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Helping preserve the art of model ship building and the Age of Sail for new Generation



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On the Cover The Authentic (1833) Photo-National Maritime Museum

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#### **Table of Contents**

Tidbits from the Past	3
Historic Naval Shipyards	5
The Authentic (1883)	7
The Model Shipwrights Apprentice	8
Badges: Heraldry of Canadian Naval Ships	25
The Book Nook	26
Gene's Nautical Trivia	28
Modeling Clubs	33

## Tidbits from the Past by Gene Bodnar



#### "Crossing the Line"



"Crossing the line" is a boisterous initiation ceremony that takes place among crew members when a sailor crosses the equator for the first time. It is a rite performed by the Royal Navy, the U.S. Navy, the U.S. Coast Guard, the U.S. Marine Corps, and many other navies of the world. Many cruise ships and many merchant navies also perform the ceremony. In addition, several civilian passenger liners carry out the ceremony for the entertainment of its passengers.

Although the derivation of the rite has been lost, it is well known that such ceremonies occurred long, long ago when a ship crossed the thirtieth parallel and also when passing through the Strait of Gibraltar. It is thought that the original purpose of the ceremony was to try the crew to determine whether or not the novices on their first cruise could endure the hardships of a life at sea. It is highly probable that the present-day ceremony was passed on to the Angles, Saxons, and Normans by the Vikings.

Sailors who have already crossed the line are called Shellbacks (also known as Sons of Neptune); those who have not are called Polliwogs.



Key Figures in the "Crossing the Line" Ceremony

In earlier times, the ceremony was a brutal event, with sailors sometimes killed accidentally. Shellbacks would beat Polliwogs with boards and wet ropes, or throw them over the side of the ship, dragging them from the stern of the ship. Frequently, a shaving ceremony was included. As late as the 1940s, the ceremony also allowed for the "Devil's Tongue," which was an electrified piece of metal poked into the sides of the Polliwogs. In many ship's logs, it is recorded that sailors had to visit sickbay after crossing the line.

In a typical ceremony, several Shellbacks participate in the party. The eldest and most dignified member of the ship's crew poses as Neptunus Rex. His first assistant poses as Davy Jones. A third member of the party, Her Highness Amphitrite is a good-looking young seaman who covers himself in seaweed and rope yarns. A Court is formed of a Royal Scribe, a Royal Doctor, a Royal Dentist, and the Devil, as well as other names that suit the fancy of the particular party. A group of Bears, which consisted of several Shellbacks, are given the task of rounding up the Polliwogs. The Bears are also responsible for performing the "dousing watch."

The night before the ship crosses the line, Davy Jones appears on board with a message to Neptunus Rex (Ruler of the Raging Main), stating the time he wants the ship hove to. The

next day, the ship is stopped at the appointed time, and Davy Jones emerges from the hawse or is hoisted over the bow to deliver his message. What follows is a ritual known as the "Ancient Order of the Deep," a rather formal drama that introduces the party to the Polliwogs.

After all the initiations have been completed, a decorative diploma is presented to each of the new Shellbacks, and it is customary for the captain to sign the diploma, and the seal of the ship is affixed to each of them.

No custom of the sea is better known than crossing the line. Being known as a Shellback is a distinction desired by all sailors.





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## **Historic Naval Dockyards**

#### **Washington Navy Yard**

The Washington Navy Yard is the U.S. Navy's oldest shore establishment, in operation since the first decade of the 19th century. It evolved from a shipbuilding center to an ord-

nance plant and then to the ceremonial and administrative center for the Navy. The yard is home to the Chief of Naval Operations and is also headquarters for the Naval Historical Center and numerous naval commands.

The land was purchased under an act of 23 July 1798, with two additional lots being purchased in 1801. The Washington Navy Yard was established on 2 October 1799, the date the property was transferred to the Navy. The yard was built under the direction of Benjamin Stoddert, the first Secretary of the Navy, under the supervi-



sion of the yard's first commandant, Commodore Thomas Tingey, who would serve in that capacity for 29 years.

The original boundaries that were established in 1800, along 9th and M Streets Southeast, are still marked by a white brick wall that surrounds the Navy Yard on the north and east sides. The north wall of the yard was built in 1809 along with a guard house. After the fire of 1814, Commodore Tingey recommended that the height of the eastern wall be increased to ten feet, since along with the fire, looting by the local populace took its toll.

The southern boundary of the yard was formed by the Anacostia River, then called the Eastern Branch of the Potomac River. The west side was undeveloped marsh land. The land along the Anacostia was added to by landfill over the years as it became necessary to reclaim additional land for the Navy Yard.

The first years saw the Washington Navy Yard become the Navy's largest shipbuilding and shipfitting facility, with twenty-two vessels constructed there, ranging from small 70-foot gunboats to the 246-foot steam frigate Minnesota. USS Constitution came to the yard in 1812 to refit and prepare for combat action.

During the War of 1812, the Washington Navy Yard was important not only as a support facility, but was a vital strategic link in the defence of the capital city. As the British marched into Washington, holding the yard became impossible. Commodore Tingey, seeing the smoke from the burning Capitol, ordered the yard burned to prevent its capture by the enemy. Tingey's own quarters (now Quarters A) and the Latrobe gate were spared from the flames.

Following the War of 1812, the Washington Navy Yard never regained its prominence as a shipbuilding activity. The waters of the Anacostia River were too shallow to accommodate larger vessels, and the yard was deemed too inaccessible to the open sea. Thus came a shift to what was to be the character of the yard for more than a century: ordnance and technology. The yard boasted one of the earliest steam engines in the United States which

was used to manufacture anchors, chain, and steam engines for vessels of war.

The Civil War again saw the yard become an integral part of the defence of Washington. Commandant Franklin Buchanan resigned his commission and went to Virginia to serve in the Confederate States Navy, leaving the yard to Commander John Dahlgren. President Abraham Lincoln, who held Dahlgren in the highest esteem, was a frequent visitor. The famous ironclad Monitor was repaired at the yard after her historic battle with CSS Virginia. The Lincoln assassination conspirators were brought to the yard following their capture. The body of John Wilkes Booth was examined and identified on the monitor Saugus, moored at the yard.

