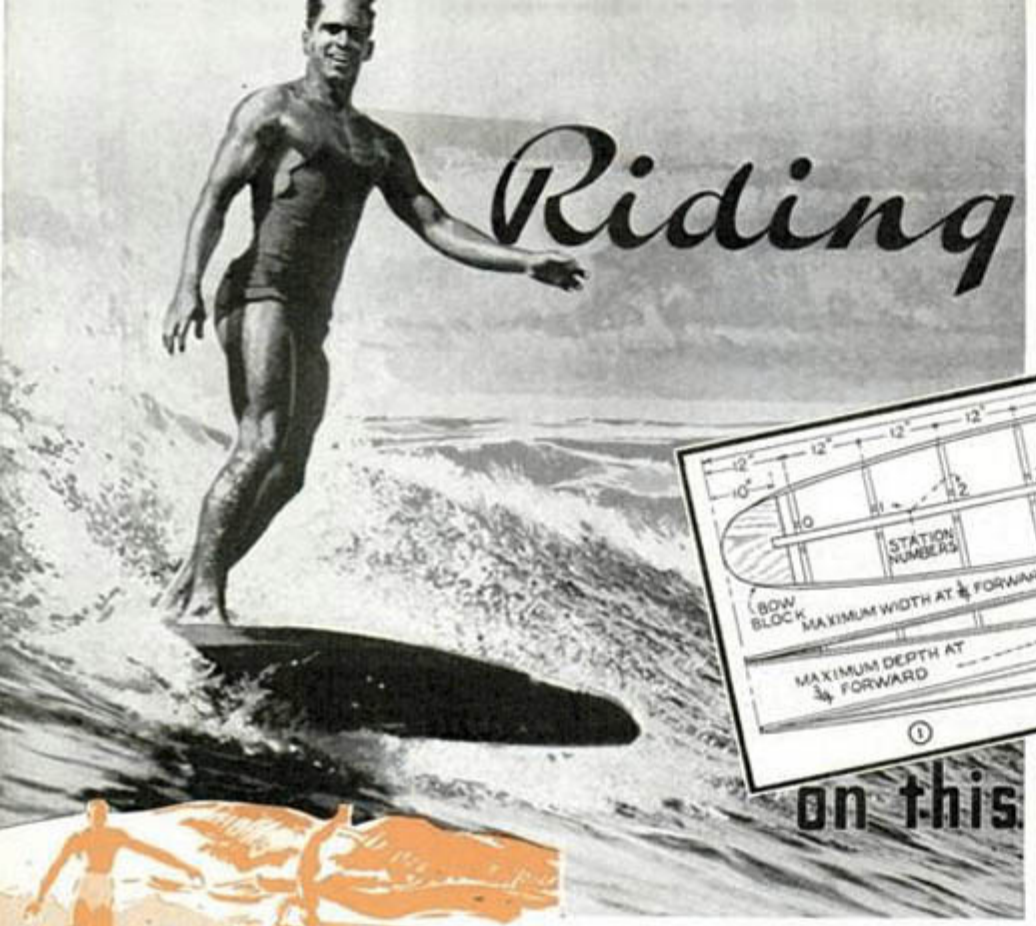
Riding the Breakers!





on this HOLLOW HAWAIIAN Surfboard





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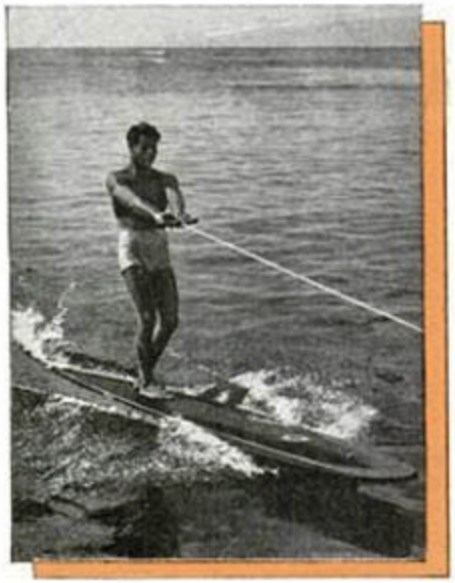
It's built like a boat, with deck and bottom planking over frames, and is so light that one person can handle it either ashore or afloat

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YOU'LL get plenty of thrills when you try this speedy hollow surfboard, either riding the waves of the open ocean, freeboard aquaplaning in the wake of a speedboat, sailing or just paddling about on fresh-water lakes. It's nothing more or less than a shallow pontoon, light, structurally strong and virtually unsinkable. So great is the safety factor that it has been officially adopted in many localities as standard lifesaving equipment.

