Chapter Nineteen

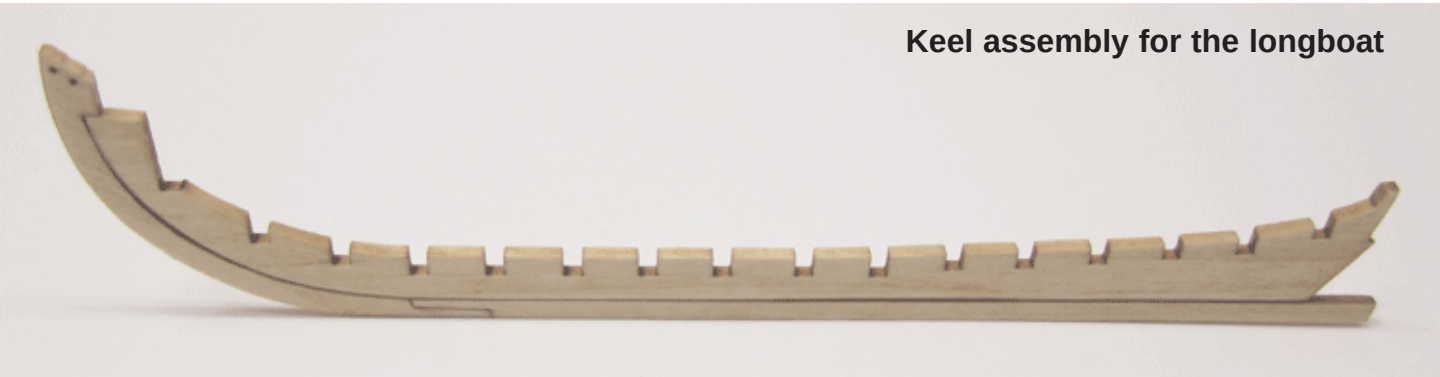
Building the Two Ship's Boats

The Confederacy probably carried a minimum of four ship's boats. On our model, we will be building only two. The model will show 22 foot longboat and a 26 foot pinnace secured to the skid beams across the waist. Each boat will be planked on bulkheads much like the hull of the Confederacy. But after the initial planking is completed, the center of each bulkhead will be removed leaving a fully framed shell to detail.

