BUILD LORD NELSON'S HMS VICTORY

Pack 5

Stages 41-50

DeAGOSTINI MODEL SPACE™

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Contents

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DeAGOSTINI MODEL SPACE™

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Stage 41: Assembling the gallery sides and top

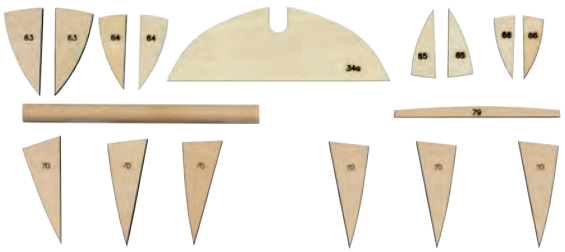
This stage brings you curved parts for the stern gallery and bow deck, plus strips of wood to make the reinforcements (wales) along the hull planking.

Wooden strips

10 wooden strips 1 x 3 mm, 300 mm long, 10 wooden strips 2 x 5 mm, 300 mm long for hull wales, 10 mm dowel, 120 mm long to fit bow deck

Parts 34a, 63, 64, 65, 66, 70, 79

Bow deck, gallery tops, bottom and frame



Where the parts fit

Part 34a forms the curved deck on top of the bow formers. The curved frame part 79 is a reinforcing strip that goes inside the upper part of the gallery back panel. Parts 63, 64, 65 and 66 form the top of the gallery, and fit above the sides, which need to be curved to match. Parts 70, which go underneath the gallery, will be fitted next time, as will the wooden strips for the rubbing strakes.

Assembling the gallery sides and top

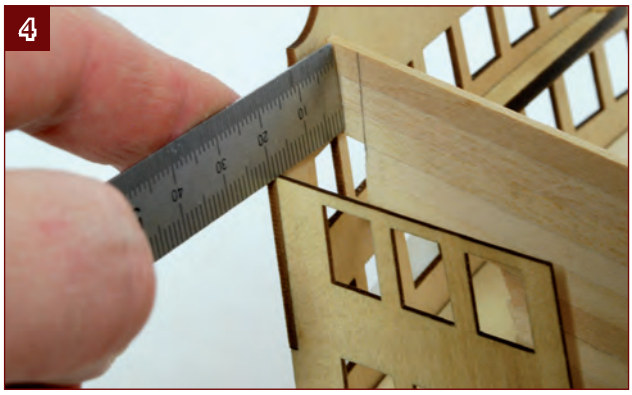
You can now complete the basic structure of the stern gallery, ready to add details later. Note that the photographs show only one side of the gallery – you should repeat all the steps on the opposite side.

1. Glue the curved edge of frame 79 below the upper row of windows, holding it with clamps or clothespins. Its position is not too critical, so long as it doesn't obscure the windows.

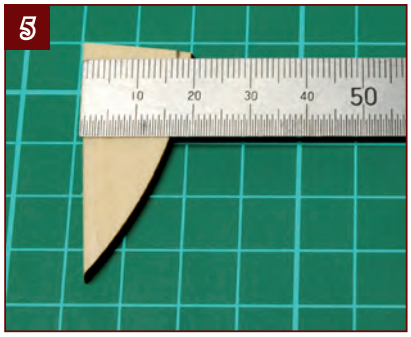
2. Dry-fit the gallery side and hold it in position with masking tape for convenience.

QUICK TIP
Ensure the part number is on the inside.

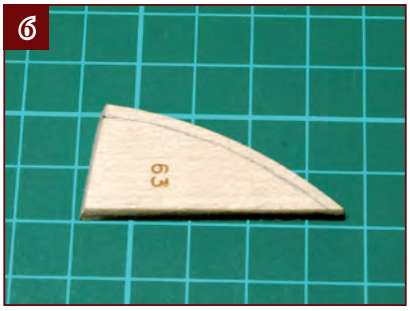
3. Sit part 63 on top of the gallery side. You will need to chamfer the straight edges to get a gap-free fit between it, the side planking, and the gallery back panel.



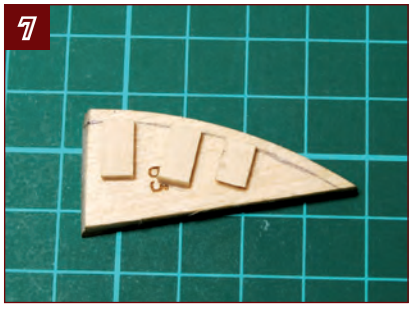
4. Measure the distance from the planking to the inside edge of the gallery side. This example is 17 mm, but yours may be slightly different.



5. Transfer this measurement to the underside of part 63.



6. Carefully draw an arc from this point, following the curve of the edge of the part.

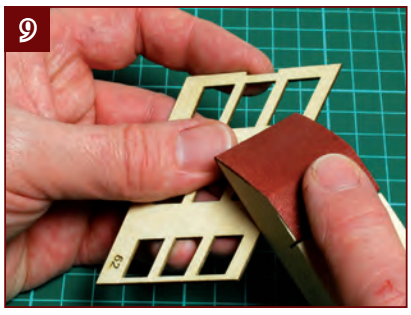


7. Glue three scraps of plank against the line. These will ensure that the gallery side follows the correct curve.

8. Try the gallery side and top in position. Make sure that the rear end of the gallery side is still flush with the gallery rear panel.

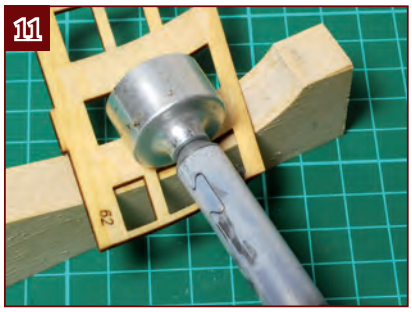
EXPERT TIP

Don't worry if there is a small gap at the point indicated, as it will be covered by decorative mouldings at a later stage.

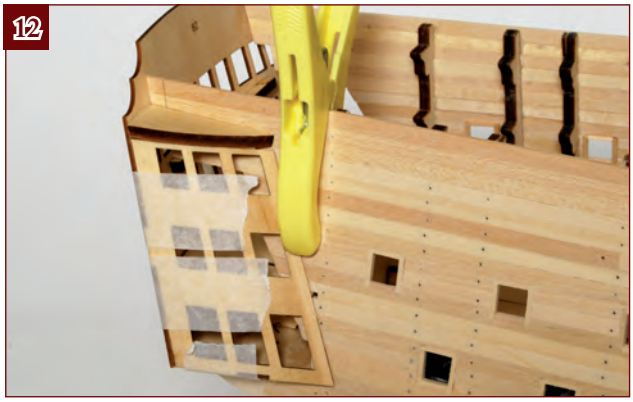


9. Chamfer the front edge of the gallery side so that it sits neatly against the hull.

10. You may need to chamfer the front of the upper false deck to get the gallery side to fit perfectly.



11. Soak the side in warm water to help it bend. You can also use an electric plank bender if you have one. This is not essential, but will make fitting it easier.

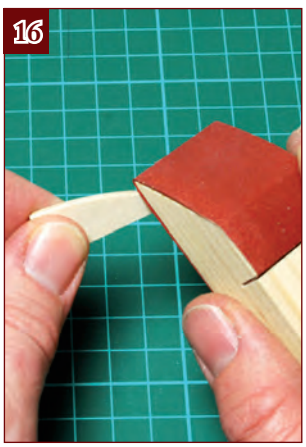


12. Glue the gallery side and the top in position. Hold the assembly together with masking tape, clamps or clothespins until the glue is thoroughly dry.

13. Sand the edge of the gallery top until it is flush with the gallery side. You can also sand the rear and bottom edges of the gallery side flush with their respective parts.

14. Put part 64 on top of part 63 and draw around the edge in pencil.

15. Sand the edge of part 63 to form a smooth radius from the pencil line to the bottom edge. Then sand off all the pencil marks.



16. Sand the scorched edges off part 64. Chamfer the straight edges and smooth the top curved edge.

17. Glue part 64 on top of part 63.

18. Repeat this procedure to fix part 65, then repeat again to glue part 66. Make sure you have the etched number on part 66 face-down.

19. Turn the model over and sand the underside of the gallery flush. Parts 70 will be fitted here later in a similar way to the gallery top. Also sand the planks fitted in Stage 40 flush with the side of the hull.

Fitting the bow deck

The piece of dowel is provided as a test piece to allow you to fit the deck accurately. It is not glued in place. Keep the dowel safe, as you will need to use it again later during the construction.

1. Mark a line on the dowel 40 mm from the end.

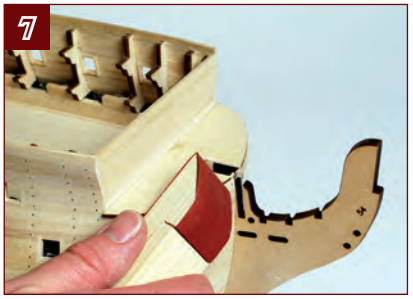
2. Sand two flats from the end up to the line, until the dowel is a smooth sliding fit in the angled slot for the bowsprit in the false keel.

3. Place the dowel in the slot, ensuring it rests on the sloping support for the bowsprit (it will not quite touch the beak).

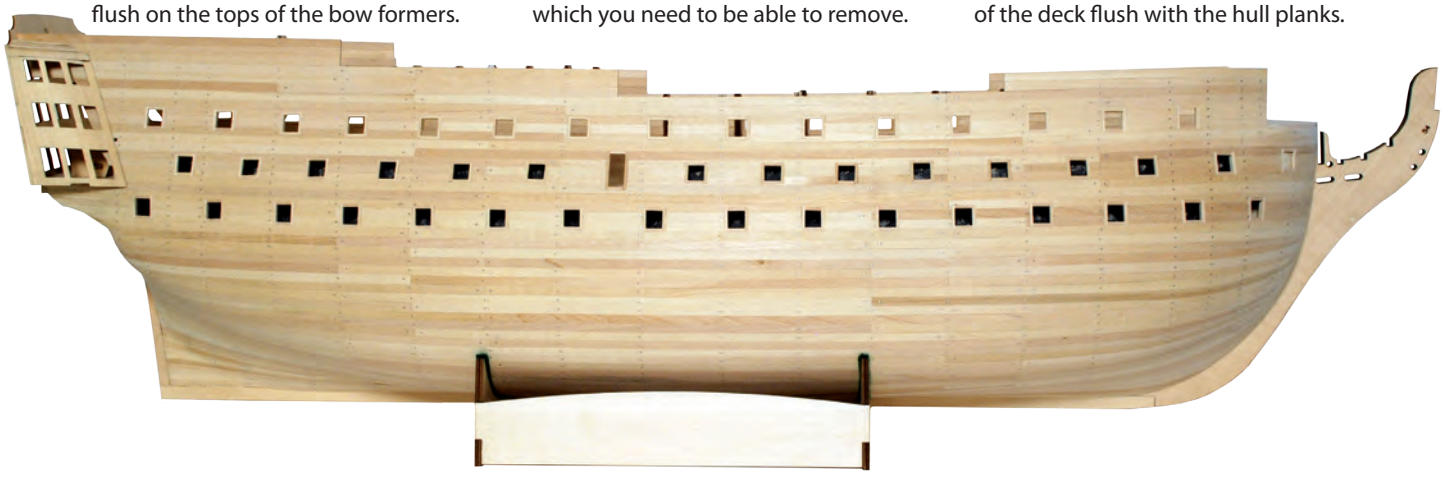
4. Try the bow deck in position. It will not lay flush until the "U"-shaped slot is enlarged.

5. Gradually enlarge the slot (keeping the rounded end), until the deck sits flush on the tops of the bow formers.

6. Glue the deck in place, being careful not to let any glue get on the dowel, which you need to be able to remove.



7. When the glue is thoroughly dry, take out the test dowel and sand the edges of the deck flush with the hull planks.



Stage 42: Adding the wales

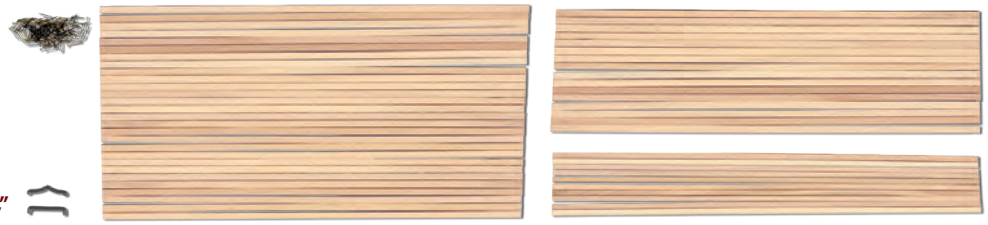
The wooden strips provided are used to make the wales that reinforce HMS *Victory*'s planking. The two metal parts will be used as patterns to make cutouts over the gun ports.

Wooden strips

**16 wooden strips 5 x 2 mm, 300 mm long,
28 wooden strips 5 x 1 mm, 300 mm long,
10 wooden strips 3 x 1 mm, 300 mm long,
plus fixing pins**

Metal castings

Two different metal eyebrows, or "wriggles," for the gun ports, shaped as shown



Where the parts fit

Read all the instructions before starting, to make sure you understand the assembly sequence.

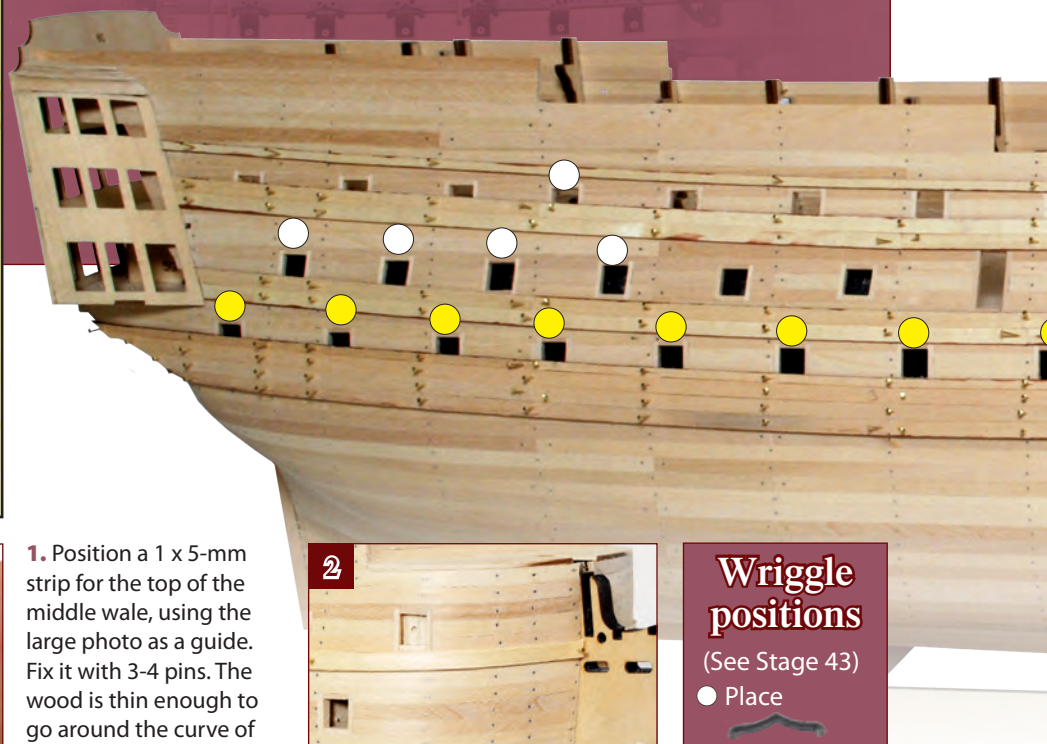
Key points to note:

- The wales do not run in line with the hull planking, or the gun ports. Where they partially cover the ports, they will be cut away at a later stage.
- Start with the middle wale, as this is the easiest to position.
- The planking on your model may vary slightly from the photographs due to minor differences, but this is not a cause for concern.
- As usual, the steps show only one side, and you should repeat the process on the opposite side of the model.
- It helps to pre-drill holes in the ends of planks to avoid splits.
- If you will be painting your hull, omit all the points that show staining the wood (highlighted as yellow Tips).