Following the Civil War, the yard continued to be the scene of technological advances. In 1886, the yard was designated the manufacturing center for all ordnance in the Navy. Ordnance production continued as the yard manufactured armament for the Great White Fleet and the World War I Navy. The 14-inch naval railway guns used in France during World War I were manufactured at the yard.

By World War II, the yard was the largest naval ordnance plant in the world. The weapons designed and built there were used in every war in which the United States fought until the 1960s. At its peak, the yard consisted of 188 buildings on 126 acres of land and employed nearly 25,000 people. Small components for optical systems, and enormous 16-inch battleship guns were all manufactured here. In December 1945 the Navy Yard was renamed the U.S. Naval Gun Factory. Ordnance work continued for some years after World War II until finally phased out in 1961. Three years later, on July 1, 1964, the activity was redesignated the Washington Navy Yard. The deserted factory buildings began to be converted to office use.

The Washington Navy Yard was also the scene of many scientific developments. Robert Fulton conducted research and testing on his clockwork torpedo during the War of 1812. In 1822, Commodore John Rodgers built the country's first marine railway for the overhaul of large vessels. John A. Dahlgren developed his distinctive bottle-shaped cannon that became the mainstay of naval ordnance before the Civil War. In 1898, David W. Taylor developed a ship model testing basin which was used by the Navy and private shipbuilders to test the effect of water on new hull designs. The first shipboard catapult was tested in the Anacostia River in 1912, and a wind tunnel was completed at the yard in 1916. The giant gears for the Panama Canal locks were cast at the yard. Navy yard technicians applied their efforts to medical designs for prosthetic hands and molds for artificial eyes and teeth.

The Washington Navy Yard was the ceremonial gateway to the nation's capital. In 1860, the first Japanese diplomatic mission was welcomed to the United States in an impressive pageant at the yard. The body of World War I's Unknown Soldier was received here. Charles A. Lindbergh returned to the Navy Yard in 1927 after his famous transatlantic flight. In the 1930s, Britain's King George VI visited the yard during his Washington stay.

Today the Navy Yard houses a variety of activities. It serves as headquarters, Naval District Washington, and houses numerous support activities for the fleet and aviation communities. The Navy Museum welcomes visitors to displays of naval art and artifacts which trace the Navy's history from the Revolutionary War to the present day. The Naval Historical Center is housed in a complex of buildings known as the Dudley Knox Center for Naval History. Leutze Park is the scene of colourful ceremonies. And inside the buildings, the Washington Navy Yard continues to serve the Navy and the nation. §

### Authentic (1883)

From the National Maritime Museum Collection www.nmm.ac.uk



A very accurate full hull model built at a scale of 1:24 and constructed with the plank on frame method. The model is decked, equipped and rigged, with the sails set. It was made by J. Hodgson in 1880, who was a young shipwright and able to make detailed measurements of the actual vessel whilst it was in dry-dock at Hull. It illustrates the sailing trawler at its peak of development and is fitted with fishing gear and the newly introduced steam capstan on the foredeck. The quality of his work was recognised when the model was awarded a Gold Medal at the International Fisheries Exhibition held in London in 1883.

The name 'Authentic' is on the inside of the stern counter and 'Authentic Hull' is on the stern. The port registration 'H 1883', which is fictional, appears on the port and starboard bows and mainsail. The hull, which is largely made from oak and beechwood, is fully planked on the starboard side and partially planked to show framing on the port side. The 'Authentic' was built at Burton Slather in 1880 and owned by Charles Farr of Hull.  $\Leftrightarrow$ 



**Stage 5: Interior Structures** 

#### **Step 1: Installing the Thwart Risers**

Cut two pieces of basswood that measure 1/16" thick by 3/16" wide by about 17" long. The thwart riser is found on the Longitudinal Section view on Plan Sheet 2.

Using a compass, mark a pencil line at each frame that extends from Station 1  $\frac{1}{2}$  to Station 4  $\frac{1}{2}$  exactly  $\frac{5}{8}$ " below the top of the gunwale strake. Mark another line  $\frac{11}{16}$ " below the top of the gunwale strake at the second-last frame at the stern, and do the same at the last frame at the bow.

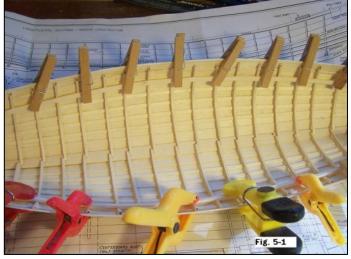
Place a thwart riser on the frames so that its top edge fits along the pencil line you just drew. Trim off the ends until it fits exactly as shown in the Longitudinal Section view.

Remove the thwart riser. Place a drop of glue at each frame just below your marked pencil line. Install the thwart riser with clamps or clothespins. See Fig. 5-1.

After the glue has dried, Ronnberg recommends that you install two nails at each frame, especially if your model will not be painted.



There are four beams at the bow and five beams at the stern, as shown on the Longitudinal Section view on Plan Sheet 2 (and in Fig 5-2). They consist of slightly varying lengths of  $1/16" \times 1/8"$  basswood.

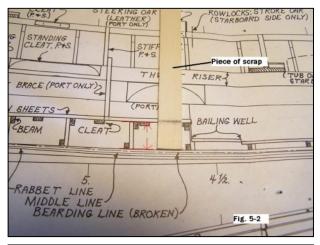


Note that the stern sheets run from the second frame at the stern to the sixth frame at the stern. Using a scrap piece of wood, measure and mark the distance from the top of the keel to the top edge of the stern sheet beam at the sixth stern frame. See Fig. 5-3. This represents the upper edge height of the beam at the sixth frame.

Cut the beam at angles to fit against the planking on each side, making sure that it rests exactly at the height you marked on your measuring stick. Trial-and-error is the only way to find the perfect length. When the beam is glued in place, it should be exactly on the same plane at the top of the keel.

Follow this same procedure for the beam located at the second frame. Glue it in place.

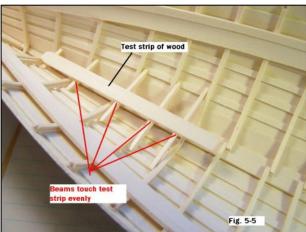
Now place a length of basswood on top of both beams. As you can see, you can now cut the beams located at the third, fourth, and fifth frames to the height indicated by the strip of basswood. Cut and glue these beams in place. All of these beams rest on the same plane; they have no camber.





