



Part 4 – Inboard Details

The floorboards...

The photo above shows the floorboards and the two platforms in position. The floorboards should be assembled and glued into position first. If you examine the plans you will notice that there are five floorboards of various widths. The center board should be positioned first. This particular board is made using two layers which has been laser cut for you. They are both 1/32" thick.

It may be hard to tell from my photos but the center plank and two outside planks of the floorboards have a rabbet along their edges. Normally I would scrape these details into 1/16" thick planks but Yellow Cedar doesn't scrape well. So instead, I made these three narrower floorboards in two layers. They are all pre-spiled and laser cut for you. The finished thickness for these floorboards is 1/16". So two 1/32" layers were used. The center floorboard which is the one we will make first was glued together to leave the rabbet on both sides. So you must center the top layer to create the rabbet.

The two narrow outside planks of the floorboards only have a rabbet on one side. The rabbet is on the outside of these two boards. You will see this

detail on the plans. I glued all three of these multi-layer floorboards together. Once completed, I marked the locations where the frames would be so I could add the simulated nails before I glued the floorboards on the model. See below.

Also note that the center floorboard would not have any nails because it was removable to drain the water that would collect under it. I mistakenly simulated the nails on this board too and it was already glued onto the model. So only simulate the nails on the other floorboards.

As mentioned, glue the center board into position first. Then glue the two wider floorboards next to them with no space between them. The wider boards are 1/16" thick and one layer. They may be tough to pre bend, but like all of the planks and floorboards it is best to pre bend them using heat.

Lastly, position the two outer floorboards with the rabbet on the outside.

The two platforms...

There is a platform at the bow and at the stern. It doesn't matter which you assemble first. These are also laser cut for you. I ran a pencil along each edge so you can better see the seams after they are glued up edge-to-edge.





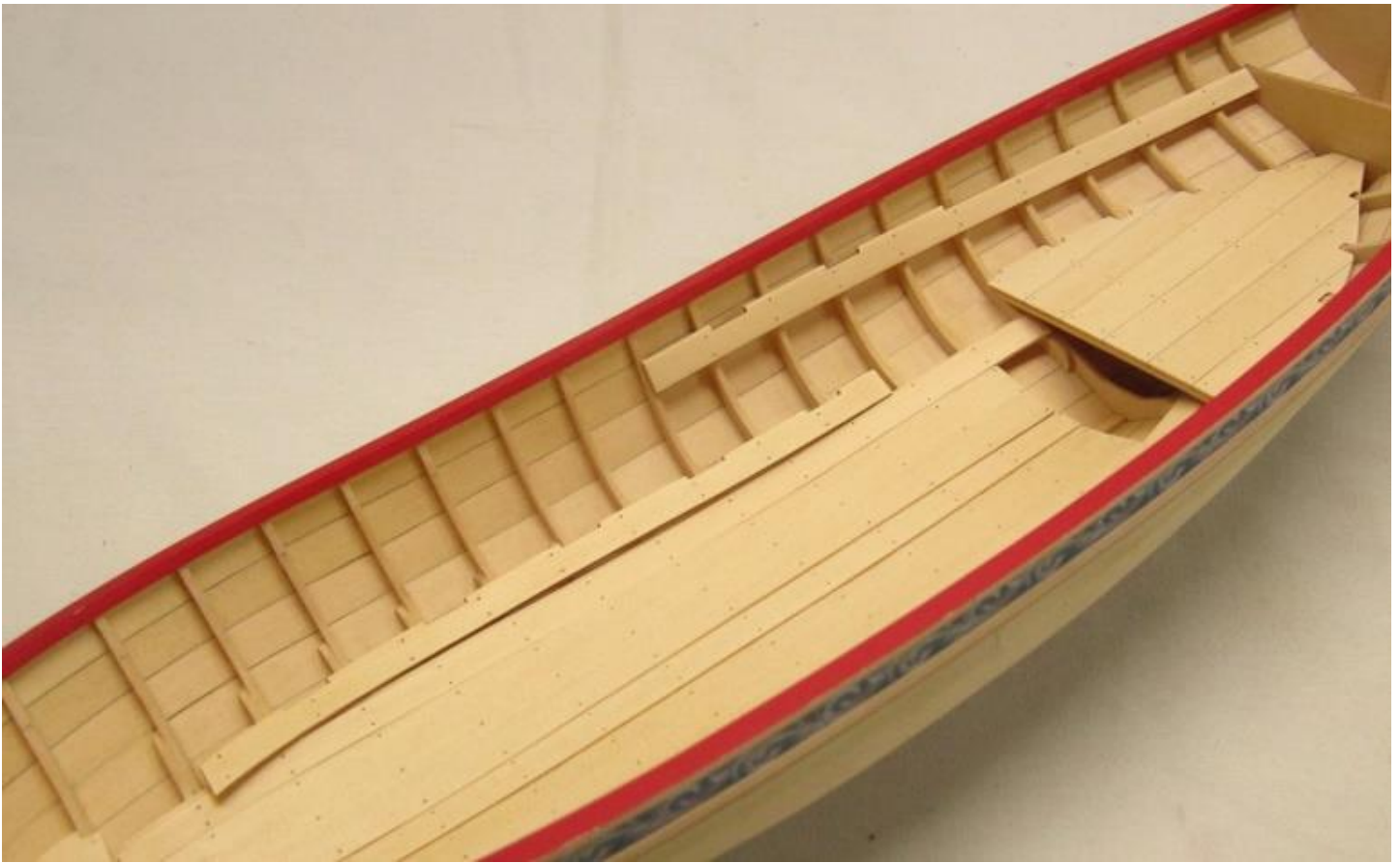
I also ran some 1/16 x 3/16" strips across the bottom of the platforms to give them strength. Probably just like they do in real life. I also added one of these across the flat edge of each platform which will show so take your time with this. The platforms were nailed off the model as well.

