If you're itching to join the crowd afloat this year, here's how you can in

A Boat That Anyone Can Build

You can power it with oars or outboard. Neither time nor cost should stop you. About \$12 and 16 hours will complete the job.

By Stanley Stearns

IF YOU are a professional boatbuilder, let your wife cut out this article before you read any more. And don't blow up if she begins telling you what a snap job *you* have. For it's true that anyone can build this boat.

If you are just plain *anyone*, beg a few dollars (about 12), borrow some tools (a hammer, chisel, plane, saw and a heavy drift), buy your materials and steal some



time (around 16 hours if you don't waste any of it). You'll wind up with a strong boat that will perform well with any outboard from 1.5 to 22 horsepower and will even respond to rowing.

The lack of a framework is the secret of

the simple construction. The sides fair naturally around the single mold stick inserted between the stem and the stern. You can bang the job together with about four pounds of eight-penny nails—use galvanized, bronze or copper nails if you're around salt water. In fresh water, plain nails will last 10 to 15 years, but salt water eats them up fast. If you plan to power the boat with a husky outboard, toss in a few screws here and there, where nails can't be clinched.

Check the list of materials and take a look at Figure 1 to see how the parts are chopped out, then chop away.

A rabbet plane is ideal for cutting the scarfs and rabbets (notches) in both the stem and side planks, but it can be done with an ordinary plane, if you clean the corners with a chisel. Do the transom and keel first, if you wish, for morale purposesyou'll need to have something accomplished to forestall snide remarks from your family and neighbors. The stem should present no difficulties. Just shape it and leave the ends until later. The less said about the side planks the better, except to note that the shortest one will determine the length of the boat. Once you know that, the mold stick can be made the proper length. Try to get the front-end angle of the side boards the same on each side of the boat, if you want it to be absolutely straight. Be sure they overlap in such a way that there is a shelf inside the boat on which to rest the seats.





Now for step 2 in Figure 2, which is easy. At step 3, you'll see a little diagram showing how the stem should be lined up at 90°, after you have one set of side boards nailed firmly, and the

other side tacked loosely enough to "weewaw" into alignment. Don't take this too seriously. It doesn't have to be done. Contrary to learned opinion, a crooked boat can go very well with an outboard motor.

Step 4 is where your boat-yours, all yours!-begins to take shape. Pull in the bottom boards, somehow. As soon as they are lassoed and hog-tied in, try the stern in place (just the bottom piece, if yours is in two pieces), and bevel the edges to fit the side boards. Since the bottom edge of the stern piece isn't beveled yet, allow it to drop down as in the detail drawing, slap on white lead and twine, and tack up the side planks.

You're feeling pretty cocky now? Here's a little detail to bring you down to earth. See that innocent-looking string going straight down the center of the boat in step 4? Well, if you're still set on having a straight boat, just push and pull things in relation to the transom until you get the string to fall naturally over the center mark on the mold stick. However, if this aligning looks tough, skip it. Either way, nail the planks down tight.

Next, put your rope around the whole boat to pull in the top side boards. Fit the rest of the transom if yours is cut in two pieces. There need be nothing in the joint between the two, and they need not be nailed to each other. Smear more white lead and twine along the transom and tack

LIST OF MATERIALS

Sides, 4 pieces 7/8"-by-10" pine, 12' to 16' long.

- Keel, one piece 2"-by-4" spruce, same
- **Stem**, 2"-by-4" spruce, 2' long. **Transom or stern**, 1/4" spruce,16-1/2" wide by 4' long, or two pieces totaling 16-1/2" width.
- Bottom planking, about 120' of 3/4"-by-
- 6" pine or cedar. Seats, 7/8"-by-10" pine or cedar, about 16' to make four seats.
- Trim, 2 strips of spruce, 7/8" by 2", same length as sides.
- **Mold** stick, any piece of scrap 4' long. Thin sheet metal, 1-1/4" by 10" for bind-
- ing sides to transom. Also squares for patching weak spots.
- White lead, about 1 lb.; some twine cotton batting or old sheet

APRIL 1954 201



on the top planks temporarily, nailing securely after fastening the laps. To do that, nail the side boards together along their whole length through the lap-over as per step 5. To clinch nails correctly, hold a heavy drift, axhead, any piece of heavy smooth metal or a rock against the spot where the nail will appear, and drive the



nail all the way in. The drift will curl the point back into the wood. When you find that method doesn't work, pound the nails through, hold the drift on their heads, and bend the tips over

with your hammer. If you still have trouble, remember a few hammer marks add character to your work.

