Cabin Outboard Runabout "CRUISETTE"

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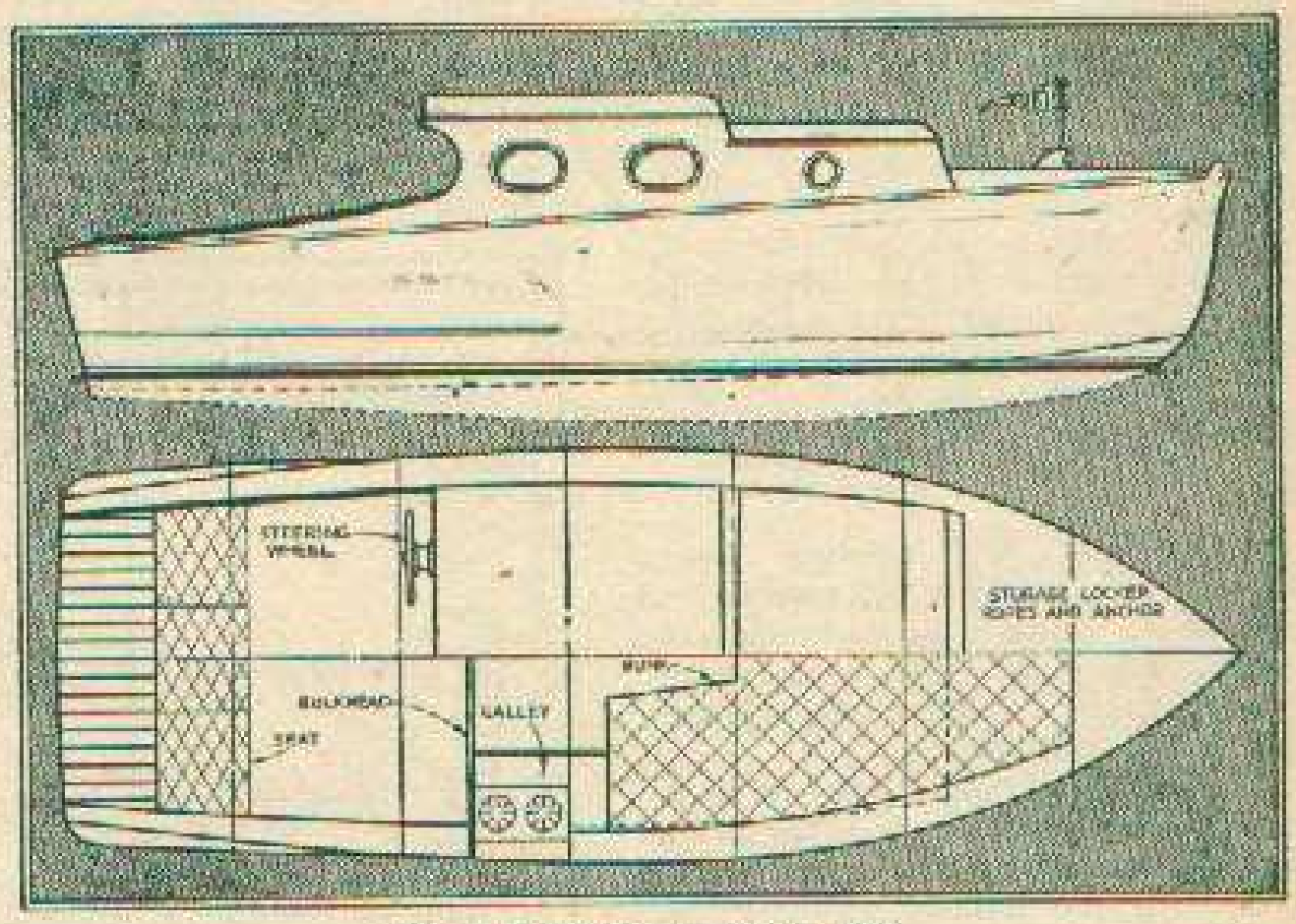
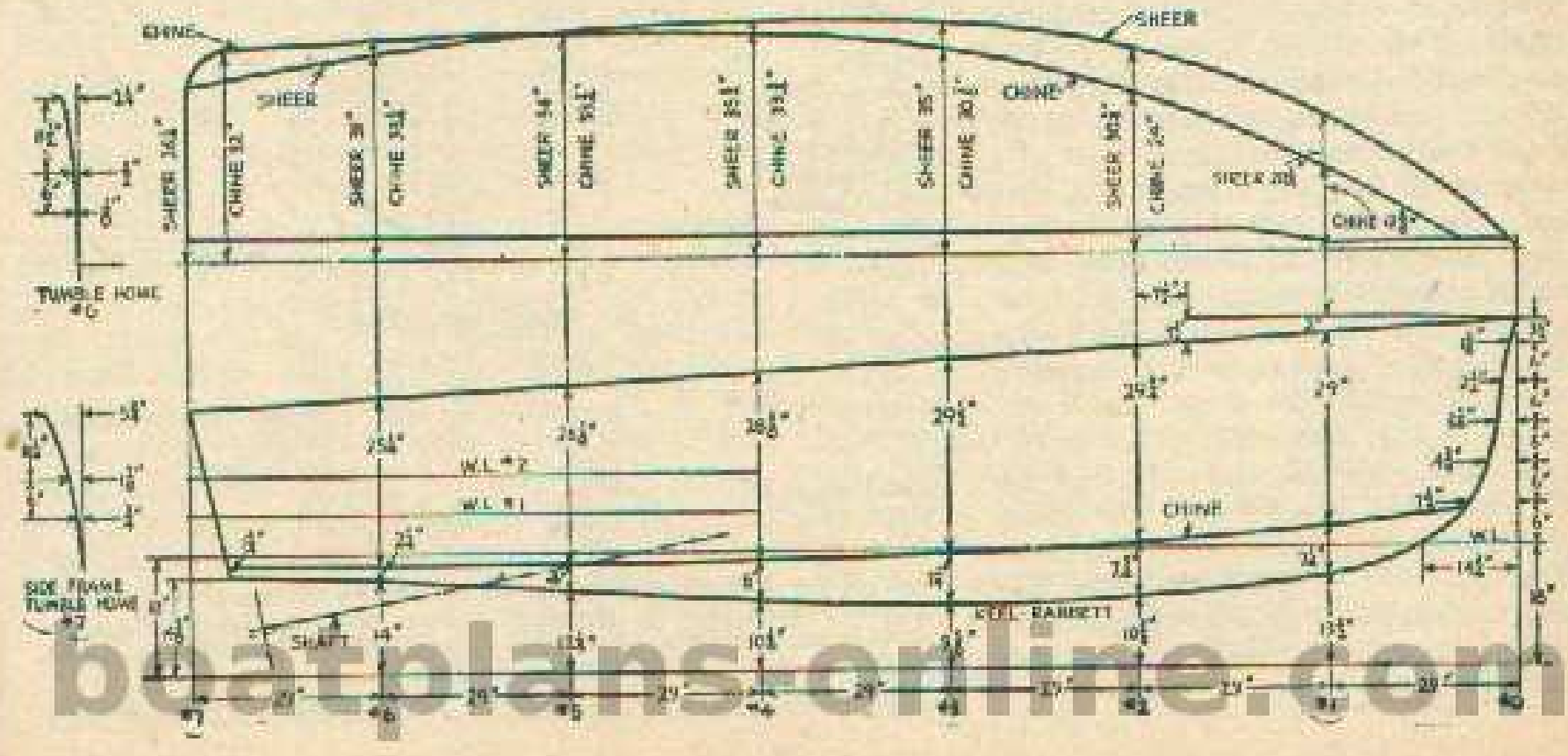