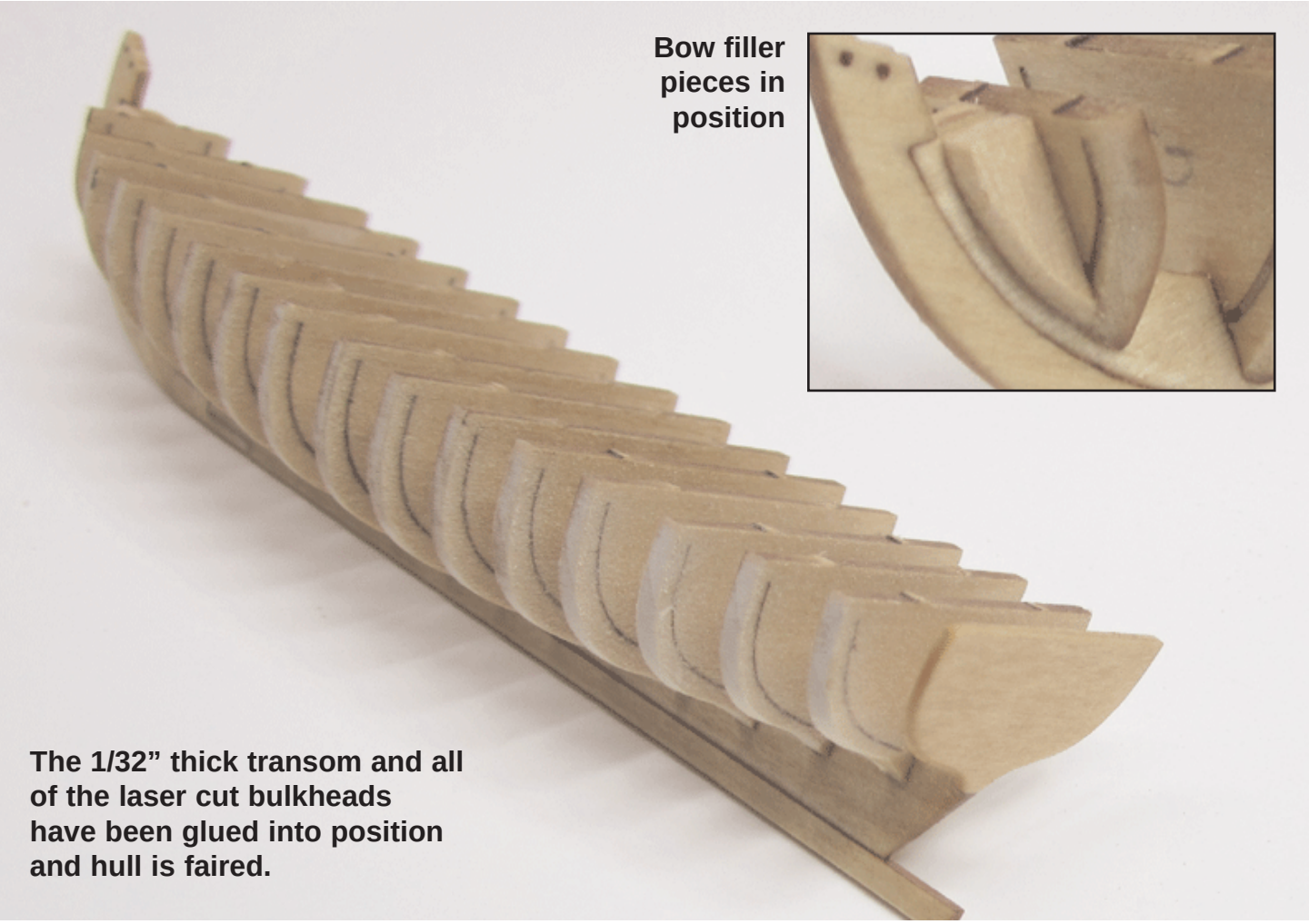
Building the 22' Longboat…

Remove the notched false keel from the laser cut sheet (1/16" thick). You will notice that it has a laser etched reference for the bearding line much like the false keel for Confederacy. These smaller parts are very delicate however, so handle them with care. You must bevel the false keel from the bearding line to the outside edges. Remove enough of the material so the keel gradually reduces in thickness to slightly less than 1/32". This needs to be done on both sides which the finished width being slightly less than 1/32". You can continue the beveling towards the bow and up the stem. This will create only a slight rabbet which will help make planking easier. Even though the edge of the false keel is so thin, the edge will still be a sufficient width to glue the actual keel and stem to.

Examine the photo provided that shows the stem and the keel glued to the false keel. Glue the stem into position first. Make sure you center it so the rabbet formed is equal on both sides. Then add the keel with its scarph joint. Just leave the end of the keel long at the stern so it hangs over the edge as shown in that photo. Note: You may consider staining these pieces before you glue them together so the basswood doesn't get blotchy after gluing. The keel assembly was stained to match the outboard planking above the wales.



Keel assembly for the longboat



Gluing in the Bulkheads…

There are sixteen laser cut bulkheads for this longboat. They are 1/16” thick. They should be glued into their respective notches along the false keel. THIS IS VERY IMPORTANT: Make sure you leave the center of each bulkhead intact when you glue them into position. The center of each bulkhead is held in place with three small tabs, one on the bottom and one on each side of the top of each bulkhead. The centers wont be removed until after the planking is completed.

As you are adding each bulkhead, make sure you view it from the bow and stern. Look down the keel to make sure they are all centered and lined up correctly. You should have time as the glue dries to make sure that a bulkhead doesn’t stick out on one side. You can draw a reference line down the center of each bulkhead if it will help you keep all of them lined up with keel properly. This is important as the hull will not be faired smoothly if they are not lined up properly. You should view the bulkheads from above to make sure they are glued in at a right angle to the keel and spaced evenly apart.

Once all sixteen of the bulkheads are glued into position, you can fair the hull. Use very fine grit sandpaper. Wet/dry 320 grit would be perfect for this. Anything coarser will grab the bulkheads along the sides as you sand them and possibly split them. Very gently sand the edges of each bulkhead to fair the hull. Take your time with this, especially at the bow.