Wood finishes

If you want to leave your model unpainted to show off the woodwork, you can choose to use woodstain to highlight features such as the wales (as on the right).

- **You need to decide this now.** If you stain the edges of the wales before fitting them to the model, it is much easier to obtain a neat finish.
- **Always test your chosen stain** on a scrap of the wood supplied before you apply it to your model. The example here uses a walnut woodstain, but you can choose any colour you prefer.
- **It is inadvisable to use a wood dye.** These thin fluids tend to soak into the wood and spread very quickly. This is difficult to control and colour is likely to spread to areas that you want to keep as plain wood, thus spoiling your model.



1. Position a 1 x 5-mm strip for the top of the middle wale, using the large photo as a guide. Fix it with 3-4 pins. The wood is thin enough to go around the curve of the hull without any pre-bending, if handled with care. Make sure the pins go into a frame, so they hold securely.

2. Ensure that the bow end of the middle wale lines up as shown in relation to the slots in the stem.

Wriggle positions

(See Stage 43)

- Place over this port
- Place over this port

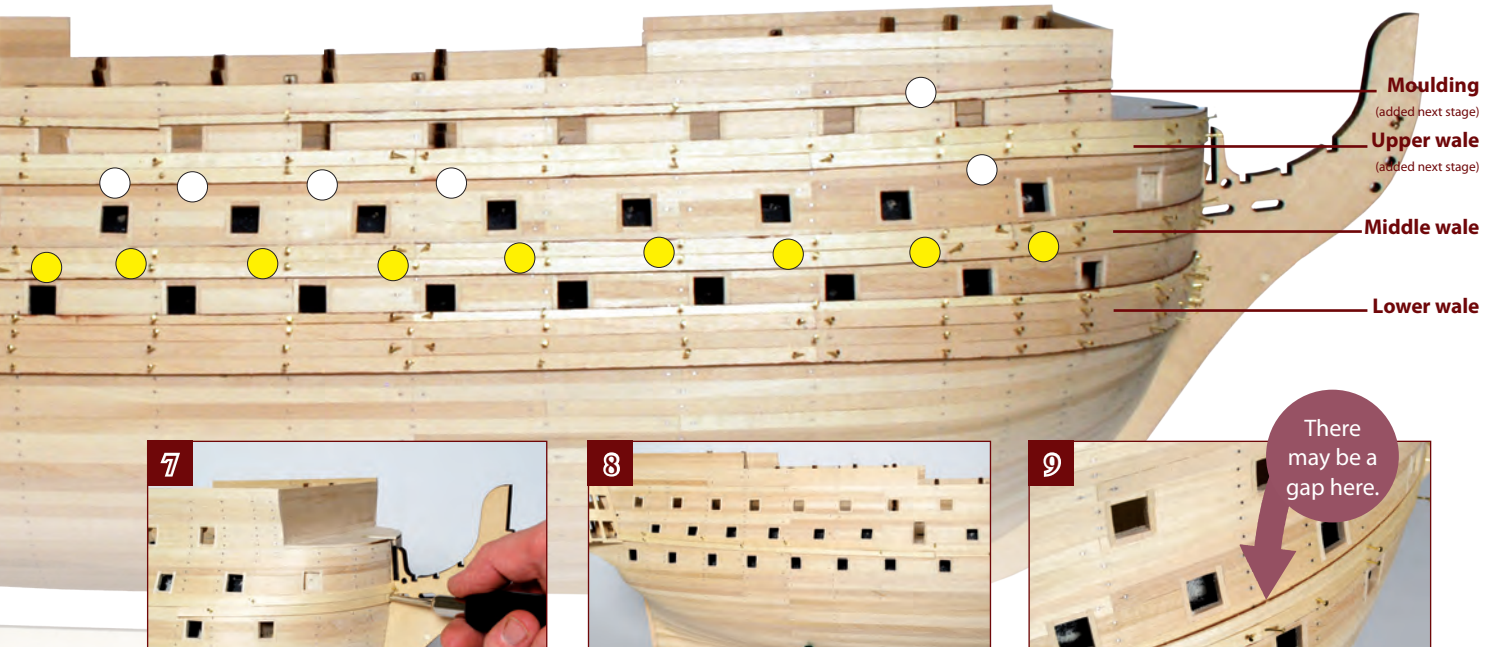
QUICK TIP
Slip a piece of card stock under the end of the plank to avoid marking the hull.

3. Mark the end of the strip so it lands on a frame, and cut it to length.

4. Temporarily pin a second strip next to the first, using the large picture as a guide to the correct positioning.

5. Add the rearmost strip, which will over-run the side of the gallery. Note that it also slightly covers the rearmost gun ports. Do not worry about this, as they will be recut at a later stage.

6. Mark the end of the strip, allowing a few millimetres excess, and cut it to length. Keep the offcut for planking the bow deck.



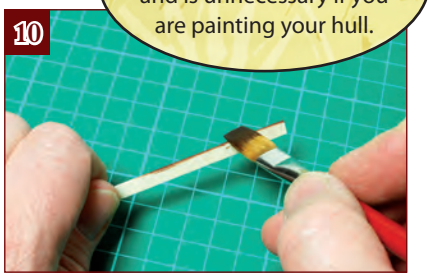
7. Add another 1 x 5-mm strip under the first, running from the bow to stop at frame 14.

8. Add another two strips to complete the wale, again allowing a little excess at the stern. Check that you have a smooth curve and adjust the positions until you are satisfied.

9. Do not be concerned if the top strip does not lie flat against the hull. Any gap where shown will be adjusted later.

Wood finish tip

Woodstain is optional, and is unnecessary if you are painting your hull.



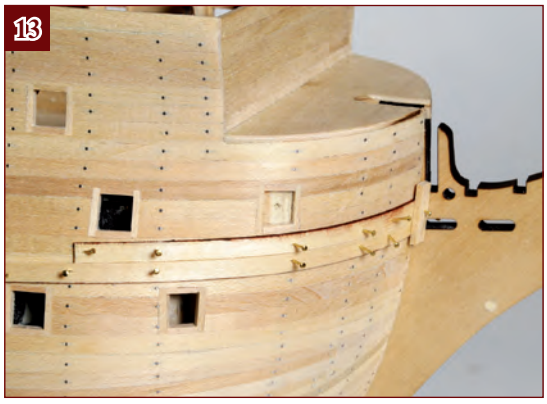
10. Remove the lower row of strips. If you are staining your model, sand the bottom edge and paint it with woodstain. Try not to get stain on the front or back of the strip. Allow the stain to dry completely.

11. Apply a thin, even coat of glue to the strip, then place and pin it in position. Use the top strip as a guide to locate it accurately.

QUICK TIP

A scrap of plank will help hold the end of the wale firmly.

12. Cut the end of the strip so that it sits neatly against the gallery.



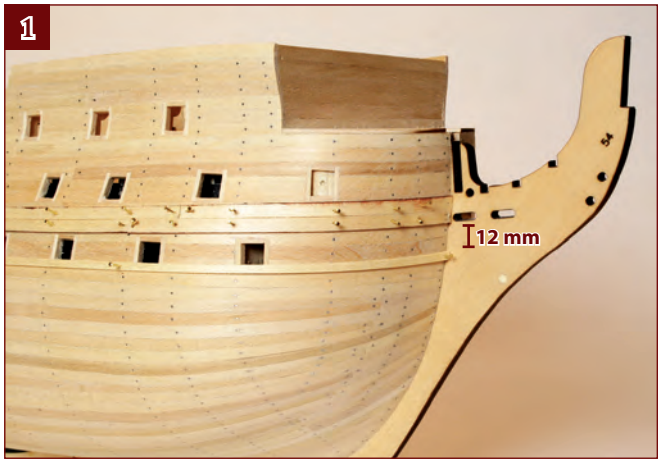
13. Remove the top row of strips, then stain the edges as in Step 10. Take the first strip, cut it at frame 13, then glue and pin it in position. This will correct any bulge (as shown in Step 9). You can cut the strip at other frames if you still have a bulge.

14. Fit the remaining part of the forward strip. You may need to trim the front end to get a neat join against the section of strip fitted in Step 13.

15. Fit the remaining strips to complete the wale.

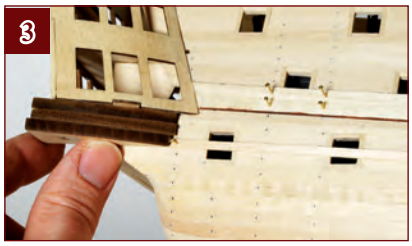
Adding the lower wale

The lower wale is wider than the middle wale and consists of four strips – one 1 x 3 mm and three 2 x 5 mm. Note that it curves across the lower part of some gun ports, which will be recut at a later stage.



1. Take a 1 x 3-mm strip and temporarily pin it in position to form the top of the main wale. There should be a gap of 12 mm from the bottom of the slots to the top of this strip.

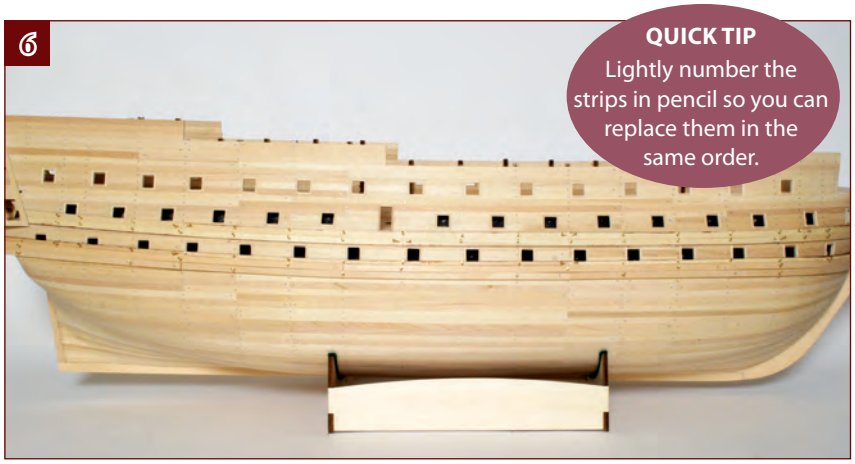
2. Continue fitting another two strips to complete this part of the wale. Keep an even distance between the strips and the wale just fitted. Again, allow some excess at the stern.



3. Hold three parts 70 under the stern gallery. The bottom of the wale should be flush with the bottom of these parts. Move the strip up or down if necessary.

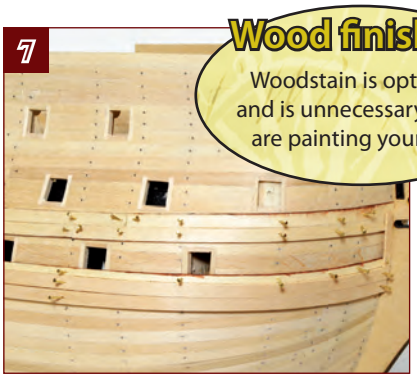
4. Take a 2 x 5-mm strip and bend it to match the curve of the bow. Cut it to run from the bow to frame 15.

5. Continue to add another two strips, leaving an overlap at the stern.



QUICK TIP
Lightly number the strips in pencil so you can replace them in the same order.

6. Add another row of 2 x 5-mm strips. This row should start with a full strip.



Wood finish tip
Woodstain is optional, and is unnecessary if you are painting your hull.

7. Remove the top row of 1 x 3-mm strips, optionally sand and stain the edges as in Step 10, then glue and pin them in place.

8. Remove the 2 x 5-mm strips, and trim the end of the 1 x 3-mm strip flush with the stern.

9. Replace the two rows of 2 x 5-mm strips, gluing and pinning them. Trim the ends flush with the stern.

10. Cut a length of 1 x 3-mm strip to fit as shown, with a little surplus. Chamfer the top edge to match the gallery support and temporarily pin it in place.

11. Pin, but don't glue, a third row of 2 x 5-mm strips. The first strip should run from the bow to frame 15.

12. The stern strip needs to be shaped to fit neatly behind the trim strip fitted in Step 10. Twist and chamfer the stern strip in a similar way to the hull plank underneath it (see Stage 33).

13. Remove the bottom row of strips, including the trim strip, then stain if required, and glue them into position.

Stage 43: Planking the bow deck

This stage brings you shaped pieces for reinforcing the hawseholes, bows and stem, plus gratings and your first round shot. But first, it's time to plank the bow deck and complete the wales that reinforce the hull.

Wooden strips

3 wooden strips 1 x 5 mm, 300 mm long
3 wooden strips 2 x 5 mm, 200 mm long
2 wooden strips 2 x 4 mm, 200 mm long
1 wooden strip 2 x 2 mm, 200 mm long

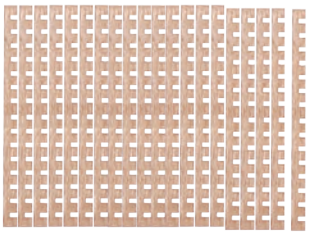
Wooden dowel

4 mm diameter, 20 mm long

Round shot

60 steel balls, 2 mm diameter

Parts 74 (x 2), 75 (x 4), 76 (x 2)



Gratings

20 notched strips

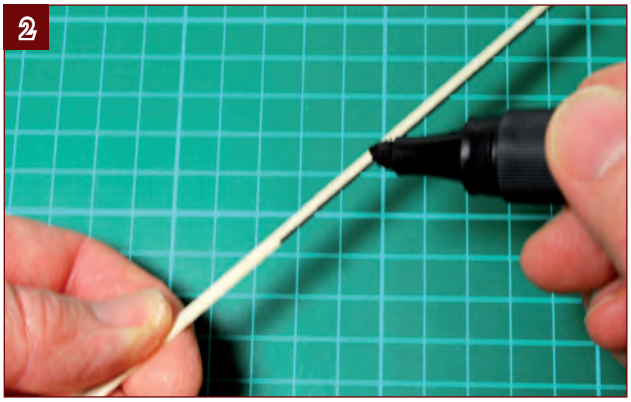
Where the parts fit

Put the laser-cut wooden parts 74, 75 and 76 safely to one side for the moment, as they can't be fitted until you complete the wales and moulding. Refer to the pictures in Stage 42 for the position of the wales, and the wriggles shown in this stage. As before, the steps show only one side of the hull. Repeat all the stages of the build on both sides of your model.

Planking the bow deck

Before you can add the upper wales, you need to plank the ship's head deck using 1 x 5-mm wooden strips. You can use the offcuts from planking the middle wales, as well as the planks supplied this time.

1. Mark the centre line of the deck. Use the end of a steel ruler to make sure your line is square to the bulkhead.



2. To simulate deck caulking, run a black permanent marker along one thin edge of each plank. Test it on scrap wood first.

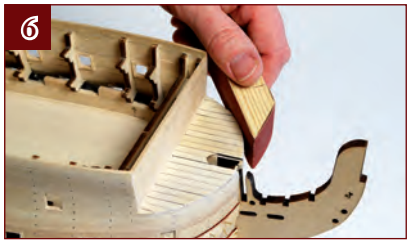
3. Cut a length of plank long enough to overlap the edge of the recess and glue it in place. You can either paint on a thin, even layer of glue, or use a contact adhesive.

