

# JAMAICAN

**A sailboard for maximum fun—it has  
a unique hull for a minimum of work**

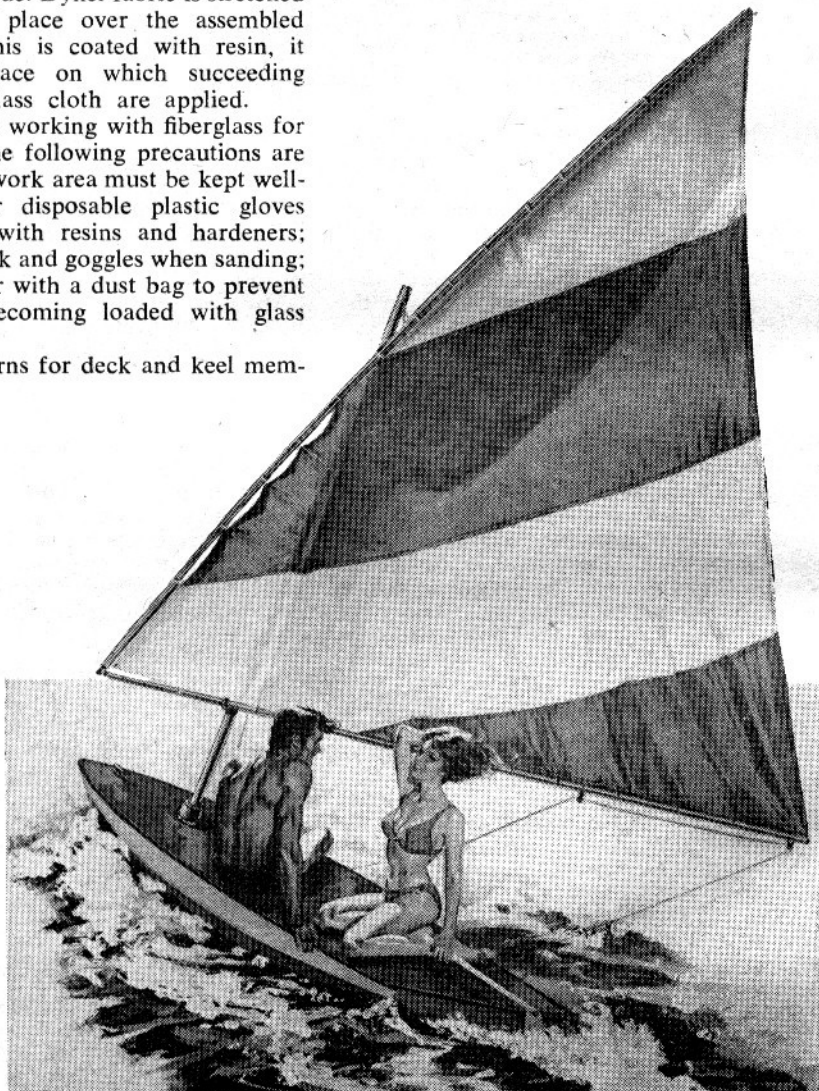
“Jamaican” is the apt name for this sailboard that was designed and built as a shop project at the Jamaica, N.Y. high school. Its hull is fiberglass and Dynel over a simple wood frame, and no special building jigs or forms are needed.

Construction technique developed for the Jamaican is unique. Dynel fabric is stretched and stapled in place over the assembled frame. When this is coated with resin, it forms the surface on which succeeding layers of fiberglass cloth are applied.

If you will be working with fiberglass for the first time, the following precautions are in order: Your work area must be kept well-ventilated; wear disposable plastic gloves when working with resins and hardeners; wear a dust mask and goggles when sanding; and use a sander with a dust bag to prevent the air from becoming loaded with glass fiber dust.

