

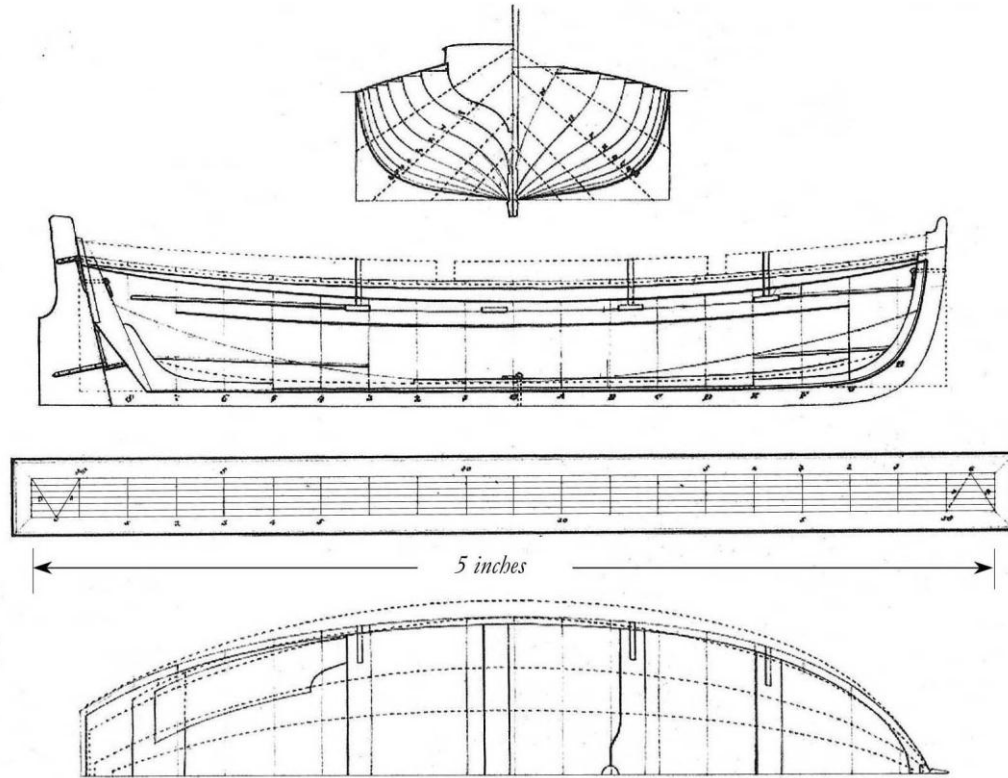


*The basic hull completed; model by David Antscherl*

The last task is to remove any excess glue from inside the boat. Moisten any glue remnants using isopropyl (rubbing) alcohol and a brush. After a few minutes the glue will turn rubbery and can easily be scraped off with a suitable tool. I use a dental elevator for this, which resembles a miniature blunt chisel. Particularly if you are using a transparent finish you will need to be meticulous about this. This will complete the basic boat.

## Part 8 – Fitting out

**T**here are numerous items to make to complete your cutter. The first of these are the *risings*. Risings are the longitudinal stringers that support the thwarts. For most of their length you can take their shape from the sheer plan (next page), but at the bow you will need to make a card pattern. Be very careful as you mark the position of the risers; they need to be both at the correct height below the top of the sheer strake and at the same level across the boat. Nothing looks worse than a series of thwarts that are not level and parallel with each other. Mark the positions of the thwarts. Note that there are  $\frac{1}{2}$ " scores in the tops of the risings to locate the thwarts; this will be very helpful later on. Cut the risings from  $1\frac{1}{2}$ " thick holly, wet bend them, allow them to dry and glue them in place.



*18' 0" cutter draught, c.1800*

Next is the keelson. This is an 8" wide plank,  $\frac{7}{8}$ " thick, that runs from the aft side of frame 2 to station G. (All the scantlings for this cutter can be found on pages 306-307 of Volume II, *The Fully Framed Model*.) Look carefully at the sheer plan and you will see it above the dashed line indicating the top of the frames at the keel. This plank sits directly on top of the frames.

The bottom boards may be put in next. Officially this is called the *footwaling*. I put in two boards on each side of the keelson about 7" wide, with about 2" of air space between them. Run these between the two small platforms fore and aft.

The platforms under the forepeak and stern sheets will need to have card patterns cut to shape first, notched out to fit the frames. I made the fore platform of three planks and the aft one of five, with the outer planks hooking into the adjacent ones as the platform narrows. Make sure that these platforms sit inside the hull at the correct height.

It is a good point in construction to fit the three ringbolts that you had previously made into the hull. I use a spot of epoxy to hold them in place. The mast step – I made mine of a block 6" square and 2" deep – is set on the keelson forward of the midships ring bolt. It needs to be positioned with its centerline exactly below the aft edge of the thwart above.