You want these platforms to sit down pretty low on the model. You can test fit them in position so you can mark the locations of the frames along both sides. You will need to use small files to notch the sides of the platforms so they sit lower. Be careful to not make these notches too wide or deep

because you will see this and it will look sloppy. You can see in the photo below that the bottom of each notch was also beveled to match the contours of the frames they sit on.

You may want to trace each platform on some card stock first and locate the notches that way as an alternative. Then transfer them to your cedar versions. The bow platform is a bit trickier because of its location. So I recommend that you do make a card template first and transfer it to your glued up version. I made the pieces for the bow platform over-sized to compensate for the wide variety of bow shapes everyone will have.





Installing the risers was up next...

They are designed in two lengths for each side. They are laser cut with notches in them for the thwarts. This means that the placement of these is crucial. The very first thing I did was measure off the plan the distance from the top of the caprail down to the top edge of the riser. I did this at every frame on both sides of the model so I was sure these would be placed at the same level/height port and starboard. The aft piece is

the first to be glued into position. Note that I did simulate the nails with black filament ahead of time because I thought it would be easier. So I clamped it in position temporarily to mark the frames along the riser and then after unclamping, I drilled and inserted the fishing line (10lb) for the nails. This first piece is left a bit long just like I did with the planking. So you need to mark the forward end in the middle of the frame and cut off the excess. This is very important because the next section will butt against it and the thwart notches



need to line up on both sides. It is easy enough to do but you must be careful. Then it was glued into position making sure that the top of aft end was level with the top of the bulkhead frame it sits against. The cockpit seats will sit on top of this so they need to be level with each other.

You could see the forward section waiting to be glued into position (top previous page). No trimming needed. This section just needs to be butt against the aft section tightly. But you should pre-bend it with heat if you need to.

The Thwarts...

Like the floorboards these have a fancy edge or rabbet. Since scraping Cedar is problematic, I made each thwart in two layers glued together. I just cleaned the char of the edges and glued the layers together creating a fancy edge on both sides.

These are laser cut extra-long as well. You will need to cut them to length so they fit in the notches nicely. You may have some that require some notching around the frames. But it's pretty straight forward stuff. These are not glued in yet. I will wait until I make the cockpit seats next and



after some detailing on those which I will describe, they will be glued into position. The center thwart with the cut away for the mast also needs detailing before it can be glued into position. It's finally moving along and actually looks like a boat!!! You are getting there!!!

Cockpit seats...

None of the thwarts are glued into position just yet. There will be some things that need to be done to many of them as we work our way forward. For example, the seats in the cockpit need to be notched into the aft thwart. The seats are in fact what we need to make next.