Just make sure they're all on the same plane at the top of the keel. See Figs. 5-4 and 5-5 below.





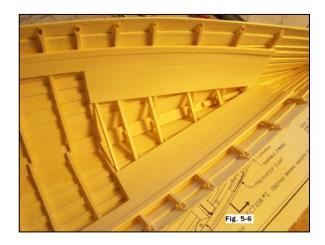
Repeat this same procedure for the four beams shown at the bow on the same Plan Sheet. Be sure to measure the height of the first and last beams carefully.

#### Step 3: Finishing the Ceiling at the Bow and Stern

The bow and stern ends of the ceiling are finished with short, wide pieces of 1/32" basswood. The two pieces (one on each side of the bow) will be identical in size and shape, so cut one piece by trial-and-error to fit, and then cut another duplicate piece for the other side.

Apply glue and clamp in place until the glue dries.

Repeat the same procedure for the stern pieces. See Fig. 5-6.



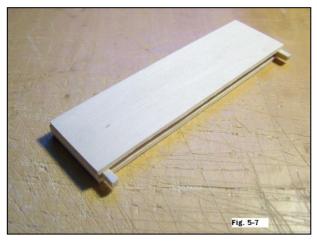
#### **Step 4: Making the Centerboard Trunk**

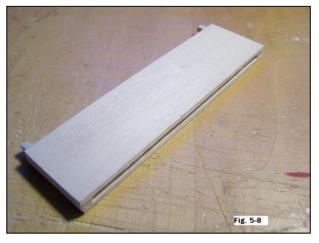
From the underside of the whaleboat cut out the slot for the centerboard. Bore a hole at each end of the slot first, and then use a single-edged razor blade to slice both sides of the slot. Finish smoothing it out with a flat miniature file.

Make the fore and aft ledges for the centerboard trunk. Patterns are found on Plan Sheet 2 in the Side View just below the title of the Plan Sheet. They are made of  $3/32'' \times 3/16'' \times 1 \ 3/16''$  basswood. Note that a tenon is cut in the bottom edge to fit into (and abut) the outer edges of the centerboard slot. Fit them in place to be sure they fit properly.

Measure the exact length between the outer edges of the ledges while they are still in the slot – this represents the length of the two sides required for the centerboard trunk. Remove the two ledges from the slot and place them on your workbench. Measure the height of the ledge from the top of the tenon to the top of the ledge – this represents the height of the two sides required for the centerboard trunk.

Using the two measurements you just determined, cut out the two sides needed for the centerboard trunk. Carefully glue both sides to the two ledges. Let the glue dry. This should look like what is shown in Figs. 5-7 and 5-8 below.





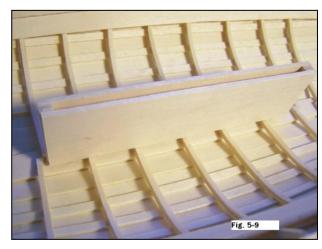
Not fit the centerboard trunk in place. You will find that it does not fit against the keel because the frames are in the way. While the centerboard trunk is still in place, mark the frames with a sharp pencil. Remove the centerboard trunk and cut off the frames at your marks with a single-edged razor blade.

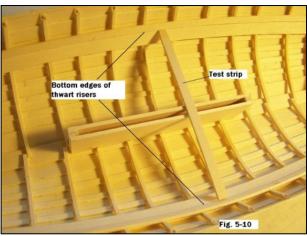
Use a #56 drill bit and drill a hole through the centerboard trunk at the pivot point shown on Plan Sheet 2.

Apply glue to the centerboard trunk and insert it in place on the keel, making sure you have the pivot hole facing the correct direction. Also make sure the centerboard trunk is perfectly upright in position with no lean. Let the glue dry.

Finally, the top of the centerboard trunk must be trimmed so that the underside of the Midship and tub-oar thwarts just touch the underside. Cut or file the top of the centerboard trunk until it is at thwart level. Use a test strip of wood at these areas. See Fig 5-9 and 5-10 below.

The centerboard itself will be completed later.





#### **Step 5: Making the Mast Step**

Start with a piece of basswood that measures  $\frac{1}{4}$ " x  $\frac{1}{4}$ ". Make the mast step as shown by the measurements you take from Plan Sheet 2.

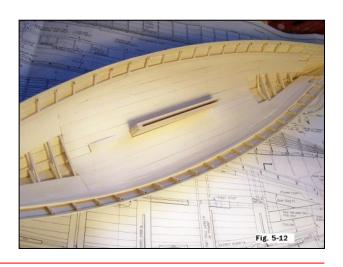
Note that there is a rabbet on the aft side that supports a length of the ceiling. It must also be notched at its middle where it crosses a frame.

Do not bore a mast hole yet.

Glue the mast step in place.

#### Step 6: Finishing the Ceiling

Use 1/32" x 5/16" strips of basswood to install the remaining ceiling planks. Start at either side of the centerboard trunk and work outward. Glue and clamp them in place, or use pins to hold them while the glue dries. You will use six planks on each side of the centerboard trunk; however, the last two on either side will require trimming



to make them fit. Only trial-and-error works here.

Do not plank over the bailing well area, which is located just forward of the stern sheets.

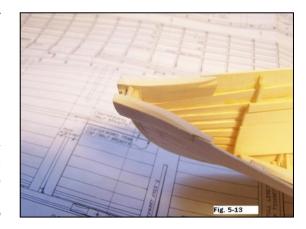
Remember to plank the keel areas fore and aft of the centerboard trunk as well as aft the mast step. See Fig. 5-12.

#### Step 7: Making the Cheek Pieces

Cut two pieces of basswood that measure ¼" thick by 3/8" wide by 1 ½" long.

Ronnberg shows the complex cuts required to shape the cheek pieces on page 79 of his book. Plan Sheet 2 also shows their precise shape in various views.

Mark the shape with a pencil. There are many ways to shape the check pieces, but here's the one I used – working carefully sand away the required shape with a Dremel-type drum sander. Then use a single-edged razor blade to cut the rabbets.