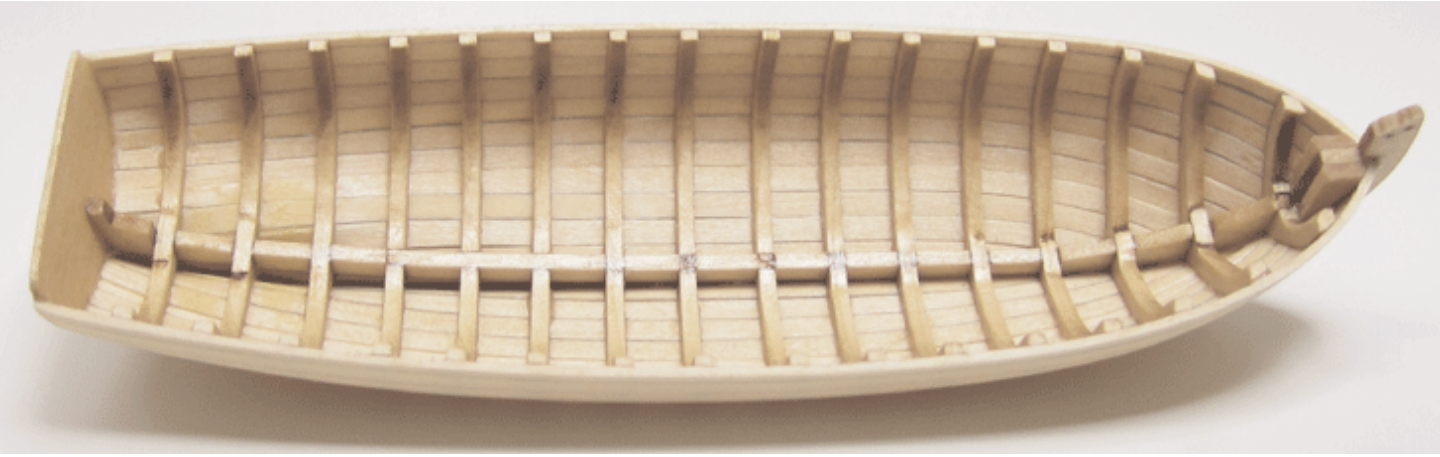
After the hull is faired, you can add the laser cut transom (1/32” thick). This piece was added after the hull was faired because it is so delicate. It is only 1/32” thick and won’t really need to faired. If you do find the need to do so, please use a very light touch. Carefully glue it to the back edge of the keel. There is a small notch to help you line it up correctly. Just sit the bottom of the transom on top of the notch. Make sure it is straight and at a right angle to the keel before the glue dries.

At the bow, there are two more filler pieces that will help make planking easier. It's designed much like the larger hull of Confederacy. These pie-shapes should be glued to the sides of the false keel at the bow. A photo is provided that shows these two pieces glued into position along with the transom. Fair the two bow fillers just as you did for the larger ones on the hull of the Confederacy. The longboat is now ready for planking.

Planking the Longboat…

The longboat will be planked with 1/32" x 3/32" strips of basswood. They should be pre-bent to make planking the bow easier. Two planks along the sheer should be added initially on the port and starboard sides. This will strengthen the entire assembly. You will be amazed at just how strong the structure will be after the first plank on each side is completed. NOTE: You can adjust the run of the first plank along the sheer if you prefer a more curved appearance. If you line up the top of the first plank with the top of each bulkhead it will create a relatively straight sheer on the profile. If you lower the first plank in the middle of the boat by 3/32" it will create a more curved look. This is not needed however, but because some model builders prefer a more curved sheer on a longboat, I thought I would mention it.

The planks were added in one length rather than cutting each strake in two pieces. This is a simplified approach. The edges were darkened with pencil to simulate the tarred seams. The two strips placed along the keel were clamped because of the extreme twist at the stern. A photo is provided that shows this being done on the prototype. Let the strips run beyond the stern post so you can carefully trim them back afterwards. The hull planking was not stained. The planking was simply sealed with wipe-on poly to match the color of the planking on the Confederacy below the wales. This created a nice contrast between the stained keel and stem. An additional photo is provided that shows the long boat planking completed. The hull was sanded smooth and the thickness of the planking reduced for scale. You don't have to thin down



the planks that much but 1/32” is just a bit thick in this scale.

Add the laser cut stern post and trim the keel flush with it. Carefully file all of the hull planks flat so the stern post will sit flush against them.