The seats are laser cut in two layers just like the thwarts. The laser char was removed from their edges and then they were glued up so there was a decorative edge on one side like shown in the photos and on the plans. The two side seats were "tweaked" for the best fit first. They are laser cut a bit long on purpose to give everyone some wiggle room with this. You will be shaping and sanding and test fitting many times over until these fit properly. Everyone's model will vary slightly so the notches for the frames will need to be filed in. BUT

-First, I beveled the aft edge of the seats so they sit flush against the transom which is angled.

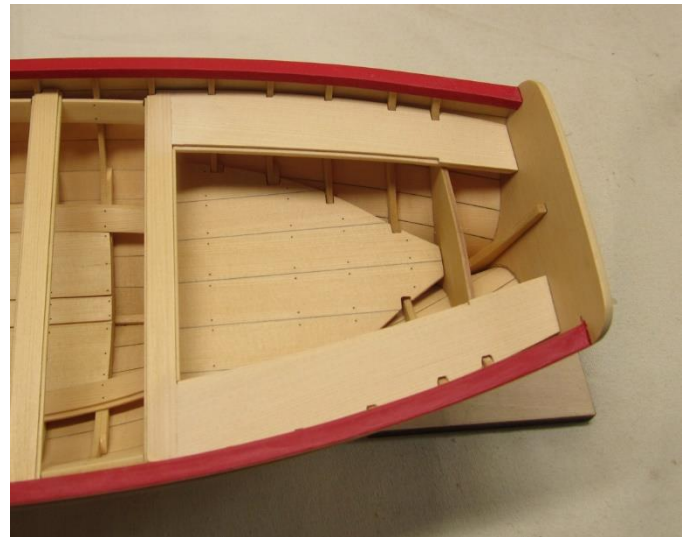
-then I held the seat in position against the frames so I could mark their locations on the seat.

-I filed the notches for the frames a little at a time constantly testing the fit and adjusting. The edge of the seat against the frames also must be beveled to sit properly against the inside planking.

-When the slots for the frame were acceptable, I laid the seat in position to cut its forward edge to length knowing that it will be notched into the last thwart. You can see the notch I filed into the thwarts below. Basically you must file away the lower layer of the thwart.

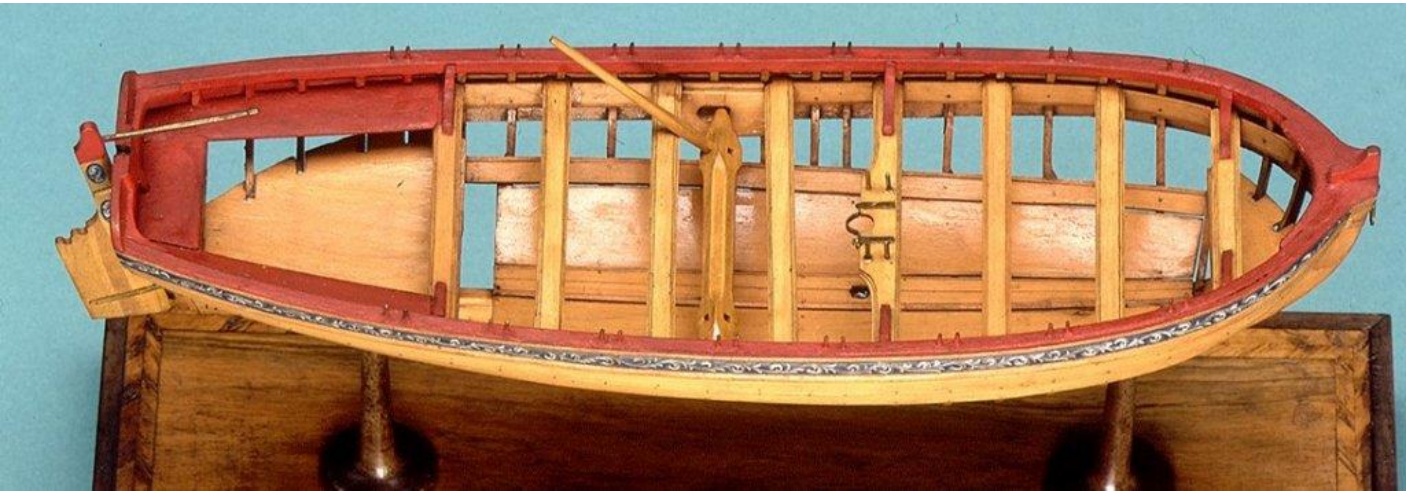


In the next photo you can see how it looks after test fitting.