4. Continue planking, cutting the strips at an angle so that they overlap the hull slightly. Make sure you have the "caulked" edges of the planks on the same side every time.

5. The complete planking should look similar to this.

EXPERT TIP

The surface of the deck will only need a very light sanding. However, always sand with the grain or the black "caulking" may stain the surface of the planks. Alternatively, you can give the planks a coat of sanding sealer to seal the wood fibres before you sand the surface. This will help prevent staining.



6. Sand the edges flush with the hull, and carefully cut or sand the ends of the centre planks to open out the recess to accept the bowsprit.

QUICK TIP

Use the test dowel you fitted in Stage 41 to check the clearance for the bowsprit and ensure the hole in the planking fits neatly around it.

Fitting the upper wale

The upper, or "channel," wale is built up in the same manner as the middle wale in Stage 42.

1. Using the photo in Stage 42 as a positioning guide, apply two rows of 1 x 5-mm wood.

2. The upper strip of wood should overlap the ship's head deck, forming a lip of about 1 mm above it.

3. Apart from in the bow area, there should be an even distance between the upper wale and the middle wale.

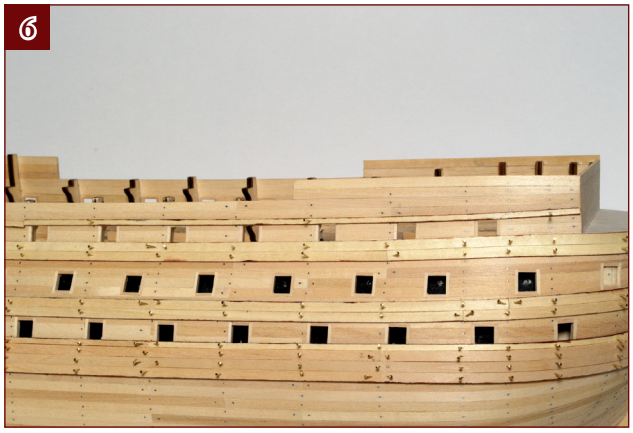
Wood finish tip

Woodstain is optional, and is unnecessary if you are painting your hull.

4. Remove the top strip, and stain the upper edge. You will also need to stain the top part of the inside of the strip where it is exposed above the lip around the ship's head deck in Step 2.

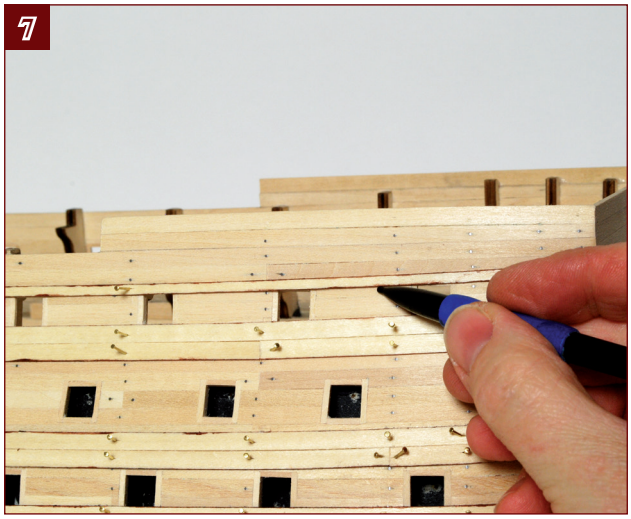
5. When the stain is completely dry, glue and pin the top strip in place, then repeat this process to finish the lower half of the wale.

6



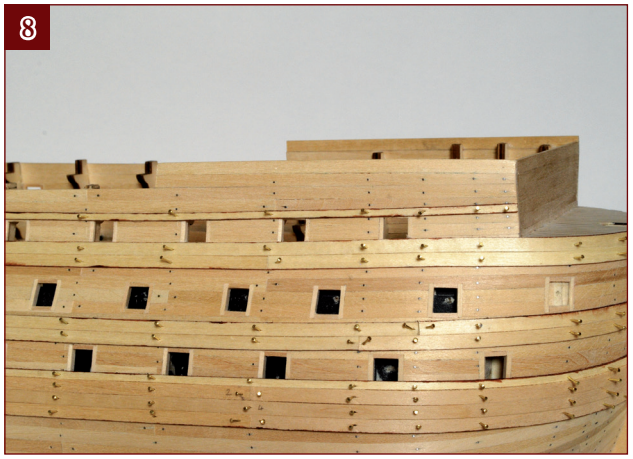
6. The final strip to be applied for the moment is a moulding. Take 1 x 3-mm strips of wood (supplied with Stage 42) and pin them in position using the photo in Stage 42 as a guide. As this is a single strip, you can save time by staining the edges before fitting the wood.

7



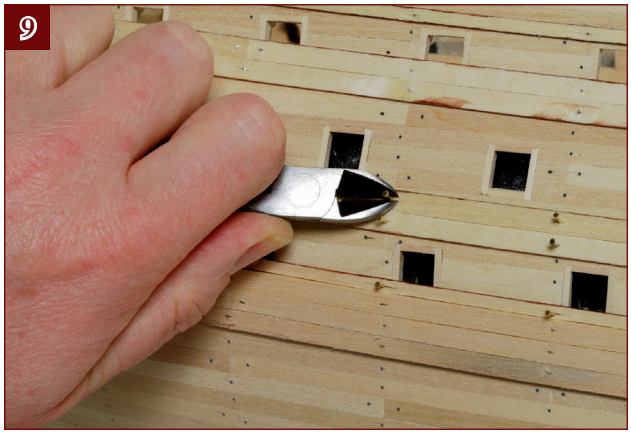
7. Draw a very light pencil line underneath the moulding to mark its position.

8



8. Remove this strip and glue it in position.

9

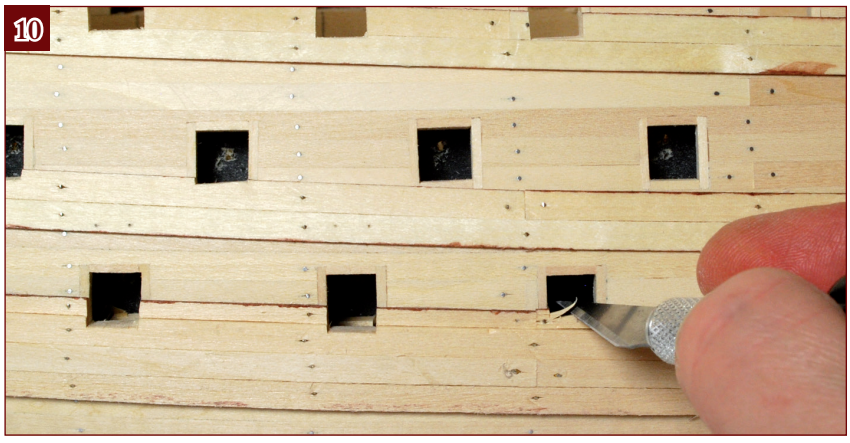


9. Remove the nails, or cut them flush with the wales, the same way you finished your hull.

EXPERT TIP

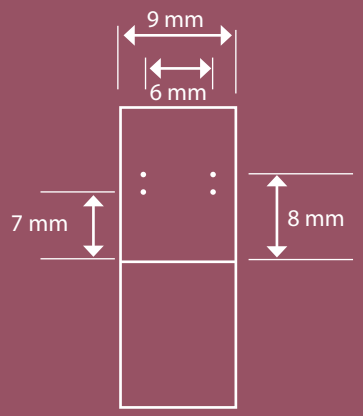
If any of the wales have lifted, you can press them down using an old iron set to a medium setting. The heat will soften the glue and re-stick the wales. Remove the nails before doing this as they will scratch the iron's sole. They can be replaced afterward if necessary.

10



10. Where the wales run over the gun ports, cut them away using a sharp new blade in your craft knife. Cut down the sides of each port first, then pare away the wood down to the bottom of the port opening.

Rope template

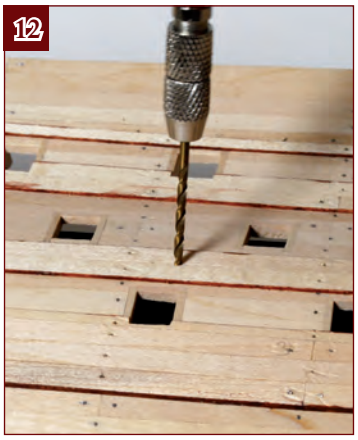


The lower two rows of gun ports have hatches operated by ropes. These won't be fitted until a later stage of the build, but you need to drill the holes now. To position these evenly, make up a template using the one above as a guide, then cover both sides with clear tape, and crease it along the line.

11. Place the crease in the template against the top of the port and mark the position of the holes using a sharp point. The upper two holes are normally the correct ones to use. Use the lower ones only if the upper holes fall exactly on the edge of a wale.

EXPERT TIP

The foremost gun port on the upper deck also has a cover, but don't mark or drill this one until after more detail parts have been added to the area.

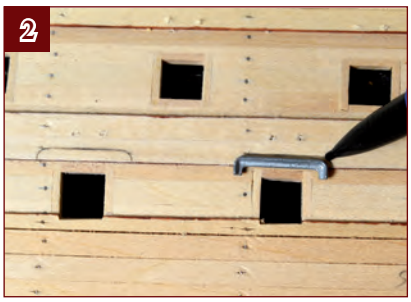


12. Drill 1.5-mm holes using a pin vice or Archimedean drill.

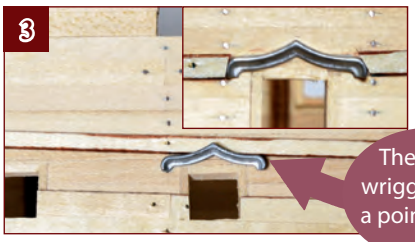
Making cutouts over the gun ports

Most of the gun ports have small metal canopies called "wriggles." The picture in Stage 42 shows where they are fitted, and features two patterns to mark cutouts for them.

1. The lower wriggles need to be inset into the bottom edge of the middle wale. Place the pattern in position, and mark the overlap in pencil.



2. The bottom edge of the wriggle should be level with the top of the port.



3. Repeat this for the pointed wriggles on the middle and upper deck. For the upper forward wriggle, simply cut the moulding away completely.

4. Carefully cut away the wood so the wriggles will sit flat against the hull.

QUICK TIP

If you get stain on the hull by mistake, wait for it to become dry to touch, then scrape it off using a craft knife held vertically.

5. Sand and stain the wales with your chosen stain, following the manufacturer's instructions.

Wood finish tip

Remember, the woodstain is used to show off your woodwork. If you are painting your hull, the black and yellow stripes will be in a slightly different position.

Stage 44: Adding the stem reinforcements

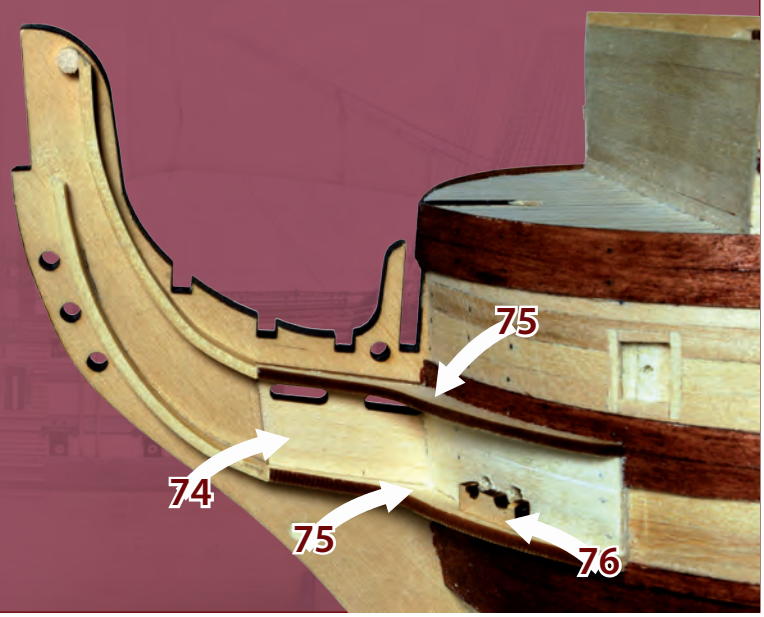
The parts shown will be used later for constructing the upper gun deck, after you complete the stem reinforcements.

Wooden strips

5 wooden strips 1.5 x 6 mm, 300 mm long
2 wooden strips 1.5 x 8 mm, 300 mm long
28 wooden strips 1.5 x 5 mm, 300 mm long

Where the parts fit

Victory's bows are reinforced with two shaped pieces of wood (parts 74) that add thickness to the stem, and some extra pieces of bow planking, before adding four shaped pieces known as "dolphins" (parts 75) that act as braces between the stem and hull. Two more reinforcements (parts 76) add strength to the hawseholes where the anchor cables enter the hull. Finally, more curving reinforcements (made by bending plain strips of wood) run from the ends of the dolphins up the stem. The figurehead will be added at a later stage to form a decorative trim at their tips.



Adding the stem reinforcements

With all the wales in place, you can add the stem reinforcements (parts 74, 75 and 76, plus pieces of 1 x 5-mm and 2 x 5-mm planking and the 3-mm dowel), which were provided with the previous stage.

1. Take a 1 x 5-mm plank and cut two lengths, each 55 mm long. Glue these in position as shown, and temporarily pin them. You can bend these parts with an electric plank bender if you have one, as it will make the task easier.

2. Add a small piece of plank to fill the gap near the open end. It is not necessary to fill the centre, as this will not be seen on the completed model.

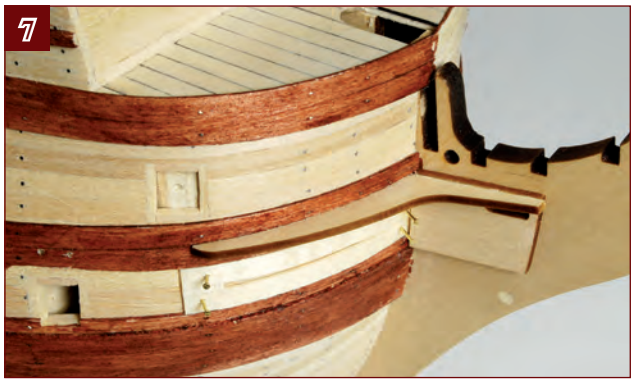
3. Take one of the stem reinforcements (part 74) and try it in position. You will need to trim the rear edge until the slots line up with the slots in the stem post.

QUICK TIP
The part numbers are etched on opposite sides. Fit the parts so that the numbers are hidden on the inside.

4. Glue and clamp the reinforcement in position.

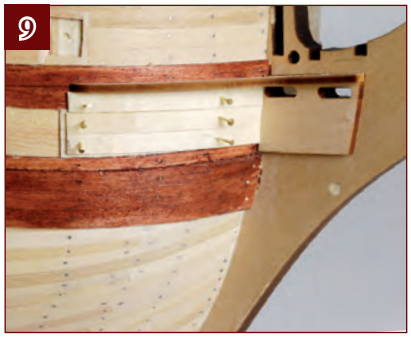
5. Take one of the dolphins (part 75) and try it in position on the stem reinforcement, flush with the edge, and following the centre of the middle wale.

6. You need to sand the front face so that it fits against the stem reinforcement. You will also have to chamfer the curved edge so it sits flat on the wale.



7. Glue the dolphin in position.

8. Remove the temporary pins. Take a bent 1 x 5-mm strip and mark the edge of the dolphin. Add a few millimetres to allow for final trimming to length. Cut a total of three pieces.



9. Glue and pin the three strips in position.

10. When the glue is dry, either remove the pins or cut them flush, according to your personal preference.

11. If you cut the pins, push the heads down flush (see Stage 39). Sand the strips smooth.

12. Fit a second dolphin as in Steps 5 and 6, then glue it in position. It should butt up against the planks laid in Step 9.