Is it beginning to look like a boat? Hah! Turn it over. Bend down, if you still can, and sight along the bottom edges of the sides. Better call them "chines"; that's what

the rear three-quarters

of the boat. Be very careful not to get a hollow here; a slight rise is better than that. If you get the bottom perfectly flat, the boat will run well with a motor and will "plane." You ought to try this boat sometime with a 22-horsepower motor just for the big kick you'd get out of it. A slight downward slant at the bow will lift it rakishly when the boat is righted. Bevel the chines, transom and base of the stem so the bottom will fit closely.

they are, and it'll

show those neighbors

who persist in sneer-

ing at your efforts.

You will notice that

the chines whoomp up in the middle. Cut

them down until they

look like step 6, with

all the curve out of

Plank the bottom. That means nail on the floor. Don't put anything in the seams



between the bottom boards, but do put string and white lead along the chines, stem and across the transom. You shouldn't let long fine cracks between the boards alarm you unduly, but you had better plane the edges to eliminate sharp humps and hollows. Knock one coiner off the edges of each board with a plane so that when they are pushed together they will leave a 1/16" space on the water side, as in detail drawing of step 7. By careful manipulation you can get crooked boards to fit against other crooked ones and won't have to do much of any planing. This is the answer for people who cannot straighten an edge with a plane, or for those who would rather smoke a pipe and look the situation over.

Haggle off all loose ends. Add the keel, nailing it securely to the stem and transom. You might use a few larger nails here. Right the boat. Don't get nervous over this. Flop it over, quickly. It won't get any more crooked now, no matter how you treat it. Peek through the cracks in the bottom to see where the keel is and nail the bottom boards to it along its whole length. This will be fun because you are nailing down and you have lots of leeway; if you haven't learned to drive a nail yet, it will be fine practice.

By this time, you must have begun to catch reluctant gleams of envy in your friends' eyes. At least, they've stopped their sly digs, haven't they? If not, now is the time to go buy a boat and make the substitution in the



dark of the night. If you're sticking with the job in self-defense, try to be alone as you struggle through the next illustration, Figure 4. It's the jury-rigging—the makeshift side that you wouldn't like to have publicized any more than you enjoy hearing your wife tell how she started the car with a bobby pin, after you had exhausted the tool kit.

Stroll around the boat slowly enough so



you can break off all the larger splinters. It looks better already. Now fill all the extra nail holes, before you have time to wonder how they happened to be there. Do all patching from the outside. For nail holes, drive in a small stick coated with white lead. Put a sheet-metal patch over the larger weak spots. If you get the bottom and lower two or three inches watertight, the topsides don't matter, so long as everything stays together. The sheet-metal binding at the corners of the transom goes on next, then the seats, oarlocks and trim.

Everything's fairly neat looking now except for that extra length of stem sticking up. Wha' hoppened? Well, it needs to be whittled down, and have a hole poked through it. Then paint the boat. Bright colors will cover a multitude of sins.

Now for launching; we'll slide over this quickly—it's rough. Sometime when no one is around, sneak the boat down to the water.

Steel yourself. Push the boat in. Beware of the suction as it plummets to the bottom. Keep calm. Fly out of there. Act like it never happened. Return the next day and bail it out. If you find you can't make any headway against the inrushing water, wait another day. Pull the boat out, empty and relaunch. This time, mark any places that still leak. You may have to be fast at this, especially if you can't swim. Yank the boat out once more and stuff the places from the outside with more little sticks or cotton, using a hammer and screwdriver. When it dries, cover it with two coats of porch enamel—two quarts should do it.

Now you have a fine dry boat of your own and can call yourself a boatbuilder. You'll enjoy it a great deal il your friends ever give you a chance to use it yourself. If they don't, maybe you can find the lake where there are several hundred rental jobs just like it—all floating, too. END