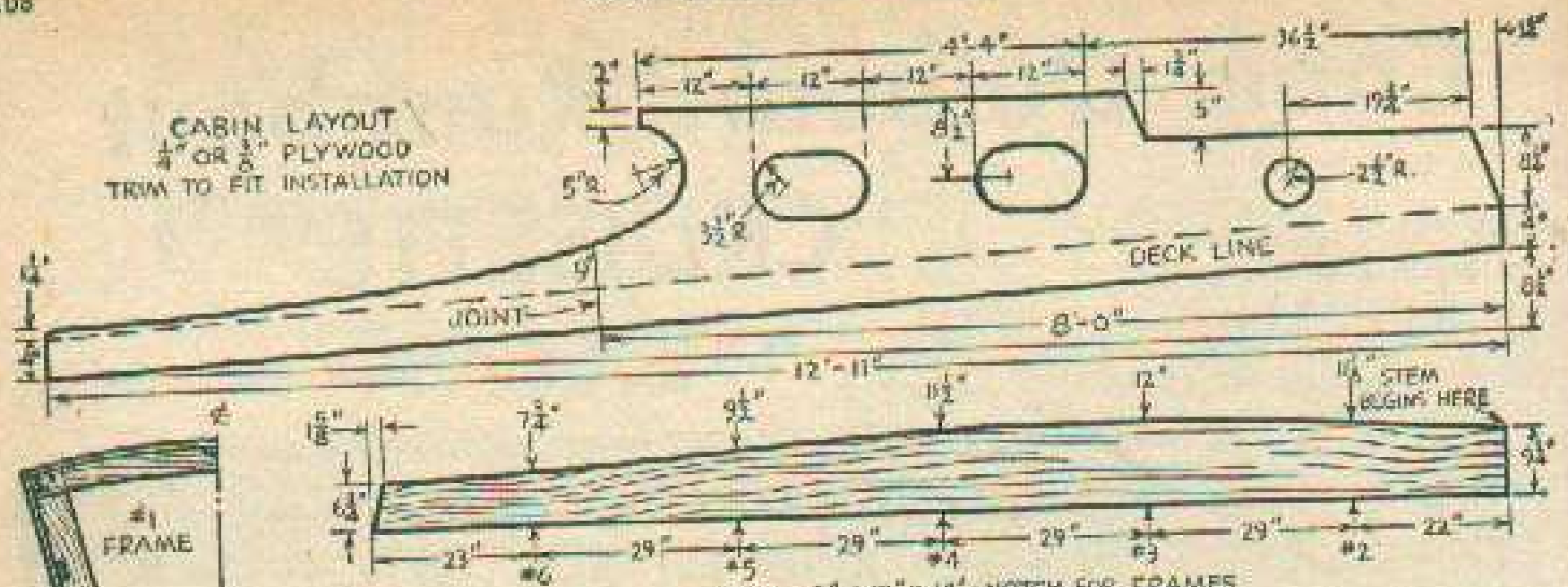
Craft Print Project No. 142

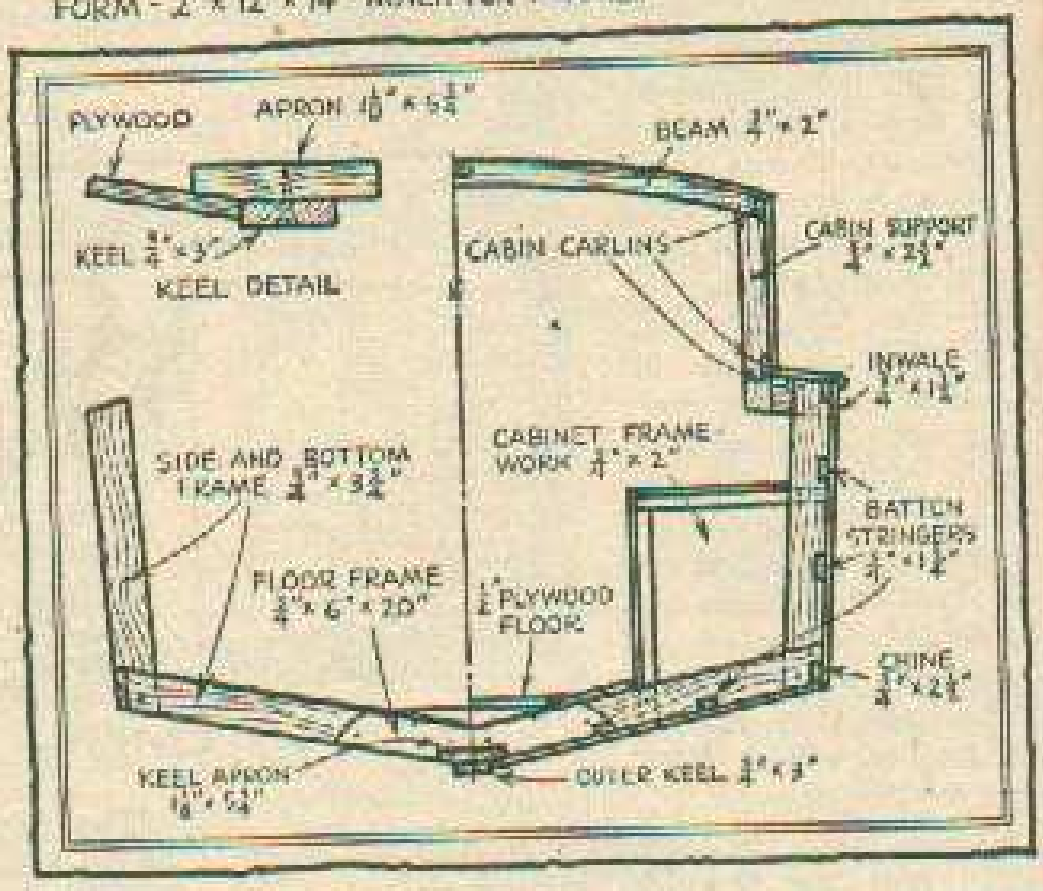
THE Cub Cruisette is a brand new design in outboard cabin craft. Its lines resemble motor torpedo boats with new and attractive cabin accommodations which are especially adapted to the needs of the outboard or small boat enthusiast. Besides utilizing outboard motors, this boat may also be powered with air cooled inboards or, if the construction is strengthened, small high power inboard engines may be used for high speeds, since the efficiency of this craft is almost constant with high or low power. Generous beam and ample depth provide all the room desired on this boat, and with an economical outboard of low power, you'll be able to go anywhere almost any time at a cost that is surprisingly low.

Arrangements as indicated on the plans are simple and not detailed excessively, as each constructor will install and plan his own ideas. The basic construction, however, is time tried and proved and if the hull is built with reasonable patience and care the completed boat should be a possession for many years of pleasureable service.

The power installed in this paragon of outboard cruisettes will depend upon the available supply. In these days of uncertain and limited supplies of everything, it is necessary to conserve but it does not necessarily mean we must row. There are many small outboard motors, 5 to 15 h.p. that should power this boat for speeds of 10 to 20 mph. and air cooled inboard motors







are available that produce slower speeds with an amazing economy of operation. Even a light weight converted auto engine will make her get up and go, so the first thought should be that of construction.

Waterproof plywood ¼-in. in thickness is used wherever feasible in this cruiser, but the construction is not limited to that material alone. Planking with batten to secure the seams or, if desirable, lapped planking is satisfactory. In this manner the construction may be adapted to the materials available, as even the most stringent conditions will allow enough materials to build this craft if they are sought.

Although not absolutely necessary, the construction of this hull should be started by laying the lines down full size upon large sheets of building paper. This affords a better understanding of the hull and also furnishes full size and corrected paper patterns of all frames and the stem.

Assemble the frame and stem material, laying it upon the paper patterns to conform to lines; mark and cut to shape, later returning parts to patterns for reassembly. Fasten the stem together with ¼-in. dia. carriage bolts and secure the frame joints together at the keel with a ¾" x 20" floor frame, glued and screwed in place with 1½" No. 8 F.H.S. The chine joints may be either screw fastened or bolted with ¼" carriage bolts. Secure a cross piece to the tops of each frame to prevent possible distortion while the frame work is being erected.

