



Chapter Fifteen **The 25 foot longboat**

The brig Syren carried three boats for its crew. As to the sizes of these boats it isn't known. We do have a good sense of what she probably carried based on the detailed inventory of a similar ship built at that time. The brig Argus was built at the same time for the same purpose. She carried three boats including a 25 foot longboat with windlass, a 24 foot Pinnacle and an 18 foot jolly boat which hung from the stern davits. Our little model was designed to show only the 25 foot longboat. It will be secured atop the gallows bitts along with the sweeps.

To begin building the longboat many different construction methods could be used. The lift method is one of them. It is a very effective way to build a ship's boat for any model and many details can be added after the hull is shaped. The longboat will be a major focal point of this model and care should be taken while building it. Try and treat this little boat as if it were a separate modeling project all together. A poorly crafted longboat would only serve to ruin the appearance of an otherwise well constructed model.

Five lifts are laser cut for you. All are 1/8" thick. There are tabs on both ends of each lift. The tabs at the stern are slightly wider than those at the bow to help you position them properly. Glue all five lifts together making sure to precisely line up each and every tab. (see the photo below) After the glue dries you can cut the tabs free of the assembly and begin shaping it. The photo on the top of the next page shows the exterior of the hull after it has been sanded to shape. Don't thin down the walls of the hull too thin at this point. Simply sand the bottom edge of each lift to get a smooth continuous hull. When you are satisfied, establish the sheer of the long boat by sanding a graceful curve into the uppermost lift. Refer to the plans which show how the sheer dips toward

mid ship. That same photo shows the approximated sheer with a heavy black line before it was created. Another photo also shows the long boat resting in position on top of the gallows bitts to give you a sense of the scale in comparison to the Syren's deck.

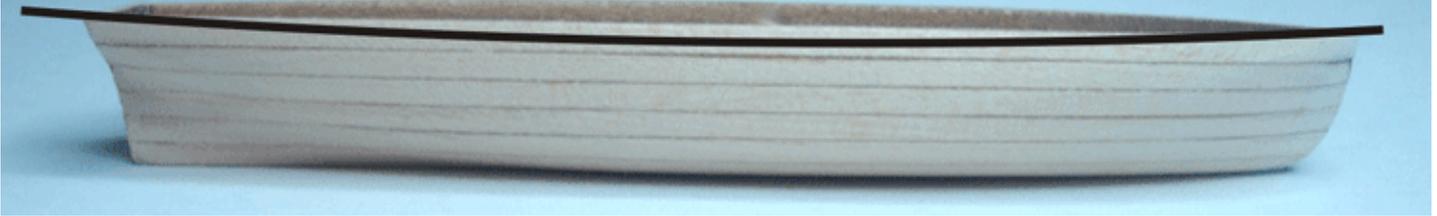
With the exterior completed you can begin to thin down the boat's hull from the inside. Try and make the shell as thin as possible. 1/32" thick would be best but no thicker than 1/16". This is not the easiest task to accomplish by hand. Some of you might find it helpful to use a small sanding drum on an electric rotary tool. Be very, very careful if using a rotary tool. Apply the lightest of pressure. The basswood is soft and such a powerful tool can quickly remove too much material. Finish it up by sanding it by hand with some fine sandpaper. Use some wood filler to fill any gaps, cracks or areas that were thinned down too much. Paint the outside of the hull white and if necessary paint the interior to look like wood.

To start constructing the boats skeleton glue a 1/32" x 1/32" strip of wood down the center of the boat as shown. Soak the strip first to make it pliable enough to bend up the bow. Then using the same strips start gluing the individual frames on both sides of this "keel". It will be easier to use a long strip that has been soaking for a while. Once a frame is glued into position you can snip off the excess. Space the frames about 3/32" apart from one another. Sand them smooth when they are all completed but make sure every frame is 100% dry first. If you attempt to sand them while wet the wood will shred and tear rather than become smooth.