13. Take a straightedge and a sharp knife, and mark a line along the planks between the ends of the two dolphins.

EXPERT TIP
Take care not to overcut, and use a fresh knife blade so you don't damage the hull planks underneath. (A dull blade will cause crushing, as you have to apply too much pressure.)

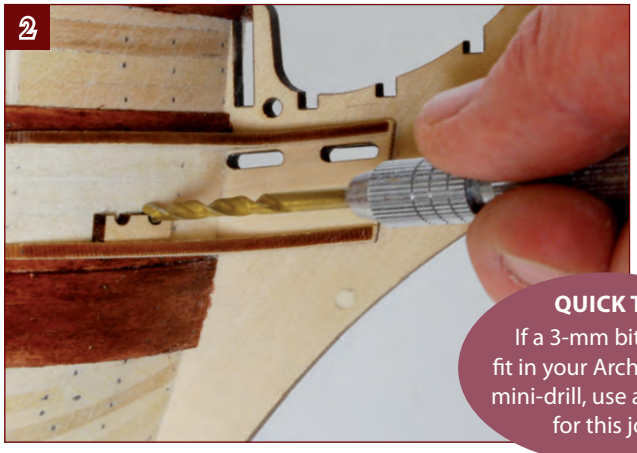
14. Cut away the excess planking, leaving a neat edge.

15. Trim the front of the dolphins, so the ends are flush with the front of the stem reinforcement.

Making the hawseholes

With the dolphins and planking in place, you can add the two extra reinforcements and drill the hawseholes, which are the points where the anchor cables enter *Victory*'s hull.

1. Place the hawsehole reinforcement (part 76) centrally on the lower dolphin and glue it in place. You will need to chamfer the bottom edge and sand a concave curve on the inside of the part so it fits neatly.

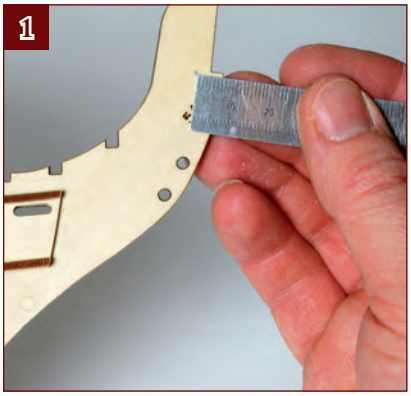


QUICK TIP
If a 3-mm bit won't fit in your Archimedean mini-drill, use a pin vice for this job.

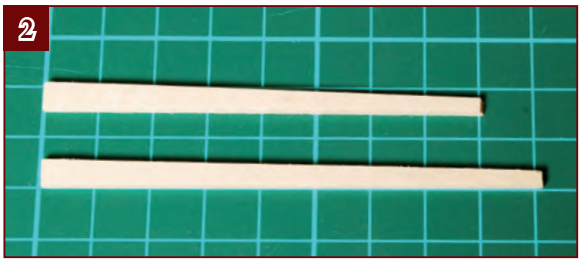
2. Drill the two hawseholes above the semicircular cutouts in the reinforcement, using a 3-mm drill bit.

Trimming the stem post

There are two additional strips running up each side of the stem post from the ends of the dolphins. These are made from pieces of wood, tapered and bent to match the curve of the stem.



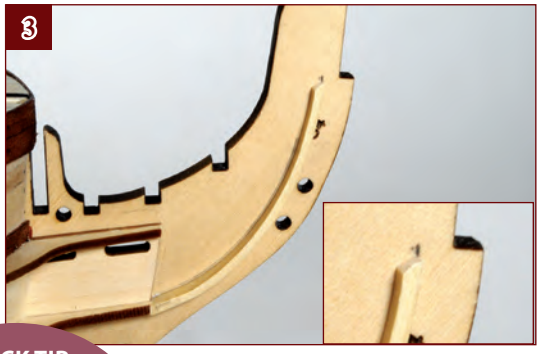
1. Make a pencil mark 7 mm from the edge of the stem post, in line with the end of the step at the front.



2. Cut two strips of 2 x 5-mm wood, one 80 mm long, and one 90 mm long. Taper both, so the narrow end is 3 mm wide.

EXPERT TIP

It is difficult to get a smooth curve in the end of a strip of wood. Therefore these parts are left long enough so you can cut off the 5 to 10 mm at the thick end, which cannot easily be curved.



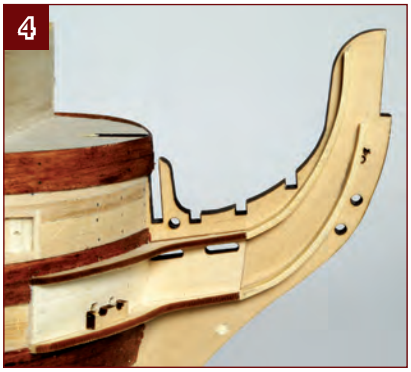
QUICK TIP

Don't worry if the laser-etched number 54 is visible, as it will be covered up at a later stage.

3. Bend and trim the shorter length so it fits as shown. The front edge should line up with the pencil mark made in Step 1. Note how the bottom end is chamfered to fit the dolphin, and the top edge is cut at an angle.

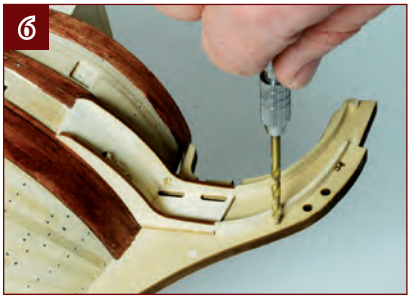
EXPERT TIP

You will need to bend these two planks with an electric plank bender, as the pliers type of bender will leave an unsightly finish. You can use an iron as an alternative if you do not have an electric bender. A further option is to steam the plank, but this does carry a significant risk of burning yourself.

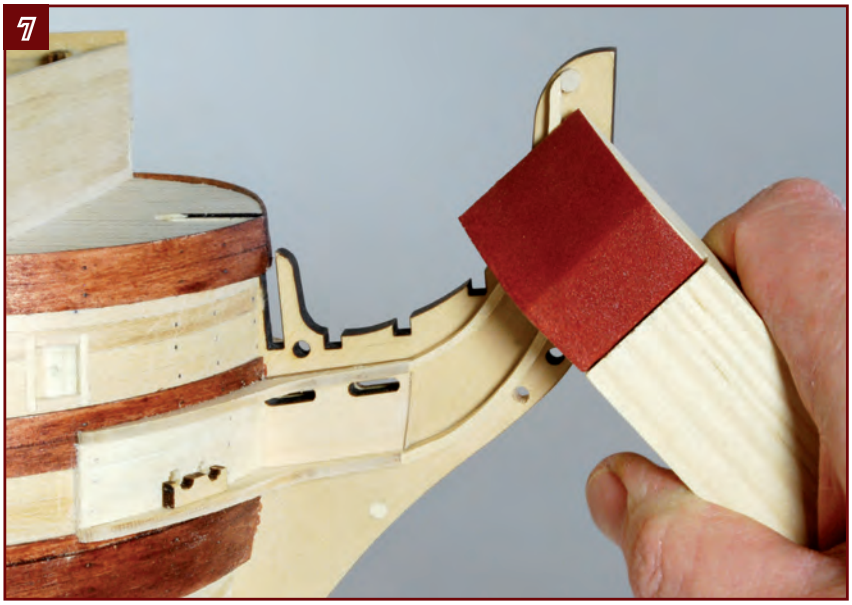


4. Repeat the process to form the upper strip. Again, note how the bottom end is chamfered and the top end is cut at an angle and finished very close to the edge of the stem post.

5. Cut a 3-mm length from the dowel and cut a small flat. Glue the dowel against the upper end of the strip, making sure the flat is against the strip.



6. Drill a third hole at the front of the stem post using a 3-mm drill bit. This should be the same distance as the upper hole, and located close to the wooden strip.



7. Finally, sand all the edges smooth.

Stage 45: Start planking the deck

This stage includes more deck planking materials, plus components to make *Victory*'s wheel.

Wooden strips

28 wooden strips 1.5 x 5 mm, 300 mm long
5 wooden strips 1.5 x 6 mm, 300 mm long
2 wooden strips 1.5 x 8 mm, 300 mm long

Ship's wheel

Metal and wooden parts to assemble *Victory*'s wheel (covered later in the series)

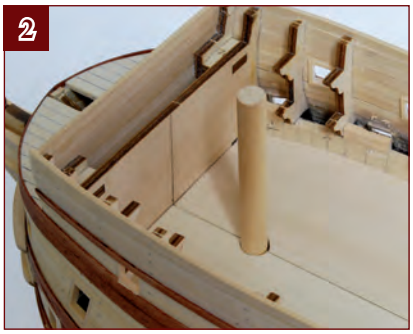
Where the parts fit

Unlike the lower decks, which are mostly unseen, the upper gun deck is largely visible, so it is made up by laying separate planks across deck beams, as on the real *Victory*. This picture shows the finished effect after you complete the steps here (where you finish the central planking) and in the next stage (when you finish the sides). It's important that the strips you are laying start and finish exactly at the points listed in the steps, as the gaps between them form the openings for hatches, companionways and the holes for fitting the masts.

Fitting the deck beams

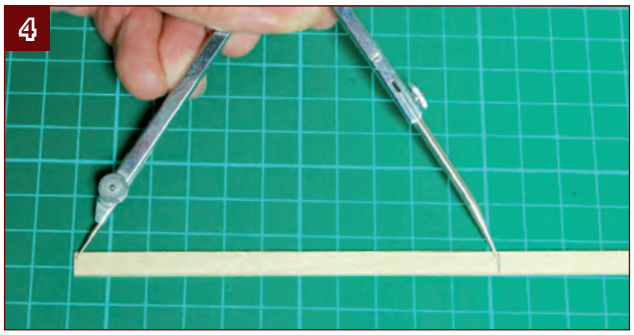
The next deck is made up of planks laid on beams running between the pairs of support brackets on the hull frames. Start by laying these deck beams, after checking that the masts will fit properly.

1. Take the dowel from Stage 41 and try it in the central mast hole. You may need to taper the end (use the one with the flat) to get a smooth sliding fit all the way to the bottom of the slot in the keel. It is possible (but unlikely) that you will need to enlarge the hole in the deck a little.



2. Try the dowel in the forward mast hole to confirm it fits here as well. Keep the dowel to use as a guide when you plank the deck.

3. Use a pair of dividers to measure the span across the lowest brackets on frame 13. This is where you will fit the first deck support beam.



4. Transfer this measurement to a strip of 1.5 x 6-mm wood and cut it to length.

5. Glue the strip across the lowest support brackets on frame 13, with the brackets positioned in the centre of the width. If the strip is a tight fit, don't force it, as any bowing will make it hard to fit the deck planking. Trim a little off, and try again.

6. Repeat the process to fit deck support beams across all the frames **except frames 14 and 26**.

The Cutaway

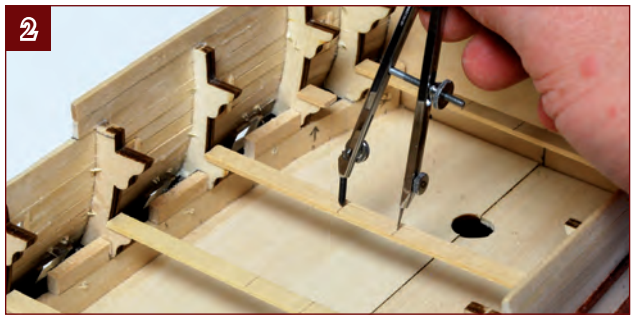
If you made a cutaway, do not glue the **starboard** ends of the beams to frames 18/19 over the cutaway section.

7. Glue two 10-mm lengths of wood to the support brackets on frame 14, as a full beam would obscure the mast hole.

Planking the deck

The deck is planked with strips of 1.5 x 5-mm wood. Much of this will be visible on the finished model, so aim for a neat finish, with real or simulated joints between the planking in the areas indicated.

1. Using a rule, mark the centre line on the deck support beams. Use the line previously drawn on frame 12, the forward bulkhead, as a guide.



2. Set a compass to 18 mm, and use it to mark lines on all the deck beams on the left (port) side of the centre line.

3. You can simulate the caulking lines by running a black marker pen down one side of the deck planks, in the same way as you did on the bow decks.

4. Lay a plank along the lines you marked in Step 2, with one end against frame 12. Draw a line across in line with the centre of frame 20.

5. Cut the strip to length. You can simulate shorter planks by drawing a line at the centre of every third beam, and adding nail heads with a pencil. Glue the strip in position outboard of the line with glue, applied just to the frames.

EXPERT TIP

You only need to simulate plank joins and nail heads forward of the main mast, as the planks aft of the main mast are not visible on the finished model. Note that you can add joins where they would fall over the beam you omitted at frame 14 (see the picture on the right). When you lay the planks, do not glue the edges, and be very careful not to get glue on the deck, as any attempt to sand it off will destroy the simulated joins and nail heads.

6. Lay another plank from the end of the first one at frame 20 to frame 27 or 28.

QUICK TIP

Place another strip alongside the planks you are laying to make sure they form a straight run.

7. Lay another plank from frame 15 to frame 22, on the side furthest from the centre line. Simulate extra joins, offset by one frame from the previous plank.

8. Cut a short section of plank to fit from frame 12 to frame 15.

9. Lay another section of planking from frame 22 to frame 27 or 28.

10. Add another two runs of planks in a similar way, offsetting the joins in each.

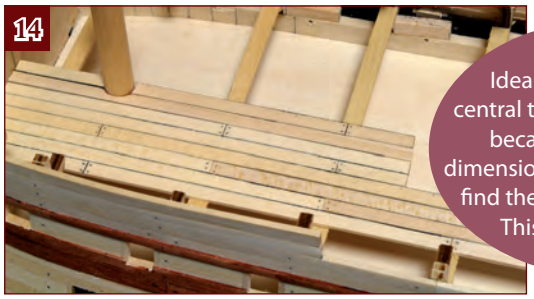
QUICK TIP

Don't forget to add caulking lines on the same edge of the planks each time.

11. Cut two strips 140 mm long, and fit them as shown. Simulate joins and nails to maintain the planking pattern.

12. Cut another 140-mm strip. Put the test dowel in the forward mast hole and carefully carve an arc in the next plank so it fits neatly round the dowel. You can leave a small gap of up to 1 mm, as this will not be seen in the finished model.

13. Cut a short length of plank with a concave curve at one end to fit in front of the mast.

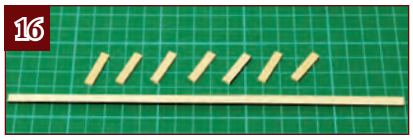


14. Cut another strip to fit astern of the mast, with a curve at the forward end and the opposite end in line with its neighbours.

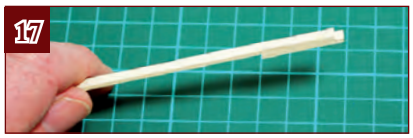
QUICK TIP

Ideally, the mast will be central to the planks. However, because natural wood's dimensions vary a little, you may find the hole is slightly offset. This is not a cause for concern.

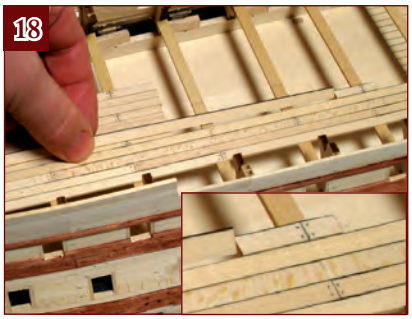
15. Add another three planks, each 140 mm long, cutting an arc in the first one to complete the hole for the mast.