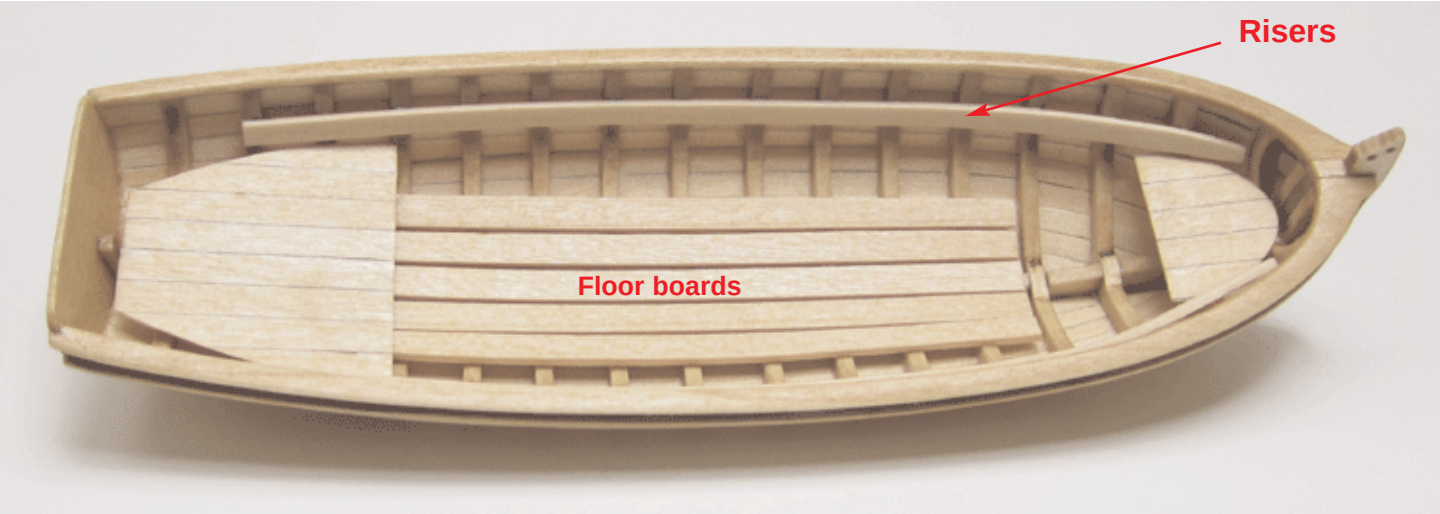
Removing the Bulkhead Centers…

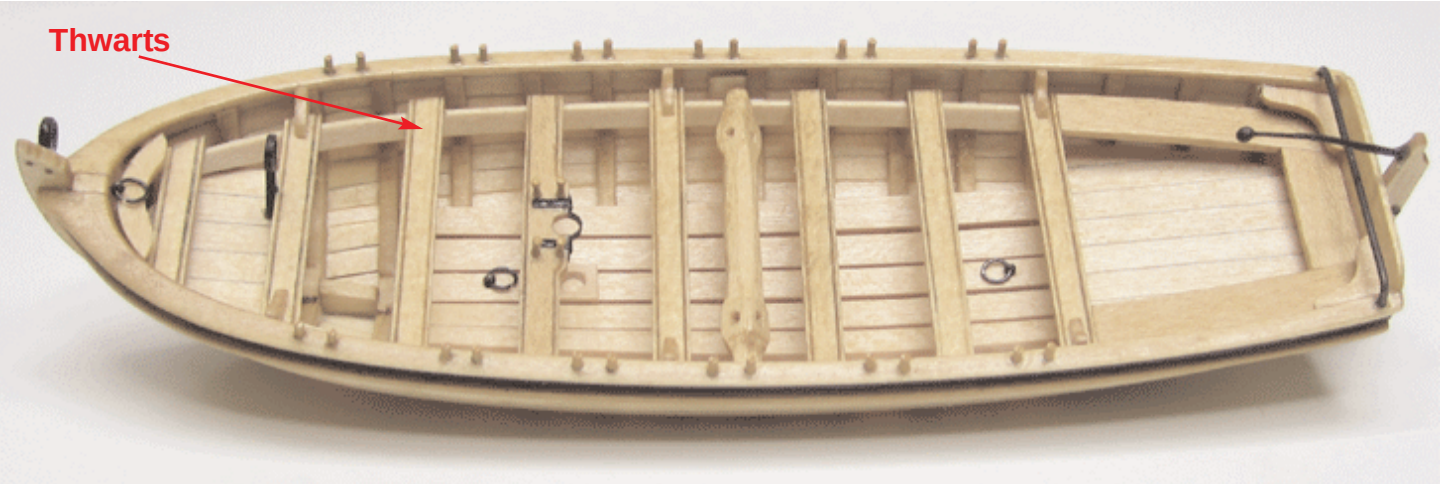
A photo is provided that shows the longboat after the center tabs have been carefully removed. This can be a very anxious procedure but it needn’t be. Basically, you will be separating the center of each bulkhead from the two tabs at the top of each frame. Resist the urge to grab your hobby saw to cut through them quickly. It is far better to use the edge of a flat needle file. File the tbabs gently on each side of the hull and remove the center of the bulkheads one at a time. You can also hold the top of the bulkhead in the center while you file down the tabs. This will give it extra support. The wood grain is horizontal and the center will want to flex fore and aft as you file away the tabs. Try and hold it vertical and keep it immobile while filing. After you file the tabs away, simply bend the center forward and then aft to snap away the tab on the keel. This will free the center completely. Repeat the process to remove all of the centers for each bulkhead.

