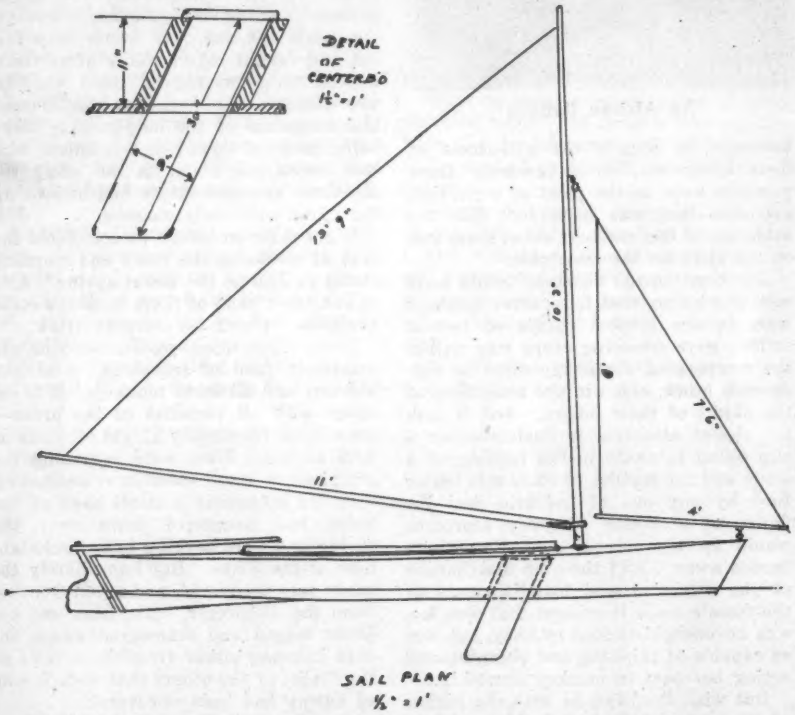
THE HUNTING AND FISHING SKIFF

HOW TO BUILD AN IDEAL BOAT WHICH WILL BE LIGHT AND SEAWORTHY AND COMBINE ALL THE FEATURES NECESSARY FOR SPORTING PURPOSES

By LIEUT. WARREN H. MILLER, U.S.N.R.

IN all my life as an outdoorsman, the waters of the earth have always played a large part as a recreation and cruising ground. The open ocean, the bays and sounds, lakes of all sizes, and rivers of varying length and wildness, have always been attractive to me as the best of places to enjoy nature and outdoor sport. Water was made to fish in, and, as wildfowl do there congregate, it is, further, made to gun over. A gun, and a canoe, and an old pair of pants, have always represented the limit of my earthly ambitions, for they represent



—Freedom! As a boy I spent the greater part of my time in or on the water, and that good old custom has survived to this late date.

Carpentry, of sorts, has also been to me a keen recreation. While other men golf or tennis, I prefer to build something with saw and plane, if the spare hour does not permit going afield after fish or game. Boat building has always been a fascinating recreation, and during a long career as an outdoorsman, I have built four canoes, three small sailing craft and one large power cruiser, all but the first three canoes of which, are alive and happy today. Every year I design a new large cruiser, either a forty-five foot steamer, or a ketch of the same dimensions; which recreation is economical, and satisfies the urge to build something, even if never carried out to expensive actual construction!

Many years of practical hunting and fishing, on salt and fresh water, have enabled me to compare and observe the utility of the various standard small craft—rowboats, duck boats, canoes and the like,—and I offer to the FOREST AND STREAM readers, herewith what seems to me the ideal of such a craft.

THIS ideal should combine lightness, so that it can be managed alone or carried by two men; and seaworthiness, so that it will be "able" in the rough cross-chops that get up on our large lakes and salt water bays. In addition, such a boat should be one that anyone with a fair skill with ordinary tools can build himself. As a one-man or two-man cruiser, the Barnegat sneak-box of all the standard designs, comes the nearest to this ideal, but it is hard to build, cramped as to space, and a wet boat in rough water. The open batteau rowboat is easy to build, but unseaworthy, heavy, and impossible to use as a blind in duck shooting. The wooden decked canoe is fine, but hard to paddle for one man, and a nervous thing to sail. The Adirondack guide boat and St. Lawrence skiff are almost impossible for anyone but a professional boat builder to make; and the dory comes under the same head, being a deep sea boat with too much draft for shoal ponds and requiring special planking for the garboard strakes.

