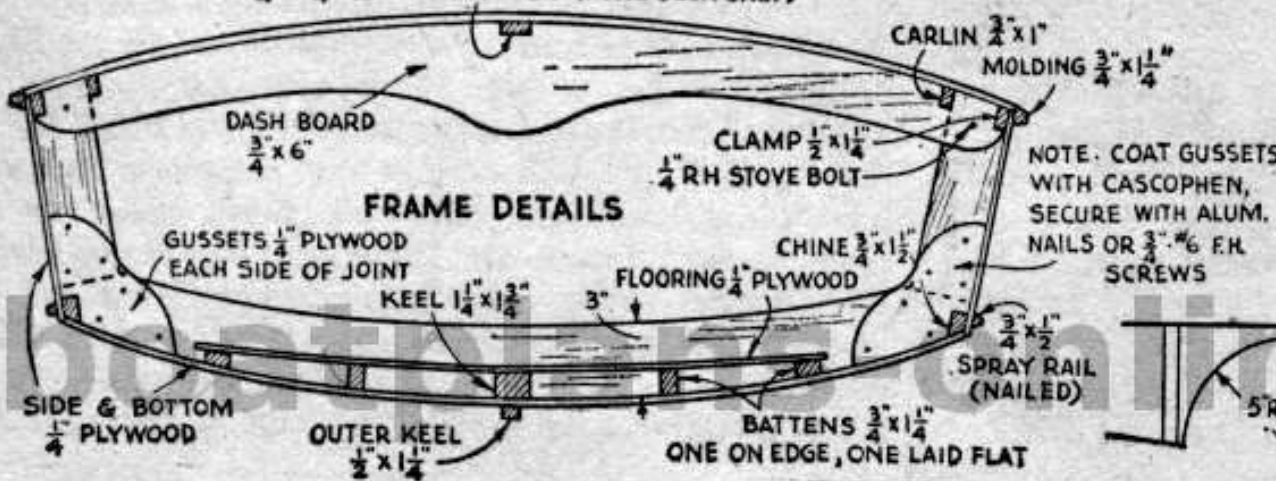
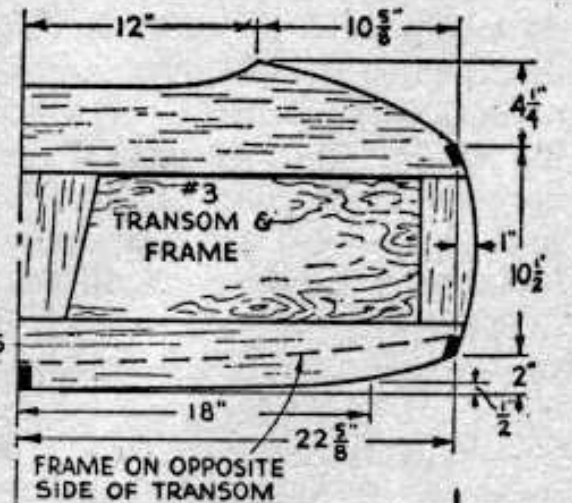
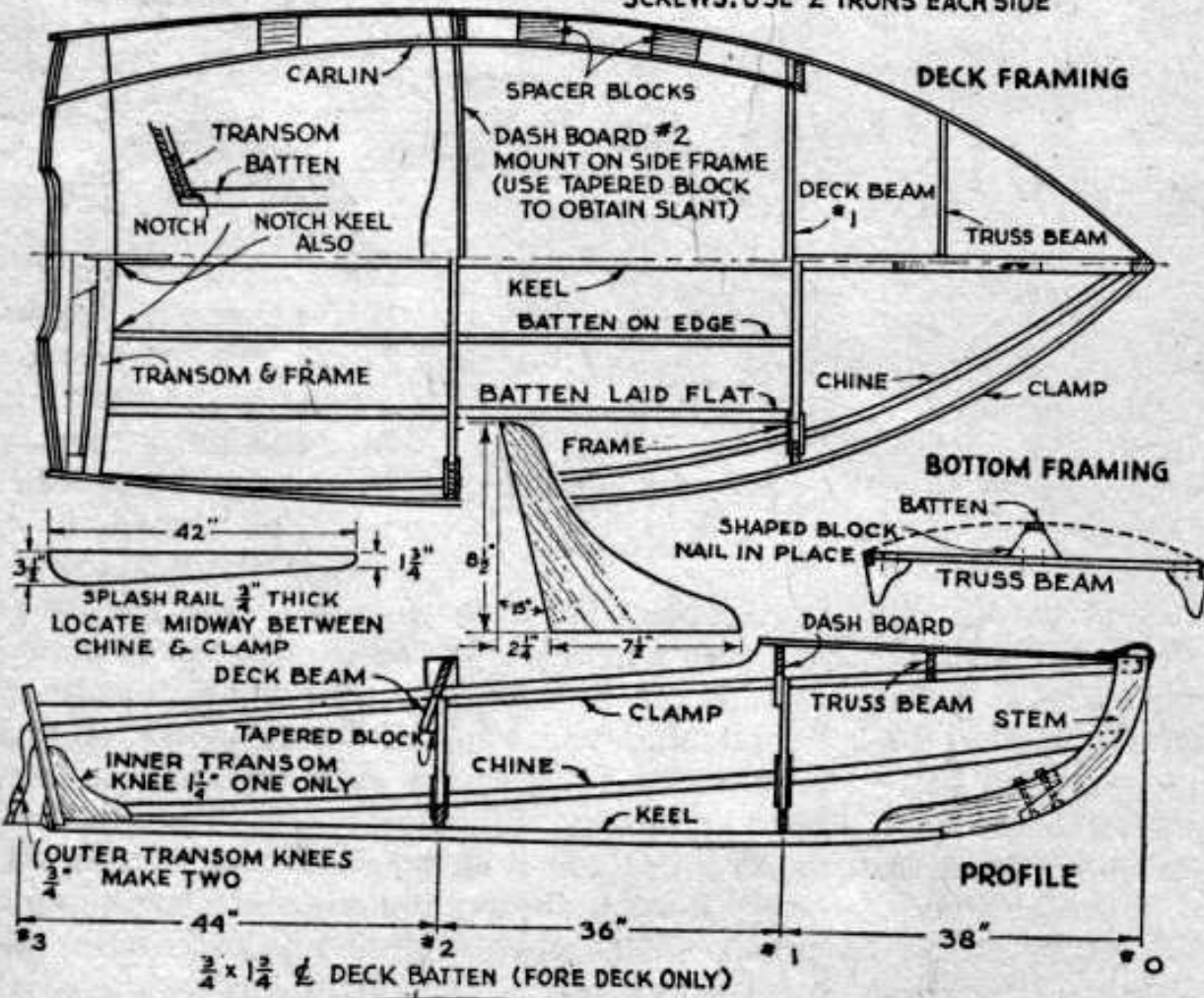
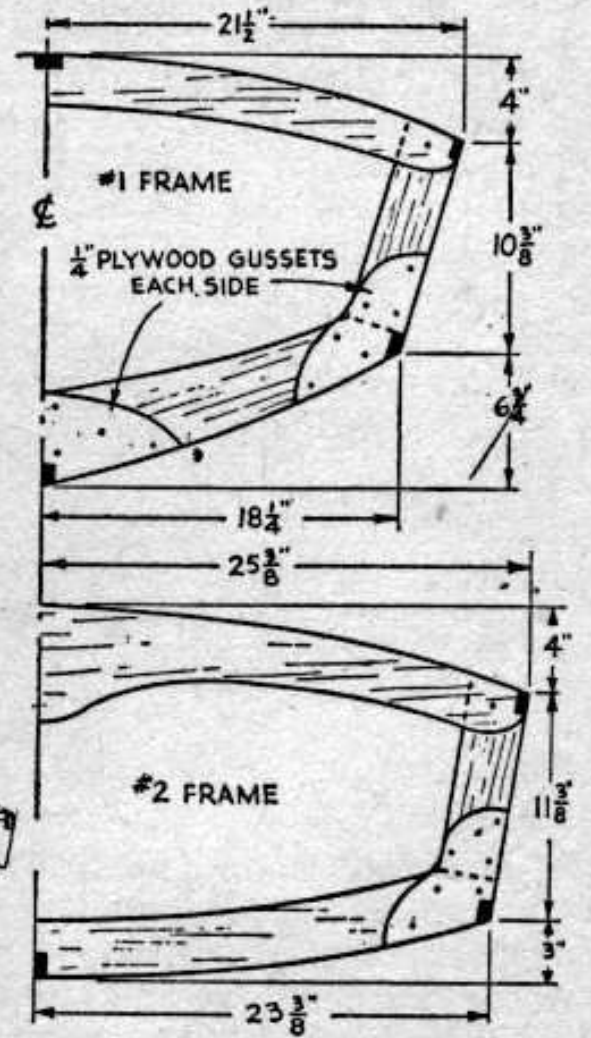
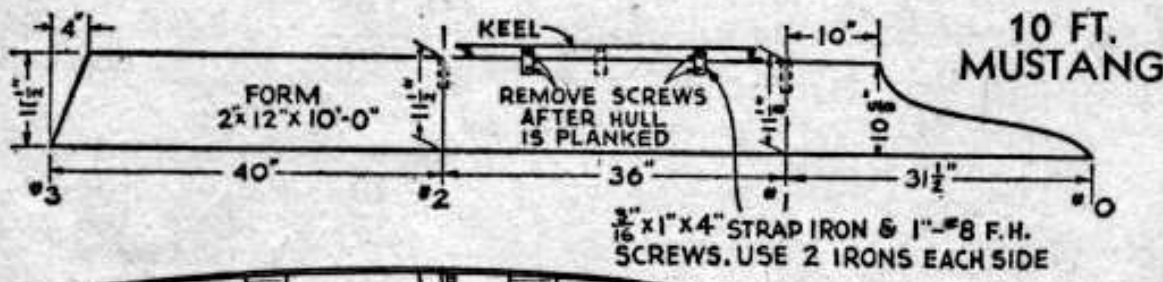