Then sand the frames and keel to reduce their thickness and fair them inboard. The photo shows the interior after the prototype was sanded and faired.

Finishing the Outboard Details of the Longboat…

Sand the tops of the frames and the sheer to get a smooth run bow to stern. The cap rail will be added next. To make the cap rail, hold a 1/32” thick sheet of basswood on the top of the longboat. You will be creating the cap rail for the longboat on one side only. Press the sheet firmly down against the top of the frames. Take a pencil and trace the outboard outline of the hull. This will give you the general shape of the cap





rail. Draw another line 1/8” inside the traced outline to create the cap rail template. Cut out the cap rail with a sharp blade but cut outside of your lines to make it even wider. Leave plenty of extra meat on the cap rail because it will be easier to sand it to the proper width after it is glued on the model.

Repeat the process to make the cap rail for the other side of the boat. You can notch the aft side of the cap rail to fit around the transom. Then glue it on top of the boats frames and sheer plank. It will be very wide and out of scale at this point. Carefully sand the outboard edge until it creates an overhang that is 1/64” wide. The sand the inboard edge until the entire cap rail is 3/32” wide. It will flare a bit at the bow and be slightly wider there. Examine the photo that shows the cap rail sanded with the correct shape. You may also note a small filler piece that was inserted between the two halves at the bow (just aft of the stem). There will be a small space there which needs to be filled. You could shape each half of the cap rail so this filler isn’t needed but either way is good. The cap rail was stained to match the keel and stem.

A thin strip was 1/32” x 1/32” basswood was glued to the outboard planking for the molding below the cap rail. It was positioned 3/32” below the cap rail. The space between the cap rail and this molding strip was then painted black.

Starting the Inboard Details...

The floorboards were glued into place first. Use 1/8” x 1/32” strips for these. They are visible in the photos provided. Leave a consistent air space between each floor board. Cut them to length using the plans as a guide. The two platforms (bow and stern) were made next. Basswood strips (1/8” x 1/32”) were glued together edgewise. A pencil was used to darken the edges before gluing. A paper template was cut using the plan as a guide. Once you determine that the paper template fits in position, you can use it to trace the shape of each platform on the wood you glued together. Glue them into place as shown in that same photo. You may notch each platform edge to fit around the frames as in real practice, but for our model you can simplify the process. You can simply glue the platforms in position without notching them and they will sit flush against the inboard edges of each frame.

The risers (or risings) were added next. These are support strips for the thwarts (or seats) of the longboat. The risers are made using a 3/32” x 1/32” strip. Cut it to length as shown on the plans and in the photos. The important part of installing this strip would be to make sure it is a consistent distance below the cap rail. Measure and mark this distance on all the frames before you glue it into position. This will ensure that risers are the same height on the port and starboard sides. The top edge of the riser should be placed between 3/32” and 1/8” below the top of the cap rail.