Lay out patterns for deck and keel mem-

**Craft Print 371**



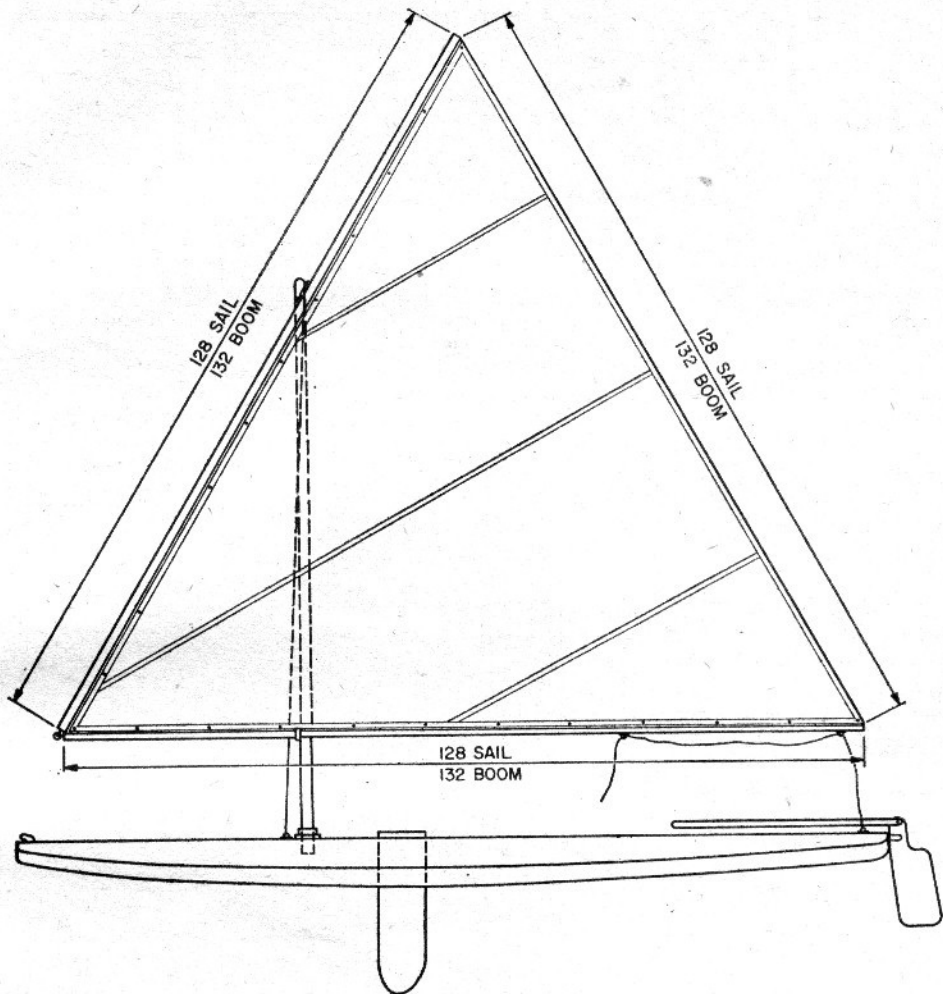
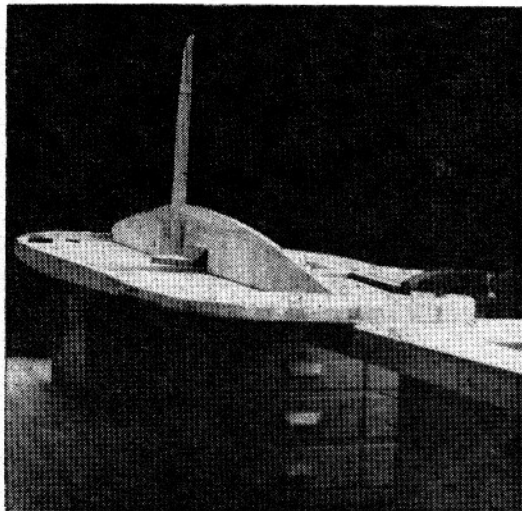
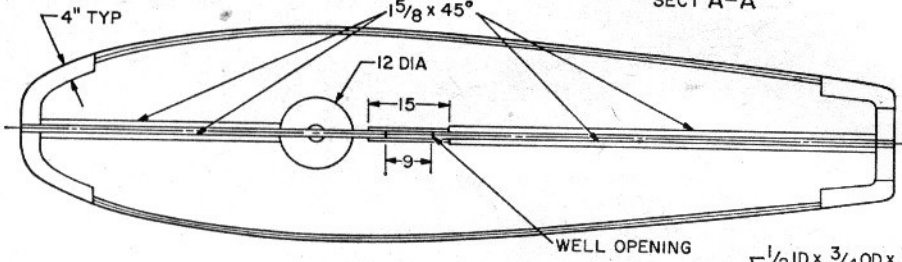
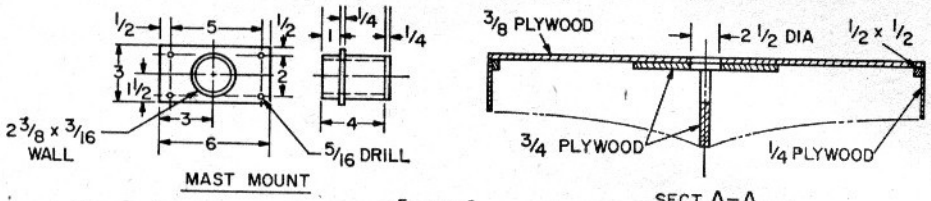