The fore platform is next. I made mine of three planks running athwartships. You will need to be very particular about the notches for the frames, as these will be very visible when the boat is completed. I advise going the card pattern route first.

The thwarts and stern sheets need no explanation and are of 1½" thick stock. Round off their edges before installing them. More elaborate boats have a molded edge to their thwarts, but this is a working, not fancy, boat.

The gunwale, of 1½" thick stock, should be made on two or three pieces. I scarph jointed mine, but as it will hardly be seen, simple butt joints will suffice. First make a pattern by running a pencil along the sheer strake under a piece of card held on top. Make the foremost piece run to about the aft edge of the fore platform. The gunwale is only 2" wide: just sufficient to cover the upper edges of the frames and sheer strake. Fit the fore end carefully to the stem and centerline. Run either a very fine molding along the outer edge, or simply sand a half-round. The aftermost piece fits just under the overhang of the transom and finishes flush with its aft surface.



*Gunwale, breast hook and transom knees completed*

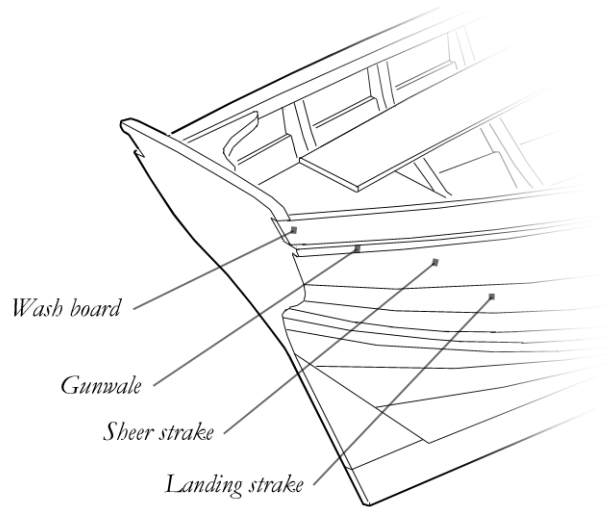
The breast hook at the bow is 1' 6" wide and no less than 2½" deep at the throat. It is the same thickness as the gunwale. I fitted the joint to the gunwale first, roughly shaped the aft edge, glued the hook in and then refined the aft edge so that it was vertical. There are also two knees, one on either side of the transom. Again, a similar technique was used to make and fit them as for the breast hook.

There are several knees to be made. These were, for me at least, a challenge. They are small and, except for the midships ones, angled to meet the sides of the boat and gunwale. The easiest strategy for me was to cut a triangular blank of 1½" wood and work to fit side and thwart accurately. I then roughly indented the long side of the triangle and glued the knee in place. Final shaping of the inboard face was done after this using Swiss files. Note that the side arms of the knees extend up beyond the gunwale to form supports for the removable wash strakes (*see last photograph, page 19*).

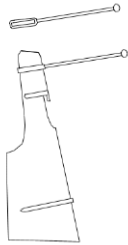
The *tholes*, supports for the oars, are tricky to make for this model. They are vertical posts that have slots in their sides to take the wash strake ends. The tholes are only 1½" square, peg into the gunwale and the slots are ¾" wide. I found that an X-Acto razor saw blade was the correct width to cut the slot, but started with stock that was a little larger in cross-section to make life a little easier. Ensuring that the tholes were vertical when fitting them was also a challenge. Note that the thole positions alternate from side to side: this boat was rowed single banked.

Next are the wash boards. Planking stock is used for this, and the usual card pattern routine is used. I believe that in the real boat a groove was cut in the gunwale to house the lower edges of the wash strakes. Once the wash boards are in place, it is impossible to see that the gunwale is not grooved. As you fit the aftermost boards, complete the shaping of the upper part of the transom. The board should fit neatly into the notch (*see photograph, following page*). There must have been some form of peg and retaining forelock at the transom to hold the aftermost board in place, but I have yet to discover how this was actually done.

The rudder and its irons are straightforward enough, if fiddly to make and fit. The rudder is of 1" thick wood (the specification in Steel is actually 7/8") and is in one piece.



What is not shown on the official draught is the tiller: it is made of iron. A flat iron band fits over the rudder head just above the transom and a straight short iron tiller projects forward from this (illustration next page).



that the upper rudder iron has a short pintle pin and that the lower one is a gudgeon. The corresponding fixtures on the stern are a small eyebolt in the transom to engage the pintle and a long pintle pin in the recess of the post. With this arrangement, the rudder can be shipped and unshipped from inboard. To ship the rudder, the long pintle is engaged first and the rudder slid down until the upper pintle slips into the eyebolt. The capsquare for the mast is similar to one for gun carriages and is attached to the

aft side of the second thwart (*see photo below*). You now have a completed your 18 foot cutter model!