Before gluing into position, check to make sure the pieces are uniform and fit properly at the bow.

Glue and clamp them in place. Let the glue dry.

Cut off the stempost with a razor saw just even with the top of the cheek pieces. See Fig. 5-13.

Using a small rattail file, file out the stempost between the check pieces so you can fit the bow roller at the stem head. A small dowel may be used for the roller (a round toothpick is just right). Glue it in place.

#### **Step 8: Installing the Inwales**

The two inwales measure 3/32" b 1/8" and run from the stem to the sternpost on the inboard side of the whaleboat just above the top edges of the frames.

Fit one of the inwales in position for a test-fit before applying glue. Start at the scarf joint in the cheek pieces. Cut a corresponding scarf joint on the inwale. Run the inwale with clothespins all the way to the stempost, cutting off excess basswood at this point. A perfect fit at the



stempost is not required, because this area will soon be fully covered.

Remove the clothespins. Apply glue to the edge of the inwale. Hold it in place with clamps or clothespins. See Fig. 5-14.

Repeat this procedure for the other inwale.

#### Step 9: Installing the Gunwales

The two gunwales measure 1/16" x 3/32" and run from the stern to the sternpost on the outboard sides of the whaleboat even with the top edge of the gunwale strakes.

Fit the sternpost end first, making a bevel so it rests snugly on the side of the sternpost. Clamp with clothespins for a test-fit. Taper the gunwale at the cheek piece so it matches the flare of the cheek piece. A sanding stick is useful here.

Remove the clothespins. Apply glue to the edge of the gunwale and hold it in place with clamps or clothespins.

Repeat this procedure for the other gunwale.

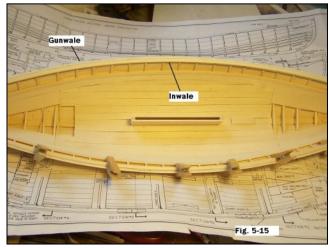
Now bevel both gunwales along their two exposed edges at a 45-degree angle, as shown in Ronnberg's drawing on p. 82 of his book.

See Figs. 5-15 and 5-16.

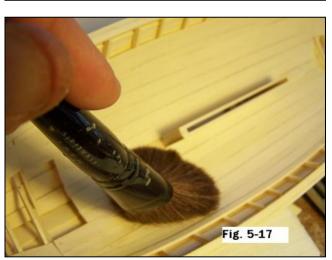
## Step 10: Painting the Interior of the Hull

Now is a good time to paint or varnish the interior that you've finished building so far. Make sure everything is smooth and clean. Sand where necessary with fine-grit sandpaper and dust it out completely. I use a soft brush that the ladies use for applying cosmetics. See Fig. 5-17.

I highly recommend that you first apply a coat or two of primer or sanding sealer.







Brush it on carefully; don't overload the brush. Follow this with a light sanding.

Since my whaleboat will be a part of a Charles W. Morgan diorama, I decided to paint the interior with a medium gray acrylic paint. See Fig. 5-18.

## Step 11: Installing the Bow and Stern Sheets

For each of these parts cut out a triangular piece of 1/32" basswood to fit in their respective areas at the bow and stern. Do not cover the bailing well at the stern. Ronnberg recommends three separate planks for each of these areas, but this is not necessary.

Score each piece with an awl to represent the three planks, as shown in the bottom drawing on Plan Sheet 2.

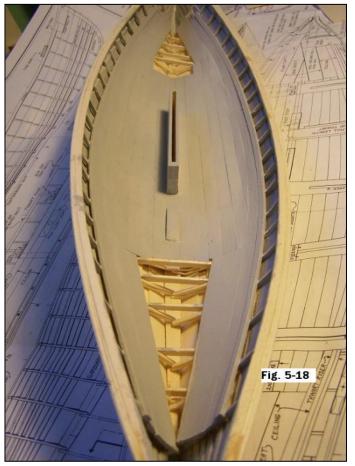
Stain each piece with Golden Oak Stain (or a stain of your choice). Let dry.

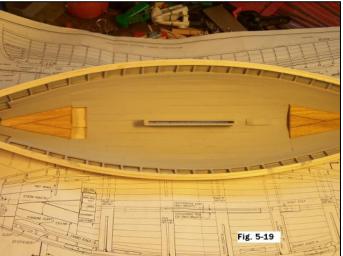
Glue and pin the sheets to the beams. Let the glue dry. See Fig. 5-19 below.

#### **Step 12: Installing the Thwarts**

Cut five pieces of basswood that measure 1/16'' thick by  $\frac{1}{2}''$  wide by  $4\frac{3}{4}''$  long.

Mark the locations of each of the five thwarts on the top edge of the thwart risers on your model. Double-check your markings.





Each thwart will extend all the way across the whaleboat, resting atop the thwart risers, and abutting directly against the interior planking between a pair of frames. Trim each thwart to fit perfectly. With a slight cut of a single-edged razor blade, level off each thwart riser at the places where the thwarts will rest.

Before installing the thwarts permanently, I recommend that you finish them with the color

of paint, stain, or varnish of your choice. It's a lot neater and easier to finish parts BEFORE they are installed. However, don't paint or finish areas that make a contact with glue. See Fig. 5-20.

#### Step 13: Installing the Thigh Board

Cut a piece of basswood that measures 1/8" thick by 5/8" wide and about 2 1/2" long. The pattern for the thigh board is found in the bottom drawing of Plan Sheet 2 near the bow.

Shape this piece to fit your model. Bevel the two sides near the gunwale edges. File out the "clumsy cleat" with a rattail file. Bore two 1/16" holes for the kicking straps. Bore one 3/32" hole for the lance tails. Finally, bore one 1/32" hole for the lifting strap.

Paint of finish the thigh board with a color of your choice.

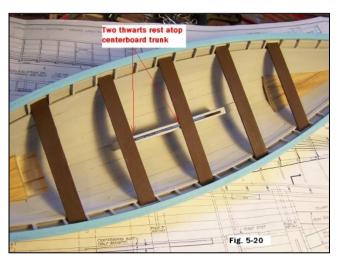
You may wish to paint or finish the inwales and gunwales before installing the thigh board.