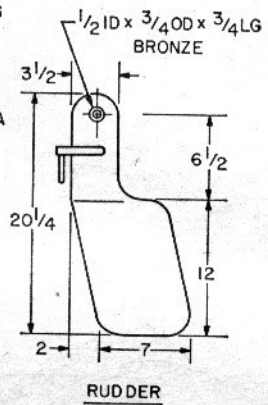
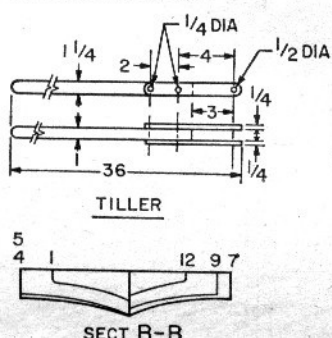
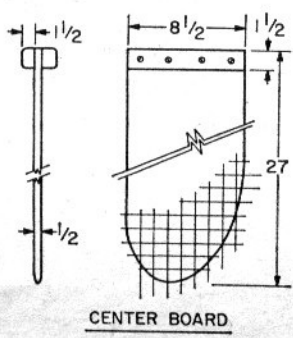
FIG. 1

Bottom view of the deck and internal structure. Note the centerboard temporarily in place, and the round  $\frac{3}{4}$ " disc which serves as a doubler for reinforcing the mast socket.