16. Cut one strip of planking 224 mm long, plus seven more strips, each 22 mm long. Add caulking to the latter.



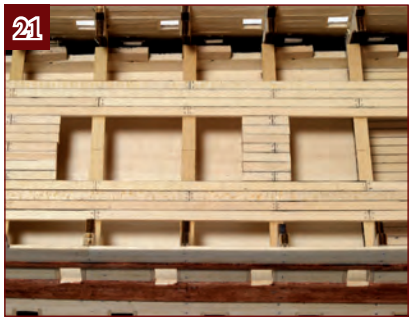
17. Glue a small strip of wood to extend the end of a 300 mm plank to make a gauge 303 mm long.



18. Hold the 224-mm strip of wood against frame 12, and use the other end as a positioning guide to glue the 22-mm strips of wood in place. Draw on the planking pattern as appropriate.

19. With the 303-mm gauge held against frame 12, lay a plank from the end of the gauge to the centre of frame 25.

20. Repeat this with a further six planks, making a hole for the main mast in the same way as you did for the foremast.



21. Lay four rows of planks from the bow to frame 27 on the starboard side in the same way as you did on the port.

22. Lay two rows of planks from the bow all the way back onto frame 30 and the upper false deck of the rear gallery. Repeat this on the both sides of the deck.

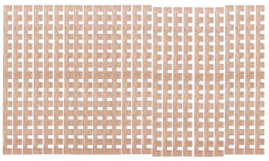
Stage 46: Continue the planking

This stage's components are support beams for the dummy gun barrels fitted on the upper gun deck, plus parts for a grating and more round shot.

Wooden strips

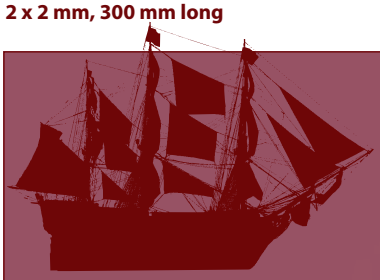
Gun deck support beams: 6 wooden strips
4 x 9 mm, 300 mm long

Grating frames: 3 wooden strips
2 x 4 mm, 300 mm long
1 wooden strip
2 x 2 mm, 300 mm long



Round shot
105 steel balls, 2 mm diameter

Gratings **26 notched strips**



Where the parts fit

This stage, you will complete the upper gun deck planking (as shown below) and install the support beams to take dummy gun barrels in the bow and stern sections of the deck. The middle area (which is visible from above) will be equipped with complete 12-pounder guns. The gratings will be assembled later in the series and are installed in the hatchway openings in the deck.

Continuing the deck planking

With the central part of the deck planked, you can fill in the final strips that run along the sides. Some of these need to be given extra supports and shaped to fit around the rib frames.

QUICK TIP
Don't forget to continue the caulking effect and the pencilled plank joins where they will be visible on these planks.

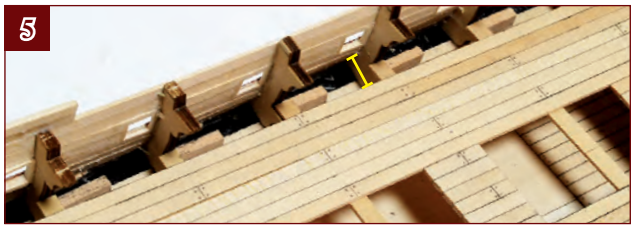
1. Cut another row of planks to fit alongside the last planks you fitted, and glue this to the beams. Note that you will need to cut away the side of the rear end of the plank so it will fit between the last plank and frame 30.

EXPERT TIP
The dimensions of your model may be slightly different, so the space between frame 30 and the previous plank will vary. If there is less than 2 mm, don't bother cutting away the side of the plank: just stop it at frame 30. In this case, you may need to cut it away to clear frame 29.

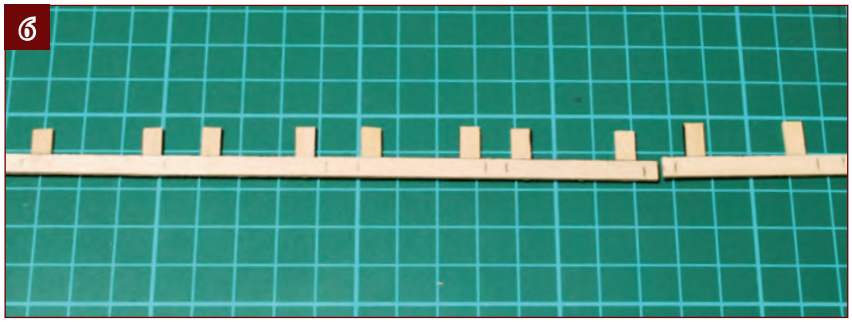
2. Add an extra row of bow planking in a similar way. This plank may or may not need stepping at the bow, depending on your individual model.

3. Cut another row of planks, stepping them at the bow and stern as necessary, but do not glue them in place yet.

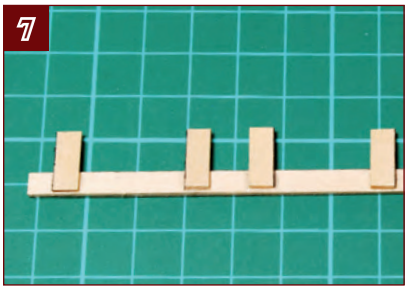
4. Mark the positions of frames 16 to 21 lightly in pencil on the last row of planks. Note that here they have been marked darker than necessary so that they show clearly in the photos.



5. Remove the last row of planks, then measure the gap between the last deck plank and the hull planking in the area where you just made the marks.



6. Deduct 3 mm from the measurement you just made and cut short pieces of planking to this length. Glue them to the underside of the last two planks on either side of the pencil marks so that they will project into the gap you measured, between the ribs. These "fingers" support the planks at the very edge of the deck.



7. Check the underside of the plank to ensure the fingers stop just short and do not protrude beyond the back edge, as that would stop the plank from fitting in place.

8. Glue this row of planks in place. There should be a small gap (about 1-2 mm) between the ends of the fingers and the hull planks. Do not force the planks if they are a tight fit. If necessary, trim the ends of the fingers.

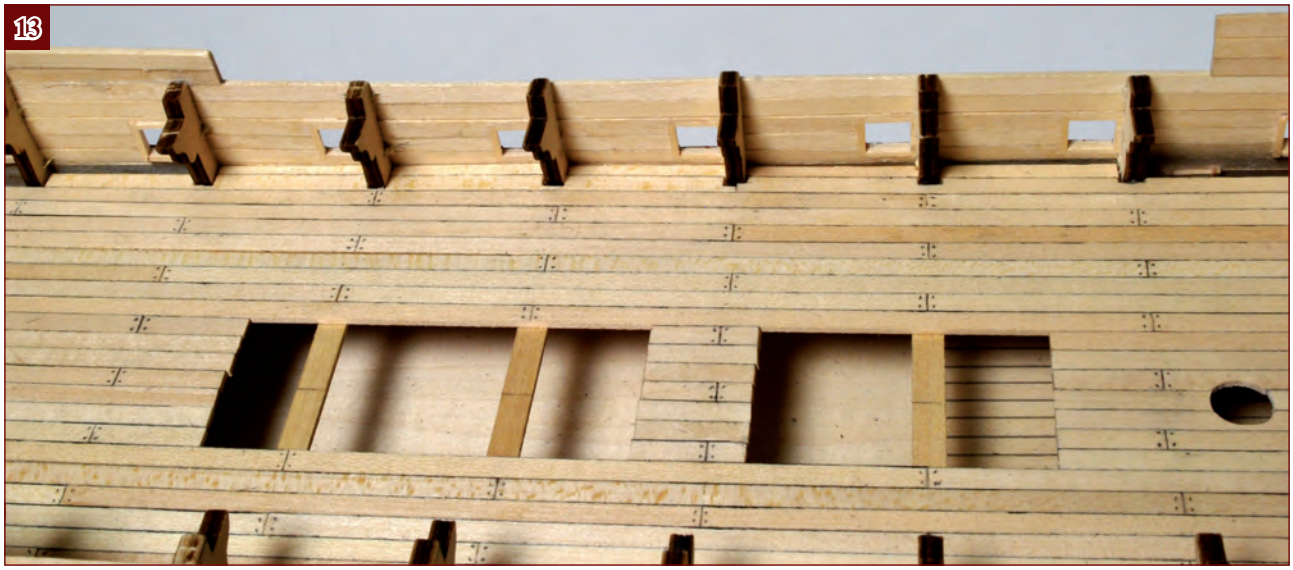
9. The next plank will need to be notched to fit around the frames. Cut strips of planking to length and lay them on the deck so you can mark the position of the frames.

10. Measure the distance between each frame and the plank. Subtract this measurement from 5 mm to give the depth of the notch required. For example, if the gap is 3 mm, the notch needs to be 5 – 3 = 2 mm.

11. Cut the notches in the planks, test them in position, and glue them in place once you are happy with the fit.

QUICK TIP
Pick up and position the small pieces of wood using the point of your craft knife.

12. Cut and trim short strips of wood to fill the remaining gaps between the deck planks and the hull planks, then glue them in place. You can use either the 1.5 x 5-mm or the 1.5 x 8-mm strips, depending on the size of gap you have.

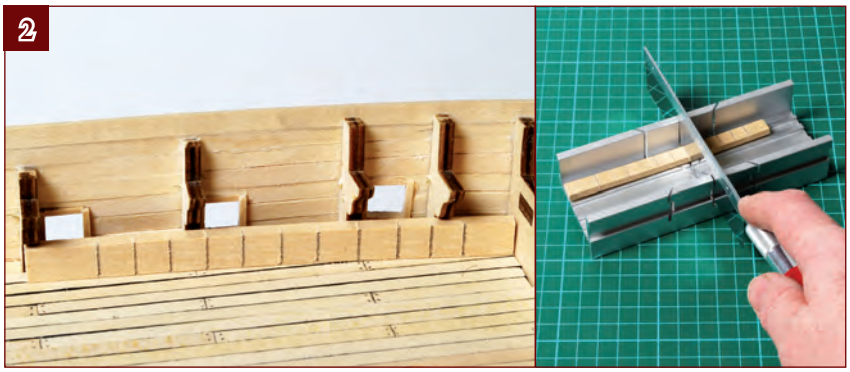


13. It is only necessary to fill the gaps between frames 16 and 21, as this is the visible area of the open gun deck. You can leave a gap of up to 1 mm along the edge – this will be covered by a layer of internal lining planks that are fitted later.

Fitting the dummy gun support beams

This is very similar to fitting the previous support beams in Stage 19. Repeat all the steps on both sides. The beams will have extra pieces fitted on top later so they completely cover the rear of the gun port.

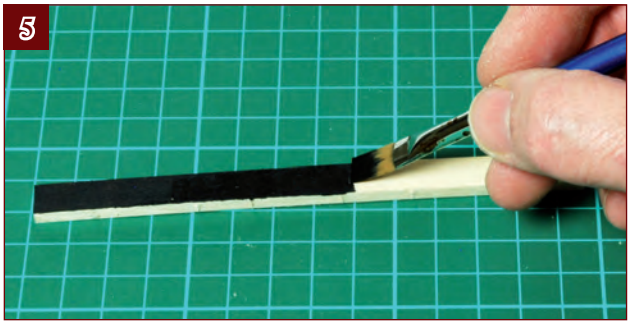
1. Cut a length of 4 x 9-mm wood to fit between the bow bulkhead and the rear edge of frame 16.



2. Make a series of saw cuts about two-thirds to three-quarters of the way through the beam, to allow it to bend.

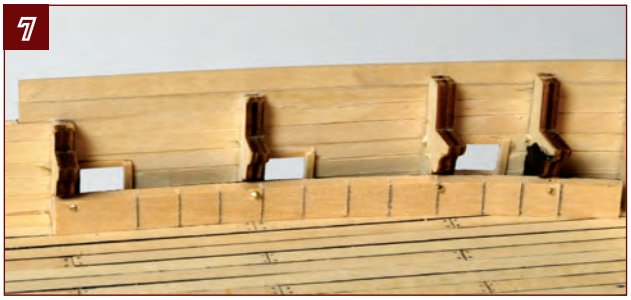
3. Cut another beam to fit from the front edge of frame 21 to the centre of frame 25. This beam is virtually straight and should not need any cuts.

4. Cut a final length to fit from the centre of frame 25 to frame 30. This beam may need a few saw cuts, as it has a gentle curve.



5. Paint the outside face of each beam with black paint. Set them on one side to dry thoroughly.

6. Protect the deck with masking tape, then paint the sides of the frames alongside the gun ports. **Do not paint frames 16 to 21** as these will have full guns fitted.



7. When the paint is dry, remove the tape and glue the forward beams in place, reinforcing them by pinning the top to the ribs. Note both beams should be fitted vertically (not leaning in like the side of the hull), with their bases flat on the deck.

8. Fit the rear two support beams in the same way. Note that the height of the stern will make it difficult to insert pins with a pin pusher, but you can simply push them in with a pair of fine-nosed pliers.

Stage 47: Lining the bulwarks

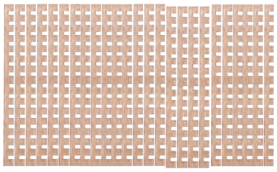
The latest parts include strips of wood to line the bulwarks along the upper gun deck, make the bitts for securing the anchors and construct more gratings.

Wooden strips

11 wooden strips 1 x 5 mm, 300 mm long
1 wooden strip 5 x 5 mm, 40 mm long
1 wooden strip 3 x 2 mm, 50 mm long

Gratings

25 notched strips



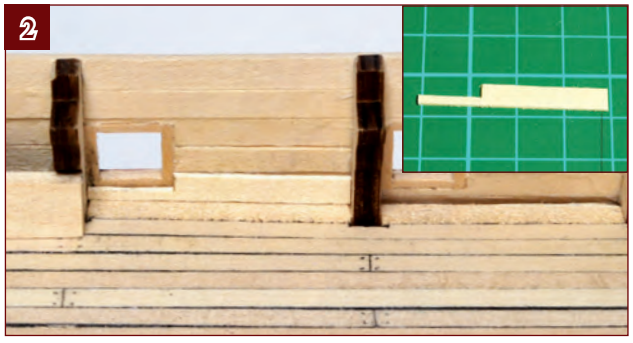
Where the parts fit

The centre part of the upper gun deck is visible through the opening in the deck above. You need to line the inner face of the planking in this area to create the bulwarks against which you will be fixing two rows of 12-pounder guns. You also need to make the bitts (the frames around which the anchor cables are secured). These will be fitted at the rear ends of the large hatchways in the centre of the upper gun deck, where they are also visible from above. Keep the parts for the gratings to one side for now; you will be assembling them later.

Lining the bulwarks

Use the thin strips of wood supplied to create a double layer of planking between frames 16 and 21 on both sides of the model. The bulwarks need to be cut out to match the gun ports in the outer planking.

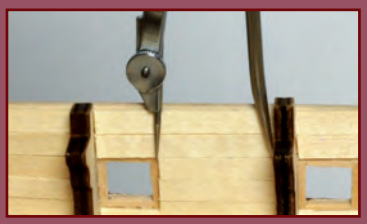
1. Ensure that the inside of the planking is reasonably smooth and that there are no lumps of hardened glue in the joints. Sand it if necessary.



2. Cut a length of 1 x 5-mm planking to fit between the first two frames. The upper edge will need a cutout so it stops at the edge of the gun port lining and doesn't obscure the port. Glue the plank in place.

3. Fit another two shorter lengths of planks to the side of the gun port, stopping at the same point as the cutout.

EXPERT TIP
Use compasses or dividers to check the length and mark the wood.