So, in search of the ideal, we are compelled to strike out further and try to combine the various excellencies of these types in a new one, which can be home built, is light, and able, and as good a fishing boat as it is a duck boat. A study of the plans herewith will show the writer's ideas on such a boat. It is of the batteau type, which is easy to build, yet has the transom frames of the dory, so that one can gain lightness by using light pine or cedar side strakes. It has a roomy cockpit, yet is decked so completely that it makes a very able boat, riding easily in heavy seas, and, by erecting a screen of marsh rushes in the rack along the inside of the cockpit and covering the deck with grass and seaweed, it makes a comfortable and efficient blind for point duck shooting. The boat only weighs 250 lbs, so it can be carried about on a trailer made of a pair of old wagon wheels with tongue, or carried by two men across a field to the pond edge, or turned over or hauled across a mud flat by one man alone.

To make a cruiser out of her, for one or two men, for a week's trip down some such bay as Barnegat, I have added a sail plan and dagger centerboard for those nautically inclined. In a small rice-grass lake, or farm pond, this gear had best be omitted, for it is not worth the extra trouble and expense, but, for wide stretches of water, where one's cruise may last a week and cover a hundred miles of travel, the sail is a life-saver to people who do not want to row any more than is necessary—and most of us do not! And, to provide sleeping arrangements on board, all that is needed is a bottom grating, which at night is raised up and caught level with the thwarts by cleats, folded under the edge of the thwarts when not used. On this space, 6 feet long, one spreads out the boat cushions, or a mattress filled with beach browse, and sleeps very comfortably. I know, for I used the same scheme with my first cruiser, the *Margaret*, a small, decked sailing batteau of boyhood days. In her I have slept for a week at a time, using the mainsail for a tent, but, concerning the latter idea, a regular cockpit tent, with mosquito screen ends that will fit tightly over the cockpit coaming, is much better, since a tent made of the mainsail stretched over the boom is by no means mosquito-proof, although it will turn any storm of rain.

As to cooking arrangements on board, I used a kerosene stove in those days, but we have now the two-burner Steero folding stove, which, with either the regular solidified alcohol cans, or two alcohol burners and a can of denatured alcohol, will provide all the meals, when set up temporarily on the forward thwart.

With such a small cruiser, one or two men can put in a week of fishing and shooting on Barnegat, Great South Bay,

or any of the larger lakes or rivers, and have a better time and more comfort than with either the wooden sailing canoe or any of the open row boats.

SUCH a skiff should be home-built, to meet the ideal, and so a few words on how to build her will not be out of place. The first thing to do is to find a place to build her. An empty barn floor would be fine, but even a shed, made of part of the lumber, would not be out of the question—any place out of the sun and rain,—for at a pinch, the curve of the bottom boards can be laid off full scale on the boards themselves, and the dimensions of the transom frames taken from the plan.

But, assuming that you have an empty room or barn floor, lay out first, full scale from the plans, the bottom and deck curves, trueing up with a thin batten so that the lines flow naturally and in fair sweeps. For, no man can lay out an enlargement to full scale from plans without small errors creeping in, which, if adhered to, will make the lines of the boat lumpy and uneven. Your eye is the best judge of what is right. One dimension may need to be increased ¼ inch, and the next decreased ⅛th; the sweep of the batten will tell you how to give and take.

Once laid down with chalk on the floor, transfer the bottom curve to your three bottom boards, and rip out along the lines. The central board, only, will be needed in construction, at first. Set up on the floor, blocking up the ends to give the three-inch rocker called for, and on this board erect the stem and stern pieces and stern transom and secure with bent knees. These two knees will be natural crooks, got from the woodpile or the forest, and sawn with true faces. Next, put on the bottom pieces of the frames, nailed to the central bottom board with 10d. galvanized iron nails. These pieces are all cut an inch short at each end, to allow for the lower chine, sprung around their ends. The two side boards of the bottom can then be nailed on, and the lower chine bevelled and sprung into place. Do not nail it fast as yet.