The thwarts (or seats) were made from 1/8” x 1/32” strips. There are eight thwarts on this longboat. One of them is slightly wider because it has a circular notch filed into it for the mast. This

The longboat completed

thwart was made using a 5/32” wide strip. All eight thwarts were cut to length and test fit in position. They weren’t glued into position permanently so they could be spaced consistently according to the plans. Their positions along the risers were marked with a pencil. You might notice in the photos throughout this chapter that the thwarts have a molded edge. This is an easy optional detail to add. You can use a sharp awl to create these grooves down the edges of the thwarts. Take a metal straight edge and hold it firmly down on the basswood strip. Then “lightly” scribe the groove down the strip. It isn’t a very deep groove at all. Just a few light passes on each side of the strip will create the molded edge. You can do this to a long strip of basswood before you cut the thwarts to length. This will help make the grooves consistent for all of them. NOTE: There is more space left between the thwarts where the windless shall be placed.

The wider thwart that is notched to receive the mast was completed off the model. All of the ironwork and belaying pins were added to it before it was glued on to the longboat. Use the plans as a guide to file the circular notch and shape the aft profile of the thwart. Thin paper/card strips (1/32” wide) were painted black for the iron work. The iron band that forms the bracket for the mast was glued onto the edge of the thwart first. After gluing one side onto the edge, the strip was pushed to that side so it naturally bent in a circular fashion. Then the other side was glued against the edge of the thwart to “lock” in that naturally curvature of the strip. Two support straps of the same width are then glued to the top of the thwart and wrapped over the bracket. They are taken under the bottom of the thwart and glued there as well.

Alongside each of these support straps you will see two belaying pins. Brass belaying pins (very tiny) were supplied for these. Glue them into predrilled holes as shown on the plans and photos. Paint the belying pins to resemble wood. This thwart can be glued into position when you are finished. The seats for the cockpit were cut and shaped from the 1/32” thick basswood sheet. They were glued into position when finished.

Various knees are shown on the plans. Six are positioned on top of some thwarts and against the sides of the boat. There are more knees at the stern just above the cockpit seats and one additional at the bow. These were all cut from a 1/32" thick sheet to fit and glued into position. A tiny square was cut from the sheet and a hole drilled through it for the mast step. This was carefully positioned below the opening in the wider thwart for the mast. Glue it on top of the center floorboard. You can make this from a 1/8" x 1/32" strip as well.

The windlass is made using a 1/8" x 1/8" strip of basswood. Cut it to length. Then mark the locations for the two squared sections of the windlass on all sides of the strip. The area between these squared sections and on the outside ends is eight sided. These sections of the windlass can be filed to create the eight sided profile. Just file down the four corner of the strip carefully to create an eight sided profile. While filing be conscious of how you define the two squared sections of the windlass. Drill small holes in the center each of the squared sections. Keep them lined up on all four sides of the windless. Then glue the windlass on top of the riser between the two thwarts. You can take a small square of scrap wood 1/32" thick and notch it out to place over the ends of the windlass. These small squares should be glued against the inboard sides of the hull to simulate the caps that lock the windless in position. The windless won't actually turn but these small pieces should simulate that it could.

Adding the Ironwork to the Longboat…

There are three eyebolts with rings on the longboat. Two are glued into the floorboards and were used to lift the boat when being deployed. One additional ring was glued at the bow and was used to tether the longboat if needed. Add these rings after painting them black. You can make them the same way as you made the split ring assemblies on deck for the long guns.

At the stern you will see a traveler bar that spans across the boat (just forward of the transom). This is made using 22 gauge black wire. Just bend the ends and insert them into pre-drilled holes in the top of the cap rail.

There are two bowsprit irons. They are used to secure the bowsprit when it was being used. These are made using the 1/32" wide brass strips supplied with the kit. Just crimp an appropriate length around a suitable wooden dowel (1/8" diameter). Take the two "tails" and glue them together. These two tails will form the base (post) after being glued together. Snip off the excess to make the circular ring the correct height off the deck. Drill a hole into the platform at the bow so you can glue the first bowsprit iron into position. It should sit against the forward edge of thwart as shown in the photos and plans. Note how the location is slightly offset to the starboard side.

A second bowsprit iron is used on the starboard side of the stem. This one can be made the same way. You just need to cut the base much shorter. It should be painted black and inserted into a pre-drilled hole on that side of the stem. Be careful not to drill all of the way through the stem. Just make a shallow hole deep enough that you can glue this piece into and it won't sag or fall out of. Carefully determine the placement of this hole so that after the ring is positioned it lines up with the one inboard. It must be aligned so that in real practice a bowsprit could be inserted into both rings. Normally the bowsprit was angled slightly upward so the rings should be positioned as such to make this possible. Although offset to starboard, the bowsprit also angled slightly to the port side so the tip of the bowsprit ended up directly in front of the stem.