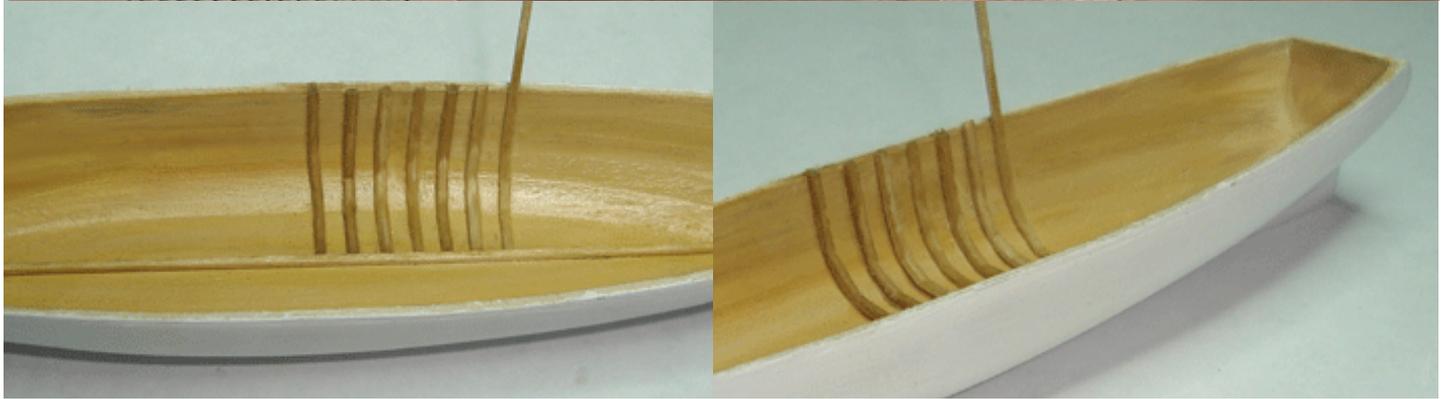
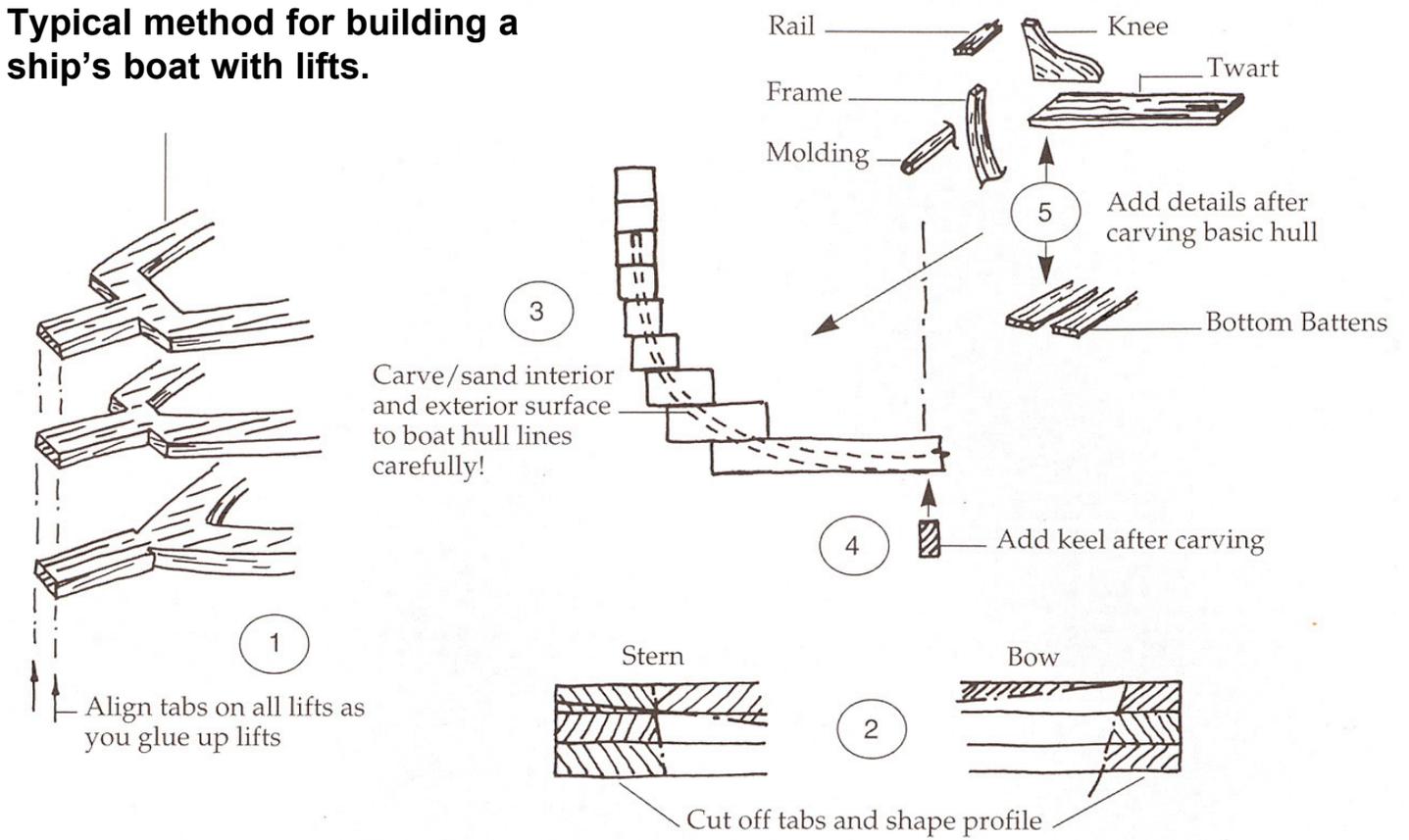
Lifts glued together with the tabs aligned. The Syren's longboat has five lifts.