Once they were glued into place, the center seat was treated the same way and adjusted to fit. Don't forget to notch for the stern post and bevel the back edge against the transom.





This is how the whole model looks at this point. It's getting close now with only a few more details to add. The seats in the cockpit area will be painted red like one of the contemporary models. The two contemporary models are painted differently but I think I will follow the scheme shown below in the unrigged contemporary version. I also posted a photo of the rigged contemp. model to show you guys the difference.

At this stage I decided to paint the Cockpit seats red before adding any additional details. I wanted to get a few coats of paint on the inboard side of the transom before I added the knees and center panel.

Once satisfied I also added the knees atop the last thwart and the knees and bracket/center panel along the inside of the transom. The knees on the transom were tricky but not too bad. They need to be beveled along the sides and back to fit the

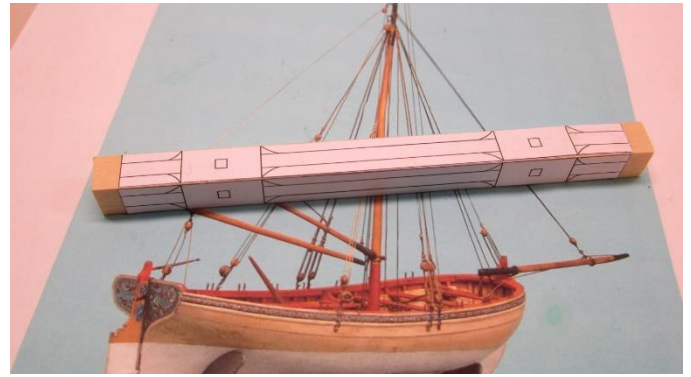


angles of the bulwarks and transom. Also note that the center bracket or panel on the transom was added to the top of the stern post and sanded flush. But before doing so, the stern post was reduced in height about 1/16" first. This allowed the top of the panel to sit flush with the top of the transom. Once this was glued into position and the knees added on either side, they were all sanded flush with each other so you couldn't see any seams. I used some wood filler for this too. Once painted it looks nice and clean. The notch on the center of that panel is used as a guide to file that same notch through the transom as well. You can see that in the photo.

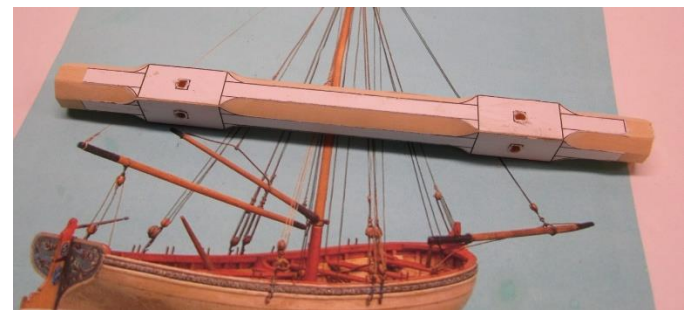
I only added the two knees atop that aft-most thwart at this time. There is still work to be done on the other thwarts that will get knees. These will be completed as we work our way forward.

The Windlass...

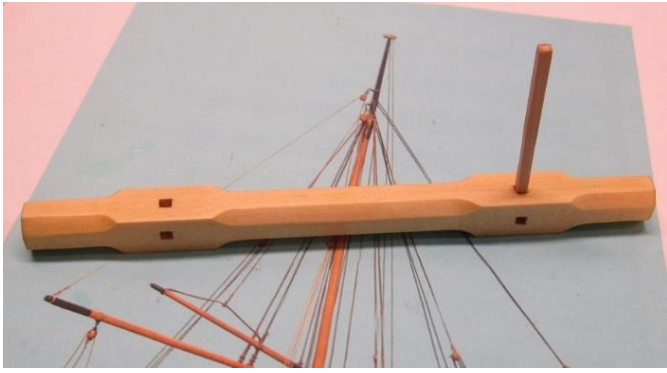
It's time to make the windlass. Some people may get nervous about shaping a solid piece of wood like this. But if you just take your time and go slow it will go well. I created templates that will be glued to all four sides of a 3/8 x 3/8" stick of cedar. I used a common glue stick to attach the templates. Note how the stick is left a bit longer than the templates. The ends will be rounded eventually to a cone shape. It is best to wait and check its fit before trimming each end to fit the space. See the photo on the top of the next column.