The central frame, and two others midway between bow and stern, are then set up and braced with a strip of wood nailed across their tops, the widths across the tops being taken from the dimensions on the plan. The upper chine is then sprung on, and it will give you the outline of the sheer, and give a fair curve against which all the rest of the frames can be set up. When all true and fair, with no hollows or flat spots anywhere, put in the frame knees, when the frames will become rigid. The clamps and deck beams go on next, to hold the frames secure against springing in when the pressure of the side strakes comes on them, and after that the two thwarts are put in, on short risers of frame stock nailed across two adjacent frames. You have now all the stiffening required, and the boat is in frame outline, with the bottom boards on. Bevel and plane the surfaces of the lower chine to fit snug along the bottom boards and flat against the frames, and nail fast.

The boat is now ready for the strakes. The lower one is wrapped on first, with clamps and ropes bending it against the stern tramson and bow stem. Where it lies along the edge of the bottom boards will give the line to scribe with a pencil, showing how much will have to be ripped off the lower part of the strake to make it fit. This will be found to be a long curve, rising two to three inches in the middle of the plank. Rip this off both lower strakes, bevel, and nail onto the frames and bottom boards with 8d. nails.

The top strakes go on next. They should overlap the bottom ones two inches, and, where they lie along the upper chine will give you the line to rip off to make it fit the sheer line of the boat. Before nailing on, give the lap a heavy daub of white lead paste, to make a tight fit between upper and lower strakes, and

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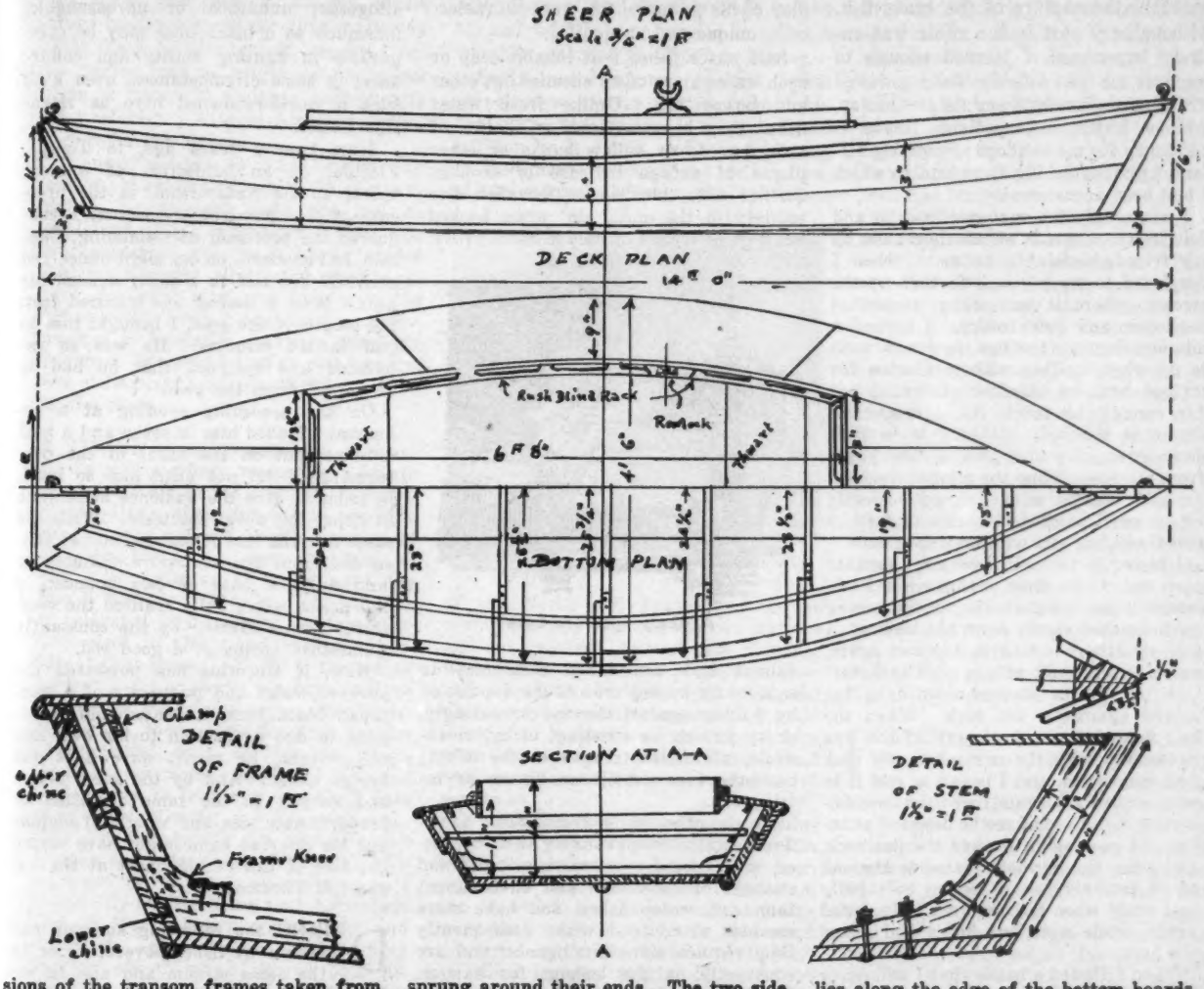