Establishing the correct sheer profile for the longboat as shown by the black line below.

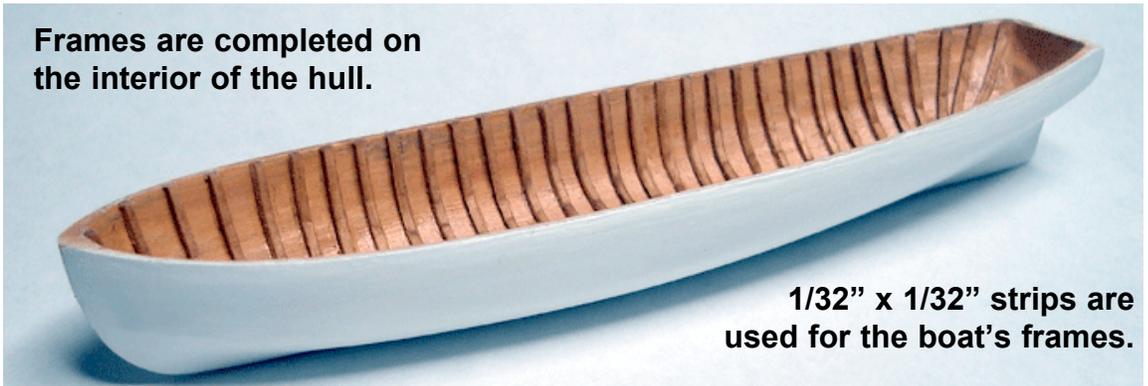


Typical method for building a ship's boat with lifts.



