

Here's Robert W. Nance's *Sun Fish*, renamed *The Little Frog* at the behest of his 7-year-old daughter. Mr. Nance, of Miami, Fla., departed from the original plans for *Sun Fish* to the extent of turning the top 2x4 sideways and continuing the 1x6 plate around the bow, giving him walking space on the bow and a place for an anchor-line eyebolt.

SUN FISH

Novel bow design on this 375-lb.,
outboard-powered cruiserette
permits easy beaching

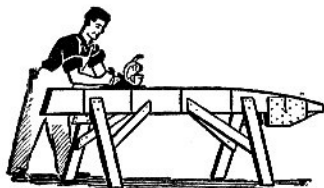
Craft Print Project No. 38

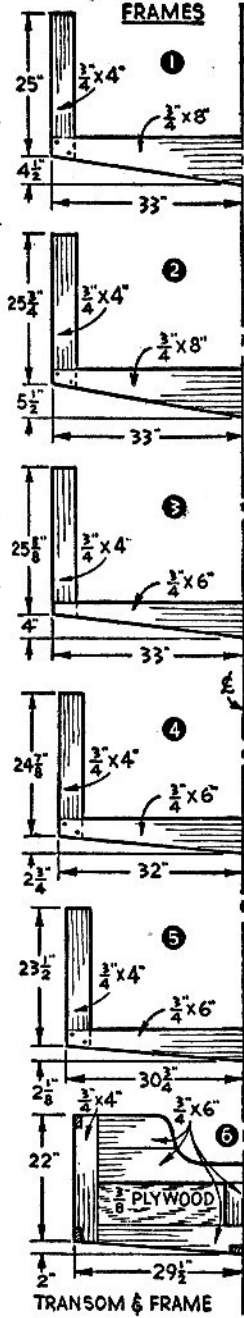
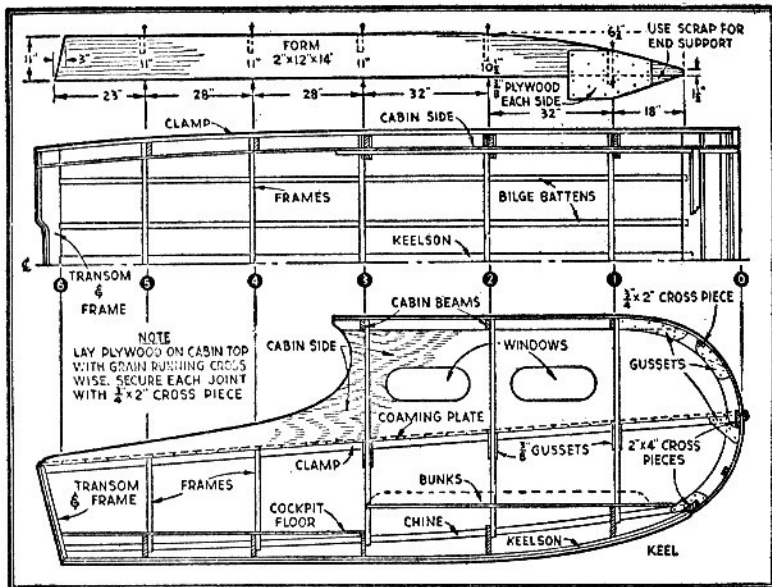
THE *Sun Fish* is an unconventional looking cruiserette which weighs only 375 pounds and is powered by an outboard. It can be transported by trailer easily and has accommodations for two persons for overnight trips. The scow-

type bow allows it to be landed on shelving beaches, which means dry feet for the passengers on embarking.

As for speed, the *Sun Fish* will do 5 to 35 mph. A 5 hp outboard motor will propel *Sun Fish* about 6 mph while a 10 hp motor will shove the loaded hull with two persons aboard at an 8 mph clip. With speeds of over 16 mph, planing action takes place and speeds of 10 to 35 mph are possible.