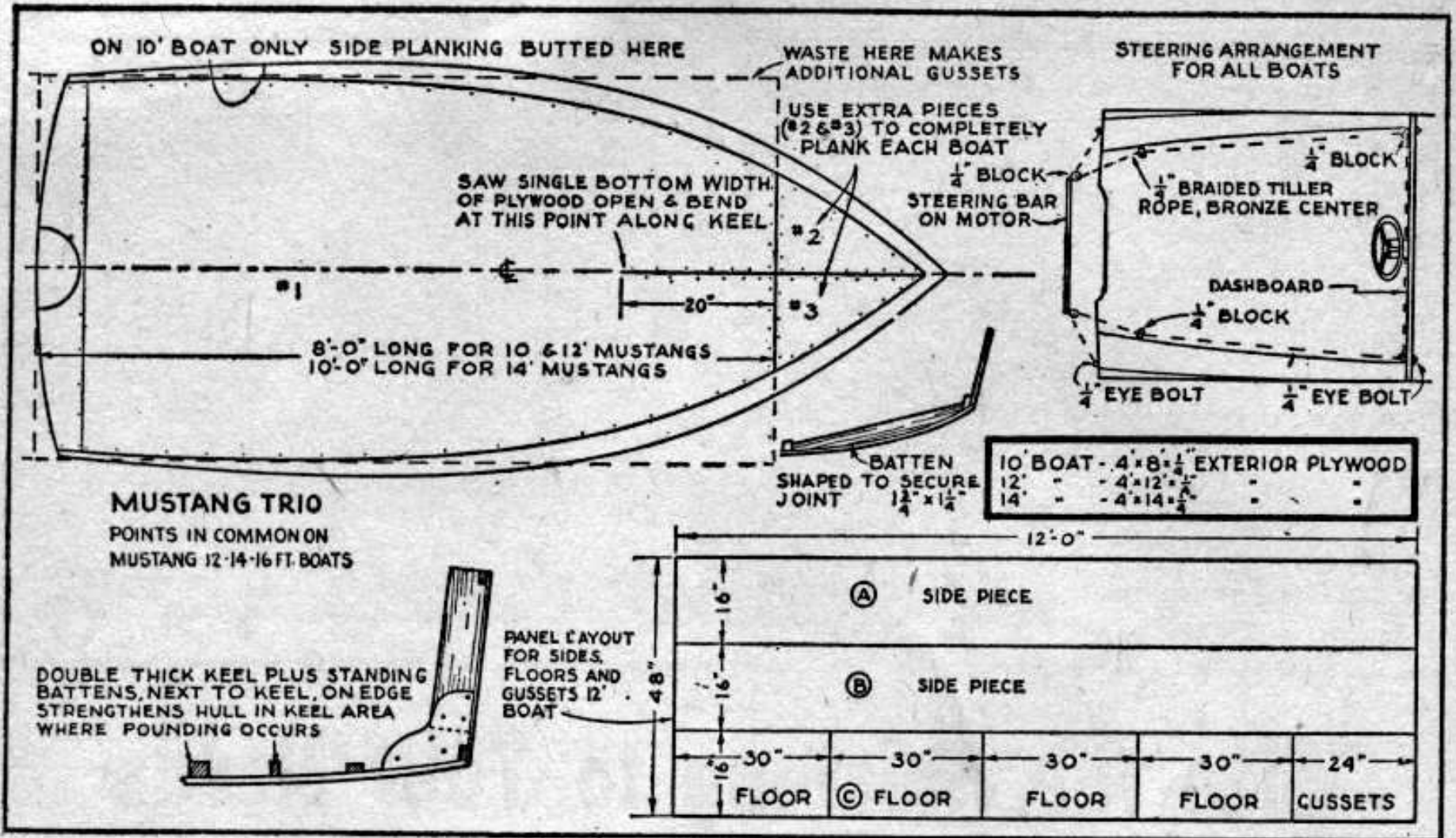
Note the attractive tumble-home, the minimum number of frames, the major portion of the bottom constructed from one standard-size plywood sheet, which is stressed for maximum strength. These boats are designed to really ride on the propeller and a small amount of spray at high speeds. But enough sales talk. Let's get on with the construction of the 10-ft. speedster.