Then the four corners/edges are removed and sanded down to match the template as shown below. I used a sharp #11 blade to initially remove the material quicker. I shaved off the corners carefully and stopped just short of the line on the templates. Then I finished it up with 320 grit sandpaper. I also drilled the holes for the windlass bars. I used a #40 drill bit.



The templates were removed easy enough by wetting them down so they come right off. I cleaned up the edges a bit by sanding and tweaking the edges until it looked nice and crisp. Then I used my #11 blade again to carefully square up those holes. The finished windlass up to this point is below. Remember that I still have to reduce the ends to a cone shape so the windlass fits inside the brackets along the risers inboard. The handle isn't finished yet. That is just a 3/32" x 3/32" strip test fit in each hole. I used a boxwood strip which is a hard wood. It helped to make the square holes nice and crisp. Just push them into the holes gently. You can use any square strip this size even a brass strip which I didn't have handy.



Note the windlass on the contemporary model below.....next I will be shaping the ends and adding the brackets so it can be installed on our model.



The Windlass is completed and installed. All I had to do was reduce the ends of the windlass until they were cone shaped and able to fit into the slots of the brackets port and starboard. I just did this by hand a little at a time with some sandpaper. I constantly tested and adjusted the cone shape until it slid into the slots easy enough. This meant shortening each side slightly.



The two brackets are laser cut. I removed the char and added the bolts while off the model. I used black fishing line as usual and figured this would be easier to do before installing. The brackets are glued directly to the riser between the thwarts but actually under them. This left a space on the bottom edge between the frames and the bracket, as expected where it hangs below the riser. So before gluing it into position, I added a 1/16" x 1/16" strip to the back, bottom edge of the bracket first. This made it so the bracket was seated firmly against the frames and riser.

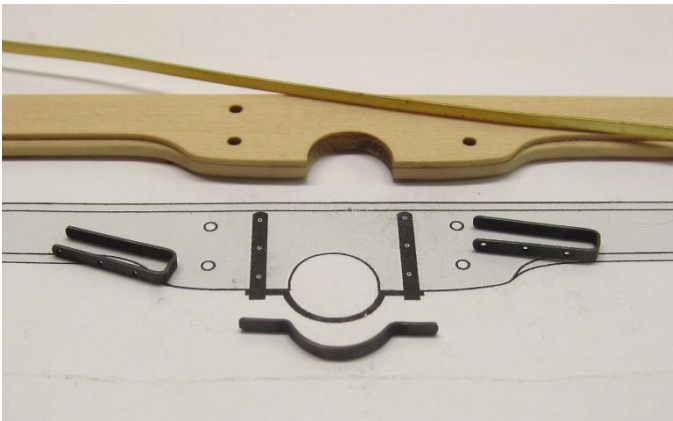
Before adding the fishing line/bolts, I tested the bracket against the riser so I could mark the locations for them. You can see how some line up with the frames. While others are just driven into the riser. This detail is shown on the plans.

The two windlass bars were shaped from a 1/8" x 1/8" strip. I just rounded off one end as you see below (left) by chocking it in my hand drill. Then I squared off the other end as shown on the plans so they would fit in the square holes of the windlass. I will only show one in position and just rest the other atop the thwarts. But in the photos you see both installed just for the fun of it.



The Mast Thwart...

The ironwork was fairly straight forward. I used a 1/16" x .025 brass strip to make the three straps needed to hold the mast in position. It is best to drill the three holes for the two bracket straps while the brass strip was flat on your work bench (#74 drill bit). I used the plans to find their placement. Then I bent the two brass straps to shape around some scrap wood the same thickness as the thwart. The final iron strap that bends around the mast was bent around a 3/8" dia. drill bit because that is how big the mast will be. Then I bent back the ends so I had a half circle remaining. Finally, the three pieces were blackened and glued into position.