Construction of *Sun Fish* is simple. No difficult joinery work is necessary. As the first step in construction secure a 2x12x14 ft. piece of common pine for the building form, and mark and saw it to shape. (Don't notch form for frames until you have finished the frames.) Attach 2x4 legs to this form so that it looks like a saw horse and is at a convenient working height. Next, frames are sawed to shape. Paper patterns are not necessary for this boat as the V on the bottom members of the frames is marked directly upon the lumber and the side members are just





straight pieces aligned squarely to bottom members.

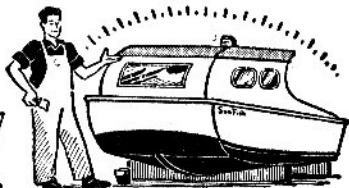
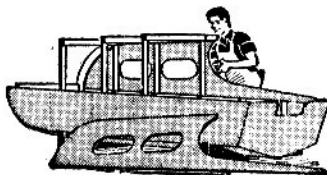
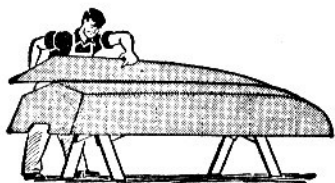
Assemble all frames, including transom and frame. Coat adjoining surfaces with either Cascophen glue or Ferdinand's resin glue. Then fasten chine joints of frame members with 1 1/2 in. #10 flathead screws. When glue is dry, notch frames for keel, chines, and clamps. Then notch form properly for frames. Next assemble frames upon form and proceed to attach keel, chines and clamps in place to frames with one 2 in. #10 fh screw to each joint. Let these members extend forward; you will trim them later after the sides are completed.

The sides are planked first, by clamping a plywood sheet in position on each side with clamps and, at points indicated, marking fore sides for radius or curved fore end. After marking, remove plywood and saw to shape. Next return to the hull. Before fastening sides in position provide a 3/4 x 4 in. frame around curved bow area. Saw this curved frame from wider stock or boards. Then glue and screw fasten frame to plywood with 1 in. #8 fh screws spaced about 2 in. apart. At point indicated, notch flush into curved members and fasten two 1 1/2 x 4 in. pine cross pieces—one for the keel and the chine joints and one for the clamp joints. Screw fasten these.

Next bevel keel and chines to fit the bottom cross piece and screw-fasten them, providing plywood gussets at points of strain as indicated. Clamps merely butt against curved frame and are secured with plywood gussets. Coat all contact surfaces with resin glue and screw-fasten with 1 in. #8 fh screws spaced at about 2 in. intervals.

The next step is to plank the bottom. First attach outer keel in position and screw-fasten with 1 1/2 in. #8 fh screws spaced about 6 in. apart. But before this job of planking the bottom is started, it is wise to decide upon the power plant you will use. If a 5 to 10 hp motor will be used, 1/4 in. plywood is satisfactory, but if a motor of over 15 hp is used, it would be better to use 3/8 in. plywood for added strength.

Clamp plywood in place and mark and cut to shape before attaching ply-



wood. For a watertight bottom, coat all adjoining surfaces with Ferdinand's Aviation Glue, lay cloth strips upon glued area, recoat, and clamp plywood in place. To reinforce the bottom and prevent flexing of the plywood, before planking the bottom, notch four bilge battens flush into frames. Put two battens on each side of keel, located equidistant between chines and keel. Screw-fasten bilge battens in place with 2 in. #10 fh screws. Then continue by clamping bottom plywood in place and screw-fasten at all points with 1 in. #8 fh screws spaced at 2 in. intervals. Start by fastening the forward edge of the bottom planking to the lower cross piece at the bow and work aft. Then join the second piece which will extend

to the transom. To join the bottom pieces, butt the ends together, then glue and screw-fasten the ends to six short $\frac{3}{4}$ x 4-in. butt blocks placed