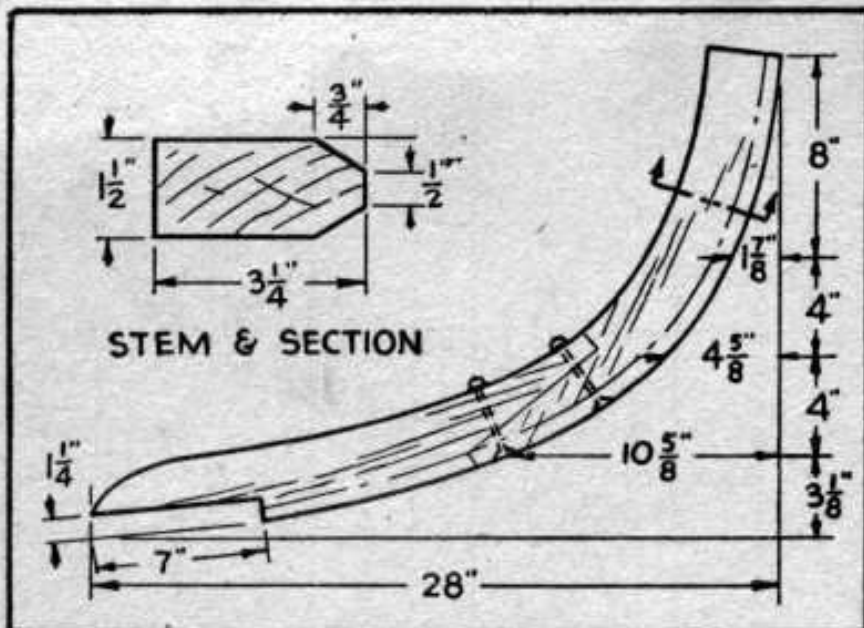
First saw the form on which the hull is built