MATERIAL LIST

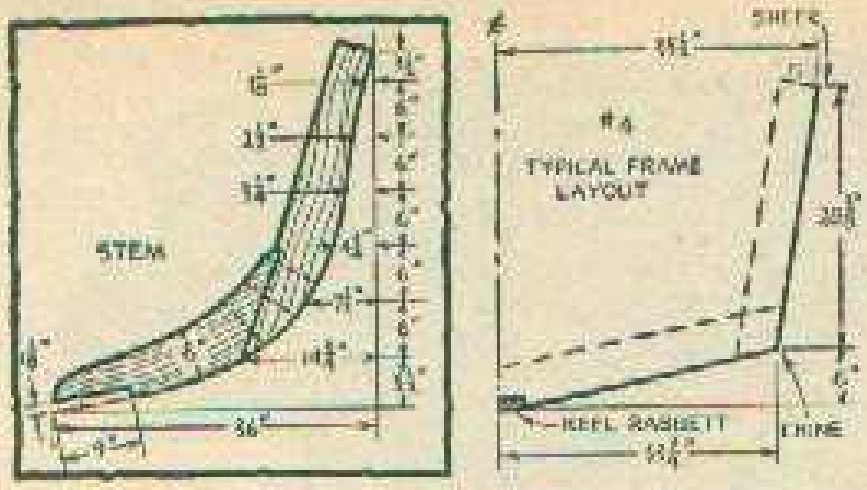
Note: As methods and materials for this boat will vary widely only these materials are noted as required to erect the basic hull.

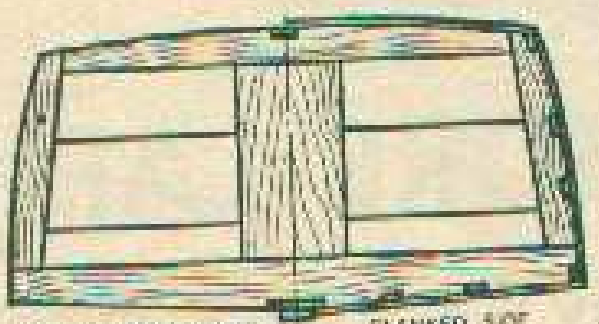
Chines	2 Pcs.	¾" x 2½" x 17'
Keel Apron	1 Pc.	1⅛" x 5¾" x 14'
Keel Outside	1 Pc.	¾" x 3" x 14'
Bottom and Side Batts	8 Pcs.	¾" x 1½" x 18'
Inwales	2 Pcs.	¾" x 1½" x 20'
Mouldings	2 Pcs.	⅜" x 1" x 20'
Transom	3 Pcs.	¾" x 9¾" x 6'
Frames—Sides	2 Pcs.	¾" x 33¾" x 18'
Bottom	3 Pcs.	¾" x 33¾" x 12'
Cabin Beams	1 Pc.	¾" x 12" x 10'
Deck Beams	1 Pc.	¾" x 12" x 10'
Cabin Carlins	5 Pcs.	¾" x 1½" x 10'
Stem	1 Pc.	2½" x 9" x 36" Oak or yellow pine
Form	1 Pc.	1¾" x 12" x 14'

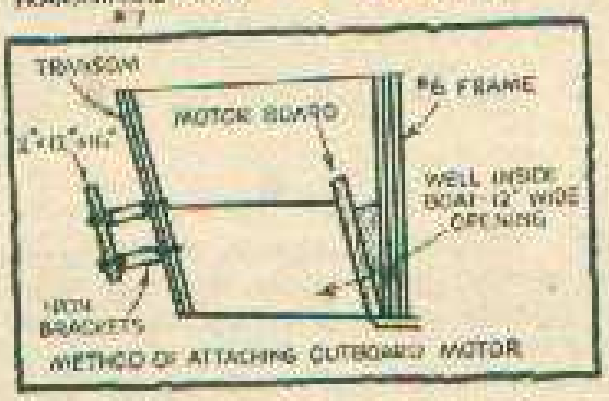
PLYWOOD REQUIRED

Sides	2 Pcs.	¼" x 30" x 10'
Sides	2 Pcs.	¼" x 30" x 8'
Bottom	2 Pcs.	¼" x 36" x 10' or ⅜-in. thickness
Bottom	2 Pcs.	¼" x 36" x 10'
Deck	1 Pc.	¼" x 48" x 8'
Cabin—Sides	3 Pcs.	¼" x 30" x 8'
Top	4 Pcs.	¼" x 30" x 5'
Bulkhead	1 Pc.	¼" x 48" x 6'