Glue the thigh board in place, as shown on Plan Sheet 2. Also see Fig. 5-21.

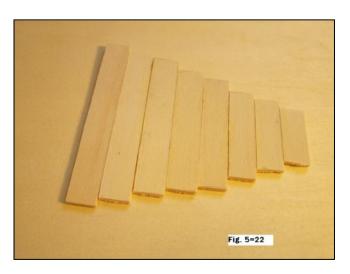
## Step 14: Installing the Cuddy Board Planking

The planking consists of eight pieces of basswood 1/16'' thick by 3/8'' wide by varying lengths to fit the stern area – a total length of about 15". The cuddy board planking is shown in the bottom drawings of Plan Sheet 2.

Instead of installing one plank at a time, it is much easier to glue the eight planks together on your workbench, forming a triangular piece that is a little larger than the area to be covered. See Fig. 5-22.







Place this triangular piece on top of the gunwales. Mark the outline of the underside with a pencil. Cut it to this shape. Trim off the edges so that the cuddy boards fit just inside the gunwales. Bevel the edges slightly.

Paint or finish as you wish. Glue in place. See Fig. 5-23.

## Step 15: Installing the Lion's Tongue

Cut a piece of basswood to measure 1/32'' thick by 3/4'' wide by about  $3 \frac{1}{2}''$  long. The lion's tongue pattern is found atop the cuddy board planking on Plan Sheet 3.

Cut the basswood to the shape of the pattern. Drill a 1/32" hole at its after end, as shown on Plan Sheet 2. The after edge of the lion's tongue rests against the starboard side of the stern-post and also rests flush against the foremost edge of the cuddy board planking.

Finish to you own liking. Glue in place. See Fig. 5-24.

## Step 16: Installing the Rubbing Pieces

Cut two pieces of basswood to measure 1/16" thick by 1/8" wide by 12" long.

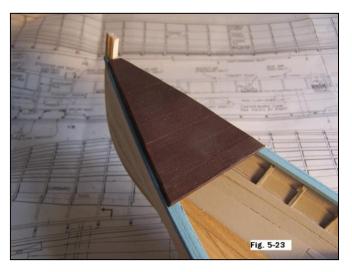
Taper both ends as shown in the Hull Planking Profile on Plan Sheet 1.

Finish as you wish. Glue and pin the rubbing pieces immediately below the gunwale strake. See Fig. 5-25.

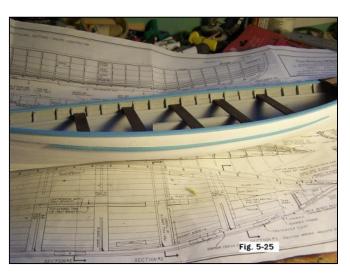
## Step 17: Installing the Thwart Knees

Cut 12 pieces of basswood to measure 1/16" thick by ½" wide by 2" long.

Every thwart knee must be shaped individually and test-fitted in place, because no two of them will be exactly alike. Referring to Fig. 5-26 on the next page, note the following points:





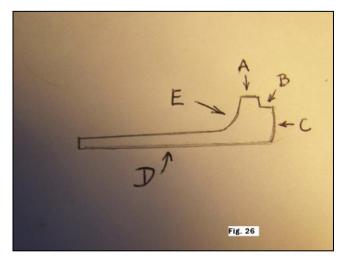


"A" should be 1/16" wide and be even with the top of the inwale.

"B" is a notch that is cut so that the knee sits under the inwale and allows "C" to abut against the interior planking.

"C" is the shape of the interior planking upon which the knee will rest.

"D" is tapered until its outer projection is about 1/16" high. Its length is taken from the bottom drawing on Plan Sheet 2.



"E" is an arc that should be consistent on all knees.

Use tools that you are comfortable with. For each knee I used an X-Acto knife, a Dremel drum sander, and a sanding stick. I recommend that they should be at least partially painted or finished before gluing them in place.

All knees are glued in the exact centers of their respective thwarts, except for the thwart directly above the mast step. Here, a knee is glued to each side of the thwart. Note also that these two knees require special treatment – the one abaft the thwart extends all the way from port to starboard and rests slightly lower than the thwart itself. The one on the fore side is interrupted by the location of the mast hinge and mast itself. See Figs. 5-27 and 5-28 below.

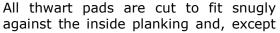


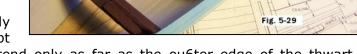


#### **Step 18: Installing the Thwart Pads**

Cut 8 pieces of basswood to measure  $1/16'' \times 3/16'' \times 2''$  and one piece to measure  $1/16'' \times \frac{1}{2}'' \times 4 \frac{1}{2}''$ .

Make the thwart pads as shown on the drawings of Plan Sheets 2 and 3. Note that the thwart pad just above the mast step extends all the way across the thwart from port to starboard. The remaining thwarts only have a single pair of thwart pads on EITHER port of starboard, not on both sides. Follow the plans meticulously.





for the one above the mast step, extend only as far as the ou6ter edge of the thwart knees.

Paint at least partially before installing them.

Glue in place. Finish painting after the glue has dried. See Fig. 5-29.

#### Step 19: Installing "The Box" at the Bow

Cut 5 pieces of 1/32" basswood to fit "the box" at the bow as shown in the top and bottom drawings on Plan Sheet 2.

A vertical piece is glued to the fore edge of the thigh board –  $1/32" \times 1/2" \times 1 1/4"$  – and both sides of the planking. The horizontal pieces consist of four 3/8" wide planking pieces that are installed level with the lower edge of the gunwale from the vertical piece to the bow.

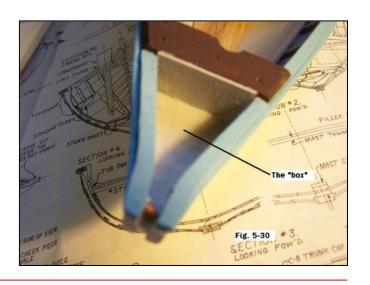
The inside of "the box" and the exposed underside can be finished as desired.

Bore the 10 holes shown on Plan Sheet 3 with a #70 drill bit, as shown on Plan Sheet 3.