BOTTOM VIEW OF HULL



SECTION B-B

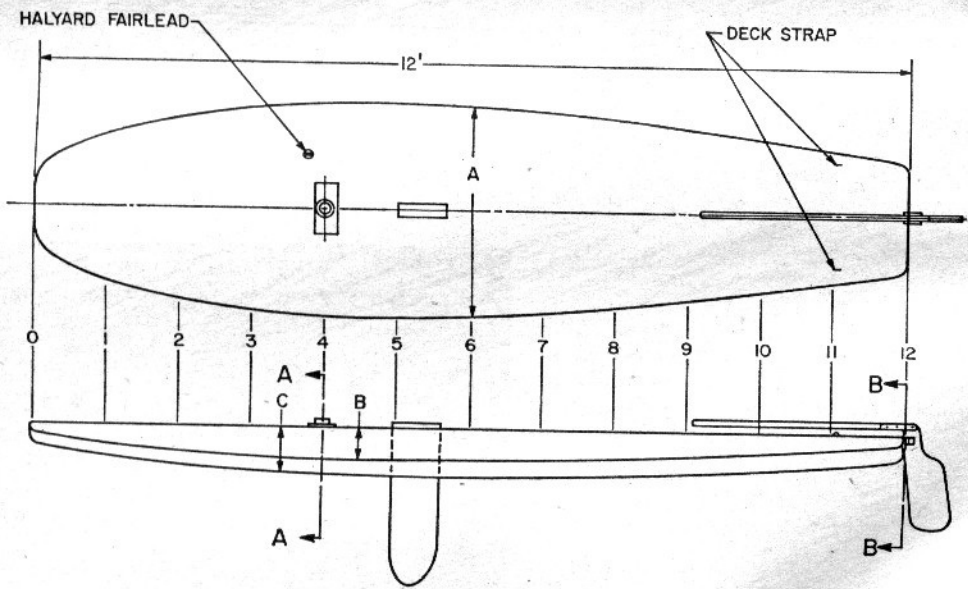
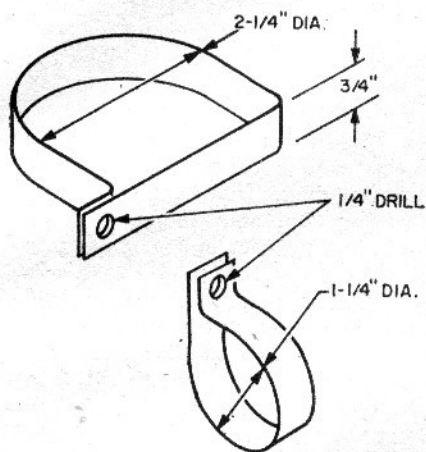


FIG. 2

STA	0	1	2	3	4	5	6	7	8	9	10	11	12
A	12	26	30	32	36	36	35	34	32	29	26	22	18
B	1 1/4	3	4	4 1/2	4 3/4	5	4 3/4	4 1/2	4 1/4	3 3/4	3	2 1/2	1 1/2
C	3	5	6 1/4	7	7 1/2	7 3/4	8	7 1/2	7 1/4	6 3/4	6	5	4 1/2



(EE) GOOSENECK FITTING

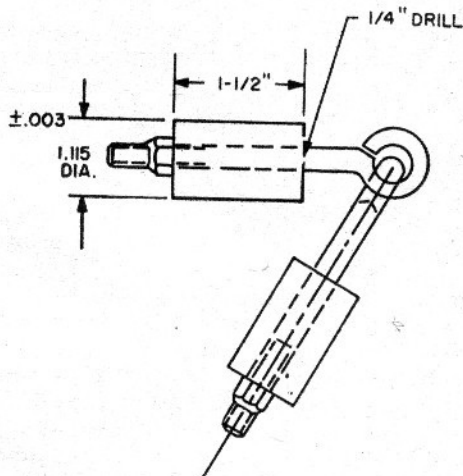
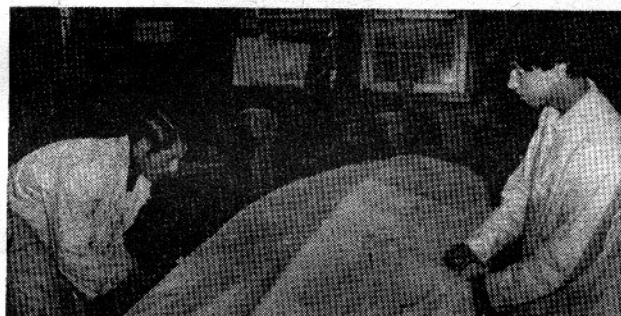
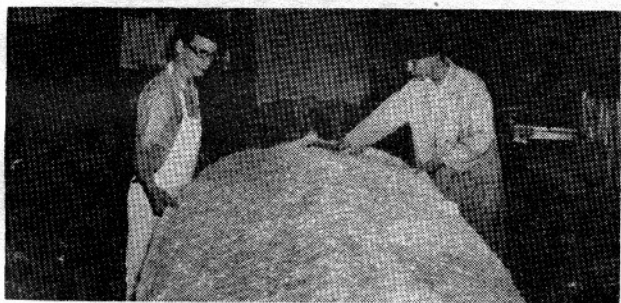


FIG. 3



Left: Dynel is draped over the completed frame then stretched tightly. This is easiest when two people work together using staple guns.