The oarlocks are simple to make. These are made using 22 gauge black wire. Just drill the holes on the top of the cap rail. Carefully position them in pairs so they are even on both sides of the boat. Cut small lengths of wire and insert them into the holes. It's easier to snip them all at the same height after you glue them into the holes. You can paint them to look like wood (as on the prototype) or leave them black.

The pinnace is ready for planking

Adding the Rudder…

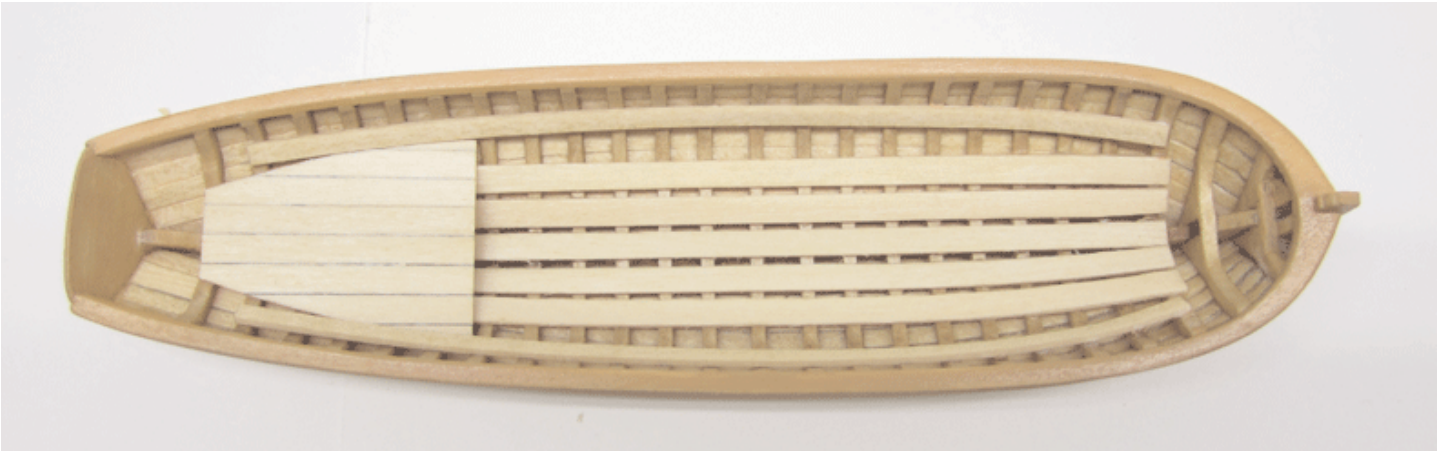
The rudder is laser cut for you. Just sand off the laser “char” and create the pintles and gudgeons from heavy card stock. The card stock should be cut into strips 1/32” wide and painted black. Add them to the rudder and use a tiny length of 28 black wire for the pintle pins. Hold the rudder against the stern post so you can mark the locations for the gudgeons. Glue the black card stock gudgeons to the transom and hull appropriately using the plans as a guide. You can bend the card strips to pre shape the pintles and gudgeons somewhat before you glue them into position.

The tiller was made using 28 gauge black wire. Just bend it to shape. A drop of CA was placed on the end of the tiller to form the small ball. If you have a CA accelerator, you can spray it onto the droplet to instantly cure it. This helps lock in the perfectly round shape of the ball. Glue the tiller into the rudder after drilling a small hole for it. Then paint the tiller black. That will finish up the longboat. Set it aside while you start building the pinnace. When both are completed they can be mounted on the model. Several photos of the completed longboat are provided for you.

Building the 26 foot Pinnace…

The pinnace is built just like the longboat. There is no reason to repeat the instructions for assembling the keel and bulkhead frames. Several photos have been provided that shows the initial construction at various stages. Build them as you did with the longboat. There are however a few additional details and differences to note.

There are panels located on top of the cap rail on both sides of the cockpit. These have been laser cut for you in two layers. Glue the two lay-



ers together and sand them slightly thinner on both sides. Then glue them into place as shown in the photos.

Under each thwart you will notice that support stanchions were added. These were made by cutting 1/32” x 1/32” strips to length and gluing them under the center of each thwart. This adds a nice detail to the finished pinnace.