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then nail on and drive in 8d. nails, five inches apart, along the lap, clinching the nails inside. It may be said, in passing, that no boat builder ever drives a nail without first boring for it with a breast drill, as nothing spoils more work than wood split by the nail driven into it.

If she is going to be a sail boat, now is the best time to put in the centerboard trunk and mast step, before the deck goes on and you cannot get at them to work. The trunk detail is shown in the plans. The posts are two strips of frame stock, notched an inch where they go into the bottom slot, and the sides two pieces of 12" x ¾" white pine, cut on the angles shown. Nail these to the centerboard posts, with a daub of white lead and cotton cloth strips laid in the joint to make it water-tight, and then secure the trunk to the 1" slot cut in the bottom board in between two of the frames, by long brass screws driven in from under through the bottom. The joint, between the bottom of the trunk and post notches, and the bottom board of the boat, should have a length of cotton wicking, soaked in white lead paint, laid in before screwing home, to make it watertight. The board itself is simply a piece of ⅞" by 9" yellow pine, cut as shown, with a head strip nailed across the top. The edges had best be rounded or pointed to offer less resistance to the water. I like this dagger board better than a swinging trunk board, because it is easily stowed, and besides, the long trunk of the swinging board takes up so much cockpit room, while the dagger trunk is short and goes in flush with the forward thwart, and so is not in the way.

The mast step is a piece of yellow pine, screwed in between two of the frames, butting against both of them, and screwed to the bottom board. The stress on it in sailing is very great, so do not make it the skimpy little thing generally put in. If that step splits, or is torn out, the mast will come down, ripping up the deck. The mast hole also should be reinforced with an upper deck beam, let in alongside the one joining the frame at that point, so that the mast can come down between them, and two short blocks are screwed in between them on each side of the mast to reinforce the strains on the deck planks.

One more thing is needed; in altering the rowboat design to a small sail cruiser, and that is a skeg, screwed to the bottom as shown. It is four inches deep at the extreme stern and not only gives something to hang the heel of the rudder on, but also prevents the boat slewing when sailing in a running sea. The rudder is 16 inches across the foot and has a long tiller reaching over into the cockpit. I find this simpler and handier than any yoke and rope scheme.

Getting back to the boat construction, we left her ready for the deck planking. This requires, first, cutting out the sheer planks on each side. To make them fit the curve of the gunwale, cut diagonally into three pieces, and lay each on the gunwale, scribing the line of the latter with a pencil from the under side, and a second line, nine inches away for the coaming. The sheer planks are then nailed on flat down on upper chine, clamp, and deck beams, and the interior filled in with straight planks, nailed to the deck beams and butting against the line of the sheer planks. To secure these together, short butt straps are nailed in under them, where they meet. Curve of deck beams, 1½" to the foot.

The cockpit coaming is then cut and nailed in place, bracing with short blocks underneath as shown, and, if you are going ducking with her, carve out the rack strips and screw them on, along the top of the coaming.

The gunwales and bottom fender-wales are then nailed on, and the boat is ready for caulking. These bottom fender-wales are especially useful in rock lakes, or if the boat is to be often slid onto a trailer or wagon, as they protect the bottom from many a scrape. For sandy bottom waters, like most salt water bays, they may be omitted.