to shape from a 2 in. x 10 in. x 10 ft. used lumber (yellow pine will do). Mount the cut form on sawhorse at a good working height. Next draw fullsize paper patterns of transom, frames, beams and stem, place these patterns on their respective plywood pieces, prick the outlines through, and saw these plywood parts to shape. Next assemble a framework as shown on the shaped plywood transom,

coat contact surfaces with Weldwood resin glue and screw-fasten plywood transom to frame with 1¼ in. #8 fh screws spaced about 3 in. apart. Reassemble the shaped frame parts on their patterns and then join side and bottom members as shown, with plywood gussets and Weldwood glue, using either ⅞ in. aluminum nails or ¾ in. #6 fh screws, with 6 fastenings to a gusset. After assembling the 2-shaped stem parts on their patterns, fasten them together with Weldwood glue and two ¼ x 3½ in. fh stove bolts.

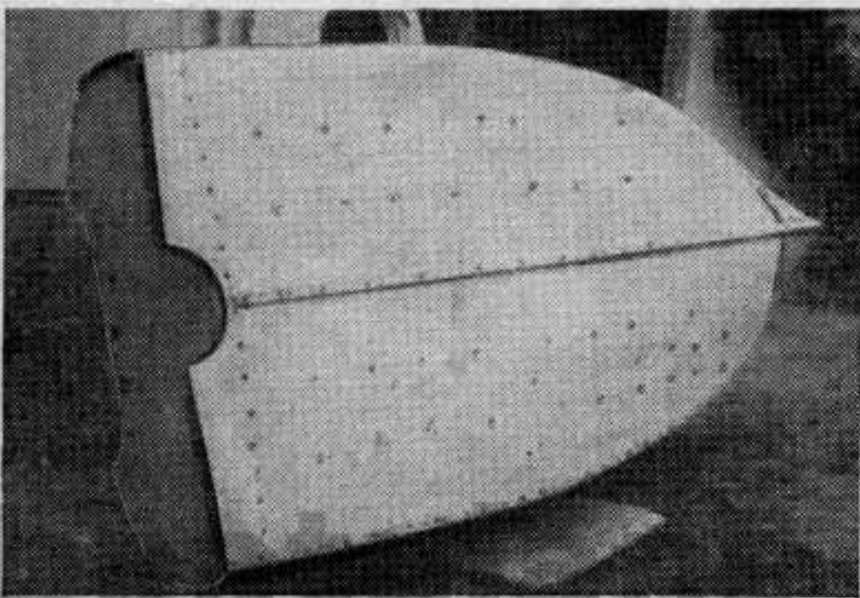
Now notch the transom, frames, and stem for the keel, chines, and clamps and assemble these parts atop the form. To hold the keel to the form and maintain its shape during construction, screw strap iron lugs to the form and keel. After hull is planked, these screws can be removed. Next place keel in notches cut in frames (see special notch in transom for keel)



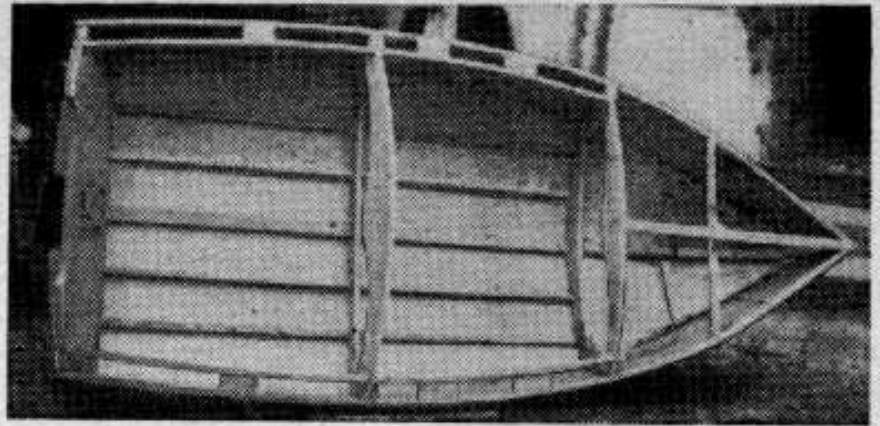


along chines, mark to shape, remove and saw to the shape outlined. Coat transom edges of shaped bottom piece with Kuhl's Bedding composition, and keel, batts and chines with Weldwood glue. Then reclamp shaped bottom piece of plywood in position and fasten at all points with $\frac{7}{8}$ in. #7 fh screws spaced about 2 in. apart. To properly shape plywood in position during fastening, start at transom center and work out towards the chines, fastening along keel first, then along chines and lastly, along batts and frames. Next shape remainder of bottom plywood fore ends, place a batten in position as shown to secure joint, and glue and screw plywood fore ends in place. Trim plywood edges evenly along chines and stem. To plank the sides, first lay a 4 x 8 ft. plywood sheet in position along sides, mark and cut to shape and provide a butt block as shown for side joints of plywood. Coat chines with Kuhl's Bedding Compo and clamps with Weldwood glue. Then lay side planking in place and fasten to chines with $\frac{7}{8}$ in. #7 fh screws spaced about 2 in. apart and fasten along clamps with either aluminum nails or screws similar to your chine fastenings.