Below left: Layers of fiberglass are laid over the Dynel. The weave of each layer is angled at 45° to the one underneath.

bers full size on builders' paper, available at most hardware stores, then transfer the lines to the wood stock. The deck can be made up of a single piece of  $\frac{3}{8}$ " x 4' x 12' exterior grade plywood, or  $1\frac{1}{2}$  sheets of 4' x 8' plywood with a 6" doubler extending the length of the joint. A 12" diameter disc of  $\frac{3}{4}$ " plywood serves as a doubler for reinforcing the mast socket. The bow and stern are shaped from soft pine. To support the sides, two  $\frac{1}{2}$ " square strips

are secured to the edge of the deck; the sides are of  $\frac{1}{4}$ " plywood, screwed to these strips. Since the hull is covered with fiberglass, screws of any metal can be used.

The keel is made from  $\frac{3}{4}$ " plywood, with two side plates used to form the centerboard well. Four pieces of wood, each  $1\frac{3}{8}$ " x 45° are glued and screwed to the base of the keel, as shown in the bottom view of the hull. The keel is then glued and screwed to the deck.

The mast socket can be made of mild steel tubing and plate, or you can use one of 2" inner diameter available from one of the marine supply houses. After the socket is bolted in place, fiberglass it to the keel to insure greater rigidity.

Now drape a sheet of Dynel 12'6" x 48" over the bottom of the boat, and stretch it tightly. This is an easy job when two people using staple guns work together. Care must be taken to prevent wrinkles. Polyester resin is now applied to the taut Dynel; use pigmented resin unless you plan to paint the finished hull. Additional layers of glass cloth are laid up, one at a time, over the Dynel. Apply the cloth so the weave angle of one layer is at a 45° angle to the layer below. Be sure the cloth wets out thoroughly; avoid resin-starved or resin-rich areas that weaken the structure. As the resin starts to cure, trim away excess cloth.

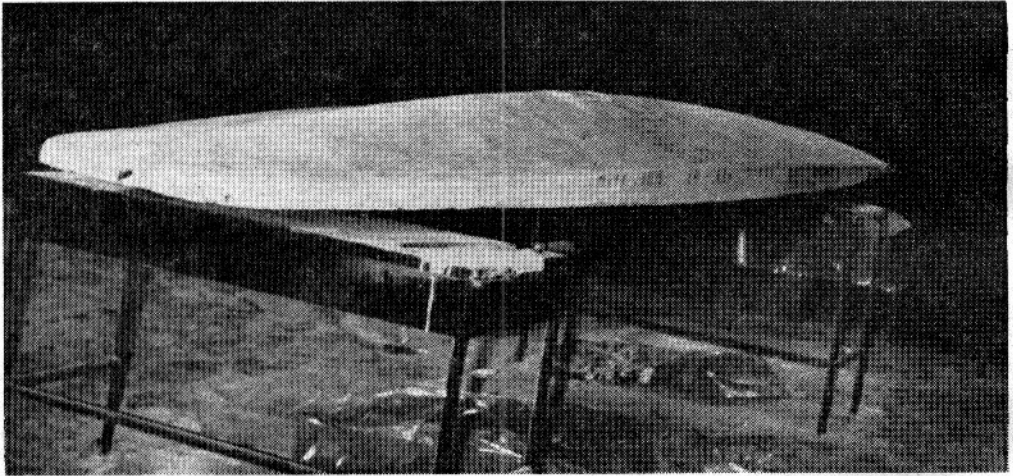
When the resin has cured, turn the hull right side up. Bore several 1" diameter holes through the deck, and pour in polyurethane foam. When this cures, it provides added strength to the hull, as well as plenty of flotation. Plug the holes and add a layer of

glass cloth to the deck. Cut the cloth away from the centerboard well opening on both the deck and the bottom, and fiberglass the inside of the well, bonding it to the hull and deck as a watertight unit.