#### **Step 20: Installing the Bow Chocks**

Cut two pieces of basswood to measure  $1/8" \times 1/4" \times 2 1/2"$ .

The patterns for the bow chocks are found on two drawings on Plan Sheet 2. Shale the bow chocks as shown on those plans, noting that they taper to 1/32" on their aft sides.



Finish as you prefer. Then glue in position. See Fig. 5-30.

If you haven't done so already, now is a good time to bevel the stern and sternpost as shown in detail on Plan Sheet 2.

## Step 21: Installing the Preventer Cleats

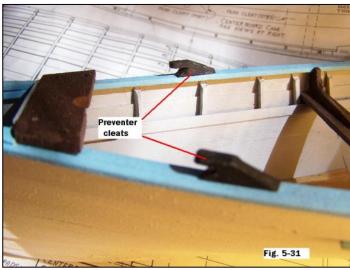
Cut two pieces of basswood to measure  $1/8" \times 3/16" \times 11/16"$ . Shape them as shown on the top and side view plans on Plan Sheet 2. Don't forget to bevel the corners as shown.

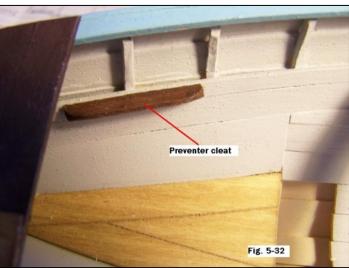
Finished as desired and glue in place about  $\frac{3}{4}$ " abaft the thigh board. See Fig. 5-31.

## **Step 22: Installing the Standing Cleats**

Cut two pieces of basswood to measure  $1/8" \times 3/16" \times 1 \%"$ . The standing cleats are found on Plan Sheet 2 near the cuddy board planking.

Shape each piece as shown on the plans. Finished as desired and glue in position on the thwart risers. See Fig. 5-32.

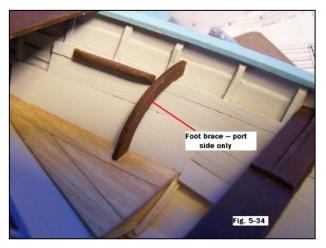


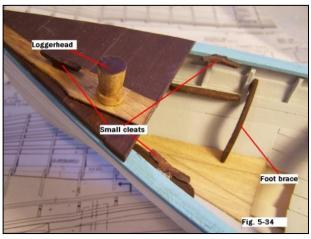


#### **Step 23: Installing the Foot Brace**

Cut one piece of basswood to measure  $1/16'' \times 1'' \times 1 \frac{1}{2}''$ . Plan Sheet 2 shows its location, which is on the port side only. The photo on page 90 of Ronnberg's book shows its arc-like shape. Cut out this shape and test-fit into position.

Finish as desired and glue in place. See Figs. 5-33 and 5-34 on the next page.





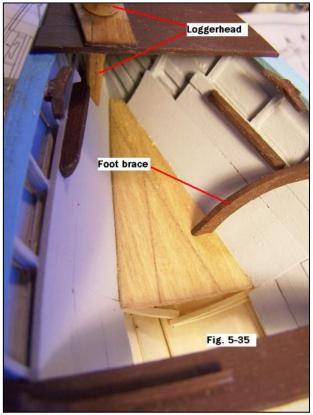
## **Step 24: Installing Small Cleats for the Cuddy and Inwales**

Make three small cleats from scrap basswood as shown on Plan Sheet 2. One cleat is located atop the cuddy board planking just aft of the loggerhead, and the other two cleats are located on the inwale just abaft of the cuddy board planking.

Finish as desired and glue them in place. See Figs. 5-34 and 5-35 below.

#### STEP 25: INSTALLING THE LOGGER-HEAD

Follow Ronnberg's instructions for shaping the upper part of the loggerhead from a 3/8" dowel. The lower part of the loggerhead is made from a 3/16"-square piece of basswood that is filed to an octagonal shape and tapered to 1/16" at its foot.

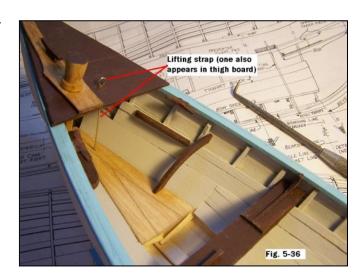


Drill a 1/16" hole in the bottom of the lower part of the loggerhead and another 1/16" hole in the upper part of the lower loggerhead. Glue them together with a 1/16" dowel, so that they are securely connected. Let the glue dry.

Locate and drill a 3/16" hole through the lion's tongue and cuddy board planking. Insert the loggerhead in the hole, making sure that the bottom of the loggerhead meshes with the ceiling properly. When a good fit is achieved, apply whatever finish you like, and then glue in place. See Figs. 5-34 and 5-35 above.

## STEP 26: INSTALLING THE LIFTING STRAPS

One way to install the lifting straps at the cuddy planking and at the thigh board is by bending a paperclip to the required shape and fitting them through holes drilled according to the plans. Since my bow and stern sheets have already been permanently installed, I punched holes for the lower ends of the lifting straps with the tool shown in Fig. 5-36 below. Then I glued the lifting straps in place with CA glue. I did not incorporate the slots used for the lifting straps that Ronnberg describes.



#### **STEP 27: FITTING THE CENTERBOARD**

Cut out the centerboard from a piece of basswood that measures 1/16" thick by 1 1/4" wide

by 1 ¾" long. Shape it as shown in Fig. 5-37 below, as shown on the plan sheet. Drill a 1/16" hole at the pivot point. Fit the board inside the trunk, making sure that it swings out without jamming. Adjust by sanding where necessary. See Fig. 5-37.

Cap the centerboard trunk with a piece of 1/32" basswood. Finish with the same style finish you used for the sides. Bore a hole for the strap. Now, you can construct the remainder of the centerboard, making it operable, if desired. Ronnberg describes this on page 93 of his book.

Since my model will be a part of a diorama, I merely suggested the various parts without making them as working parts. I also glued the centerboard in place within the centerboard trunk. See Fig. 5-38.