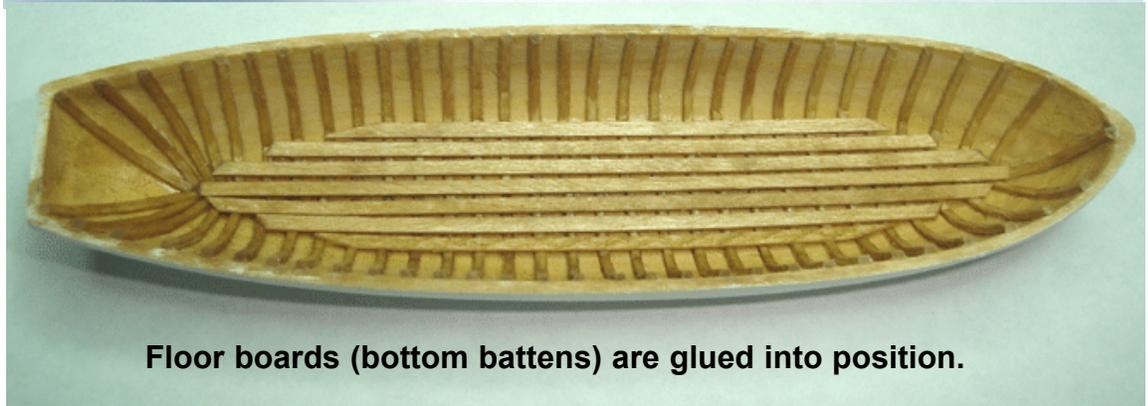
The photo to the right shows the floor boards in place. Seven 1/32" x 1/16" strips are shaped and glued onto the frames. The first plank is placed directly down the center of the boat on top of the "keel"

Frames are completed on the interior of the hull.



1/32" x 1/32" strips are used for the boat's frames.

Now it is time to construct the two gratings that are shown in the photo below. They are positioned at the bow and stern respectively. The same grating strips that were used for the deck hatches will be utilized for this purpose. They will however be modified first. Instead of assembling them "egg-crate" style, they will



Floor boards (bottom battens) are glued into position.

be glued together edge-to-edge. This will give you the appropriate thickness. Even after this is done the holes in the grating would be too large and the strips should be cut down before gluing them up. Take a sharp blade and steel-edged ruler and cut the strips thinner on both sides. Look at that same photo which shows a strip before being modified and after. You can see that the strip on the right is considerably thinner. After gluing them together edge-wise the general shape of the finished grate can be made. That shape should be smaller than you will actually need so a 1/32" x 1/32" strip can be framed around the entire grate to finish it off. It is time consuming to build the grates but they will add a great deal of detail to your finished longboat. Stain the grates before gluing them into the boat's hull. Refer to the longboat plan for the correct position and orientation for each grate.

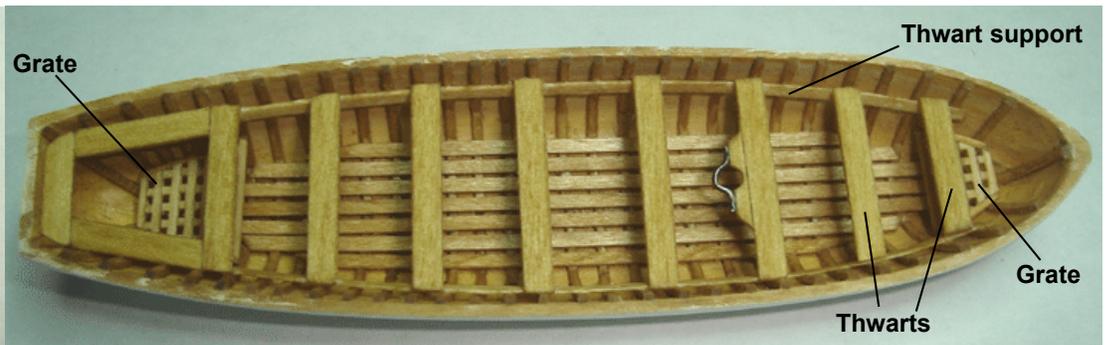
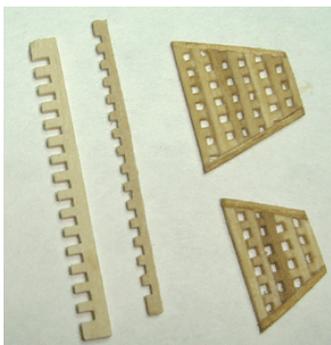
is also consistent on both sides of the hull so the thwarts sit level on top of them.