The centerboard and rudder are cut from ½" plywood, and covered with fiberglass.

The mast is made from a piece of 2" outer diameter aluminum tubing 8' long. Turn wood plugs for each end, and epoxy in place. The top plug should be 4" long, and the bottom plug 2" long. The top plug will prevent the mast from deforming when the halyard block is bolted in place, and the sealed ends will ensure that it will float should the boat capsize.

Booms are of 1¼" outer diameter aluminum tubing, 11' long. Fit two aluminum plugs with eye bolts as shown in Fig. 3, and weld the nuts to the bolts to prevent them from working loose (Used double nuts snugged up tightly if you do not have welding equipment). The eye bolts are interlocked, and the plug assemblies are then epoxied into the ends of the booms. Tap 3" lengths of wooden dowel into the booms to provide strength where eye straps and



Hull ready for sanding. Be sure to wear a dust mask and goggles when sanding fiberglass. Use a dust bag on sander. Fibers kicked up during sanding can cause irritation.

View of the aft section showing the rudder-tiller assembly. The rudder is made from  $\frac{1}{2}$ " plywood and covered with fiberglass. Open ends of the booms are filled with 3" dowels.

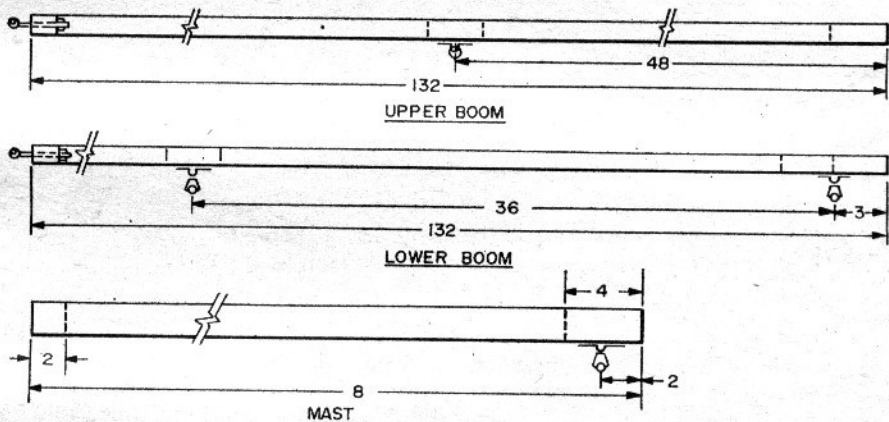
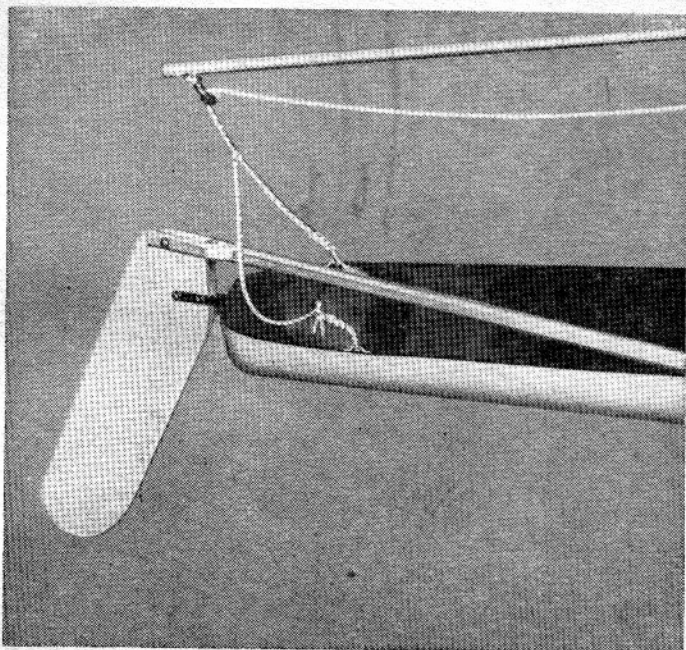
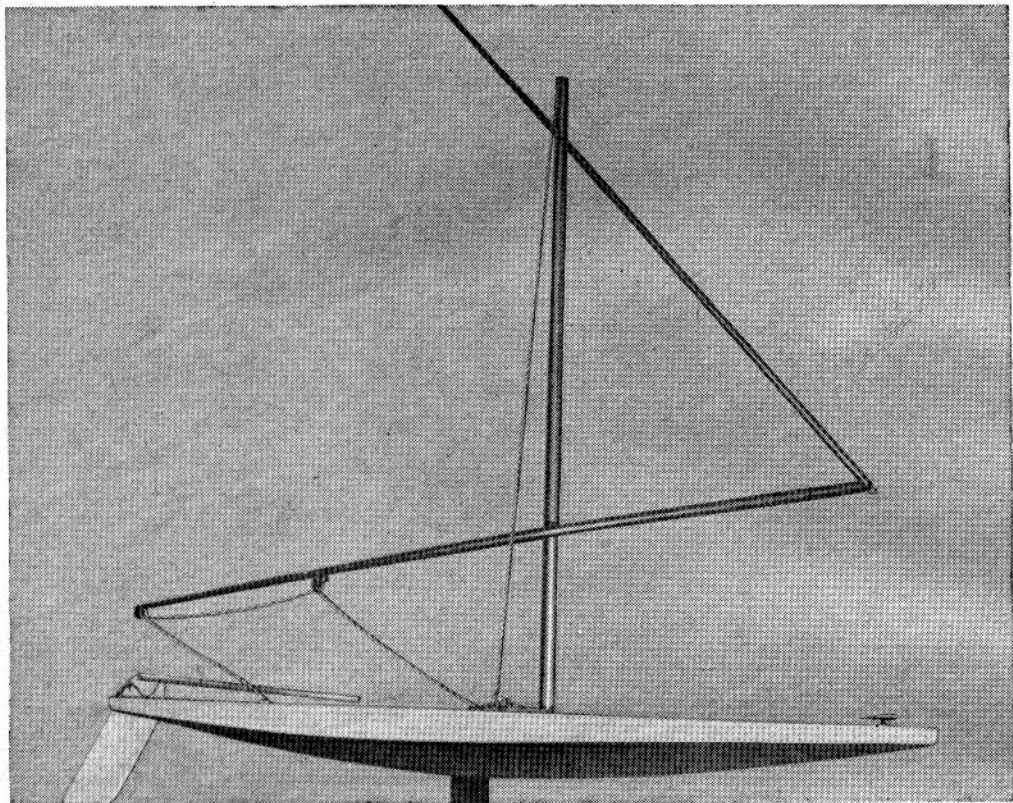