Once glued into position below, I drilled through the three holes in the straps part way into the thwart. Then I inserted small lengths of 24 gauge black wire into each hole. I carefully filed them down so they stood proud of the straps and looked like bolts. Then I touched up the blackening a bit.



I turned the four belaying pins using 1/16 x 1/16 boxwood strips in my Dremel by hand. I use the flex shaft with the small pen-sized head while I turn the belaying pins to shape. Yes you can substitute these with typical store-bought belaying pins but they are always out of scale and mis-shaped. Since you only need four of these I really recommend you give this a try. It will add so much realism to your model and prevent it from looking kit-like which is the case with so many projects.



It is probably safe at this point to glue this thwart into position permanently along with those aft of it.



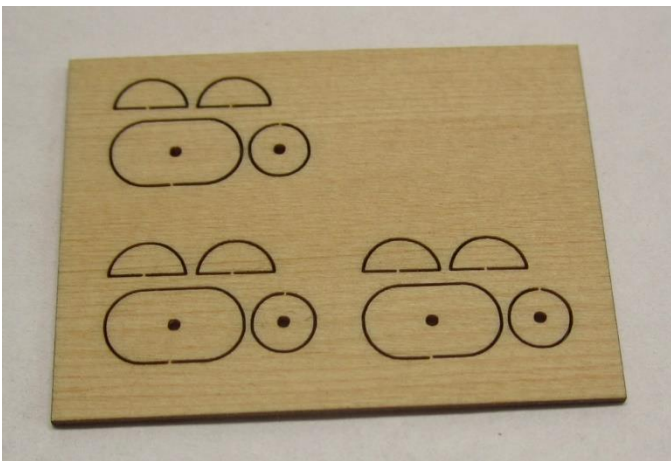
You can also shape the knees for this thwart now and glue the remaining thwarts into position. The knees that go on top of the forward-most thwart are a bit trickier as they will require a



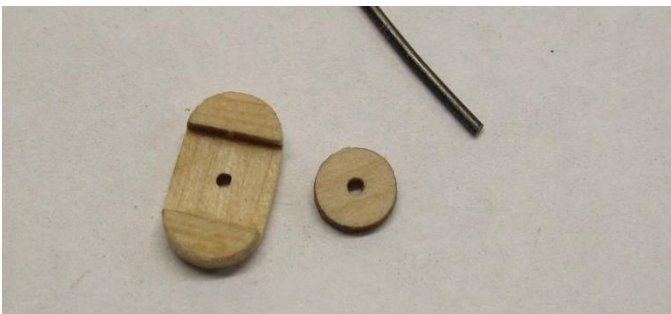
pretty aggressive bevel to sit flush against the cap rail.

Fixed block on the Stem...

I added the fixed block at the stem on the starboard side. It is pretty straight forward. You only need one but the kit comes with a bunch of extras for you guys because its tiny.... Just in case.



First...glue the smaller pieces to the back like shown below.



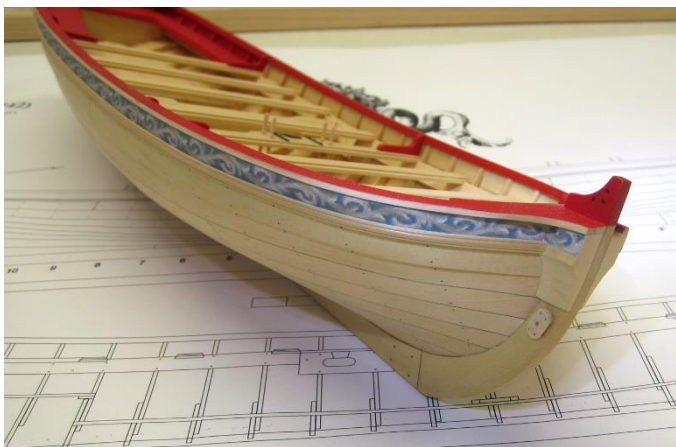
I inserted 22 gauge black wire and snipped it off flush on the outside but left it sticking out on the other (inside back side) for the sheave.



Use the 10 lb. black fishing line to simulate the four bolts as shown on the plans. Sanded it and rounded off the edges.