With hull planked, trim edges of plywood evenly along chines and stem and cover exposed edges of plywood along stem with a $\frac{1}{2}$ x $1\frac{1}{4}$ in. piece of hardwood, softened in hot water and screwed in place with $1\frac{1}{4}$ in. #8 fh screws spaced about 6 in. apart. A continuation of this



When hull planking is completed, remove from form, turn upright and frame deck.



Finish deck, paint, and she's ready for the water.

outer stem band is the outside keel, which is positioned exactly in the center of hull and fastened similarly. Remove hull from form and turn right side up. Then install #1 deck beam and #2 dashboard by bolting them in place with $\frac{1}{4}$ in. rh stove bolts. To give the dashboard a rakish tilt, bolt in beveled blocks between frame and dashboard securely.

Next, notch deck carlins flush into transom and deck beams and fasten them with one $1\frac{3}{4}$ in. fh screw to each joint. Screw spacer blocks between clamps and carlins as shown, to prevent collapsing of carlins and to preserve fair lines, with $1\frac{3}{4}$ in. #8 fh screws. Now install $1\frac{1}{4}$ in. thick inside transom knee by bolting through keel and transom with $\frac{1}{4}$ in. carriage bolts. Fasten the 2 outside transom knees, to brace the transom extension at this point, with $1\frac{1}{4}$ in. #8 fh screws, inserting screws from the plywood side on bottom and transom sides. Fair the framework edges along clamps and carlins evenly and then apply the short forward decking of $\frac{1}{4}$ in. plywood. This decking may be applied in one piece or in 2 pieces with a joint in the center of deck, but you'll have to notch flush a center batten in stem and #1 beam to reinforce deck. Fasten forward and side decking in place with $\frac{3}{4}$ in. #6 fh screws spaced about 3 in. apart. Trim edges of plywood evenly along sheer or clamp edge and fasten moldings in place with $1\frac{1}{2}$ #8 fh screws spaced 8 in. apart. Nail the spray rails through sides into chines with galvanized or aluminum nails; these serve to outline the paint finish since one color is used below and another above this rail. The splash rails (optional) are fastened from inside the hull with $1\frac{1}{4}$ in. #8 fh screws.

To finish, first apply 2 coats of clear or white Firzite followed by coats of paint or varnish as desired. Fasten floor boards to battens between the frames with $\frac{7}{8}$ in. #7 fh screws. You can add a steering wheel and lifting handles aft.

● Craft Print No. 154, in enlarged size for building Mustang is available at \$1. 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. 2039, SCIENCE AND MECHANICS, 450 East Ohio Street, Chicago 11, Illinois. See coupon on page 168. Now available, our new illustrated catalog of "196 Do It Yourself Plans," 10¢. Please allow three to four weeks for delivery.