4. The next plank, which goes above the gun port, may or may not need a cut-out, depending on the height of the port.

QUICK TIP
Don't worry about trimming the top of this plank now – it will be done later on.

5. Fit a fifth plank on top. This should finish somewhere near the top of the frame.

6. Continue planking between the remaining frames. If you encounter a pin going into the frame at an angle to pin the end of a plank, make a small notch to fit around the pin.

7. Line the bulwarks between frames 16 and 21 on both sides of the model.

8. Sand the planks smooth.

PAINTWORK
Trafalgar finish

If you are painting your model, the inside faces of the bulwarks need to be painted yellow ochre. You should do this now, as this area will become inaccessible when you start planking the quarterdeck. Don't paint the tops of the gun support beams or the tops of the deck beam support brackets, as you will glue parts on here later. Those who are opting for a natural finish can varnish the bulwarks if they like, but do not varnish the deck yet, as further parts will be fixed to it.

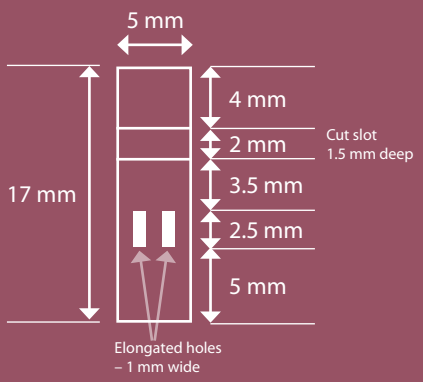
1. Carefully protect the deck between frames 16 and 21, using masking tape. Ensure that the tape goes a little way past this area, along the dummy gun support beams.

2. Paint the inside of the bulwarks and the frames yellow ochre, continuing onto the ends of the dummy gun support beams and 15 mm or so along these beams.

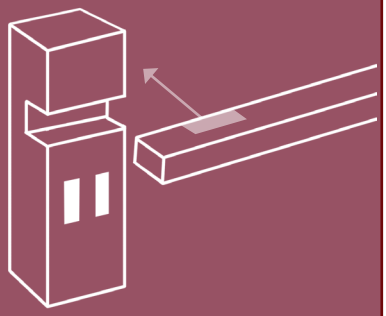
Making the bitts

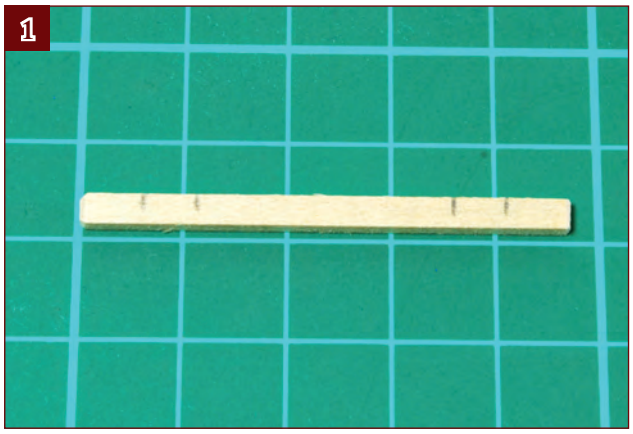
The bitts consist of three pieces of wood arranged in a broad "H" shape. You need to cut joints in all three parts and also make slots in the uprights, following the dimensions in the plans below.

Dimensions of the bitts

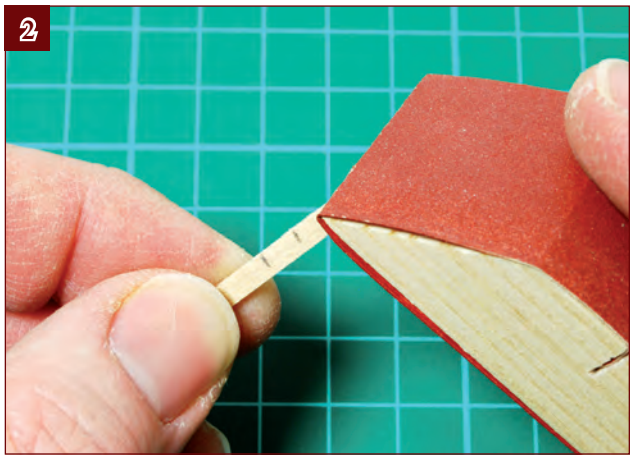


The bitts consist of a cross beam and two uprights. Each upright needs to have two elongated holes through it in the positions shown in the diagram on the left. You also need to cut a slot across it, forming a joint into which the crossbeam fits. It is easiest to shape both uprights at opposite ends of the 40-mm piece of wood supplied, then cut them down to length.

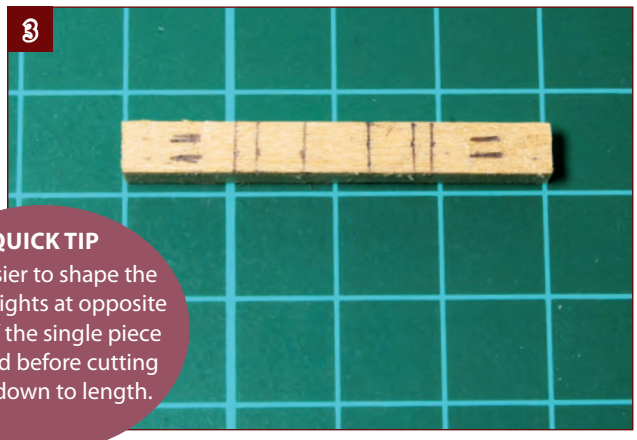




1. Trim the 2 x 3-mm strip of wood to 47 mm long, and mark the position of the uprights as shown in the plans above.

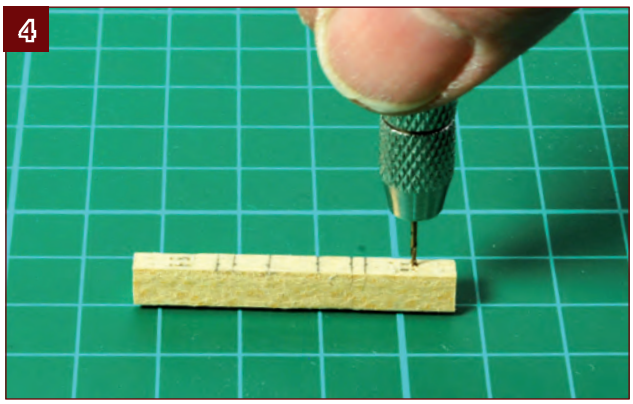


2. Lightly chamfer the ends and edges of the crossbeam.

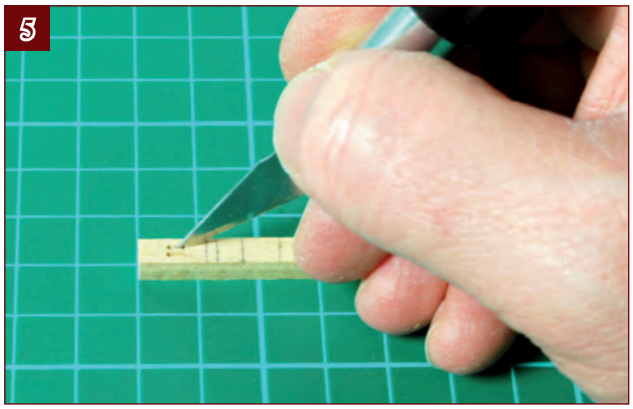


3. Mark the positions of the holes and slots of the uprights on the 5 x 5-mm strip of wood.

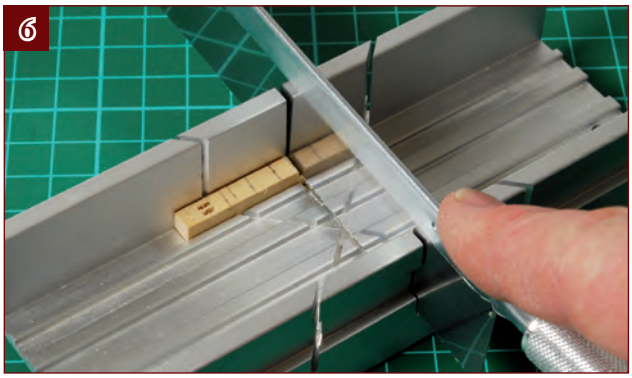
QUICK TIP
It is easier to shape the two uprights at opposite ends of the single piece of wood before cutting them down to length.



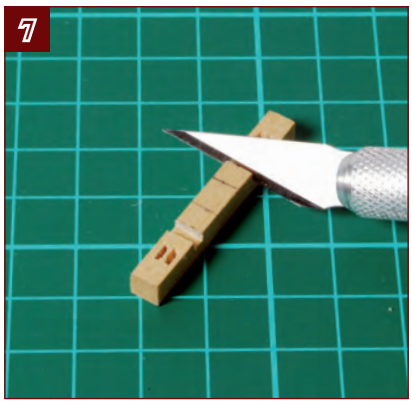
4. Drill 1-mm holes at both ends of each of the slots. It is easier to get accurately positioned slots by drilling halfway through from both sides, rather than all the way through from one side.



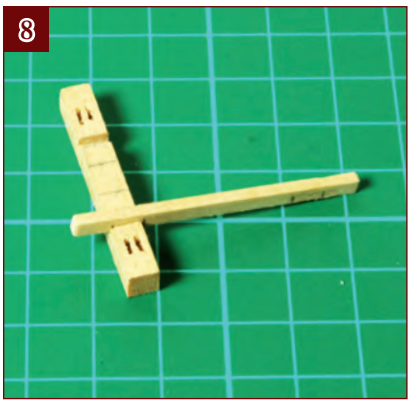
5. Use the point of a craft knife to remove the wood between the holes to form the slots.



6. Start to make the slots for the crossbeam. Using a razor saw and mitre block, make two cuts 1.5 mm deep for each upright (a total of 4 cuts).

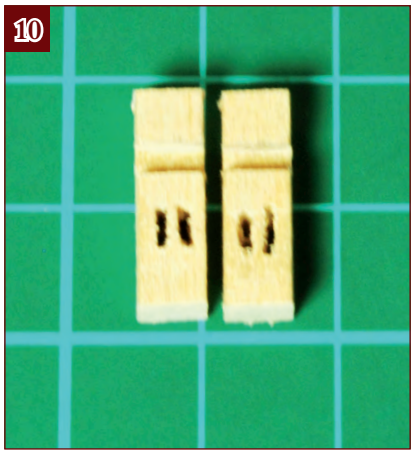


7. Use a craft knife to remove the wood between each pair of saw cuts, forming the two slots.

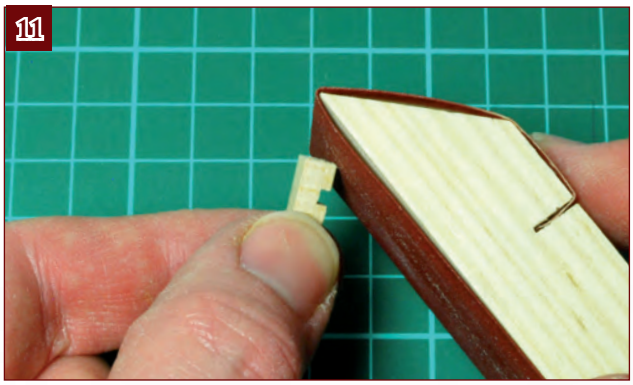


8. Test-fit the crossbeam in each slot. It should be a snug fit. If it's too tight, ease the slots slightly using a needle file.

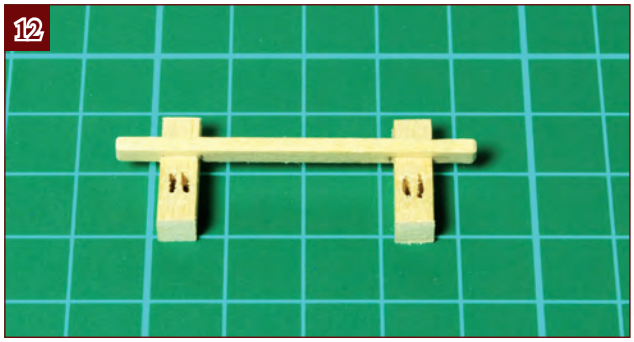
9. Saw the uprights to their finished length of 17 mm.



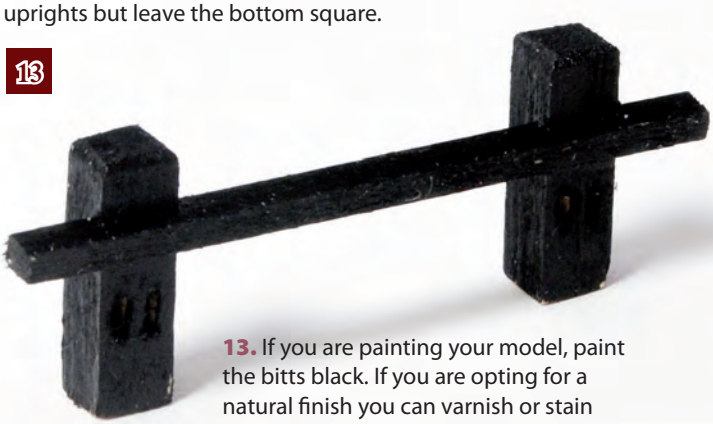
10. Place the uprights together and check that the slots are exactly the same distance from the bottom. You can sand the bottom of one of the uprights if it is slightly too long.



11. Chamfer the top edges of the uprights but leave the bottom square.



12. Sand off any pencil marks, then glue the three parts together, making sure they are square and true.



13. If you are painting your model, paint the bitts black. If you are opting for a natural finish you can varnish or stain the bitts, as you prefer.

Stage 48: Making the gratings

The next components include two more of *Victory*'s guns, plus a set of parts for making the tackle used to work them. First, however, it's time to assemble the deck gratings from parts you already have.

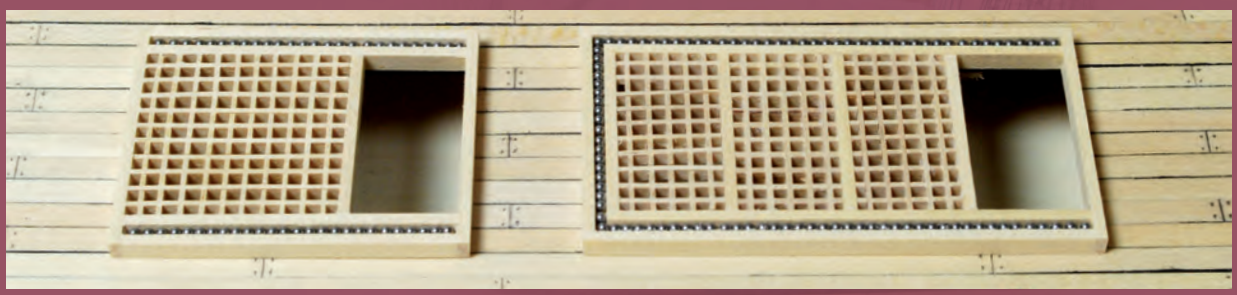
Two 12-pounders

Two full kits of parts to assemble more of *Victory*'s deck guns, plus two sorts of twine, wire, eyebolts, blocks and rings with which to make the tackle and rig the guns.