#### STEP 28: INSTALLING THE ROW-LOCK PADS

Cut out 5 pieces of basswood to measure 1/16" thick by 5/32" wide by 1" long. Use a sanding stick to shape them as shown on Plan Sheets 2 and 3. Paint them black. Then glue them



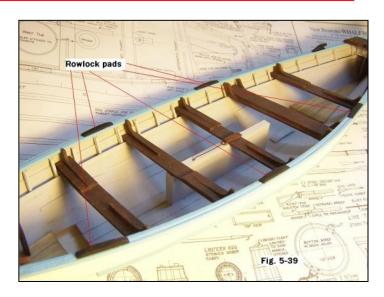


in place as shown in the plan. See Fig. 5-39.

## STEP 29: INSTALLING THE PEAK CLEATS AND TUB OAR CLEAT

Cut 4 pieces of basswood to measure  $1/8" \times 1"$ . Shape each piece as shown in the drawing on page 94 of Ronnberg's book. Remember to drill a 1/16" hole in the center of each cleat.

Finish as desired. Glue them in place as shown on Plan Sheet 3. See Fig. 5-40.



## STEP 30: INSTALLING THE RUDDER, PINTLES, AND GUDGEONS

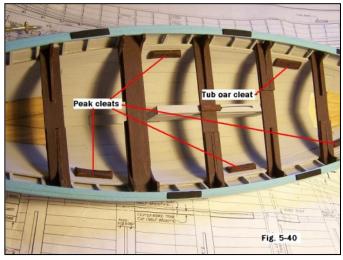
Cut out one piece of basswood 1/8" x 1" x 3". Transfer the pattern of the rudder on Plan Sheet 3 to this piece of wood. Cut out and bevel the rudder, as shown for the rudder, paying particular attention to its shape at various sections. Bore the two holes for the trip line and the tricing line.

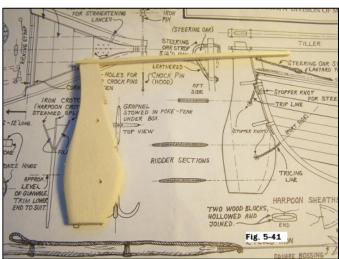
Cut out one piece of basswood  $1/16'' \times 1/8'' \times 4 1/8''$  for the tiller. Taper one end to a 1/16'' square. In the opposite end, cut a mortise so that the tiller will fit on the tenon at the top of the rudder. Drill a series of holes to make the mortise before trimming it to a rectangular shape.

Glue the tiller to the rudder. See Fig. 5-41.

Make the pintles and gudgeons like Ronnberg suggests. In my own model, I merely cut these parts from thin card, gluing them in place around a tiny dowel.

Finish as desired. Glue the rudder assembly in place. See Fig 5-42.





## STEP 31: INSTALLING THE MAST HINGE

Cut out one piece of basswood to measure  $1/8" \times 5/8" \times 5/8"$ . The pattern for the mast hinge is found on Plan Sheet 3. Make sure it fits properly on the mast thwart directly above the mast step.

Drill a hole in the mast step for the mast. Use a test dowel to fit it properly.

Make the mast hinge assembly as Ronnberg describes on page 95 of his book. An alternative way to make the mast hinge is to simply cut the U-shaped piece out of thin card with an X-Acto knife. Suggest the hinge itself by using very tiny dowels.

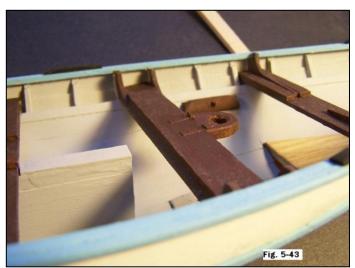
See Fig. 5-43.

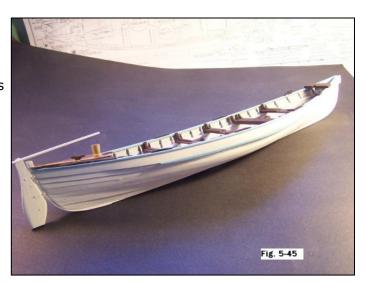


If you have not yet provided a finish for your whaleboat, now is the time to finish it. Read pages 99-102 of Ronnberg's book, where he discusses this topic at length. Finish as you prefer.

Figs. 5-44 to 5-48 below display various views of the whaleboat to date.











This ends our series of articles on building the whaleboat and we hope you have enjoyed and found them useful.  $\mbox{\Large $\otimes$}$ 

## Badges: Heraldry of Canadian Naval Ships





HMCS WINNIPEG, November 8th, 1944 - Algerine Class Minesweeper



HMCS Winnipeg 2001 South Pacific

## **HMCS Winnipeg**

#### **Description**

The ship's badge combines the traditional naval Tudor crown surmounting a cordage patterned for a capital ship of the line. Within this border is found the distinctive heraldic field described as "Azure, a Bison passant, Or" which is derived from the former Civic Devices of the City of Winnipeg.

#### **Motto**

"Unum cum virtute multorum" which translates "One with the Strength of Many"

## **Ship's Colours**

Gold and Azure Blue

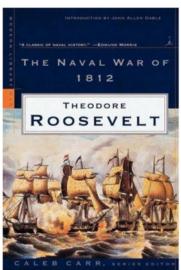
#### **Battle Honours**

Atlantic 1943 - 1945



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By Theodore Roosevelt

Modern Library (May 4, 1999)

ISBN: 10-0375754199, 13-978-0375754197

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# Gene's Nautical Trivia

#### **Sliders**

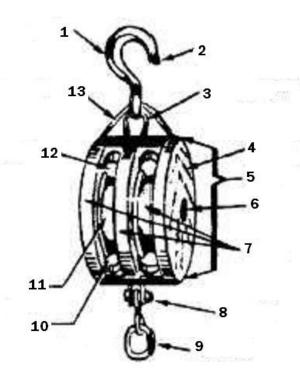
Enter each word into the boxes in the same row in the diagram below. However, note that there will be one empty box in each row because each word contains one less letter than each row contains. Enter the words into the rows so that a nautically related word will appear reading from top to bottom in the column in the center.