NOW, as to caulking, if you have not the skill with tools to make such a simple construction as this boat watertight, you have still the recourse to omit the upper chine in building her and put on the top strake edge to edge with the bottom, instead of overlapping. The boat can then be covered with canvas all over, and the same given three coats of paint, when she will be watertight. Canvas, 12 ounce duck, painted, is astonishingly tough, as witness the hard usage that our canvas canoes get, and the fender-wales will protect it from much wear. But it makes the boat about thirty pounds heavier, and is more expensive by the cost of the canvas itself, so if you can make the boat lap-strake, and get your bottom, side and deck strakes tight, you will have a lighter, cheaper and more durable boat. All plank edges that are to be caulked—and this includes the deck, for a leaky deck is just as annoying as a leaky bottom—should be bevelled slightly before putting on with a plane, so as to lie open about a 32nd. inch on the outer faces. Planks that butt square, with a hairline fit, will buckle when they swell from the water, but, with the slightly open V, caulked with paint, lamp wicking and putty, the planks swell shut on this and crush the caulking tight between their edges.

So the scheme of caulking her will be, first, to give her a prime coat of paint all over, working it well down into the cracks, then to caulk all seams, and then pay with putty, and finally put on two finishing coats of paint. In salt water the bottom coat should be, of course, of copper paint, to discourage barnacles and borers, and this goes on over the white lead prime coat.

You now have a light, able, and seaworthy cruiser that will give you many a week of inexpensive, good sport,—gunning and fishing,—or, if she is left just plain decked rowboat, you have one that can be carried to any lake in your neigh-

borhood and kept at home. All that is needed is an old pair of wagon front wheels with a tongue for a two-horse team. The boat is lashed on, upside down, on axle and tongue, and can go as either a trailer for a flivver or a buggy. With the former we have found that twenty miles an hour is not too much or too rough on the trailer.

The lumber list follows, herewith, and its cost at present prices will come to about fifteen dollars.

1 pc. 14″ x ⅞″ W.P. dressed, 14 ft. long—Bottom.
2 pcs. 12″ x ⅞″ W.P. dressed, 12 ft. long—Bottom.
1 pc. 14″ x ⅞″ Y.P. dressed, 12 ft. long—Transom and Thwarts.
2 pcs. 14″ x ¾″ W.P. dressed, 16 ft. long—Lower Strakes.
2 pcs. 9″ x ¾″ W.P. dressed, 16 ft. long—Upper Strakes.
3 pcs. 12″ x ¾″ W.P. dressed, 16 ft. long—Deck.
5 pcs. 1½″ Hf. Rd. m'l'd'g, Y.P. 16 ft. long—Fenderwales.
2 pcs. 5″ x ½″ Oak dressed, 12 ft. long—Coaming.
10 pcs. 2″ x 1″ Oak dressed, 16 ft. long—Frames and Chines.
1 pc. 5″ x 3″ Oak dressed, 3 ft. long—Stem and Stern.
2 pcs. ¾″ ¼ Rd. m'l'd'g, Y.P. 12 ft. long—Beading.
5 lbs. 8d. gal. iron nails.

2 lbs. 10d. gal. iron nails.

4 4″ x ⅜″ lag screws.

4 4″ x ¼″ carriage bolts.

A FOOTNOTE on the transom stern: I prefer this to the double end canoe stern construction because it is hard enough, as it is, to bend the strakes on cold without steaming. The forces in these side planks is terrific, and I had once a batteau nearly completed fly apart without warning, simply because the transom knees had not been put in before the carpenter's clamps were taken off. It ripped off the bottom boards unmercifully from where they were nailed into the side strakes, and I had to cut the whole boat down two inches to get unsplit wood to nail into again. With the frame construction described above, this danger disappears. The stern transom is cut out from stock, according to the plans, and set up at the same time the stern timber and knee are put in. Into it are nailed the ends of the upper and lower chines, and the ends of the clamps are butted against it and nailed through from the back. This construction is so strong that when the side strakes are bent on there is no danger at all of their tearing loose from the tern transom and ripping the boat apart. The lower chine also gives plenty of wood to nail to, and makes a strong joint between bottom and side boards. In no other way could you use light ¾″ pine stock for the side strakes, and so get a light boat. I would not build an ordinary batteau of less than ⅞″ stock, for the same reason.