Size and Framing: For a person of 125 to 200 lbs. weight, the standard-size board is desirable. This is 12 ft. 10 in. long, in width 22 in. maximum, and in depth 5⅝ in. maximum. For lakes and rivers it may be made of lighter material than specified, for this model is more for heavy duty in the ocean surf and will weigh from 70 to 75 lbs. The entire board may be made of any wood desired, spruce for frames and African mahogany for planking being first choice. See Figs. 1 and 2 for general details and sizes of stock. The framework consists of transverse braces or ribs, a bow and stern block and sides or rails to hold all these parts in place, Figs. 3, 4 and 5. Two lateral battens extend down the center of the frame to form a seat for the center seams. The ribs are fastened to the side rails with headless copper nails, Fig. 4, countersunk and covered with putty. This allows ribs to pull free from the sides of the board when expansion of the decks takes place after seasoning a few weeks in the water. The expansion of the decks amounts to about ⅜ in. on each side, and therefore the rib must be free to leave the rail that much. This makes it wise to omit the deck screws through to the ribs transversely, until expansion has occurred in the water. otherwise the screws may pull loose. However, by deeply countersinking and covering the screws, they will tend to bend with expansion of the decks and not show from the outside of the board. Due to the structural features, however, the former procedure is recommended. Sides take the curve of the board without steaming. Clamps easily bring them into position. The grain of the bow and stern blocks should run with that of the decks. This is important as it allows all



parts to swell equally in all directions. Sides are fastened to bow and stern blocks with 2-in. flat-head brass screws.

Decks: Decks (top and bottom of the board) can be cut from a plank 12 in. wide, 14 ft. long, and ¾ in. thick. Using stock of this width, it is necessary to select each plank very carefully. Decks should be fastened to the frame with flat-head brass screws spaced 2 in. apart. The center batten seam and the rail joints are taped and coated with marine glue when assembling. Screws should be countersunk and the holes plugged to make a neat job. Use a waterproof casein glue under the screw-hole plugs. A hole to drain the water is located near the stern, and each rib is notched to form limber holes on each side of the center batten. The stern handle is made of ½-in. brass tubing bent to shape by packing with sand and using a vise. Packing the tube with sand prevents flattening at the bend. The ends are flattened, let into the stern flush and fastened with screws. The bend extends about 4 in. past the stern.

Now a few precautions to observe: Special care must be taken in fitting decks. For instance, the line down the center battens is straight, but due to the convex shape of the top and bottom of the board the seam edge of the planking describes an arc. One way to get the proper curve is to clamp one plank to the frame, leaving both ends in proper position. This will leave the middle of the plank out of plumb. Now fasten a chalk line at both ends of the plank and snap it to mark the curve. Without a form on which to assemble your board the difficulty of bending deck and bottom planking to the frame, transversely, can be overcome by using the clamp and caul method shown in Fig. 5. First, you set the clamp and drive home a few screws, then advance the clamp and repeat the same operation. It's well to examine the planks carefully before you clamp them in place. Look out for surface checks or any irregularity in the grain that might cause the plank to split under pressure of the clamp or later on when seasoning. Another thing to watch is the equal spacing of the screws and nails. Uniformity in spacing tends to equalize stresses on both planking and framing during the period of seasoning.



Finish: Decoration of the board with scrollwork or designs offers an outlet for one's artistic talent, although some leave their boards plain, considering the grain of the wood to be decoration enough. If you're careful in selecting the individual planks you can usually match the grain to form a pleasing figure. This should be done when placing decks in position to band-saw to the curve of the board. Waterproofing paint may be used to protect the inside of the board, while three coats of spar varnish finish the outside, leaving the board ready for the water.

DIMENSIONS GIVEN IN INCHES AND EIGHTHS ②

STATIONS	0	1	2	3	4	5	6	7	8	9	10	11	12
HEIGHT OF SIDES & ENDS OF RIBS	6¼	1	1⅞	2⅛	2⅜	2⅝	2⅝	2⅝	2⅜	3	3	3	3
LENGTH OF RIBS	15	17⅜	18⅝	19⅝	20⅝	20¼	19⅜	17⅜	14¼	11½	7½		
TOP CROWN OF RIBS	⅜	4½	⅝	¾	¾	¾	¾	¾	⅝	½	⅜		
BOTTOM CROWN OF RIBS	½	1	1⅛	1½	1½	1½	1⅜	1¼	1	⅝	⅜		