MATERIALS LIST—10-ft. MUSTANG

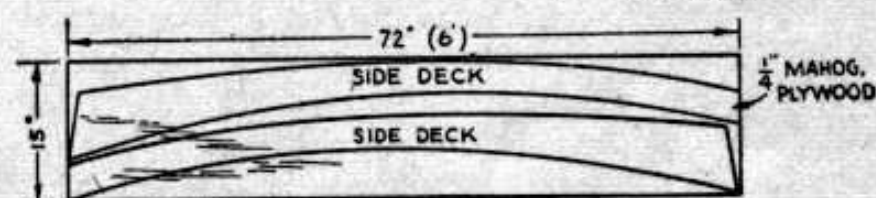
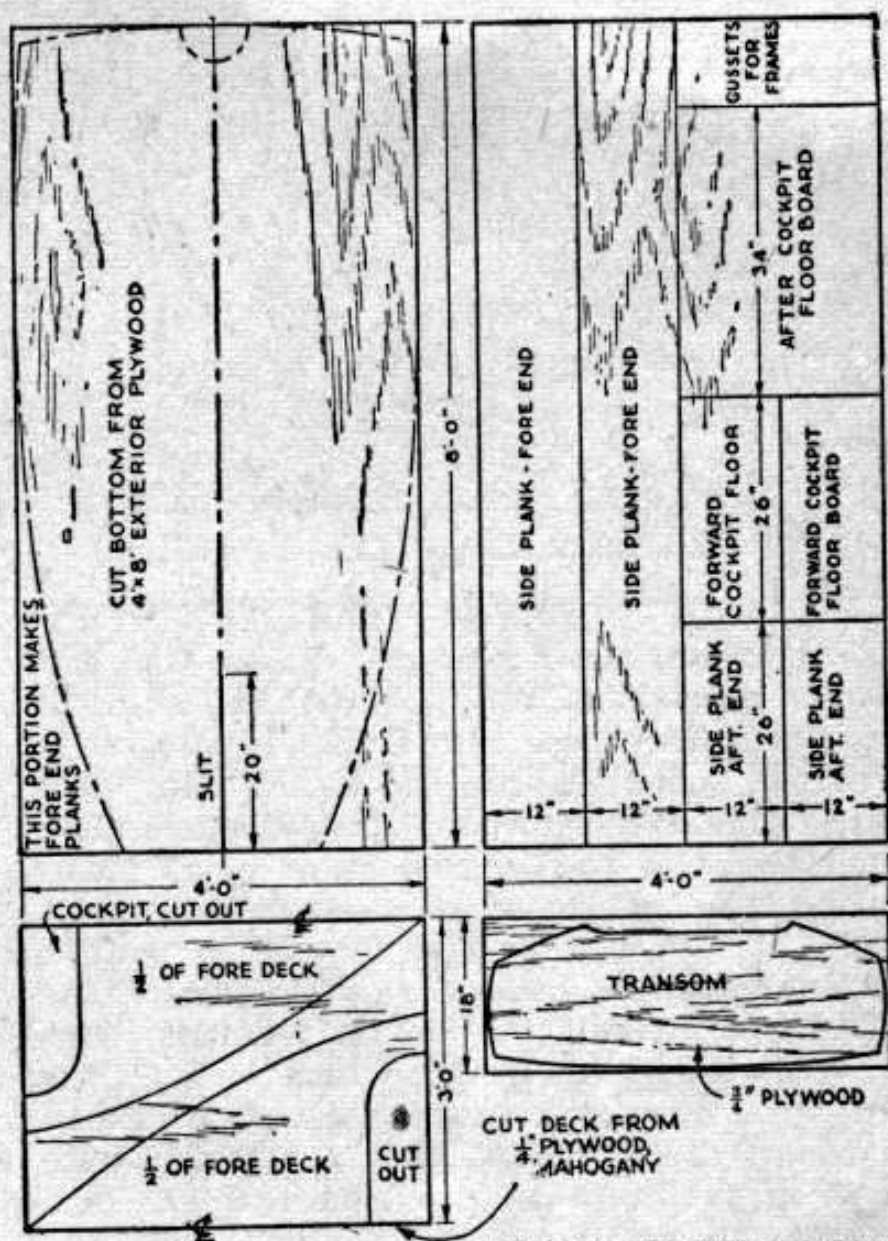
Amt.	Description	For
EXTERIOR PLYWOOD REQUIRED:		
2 pcs.	1/4"x4'x8'	Bottom, sides, flooring
1 pc.	1/4"x15'x8'	Side deck
1 pc.	1/4"x36'x48"	Decking
1 pc.	3/4"x18'x48"	Transom
	Waste plywood	Gussets

OTHER LUMBER REQUIRED (OAK OR YELLOW PINE):

2 pcs.	3/4"x1 1/2"x10'	Chines
2 pcs.	1/2"x3/4"x10'6"	Spray rails
1 pc.	1 1/4"x1 3/4"x8'	Keel
1 pc.	1/2"x1 1/4"x10'	Outer keel
2 pcs.	1/2"x1 1/4"x10'6"	Clamps
4 pcs.	3/4"x1 1/4"x7'	Battens
2 pcs.	3/4"x1 1/4"x10'6"	Moldings
2 pcs.	3/4"x1"x8'	Carlins
1 pc.	3/4"x1 3/4"x4'	Deck battens
1 pc.	3/4"x7 3/4"x10'	Deck beams
1 pc.	3/4"x5 3/4"x8'	Frames—bottom
1 pc.	3/4"x3"x6'	Frames—sides
1 pc.	3/4"x5 3/4"x10'	Transom frame
2 pcs.	3/4"x3 3/4"x42"	Splash rails (optional)
1 pc.	1 1/2"x6"x3'	Stem
1 pc.	1/2"x1 1/4"x8'	Outer stem
1 pc.	2"x10"x10'	Form
1 pc.	1 1/4"x12"x10"	Transom knees—inside
2 pcs.	7/8"x10"x12"	Transom knees—outside