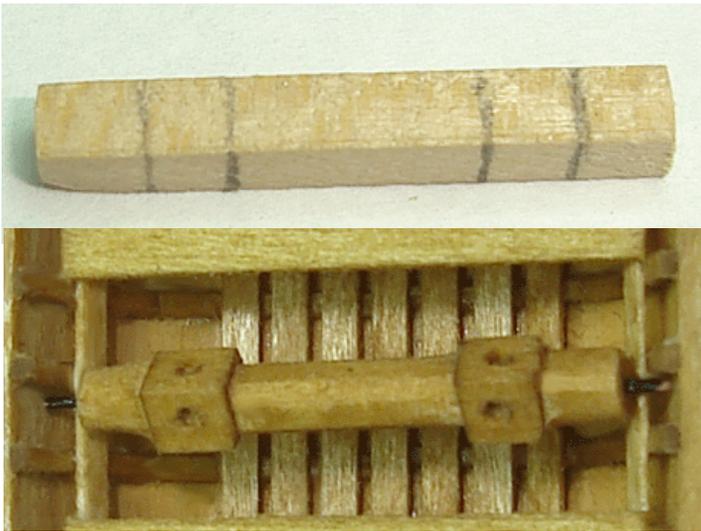
The thwarts are made from 1/8" x 1/32" strips. This is not a difficult procedure but try and space them evenly apart as shown on the plans. You can see that a little more space was left between the thwarts where the windlass will eventually be placed. Note the construction of the thwart that has the iron bracket used to secure the mast. It was built up with another wood strip and 22 gauge wire was used to simulate the iron bracket. Stain all of these wood pieces before you install them. Once again this will ensure that the finish won't become blotchy on account of any excess glue seepage.

One length of 1/32" x 1/16" basswood strip is glued down each side of the hull for the thwart supports. The strip is placed about 1/8" below the top edge of the hull. Keep this distance consistent. The thwarts will be placed on top of this support strip. Be sure the distance from the top edge

The windlass will be made from a length of 3/32" x 3/32" stock. It needs to be carved to shape. This is not a terribly difficult task. If you examine the photo on the next page you will see that some reference lines were marked on all four sides. These lines define the part of windlass where the bar would be inserted into some holes to

Modify the grating strips and glue them together edge-wise.

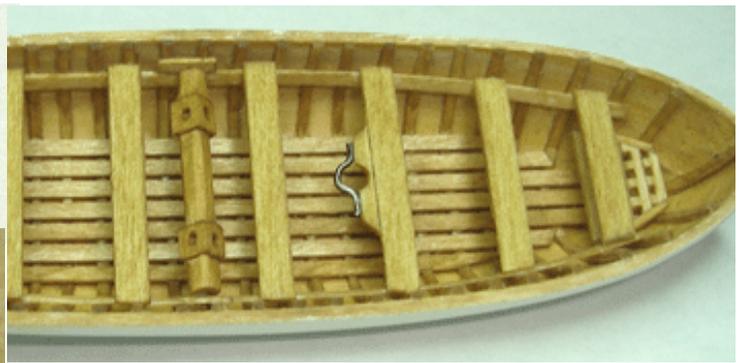




operate it. These segments of the windlass will not be carved. The areas between them and alongside them will be. These areas need to be shaped so they are thinner and eight-sided as opposed to four-sided. To do this, use a sharp #11 blade to score stop cuts on all of your reference lines. They don't have to be very deep. Then use your blade to slice toward each stop cut. Do this all the way around the windlass to define the two square blocks for the windlass bars. Then use some sandpaper or a file to completely thin down the areas around them being conscious of the fact that you are reshaping them to have eight sides. Drill some tiny holes on each side of the square blocks when you are finished.

Tiny lengths of 28 gauge wire should be inserted into both ends of the windlass. The windlass will sit on top of the thwart support strip. The wires/pins will keep the windlass from falling. You can see the wires on each end in the photo above. Note how the windlass is held loosely in position. To secure it firmly, small pieces of $1/32'' \times 1/16''$ strips are cut to length. They need to be roughly $5/32''$ long. A small notch is filed on the bottom edge of these pieces. They are slipped over the wires on either side of the windlass and glued to the boat's frames. Once this is done the windlass will be secured. Stain all of these elements before hand.