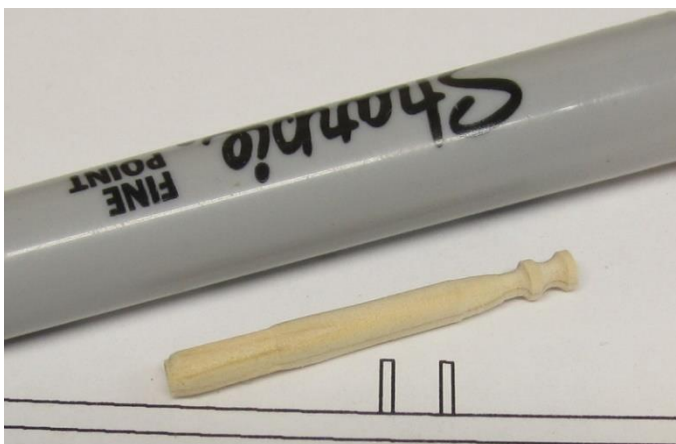


Lastly, add the sheave but with no glue so it will be a working sheave. Not that it really matters.

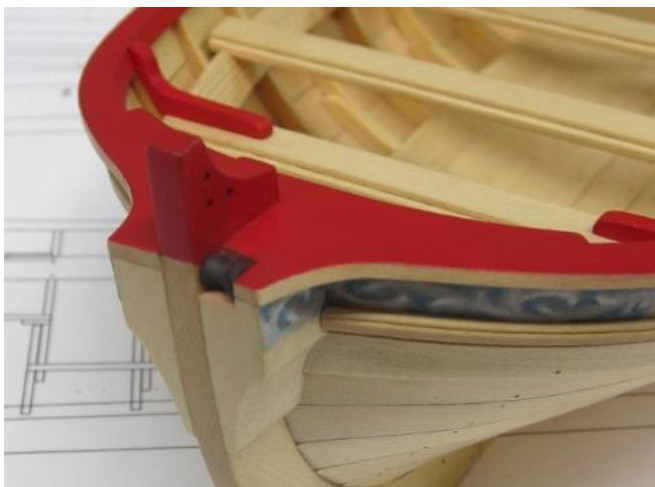


The roller at the bow...

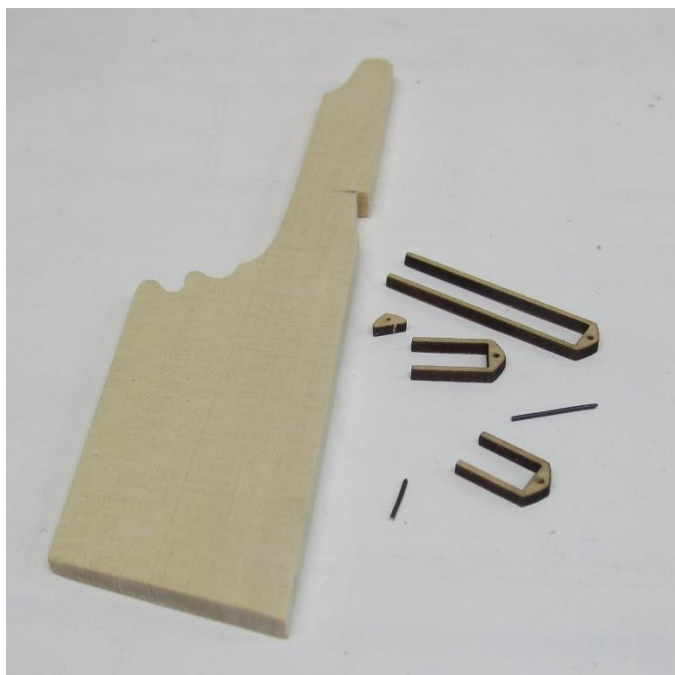
For the roller at the bow, I chocked up a 1/8" x 1/8" cedar strip in a dremel. You can use a drill or even a mini lathe if you have one. I first used a sanding stick to roughly shape it into an octagon. Basically I just knocked off the corners a bit to make rounding it off easier in my dremel.



The roller was blackened using a Sharpie marker and glued into position. It's not a working roller and doesn't have to be so this is just cosmetic.



Finishing the Rudder...