FIG. 4

**BILL OF MATERIALS**

1	Deck	$\frac{3}{8}$ " Plywood Marine or Exterior	2	Gudgen	Race Lite #RL-360
1	Double Mast Socket	$\frac{3}{4}$ " Plywood Exterior 12" x 12"	2	Aluminum Tube	$\frac{1}{4}$ " OD x .065 Wall x 11'
4	Bow & Stern Sides	$\frac{1}{2}$ " Pine May be built up	1	Mast	Aluminum Tube 2 OD x .083 Wall x 3'
2	Side Supports	$\frac{1}{4}$ " Plywood Exterior 6" x 12"	2	Eye Bolts	$\frac{1}{4}$ " NC with nuts and cotter pins. See Fig. 3
1	Keel	$\frac{1}{2}$ " square Spruce or Fir	2	Sail	Dacron or Nylon, 3 oz or 4 oz, 22 ft. 36" W
2	Side Plates	$\frac{3}{4}$ " Plywood Exterior 9" x 12"	30	Grommets	#2, $\frac{3}{8}$ " ID Brass
2	Centerboard	$\frac{3}{4}$ " Plywood Exterior	3	Dynel	$12\frac{1}{2}$ " x 48"
1	Keel Stiffener	$1\frac{1}{2}$ " x 45" Spruce or Fir 12'	1 gal.	Glass Cloth	40' x 48"
1	Halyard Fairlead or Kimro Kleak #CH-500	(2) $\frac{1}{4}$ " nc, $1\frac{1}{2}$ " Lg brass bolts, nuts, cotter pins	25'	Polyester Resin	7 gal. @ colored pigment
1	Mast Socket	J <sub>1</sub> 3x8x $\frac{1}{4}$ " HRS, J <sub>2</sub> 2 $\frac{3}{8}$ x3/16 wall tube 4 Lg., J <sub>3</sub> 2 $\frac{3}{8}$ " Dia x $\frac{1}{4}$ " HRS	3	Flotation Material	Polyurethane Foam
1	Tiller	1 x $1\frac{1}{4}$ " x 33 Lg. Oak	1	Thimbles	Nylon for $\frac{1}{4}$ " rope
2	Tiller Straps	$\frac{1}{4}$ " x $1\frac{1}{2}$ " x 8 $\frac{1}{2}$ " Aluminum	1	Nylon Rope	$\frac{1}{4}$ " Diameter
1	Rudder	$\frac{1}{2}$ " Plywood 21"x30" M. Bronze Bushing $\frac{1}{2}$ " ID x $\frac{3}{4}$ " OD x $\frac{3}{4}$ " Lg.	1	Gooseneck Fitting	See Fig. 2-EE—Aluminum $\frac{3}{4}$ " x $\frac{1}{2}$ "
1	Centerboard	$\frac{1}{2}$ " Plywood 27"x8 $\frac{1}{2}$ " @ $1\frac{1}{2}$ " sq. x 17' Hardwood	5	Wood Plug For Boom	3" Lg.
3	Swivel Eye Block	Race Lite #RL-321A	2	Plugs for Mast	(See Text)
3	Eye Strap	Race Lite #RL-311	3	Steel Rings	$1\frac{1}{2}$ " OD
3	Deck Strap	Race Lite #RL-313	2	Aluminum Plug	$1\frac{3}{4}$ " x 1.125 Diameter
1	Pintle	Race Lite #RL-360-L			

Marine fittings, hardware and sail cloth may be obtained from Alan-Clarke Company, 235-289 Main St., Northport, New York 11768. Fiber glass, resin, Dynel may be obtained from Defender Industries, 384 Broadway, New York.



The finished boat. Sailboards are becoming increasingly popular. They provide exciting sport at a minimum of cost and effort.

blocks are attached. Epoxy dowels into the open end of each boom to make them watertight.

The gooseneck can be made from  $\frac{1}{8}$ " x  $\frac{3}{4}$ " aluminum strap, as shown in Fig. 3. The loop that goes around the mast should be covered with plastic or rubber tubing to prevent chafing. Secure the small clamp to the boom with epoxy cement.

The sail should be made of 3 oz. or 4 oz. nylon or dacron, and the panels should be layed out as shown in Fig. 1. Contrasting colored fabric can be used to provide a

striped sail. All seams should be of the French Fell type for maximum strength. A double-stitched hem  $1\frac{1}{2}$ " wide should go all around the outside edge of the sail. Install  $\frac{3}{8}$ " grommets, 18" apart, along the edges of the sail to be attached to the booms, and use line or plastic clips to secure the sail to the booms.

If you haven't sailed before, you'll want to get the book, "Sail HO, A Primer for Sailfish & Sunfish." It's available from Alcott, Inc., Box 1345, Waterbury, Conn. 06720.

● To obtain enlarged plan for building Jamaican, Craft Print No. 371, see handy order form on last page of this issue.