You can now turn your attention to finishing the exterior of the boat. First you must cut the cap rail from a $1/32''$ thick sheet of basswood. Simply press the boat firmly against

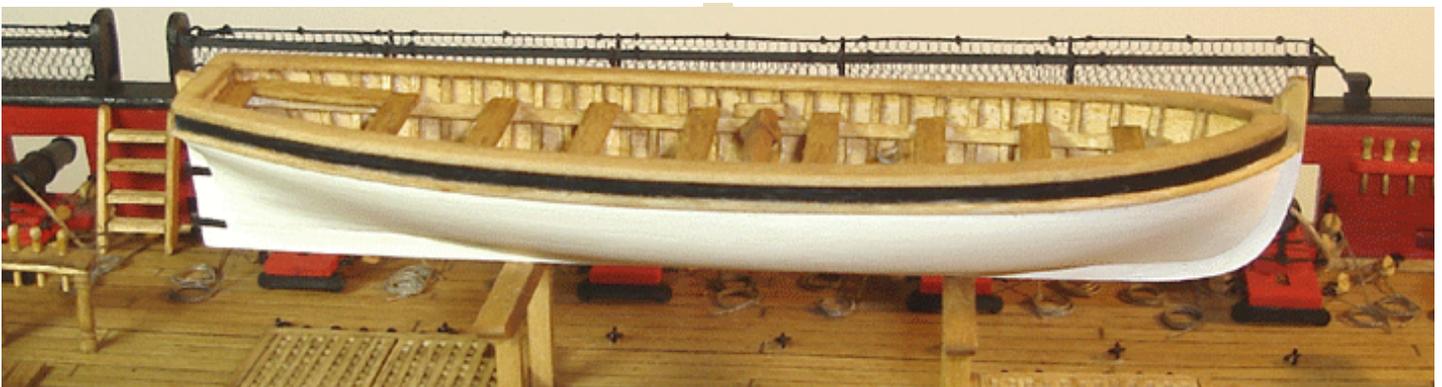


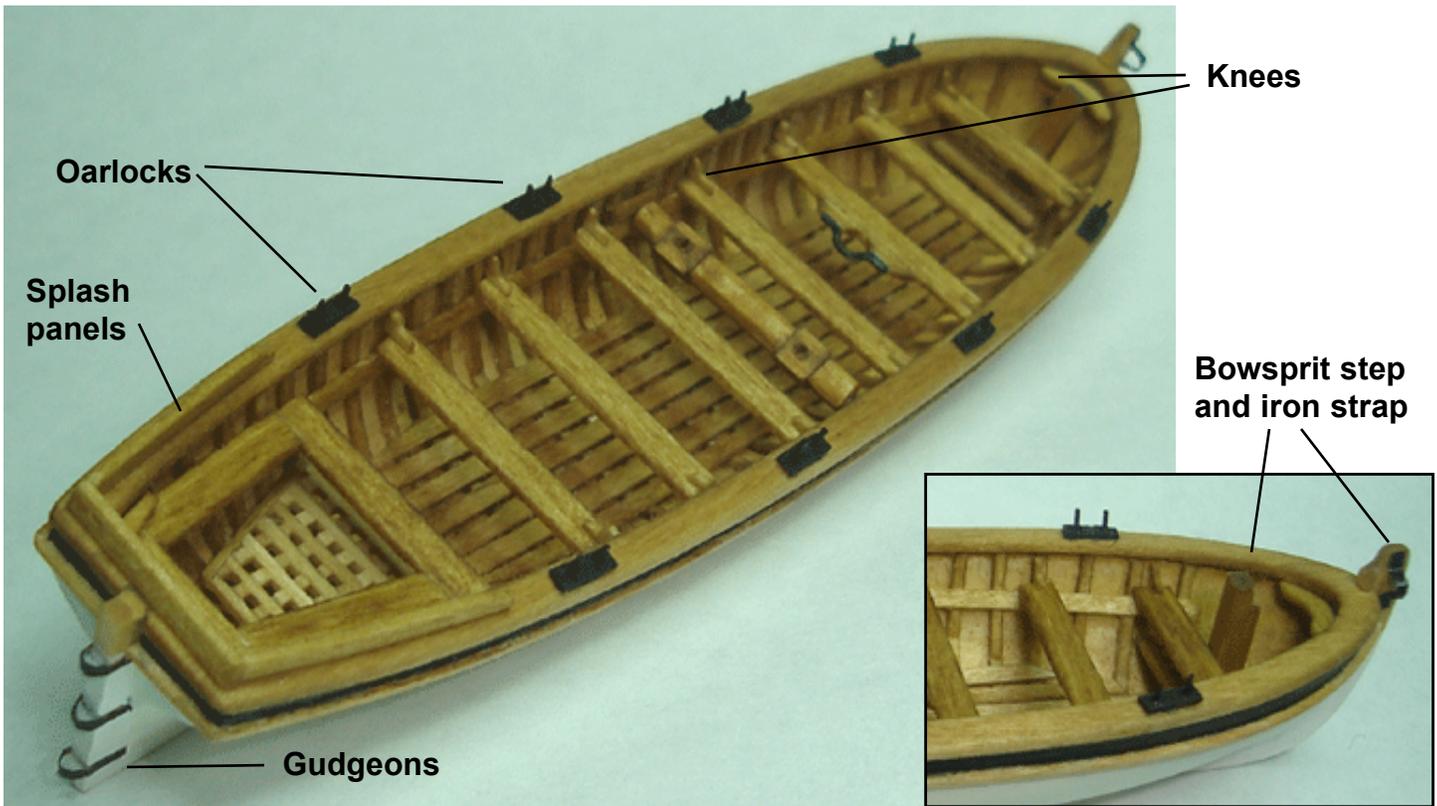
the sheet and trace its outside profile onto the sheet. The cap rail should overhang the sides of the hull a little. So when you start to cut it out of the sheet make sure you do so well outside the line you traced. The rail can be sanded to its final shape after it is glued on the boat. But before you cut it out, make another line about $1/8''$ inside the first one. This will establish the width of your cap rail. Ultimately you want the cap rail to be about $3/32''$ wide. It should not be wider than that. This would be $6''$ wide on the actual longboat. Cut the cap rail free of the sheet and glue it into position. Less than $3/32''$ would actually be more realistic. Once in place you can sand it to the proper width inboard and outboard. Leave a little overhang inboard and outboard as well. The photo below shows the cap rail completed.

The keel, stem and stern post were laser cut from a $1/16''$ thick sheet. These are shown in that same photo. The stem was glued into position first followed by the keel and stern post. Refer to the plan for the proper templates. A $1/32'' \times 1/32''$ strip was glued below the cap rail as a molding. It was stained before hand. Then the area between the cap rail and the molding can be painted black. Sand and repaint the bottom of the hull, the stem, keel and stern post. There are just a few more details to add and the longboat will be finished.

The photos show the oarlocks, gudgeons, and bowsprit strap and step completed. There are tiny knees on the sides of each thwart visible as well. These are the final details you will need to add to your longboat.

The bowsprit step is shaped using a $3/32'' \times 3/32''$ strip of basswood. Notch the top of the strips as shown on the plans. Then glue it into position "just" starboard of the





stem. It will sit on top of the grate at the bow. In actuality it would have passed through the grate and would have been secured to the bottom of the boat. But for our model, resting it on top will be just fine. A small iron strap was fashioned from a scrap piece of copper tape. The tape was first cut to 1/32" wide. It was glued directly to the starboard side of the stem as shown to simulate the bowsprit strap. The bowsprit step is positioned in line with this strap. The strap should be painted black.