Much of the cabinet work may be constructed from waste of parts indicated, while the ¾" plywood flooring will depend upon engine installations. As each one of these boats will be an individual unit, further materials must be adapted to individual requirements.







about 6" apart. The inwales are now attached and before they are permanently fastened, shift up and down until the sheer line is fair and directly approximates the designed sheer line. Attach the inwales with 2" No. 8 F.H.S. The entire frame work is now trimmed and faired so the planking to be applied lies evenly at all points. A batten laid over all surfaces will indicate the relative amount of planing necessary to fair the outside surfaces of the framework. At this point notch in and fasten the clamp stringers to the frames with 2" No. 8 F.H.S.

Application of Planking

The planking is ¼" thickness plywood which is satisfactory for all ordinary purposes. However if it is intended to install on some future date a small inboard engine, better use ⅜" thickness and provide intermediate frames between the main frames—one intermediate between main frames size ¾" x 2". Plank the sides first, drilling lead holes for all fastenings, securing plywood to clamp, chines, frames and stem and keel with 1" No. 8 F.H.S. and to stringers with 1¼" gal. shingle nails clinched on the inside. First coat all adjoining surfaces, especially the keel and chine joints, with "C" quality marine glue, lay cloth strips upon the glued area, and recoat and apply planking. With the sides planked, allow a ¾" x 4" butt block for planking butt on both sides and bottom, and secure the butt joint with 1" No. 8 F.H.S.

The exposed edge of the planking along the stem is now covered with a ¾" x 1½" outer stem piece treated with hot water to make it flexible and screw fastened in place with 1" No. 8 F.H.S. The hull should now be coated with equal parts of linseed oil and turpentine inside and out, or linseed oil inside with a coat or two of plywood primer outside.

The interior work is self explanatory, as the cabin sides are dimensioned and need only fitting. However, saw to shape the deck beams fore and aft, fastening them to the frames with screws. The cockpit beams are screw fastened to sides of frames to which are fastened the cabin uprights. Finishing of the cabin and cockpits is left to individual preferences, but if an outboard engine is used for power, it may be mounted on a removable bracket on the transom or an engine well may be made between the transom and No. 6 frame, as indicated, and the outboard enclosed under hatches. Provide ⅝" plywood floors for cockpit and cabin and bunks while the cabin galley is fabricated with ¼" material. The end of the cabin should be a piece of ½" plywood extending full length, from the cabin top to the bottom of the boat, with an entrance way cut through it.

The transom is constructed of 10-in. widths of lumber secured together with a frame as shown, which is screw fastened to the transom with 1½" No. 8 F.H.S. Notch all frames for chines, keel and inwale notches. After frames are erected upon the form it will be further necessary to properly bevel the edges of the notches and frames, so chines and planking will lie fairly and touch wood to wood. It will be necessary to notch No. 1 frame to fit over the end of stem.

With the form cut to shape and mounted atop legs similar to a saw horse, the frames are placed in their respective positions upon form and transom and the stem secured temporarily with wood strips and clamps. A number of wood braces from the floor to the frames will aid in maintaining correct alignment.

Attaching the keel apron is first, and this member is secured to the keel notches with 2½" No. 8 F.H.S., two to each joint, fastening similarly to stem notch. It will be necessary to taper the forward end of the keel apron to fit the stem, starting taper from nothing 2 feet aft of the stem to the width of the stem at the stem joint.

Attaching the chines is next, these being sprung in place together, starting at the transom frame and working forward to the stem where the ends are beveled to fit the stem and the joints secured with one 2½" No. 8 F.H.S. Attach the outer keel directly in the center of the keel apron with 1½" No. 8 F.H. screws spaced

* Craft Print No. 142 in enlarged size for building the "Cruisette" is available at 25c each. Address Craft Print Dept. B-50, Science and Mechanics, 450 East Ohio Street, Chicago 11, Illinois.