1.	BEACON	(_)
	TARRED	
	PRIZES	$  \frac{1}{2}$
	FENDER	
	CARGOS	
	WALRUS	
	SHEETS	
2.	CABLES	()
	TOWING	
	LINERS	
	AWNING	
	DEBARK	
	PACKET	
	HAULED	
	RIDERS	
3.	GRIPES	( )
	POLING	
	HONORS	
	<b>FJORDS</b>	
	SHEAVE	
	RAPIDS	
	ENLIST	



## **Name the Parts**

The following illustration is a diagram of a typical double block. Can you name all the numbered parts?



1	8	
2.	9.	
3.	10.	
4.	 11.	
5.	12.	
6.	13.	
7.		



#### **ONE-MINUTE MYSTERY**

Captain Jack was discussing medical supplies with the ship's surgeon, Bob Pierce, in the surgeon's cabin on the orlop deck. As they exited from the cabin, the captain saw one of the crewmen dash out the door of the steward's room.

Seeing the captain, the crewman yelled, "Help! Get a doctor!"

Pierce said, "I am a doctor. What's the trouble?"

The crewman, a new recruit, hurried the captain and the surgeon into the steward's room. Beside the cot lay the body of Edmund Morse, the steward. A brief examination by the surgeon revealed that he had been shot through the heart. A pistol lay beside his body.

Captain Jack said, "That's Ed Morse." Addressing the new recruit, he asked, "Do you know him?"

"No. I've never heard of him," replied the recruit.

The captain said, "Ed's been the ship's steward for over five years now. He was always well-liked by everybody. How did you happen to find him?"

"I had just come up the main hatch on the orlop deck, when I heard a shot. I ran down to this cabin and saw Edmund's body lying like that," said the crewman.

"We'll have to notify the police," said Captain Jack. "Meanwhile, we'll have to keep you in the brig until they arrive."

WHY DID CAPTAIN JACK LOCK THE CREWMAN IN THE BRIG?

#### **SALTY SAYINGS**

By Harry Campbell

**HAND OVER FIST:** Quickly and continuously.

**SHAKE A LEG:** Rouse yourself from sleep and get out of bed.

**CHOCK-A-BLOCK:** Crammed so tightly together as to prevent movement.

**COPPER-BOTTOMED:** Trustworthy.



#### **Famous Ships**

1	Ship on which the Japanese signed their surrender in
World War II.	
2	Ship used by Captain Ahab to chase Moby Dick.
3	Flagship of Blackbeard the pirate.
4	Ship on which Robert Peary sailed on his polar exploration.
5	Flagship of Henry VIII.
6	Ship commanded by Henry Hudson on his 1609 voyage to North
America.	
7	Ship in which Captain Hook sailed in the novel "Peter Pan."
8	Ship on which John Cabot explored North America on his 1497
voyage.	
9	Ship captained by Jason in Greek mythology.
10	Ship on which Napoleon surrendered on July 15, 1815.





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# Gene's Nautical Trivia

#### **Answers**

#### **SLIDERS:**

- 1. B E A C O N \_\_\_
  T A R R E D \_\_\_
  P R I Z E S
  \_\_ F E N D E R
  C A R G O S \_\_
  W A L R U S
  S H E E T S \_\_
- 2. \_\_ C A **B** L E S T OW **I** N G \_\_ L I **N** E R S \_\_ AW **N** I N G D E B **A** R K \_\_ P A **C** K E T H A U **L** E D \_\_ R I D **E** R S \_\_
- 3. G R I P E S \_\_ P O L I N G \_\_ \_ H O N O R S F J O R D S \_\_ S H E A V E \_\_ R A P I D S \_\_ \_ E N L I S T

**NAME THE PARTS:** 1-Hook, 2-Pea, 3-Inner strap, 4-Shell, 5-Cheek, 6-Pin, 7-Face, 8-Becket, 9-Thimble, 10-Breech, 11-Sheave, 12-Swallow, and 13-Outer strap.

**ONE-MINUTE MYSTERY:** The crewman said he "never heard of" Edmund Morse. Yet, he told the captain that the victim's name was Edmund. He could not have known whether it was Edmund, Edward, Edwin, or Edgar.

**FAMOUS SHIPS QUIZ:** 1-USS Missouri, 2-Pequod, 3-Queen Anne's Revenge, 4-Roosevelt, 5-Mary Rose, 6-Half Moon, 7-Jolly Roger, 8-Matthew, 9-Argo, and 10-HMS Bellerophon.

## **Modeling Clubs**

Wish to have your club info displayed? Send an email to info@modelshipbuilder.com

#### **Hyde Street Pier Model Shipwrights**

Meet at the club's model shop aboard the *Eureka*, Hyde Street Pier, a National Park Service historic site in San Francisco on the third Saturday of every month @ 9:30 a.m

Contact: Leo Kane

Ph: (510) 356-4226

kanebulota@comcast.net

#### **Tampa Bay Ship Model Society**

Meet in downtown St. Petersburg, FL on the fourth Tuesday of the month at 7:00 p.m. except December. www.tbsms.org

Contact: George Shaeffer

georgeshaeffer@gmail.com

Ph: (727) 798-0943

#### Cape Ann Ship Modelers Guild

Meeting at 7:00 PM the second Wednsday of every month at the Veterans Center, 12 Emerson Avenue, Gloucester, Massachusetts. www.casmg.org

Contact: Tony Ashdon

tony@capeannshipmodelersquild.orq

Ph: (978) 546-7222

#### **Golden Triangle Marine Modelers**

The club meet on the second Wednesday of each month at 8:00 pm at the Albert McCormick Arena, 500 Parkside Drive, Waterloo. Their main focus is R/C and static models. During the summer they usually break from their Wednesday meetings to run their boats at the pool in front of Kitchener City Hall, plus, once a week their Sail division travel to the pond in Wellesley to race their sailboats.

Contact: Paul Dreher (Secretary)

101 Harcourt Cres. Kitchener, Ontario N2P 1M1

Ph: 519-748-0449

pcadreher@sympatico.ca

#### Southwest Florida Shipmodeler's Guild

Meets at the - City of Bonita Springs Recreation Center 26740 Pine Ave, Bonita Springs, FL 34135 on the 2nd and 4th Saturday's each month, except December, at 0900 am

Contact: John Weliver

Ph: 239-561-5777

jweliver@comcast.net