The gudgeons for the rudder hinges were made the same way as the bowsprit strap. Strips of copper tape were used. They were painted black and glued onto the stern post. They are glued at a right angle to the stern post. As you can see from the plans there are three of them. You will notice that there are some splash guards at the stern that surround the cockpit of the longboat. These three panels are made from 1/32" x 1/16" strips. They are glued on edge in the center of the cap rail. You can take their shape from the plans.

There are eight oarlocks glued on top of the cap rail. These can be made in two steps. The first step is to cut a 1/32" x 1/16" strip into small same-sized segments. They are all painted black and glued into position. For step two, drill two tiny holes on each side of those black

pieces. Then insert some 28 gauge wire into those holes. Cut them to length and insert them while being careful to align them straight and evenly. Touch them up with some black paint after trimming them so they are all the same height. You wouldn't be able to insert them into those tiny segments before mounting them because the wood most certainly would split.

Lastly there are several tiny knees shown on the plans that are placed on the ends of each thwart. Shape these from 1/32" x 1/16" strips and glue them onto the long boat. A few additional knees are seen at the stern and the bow. Touch up any paint or stain problems when you are finished. This completes the longboat, but you still need to make eight sweeps, four oars and the rudder. The sweeps and oars are relatively simple to make. Templates for them are supplied on the plans. Cut some 1/8" x 1/16" strips to length. Trace the shape of the oars and sweeps onto the strips. The blades should be thinned down considerably after rough cutting them from the strips. Use some sand paper to round the shafts. To complete them, mark the end of the shaft to establish the length of the handles. Create a stop cut around the shaft on this reference line. Then shave very thin slices from the shaft to shape the handle. Use a sharp blade in your hobby knife and slice towards your stop cut. These handles will

Shaping the sweeps and boat's oars from 1/16" x 1/8" basswood strips.





be very thin and fragile so take your time and be careful. Stain them when finished.

The rudder is laser cut for you. Paint it white except for the rudder head. Then use some copper tape cut to the appropriate width to form the pintles. The pintles are painted black. Glue tiny pieces of 28 gauge wire into the pintles to simulate the pins. This should be done after the pintles are glued to the rudder. The tiller is shaped using a 1/16" x 1/16" strip. It will need to be sanded even thinner as 1/16" is too heavy. The tiller can be gradually tapered towards its end and left a little thicker where it will be glued to the rudder head. You could get fancy and carve a small ball on the end of the tiller much like the larger tiller on the Syren. Attach it to the rudder head with a pin like the larger tiller was as well. Stain the unpainted areas and place the finished rudder in the longboat. It was usually stored this way and was not positioned on the stern post until it was needed. The photos above show the smaller oars and rudder stowed in the longboat. You could add many other common tools, rope coils and water casks in the boat as well. The amount of detail you want to add is up to you.

With these details completed the boat can be glued on top of the gallows bitts. It won't be very secure but the glue will hold it in position. There are chocks shown on the plans but these are optional. The chocks were used to secure the longboat more securely. But it won't be neces-

sary on our model. The sweeps will be lashed together in two bundles of eight. See the photos above. Use some .018 tan rigging line to lash the bundles of sweeps together.

When these bundles are glued on both sides of the longboat it will serve the same purpose as the chocks and make them unnecessary. They would also not be seen behind the sweeps either so the choice to make them is up to you.

The longboat and sweeps are lashed down tightly on those gallows bitts. Use some .018 Tan rigging line to do so. Create two hooks out of 28 gauge black wire. Seize them onto one end of the rigging line. Place the hook through one of the rings on deck adjacent to the gallows bitts. Take the loose end of the lashing over the longboat through the corresponding ring on the other side. Then bring it back over the top and seize the loose end to the original "pass" of the lashing with some sewing thread. Seize it just above the hook. You can see how this was accomplished in the photos on the previous page and at the beginning of this chapter.

At this point in the project the hull is essentially completed. The next phase in construction will consist of making the masts and spars. Shortly after, the rigging can commence which will complete the model.