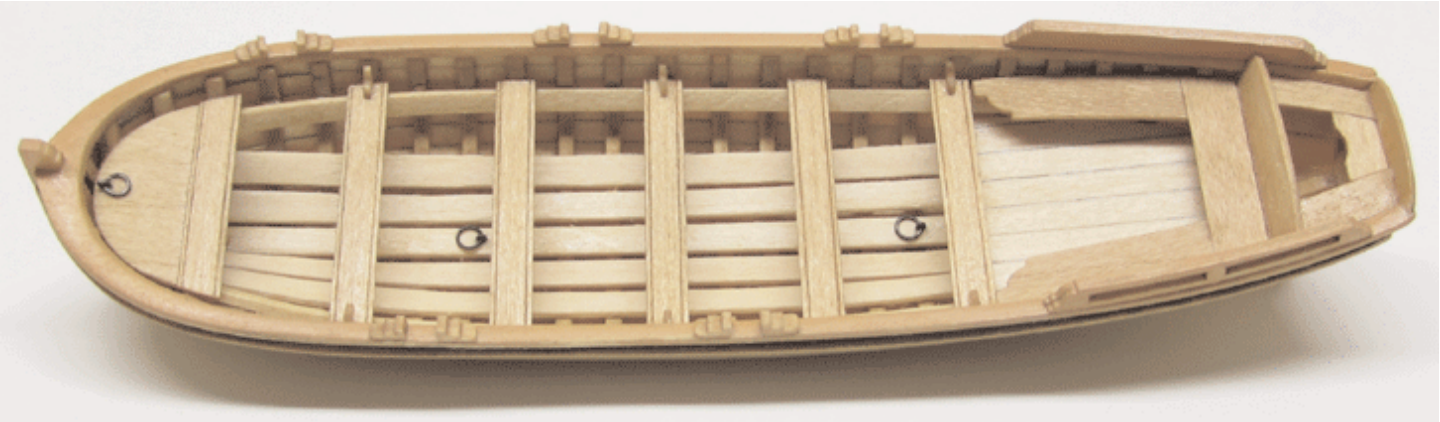
The oar locks on top of the cap rail are shaped out of 1/16” x 1/16” strips. They were cut to length and filed to match the “stepped” profile shown on the plans.

Other than those small differences along with a slightly different cockpit layout this boat is built the same way as the longboat.

Mounting the Ship’s boats on the Skid Beams…

Both boats have laser cut crutches supplied for mounting them. They are 1/16” thick. These crutches will be glued to the tops of the center skid beams in the waist. An easy way to position them correctly would be to glue them to the bottom of the boats first. Place the ship’s boats on the skid beams where they would be lined up “fore and aft” properly. You can examine the photos provided to get an idea of where they should be placed. Then mark the keels of each boat where the center of those two crutches should be located. Glue the crutches to the boats. This will ensure that they will line up properly with the skid beams when you glue them on top of them. Place them both on the skid beams together so you can align them properly port-to-starboard with and even amount of space on both sides. The boats should be placed about 1/8” apart. Then mark the locations for the crutches on each skid beam. Don’t glue them into position just yet.

Each boat will be tied down using .028 tan rigging line. The rigging will be doubled up and seized to eyebolts on the top of the skid beams. Now that you know where the crutches and boats will be positioned, you can glue these eyebolts into position ahead of time. I would be a good idea to actually seize the line to the inboard eyebolts before you glue them into the skid beams as well. It would be very difficult otherwise to reach between the boats to seize the eyebolts afterwards. On the prototype, the rigging line was placed through the inboard eyebolts and doubled up so the resulting lashing was 7” long. Then I seized the doubled lashing close to the eyebolt with two seizings. This was done to make four lashings. These four eyebolts were then glued



into pre-drilled holes on the two center skid beams. They were positioned in the space between both boats on the skid beams. Because the longboat is wider than the pinnace this doesn't necessarily mean they should be placed down the exact center of the skid beams. They will be offset somewhat.

The boats can now be glued onto the skid beams permanently. Then grab each doubled lashing and bring it over the boats so you can seize it to the eyebolts on the outboard sides of each boat. Run the lashing through each outboard eyebolt on the skid beams and seize them to complete the process.

With boat ship's boats now lashed to the skid beams, your model of Confederacy has been completed. CONGRATULATIONS!! A laser cut display cradle has been provided so you can proudly display your model of the Confederacy. We hope you enjoyed building the Confederacy.

The pinnace completed