Where the parts fit

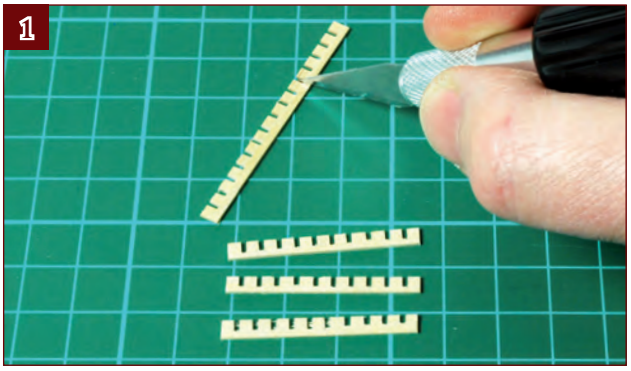
The medium and large gratings will fit the holes in the upper gun deck; the two small ones go on top. The notched grating strips are delicate, so handle with care and use a new blade to cut them. Use a fine sandpaper throughout.

If you wish, you can also construct the guns you received this time. Just follow the previous instructions (see Stage 18). However, you should keep the rigging until the next stage, which shows you how to assemble it ready to fit the guns.

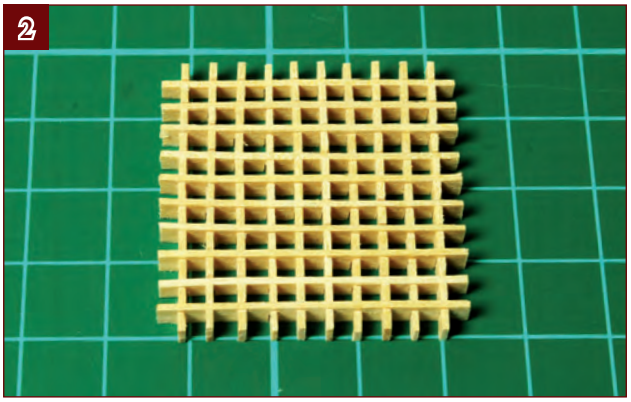


Making the medium-sized grating

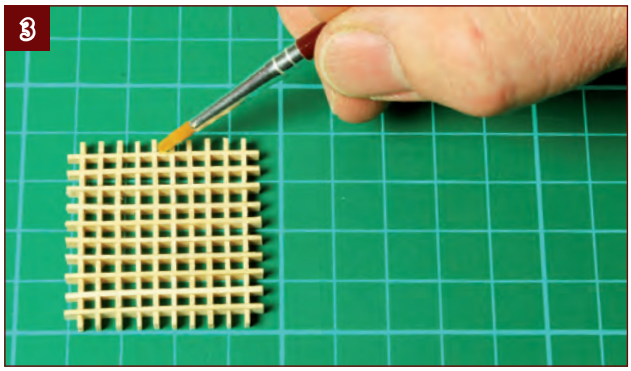
The medium-sized grating fits the smaller of the two holes you left in the upper gun deck. The notched strips and frame parts you need to make it were supplied with Stage 43.



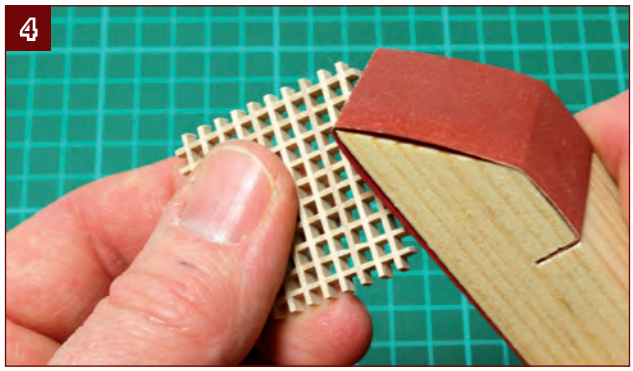
1. Cut 20 pieces of grating strip, cutting across the 11th notch so that all of the pieces have ten notches. Don't worry about trimming the cut end neatly at this stage.



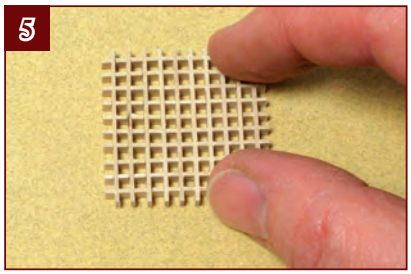
2. Fit the strips together to form a 10 x 10 strip square grid. You may have to ease some of the notches to get a good fit.



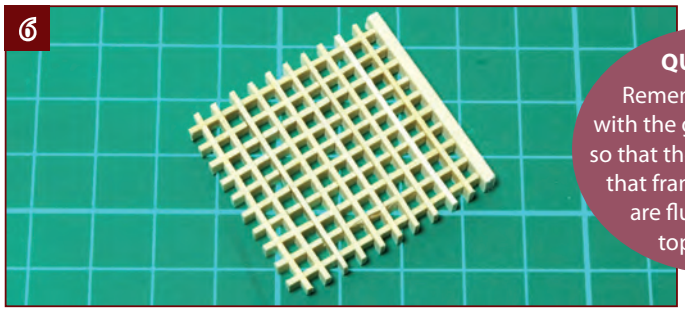
3. Paint a little diluted glue on the back of the grid, going all around the edges. It is not necessary to glue all the joints in the centre of the grid.



4. When the glue is dry, sand the edges flat. Use fine sandpaper, and sand very gently to avoid breaking the delicate strips.

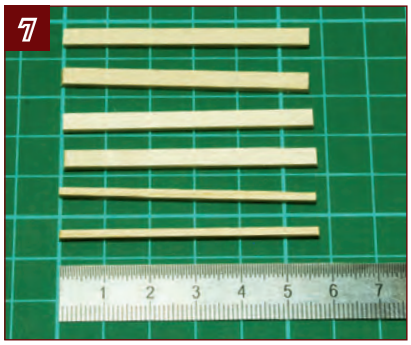


5. Lay a sheet of fine sandpaper on your work surface and gently sand one face of the grid until it is smooth. This will become the top face of the grating.

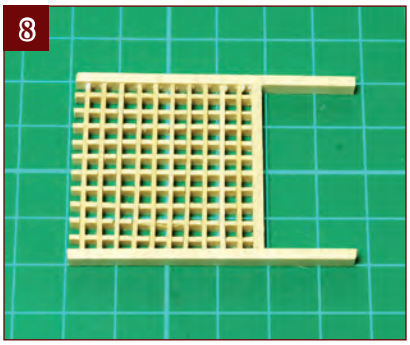


6. Cut a strip of 2 x 4-mm wood very slightly wider than the grid to allow for trimming. With the grid face down, glue the strip of wood to one edge of it. Sand the ends smooth and flush with the side of the grating when the glue is dry.

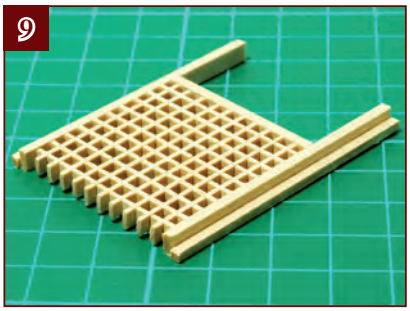
QUICK TIP
Remember to work with the grid **face down,** so that the strips of wood that frame the grating are flush with the top surface.



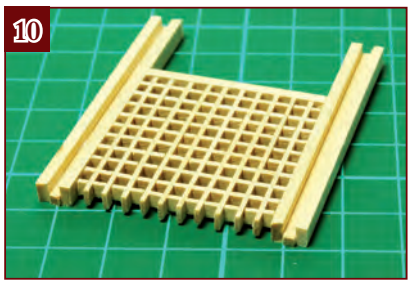
7. Cut four strips of 2 x 4-mm and two strips of 2 x 2-mm wood, making each of them 56 mm long.



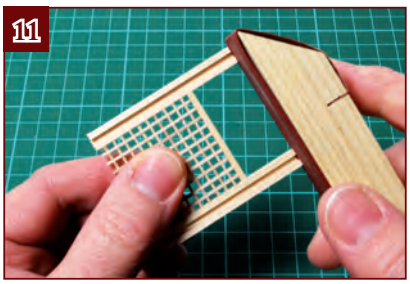
8. Glue two of the 2 x 4-mm strips on the sides as shown. **Keep the grating upside down** so the top remains flush.



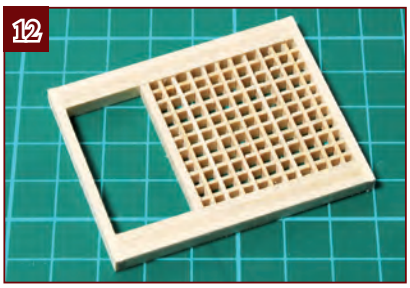
9. Turn the grating the right way up, and glue a 2 x 2-mm strip to each side, flush with the lower edges of the 2 x 4-mm strips.



10. Glue a final 2 x 4-mm strip to each side as shown. This forms a 2-mm channel in which the cannonballs sit.



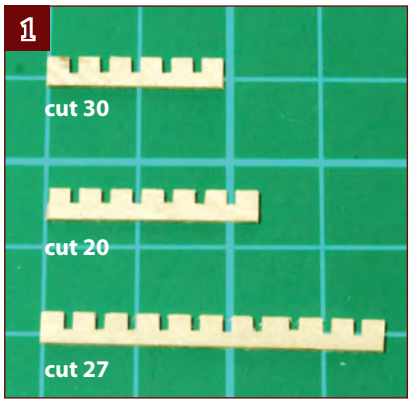
11. Sand both ends of the side frames flush and make sure that they are the same length.



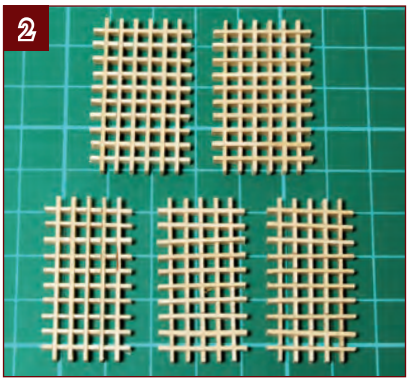
12. Glue two strips of 2 x 4-mm wood onto the ends of the grating to complete the assembly of the frame.

Making the large grating

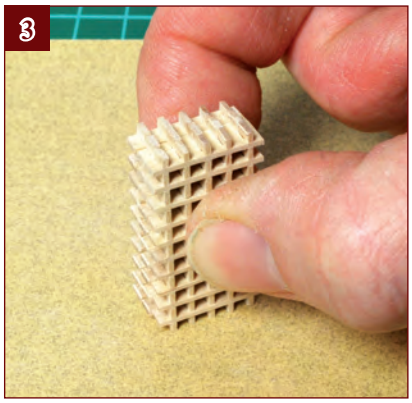
The large grating fits the larger of the two holes you left in the upper gun deck. The notched strips and frame parts you need to make it and the two small gratings were supplied with Stages 46 and 47.



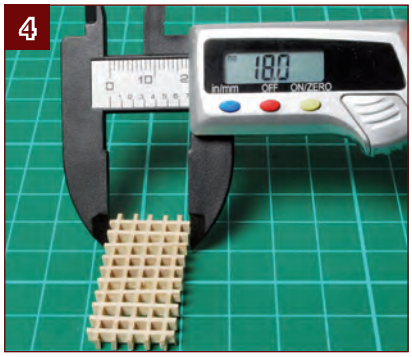
1. Cut 30 lengths of grating strip 5 notches long, 20 lengths 6 notches long and 27 lengths 10 notches long.



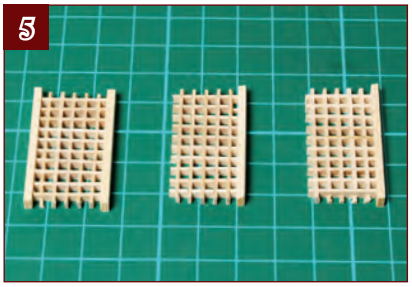
2. Assemble these into five grating grids as shown. Glue and sand them as in Steps 3, 4 and 5 on the previous page. Set the two 10 x 6 gratings aside for now.



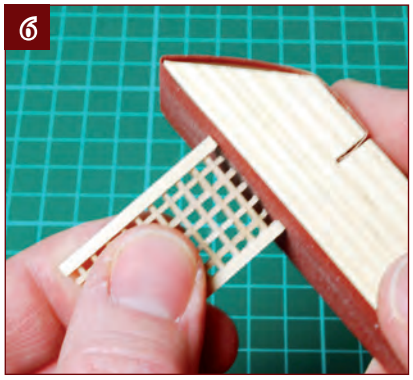
3. Take the three 10 x 5 grating grids, stack them together, and sand them so they are all the same length.



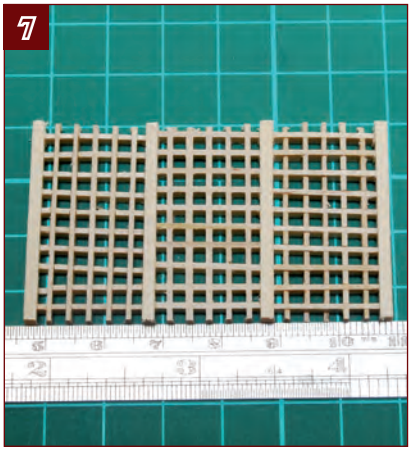
4. Sand them until they are all 18 mm wide. You can use a ruler or a digital caliper to check the widths.



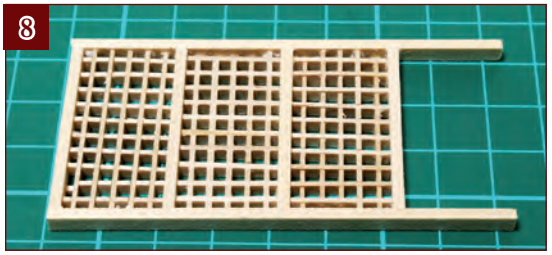
5. Cut four strips of wood the same length as the gratings. **Place the grids upside down so the top faces are flush.** Glue two strips to one grating, and one each to the other two.



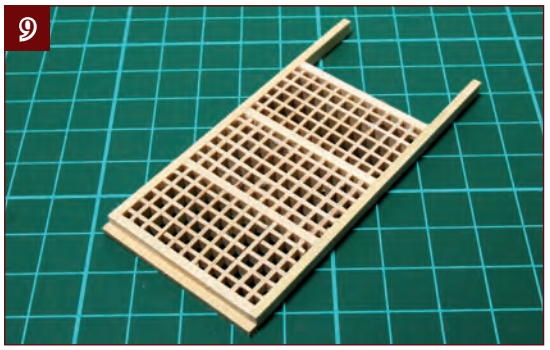
6. Sand the ends smooth, being careful not to change the length of the grids.



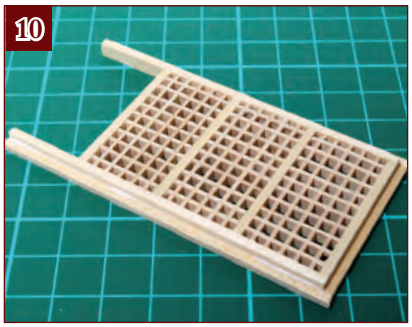
7. Glue all three gratings together, ensuring that you have **all the top faces on the same side**. Lay them down to keep them flat and use a ruler to make sure they are in line.



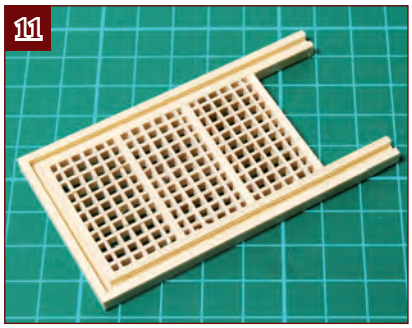
8. Keeping the top faces on the underside, cut two lengths of 2 x 4-mm wood, 82 mm long, and glue them across the ends of all three of the grids, as shown.