MATERIALS LIST—SUN FISH

WOOD REQUIRED

Part	Size
keelson	1 pc. $\frac{3}{4}$ "x3 $\frac{3}{4}$ "x14'
keel	1 pc. $\frac{3}{4}$ "x1 $\frac{3}{4}$ "x14'
bilge battens	4 pcs. $\frac{3}{4}$ "x2" $\frac{1}{2}$ "x14'
chines	2 pcs. $\frac{3}{4}$ "x2" $\frac{1}{2}$ "x14'
clamps	2 pcs. $\frac{3}{4}$ "x2" $\frac{1}{2}$ "x15'
moldings	4 pcs. $\frac{3}{4}$ " Quarter Round 15'
frames	3 pcs. $\frac{3}{4}$ "x4" $\frac{1}{2}$ "x10'
frames	4 pcs. $\frac{3}{4}$ "x6" $\frac{1}{2}$ "x12'
deck plate	2 pcs. $\frac{3}{4}$ "x6" $\frac{1}{2}$ "x12'
cross beams	2 pcs. $\frac{3}{4}$ "x3 $\frac{3}{4}$ "x12'
cabin beams and uprights	4 pcs. $\frac{3}{4}$ "x2 $\frac{1}{2}$ "x12'
carlins	2 pcs. $\frac{3}{4}$ "x1 $\frac{1}{2}$ "x8'
cabin top bat	2 pcs. $\frac{3}{8}$ "x2" $\frac{1}{2}$ "x8'
cabin corner framing	2 pcs. $\frac{3}{4}$ "x12" $\frac{1}{2}$ "x10'
form	1 pc. 2" $\frac{1}{2}$ "x12" $\frac{1}{2}$ "x14'

PLYWOOD REQUIRED

10 pcs. $\frac{1}{4}$ "x4"x8'
($\frac{1}{4}$ " Masonite may be substituted for cabin top.)

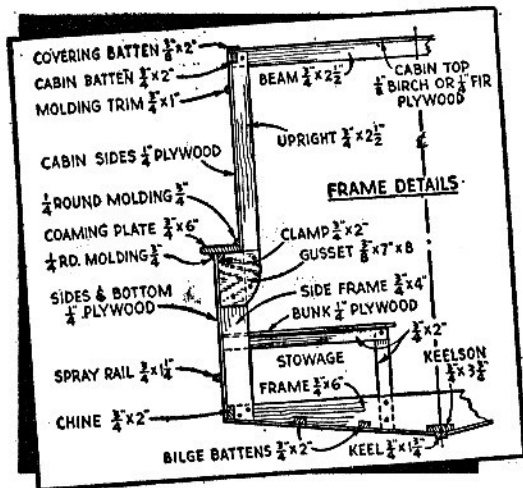
FASTENINGS

8 g. 1" No. 8 fh screws
1 g. $1\frac{1}{2}$ " No. 8 fh screws
1 g. 2" No. 10 fh screws
1 pt. aviation glue
1 lb. resin glue
4 pcs. Plexiglas 10"x24", .025 thickness or thicker.

inside the hull between #3 and 4 frames.

Remove hull from form, turn right side up, and prepare to install cabin uprights as indicated. Place $\frac{1}{4}$ in. fir plywood sides in position and mark for both cockpit coaming and curved ends forward, using radius indicated. Openings for windows may be cut now, while openings for a windshield are cut later (if desired) after hull is completed. Provide a $\frac{3}{4}$ x 4 in. curved frame for curved ends of plywood forward as shown and secure joints with plywood gussets, glued and screw-fastened in place. Screw cabin sides to uprights, and place coaming plate in position. Screw-fasten plate to tops of frames and fasten plywood cabin sides to plate from inside cabin. Fasten with 1 in. #8 fh screws.

Screwfasten roofing in place with 1 in. #8 fh screws. Fasten moldings and splash rails from the inside. Before attaching quarter round moldings along coaming plate, coat joints well with caulking compound to prevent leaks. Apply two coats of *Firzite* to both interior and exterior of hull and finish as desired. Use $\frac{3}{8}$ in. plywood for cockpit and cabin flooring.



● To obtain enlarged plan for building Sun Fish, Craft Print No. 38, see handy order form on last page of this issue.