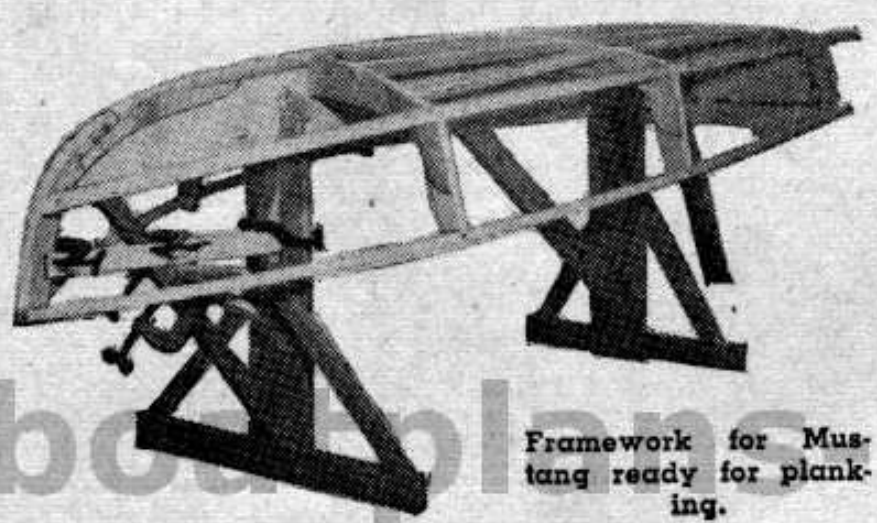
HARDWARE AND MISCELLANEOUS:

5 gr.	7/8" #7 fh screws
6 doz.	1 1/4" #8 fh screws
3 doz.	1 1/2" #8 fh screws
1 doz.	1 3/4" #8 fh screws
1/2 doz.	2" #10 fh screws
2	1/4"x3 1/2" fh stove bolts
4	1/4"x2" rh stove bolts
2	1/4"x4 1/2" fh stove bolts
1 pt.	Kuhl's Elastic Bedding Composition
1 pt.	Weldwood resorcinal resin glue
2 qts.	Firzite (clear or white)
	Steering wheel, 18-ft. 1/4" steering rope, 2 lifting handles, bow handle, throttle control, 4 tiller rope pulleys.



and fasten keel to notches with one 2 in. #10 fh screw to each joint except for the keel and stem notch joint where 2 fastenings are used. Now clamp chines in position in frame notches, leaving about 6 in. of chines to extend aft of transom. Coat transom chine notch well with Kuhl's Elastic Bedding Composition to prevent leaking at this point and fasten chine in place to transom and frame notches with one 1 3/4 in. #8 fh screw to each joint. Bevel ends of chines to fit against stem and fasten as you did the chine to the transom. Next, spring the clamps in place on each side and fasten them to notches with one 1 1/4 in. #8 fh screw to each notch. Bevel ends of clamps to fit stem and then fasten to stem

with 1 1/4 in. #8 fh screws. For the next step, trim and fair entire framework so plywood to be applied lies evenly at all points. Use a jack plane for fairing along the chines and a wood rasp for fairing stem and chines at the fore end where a plane would be hard to handle. Now notch bottom battens flush into frames and fasten with one 1 3/4 in. #8 fh screw to each joint. Locate battens equidistant between keel and chines. Insert battens nearest keel on edge and lay out battens flat; this produces unusual strength and allows the floor to be attached later to lie almost level. With battens notched to frame, trim ends of batts evenly along transom and cover exposed joints with another 3/4 x 2 in. curved bottom frame, bedding this frame down into Kuhl's Bedding Composition. For planking the major portion of the bottom with a single sheet of plywood, first select a 1/4 in. x 4 ft. x 8 ft. plywood piece. Saw a slit back from exact center of fore end for a distance of 20 in. This centerline slit should land directly on the center of the keel. Place plywood in position on bottom of boat's framework and let about 6 in. of plywood overlap transom, being sure it is centered along keel. Now clamp at the transom and



Framework for Mustang ready for planking.