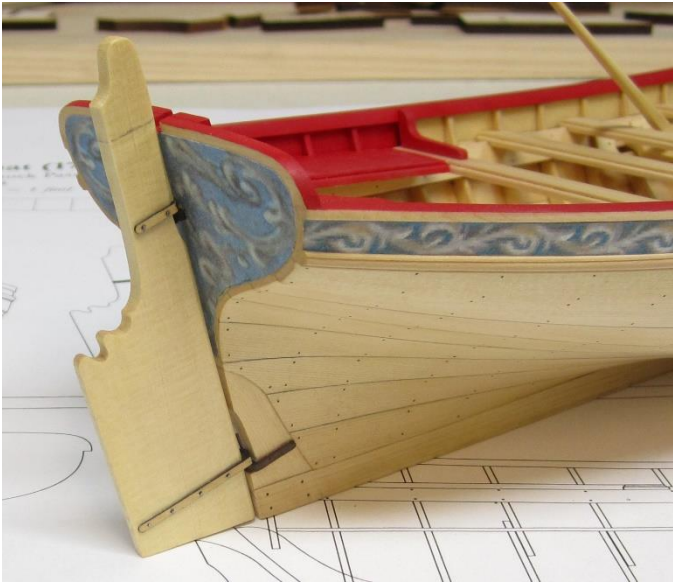


The rudder should be shaped before you add the hinges. The rudder blade is tapered as it works its way aft. The forward edge is round off as well which is typical of any rudder.

The hinges are laser cut for you and made of boxwood. They may be fragile before they are glued into position so be careful with them. I located where the hinges should be positioned on the rudder first. The bottom hinge is straight forward. You can glue it onto the rudder at the proper angle shown on the plans. But the smaller hinge above it needs to have the rudder pin installed before you glue it into position. Use the 24 gauge black wire that is included with the kit. Just glue it into the hole in the hinge.

Once the hinges are glued to the rudder, the hinge straps will be very sturdy. You should thin them down a bit to keep them in scale. Probably down to 1/64" thick or even thinner. Then use the 24 gauge black wire to simulate the bolts on the hinge straps. Drill small holes and insert the wire leaving them stand proud a bit. This is the same technique you used on the mast thwart.

See the photo on the next page.



hole in it. This is glued onto the transom and this is used instead to accept the upper hinge pin.

All of these elements can be painted black when completed.

At this stage, the red area of the rudder head was painted and I added the small round friezes on both sides. This only leaves the tiller which needs to be turned in a dremel like the other elements we have made.

The tiller is a simple affair and turned from a $3/32'' \times 3/32''$ strip of wood. I created a small tenon on the aft end which was glued into a hole in the rudder head.

This almost completes the hull....all that remain are to add the thole pins along the cap rail and make the oars and grapnel. I will leave the later until after the rigging is completed.

You will also notice in the photo that the bottom hinge is glued into position on the hull. Treat this the same way and add the hinge pin first. This hinge pin is a bit longer.

There is no hinge on the hull/transom. Instead, you must use the small laser cut piece with the





Thole Pins...

The thole pins are yet another feature you must turn in your dremel or other rotary tool. I suppose you can substitute some wire that is 1/32" in dia. I find that metal wire is difficult to paint properly so I prefer to use wood. So I turned my thole pins from 3/64" x 3/64" boxwood strips which is provided in the kit.

The strips were cut to about 1/2" long so I could insert them in my dremel and turn them without any breakage. Holes were drilled atop the cap rail and the pins inserted. They were painted red to finish them up. I was careful to make sure that they were all at the same straight angle and sanded to the same height. The top of the thole pins were rounded off as well.

This completes the hull and I will now start making the masts and spars. If you want, you can

absolutely make the grapnel at this time. It's pretty straight forward and the parts are laser cut for you out of boxwood. The oars are also pretty easy to make. I will wait until after the rigging is completed though. The oar blades are laser cut and should be glued to the 1/8" x 1/8" strips provided in the kit. I will only be making 4 oars even though there were 10 or even 12 typically. More than four would crowd the model's details in my opinion. The 1/8" strips should be turned in your dremel or hand drill so they are shaped as shown on the plans. The Oar blades can be thinned down and glued to the rounded off handles.

Time to start rigging....