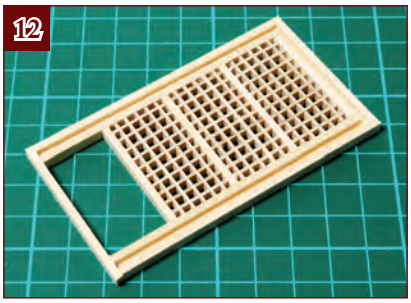
9. Turn the grating over, and add a 2 x 2-mm strip along the last grid, flush with the bottom edge. Allow the glue to dry, then sand the ends smooth.



10. Now add two similar 2 x 2-mm strips along the sides. Once again, sand the ends smooth after the glue has dried.



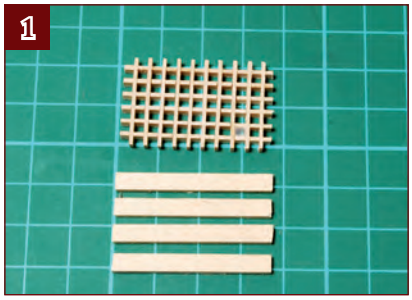
11. Add a strip of 2 x 4-mm wood along the end, followed by strips on each side to create channels for the shot.



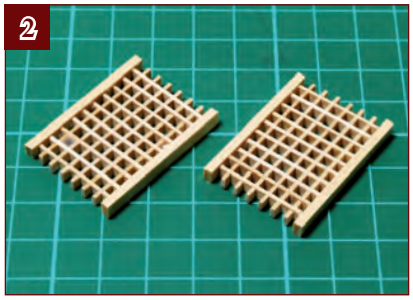
12. Sand the ends of the channels smooth, ensuring they are the same length, and glue a 2 x 4-mm strip across them to complete the grating.

Completing the small gratings

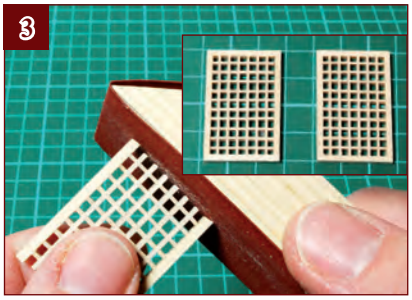
There are two small gratings that fit on top of the upper gun deck. You already assembled the grids while making the large grating. Now use some of the left-over strip to make frames around them.



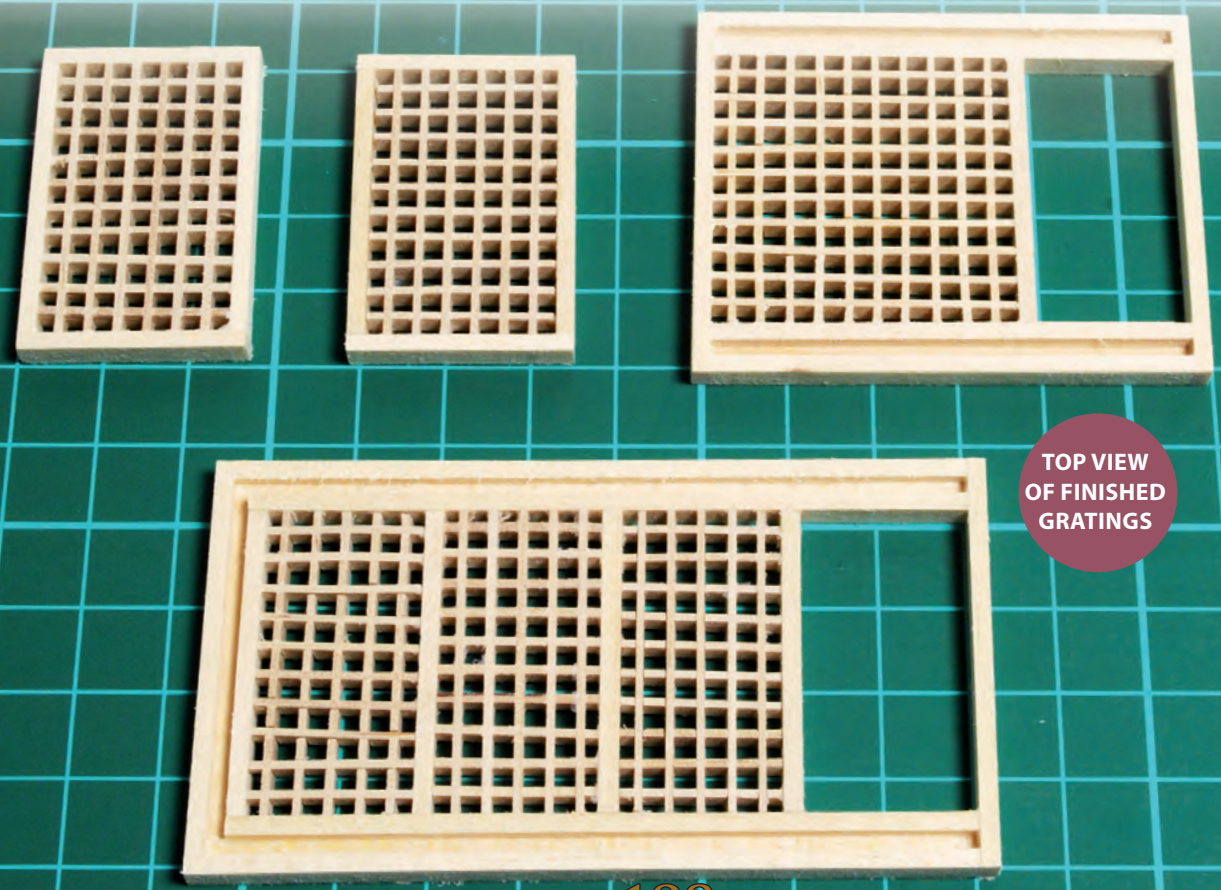
1. Take the two 10 x 6 grids assembled in Step 2 on the previous page, and cut four lengths of 2 x 4-mm strip to the same length.



2. Glue these strips to the edges of the grids, working upside down as you did before.



3. Sand the ends smooth, then complete the gratings by adding strips of 2 x 4-mm wood across the ends.



TOP VIEW OF FINISHED GRATINGS

Stage 49: Guns and gratings

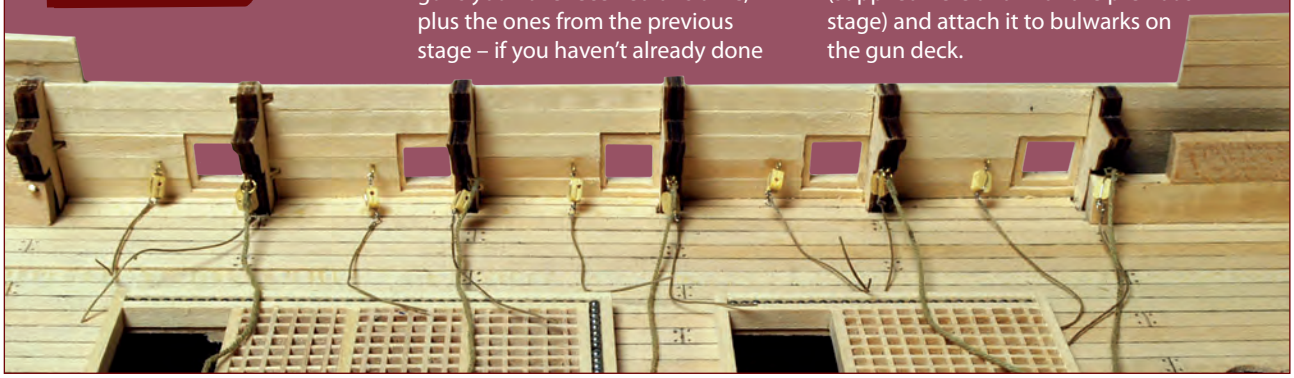
The next components include two more of *Victory*'s guns, plus a set of parts for making the tackle used to work them. First, however, it's time to fit the deck gratings you assembled in the last stage.

Two 12-pounders

Two full kits of parts to assemble more of *Victory*'s deck guns, plus two sorts of twine, wire, eyebolts, blocks and rings with which to make the tackle and rig the guns.

Where the parts fit

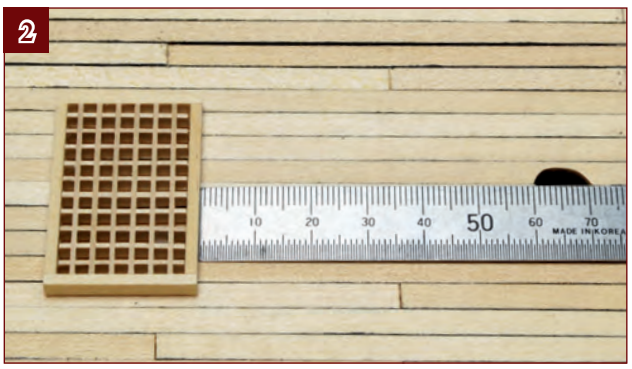
The medium and large gratings will fit the holes in the upper gun deck; the two small ones go on top of the planking. Next, you can construct the guns you have received this time, plus the ones from the previous stage – if you haven't already done so. Just follow the instructions in earlier stages (for example in Stage 18). Once you have built ten of the guns, you can assemble the rigging (supplied here and with the previous stage) and attach it to bulwarks on the gun deck.



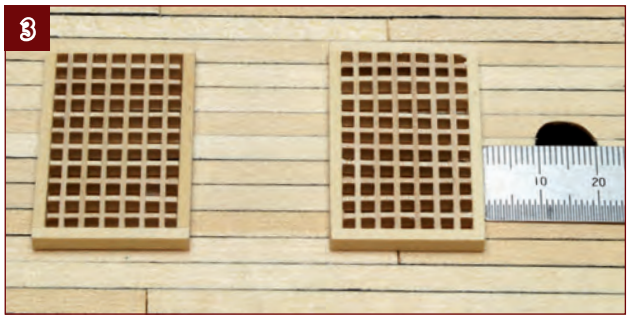
Fitting the gratings

Start by fitting the four gratings that you made following the instructions in the previous stage. Ensure that you have sanded all four gratings smooth and removed any dust lodged in the holes.

1. Carefully remove the exposed beams that run across the two large holes in the deck, using a razor saw.



2. Glue the first small grating on top of the deck planking, 60 mm astern of the main mast hole. Use the deck planks as a guide to locate the grating straight and central.



3. Glue the second small grating on top of the planking, 10 mm astern of the main mast hole.

4. Glue the medium and large gratings in place over the matching holes in the deck.

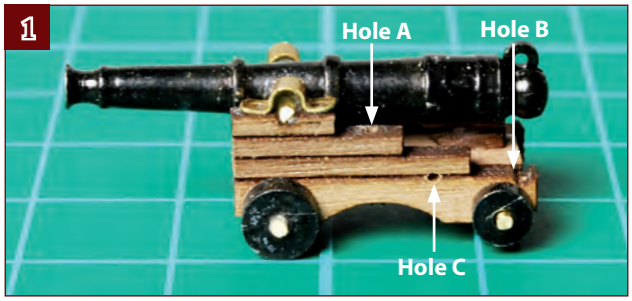
QUICK TIP
Once again, use the deck planking as a guide to get the gratings straight and central.

5. You can, if you wish, varnish the deck with a matte or satin varnish. **Test the varnish in an inconspicuous area first, to make sure it doesn't cause running of the black marker ink used to "caulk" the planks.**

EXPERT TIP
Paint a thick layer of varnish in the channels for the cannon balls, and then place the cannon balls in the channels. The varnish will hold the balls in place.

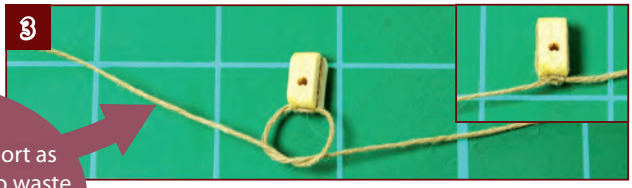
Preparing the gun tackle

Ten complete guns are fitted on the visible area of the upper gun deck (five per side). Once you have assembled the guns supplied, you can start making up the tackle provided with this stage and Stage 48.



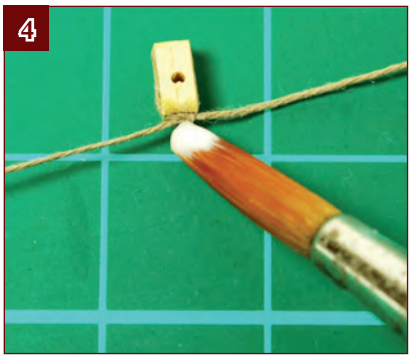
1. First, you need to drill six holes in each gun carriage. You can use an Archimedean drill or pin vice for this, although a mini-electric drill will make the task easier if used with care. This picture shows the three holes on the left side: drill a matching set on the other side.
Hole A is 0.7 mm diameter, drilled vertically downward all the way through the side of the gun carriage.
Hole B is 0.5 mm diameter, drilled vertically downward to a depth of about 3 mm. Note this hole is just behind the rear axle.
Hole C is 0.7 mm diameter, drilled horizontally to a depth of about 3 mm. It does not matter if this hole goes right through the side of the gun carriage, or into the base.

2. Take two eye bolts, cut the shanks to 3 mm, and glue them into holes B with superglue. Note the orientation of the eyes, which are parallel to the thimble on the barrel.

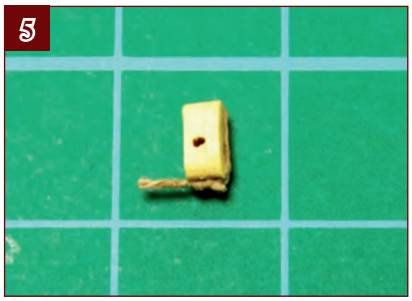


QUICK TIP
Keep the tails as short as possible, so as not to waste thread. For clarity, the tails in the picture are longer than necessary.

3. Two of the small blocks are fitted to each carriage. Take each of these blocks, tie a loop of 0.15-mm thread around it and secure with a hitch, ensuring the hole in the block is closer to the end with the knot. Pull the hitch tight, and tie another hitch to secure the knot.



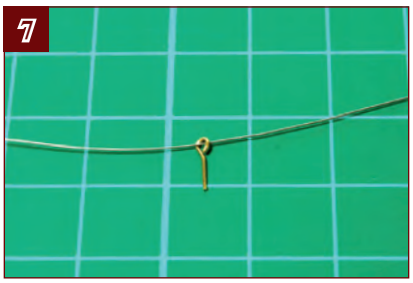
4. Seal the knot by painting on a small amount of lightly diluted glue and allowing it to dry.



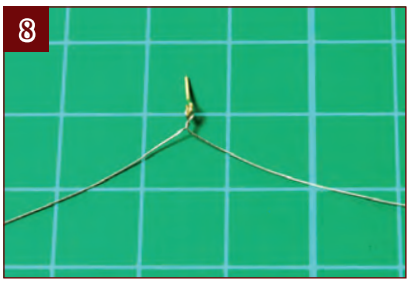
5. Paint about 5 mm of each tail with diluted glue to harden the thread and make the next step easier. When it is dry, cut one tail to about 3 mm, and cut the other close to the knot.

Repeat Steps 3 to 6 for a total of 20 times, to add one block to each side of all 10 guns.

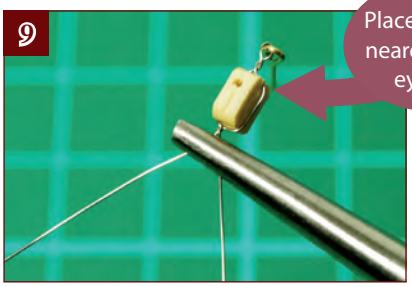
6. Paint some glue onto the tail, and insert it into hole C with the block facing forward. Only glue the tail, so that the block is free to move slightly.



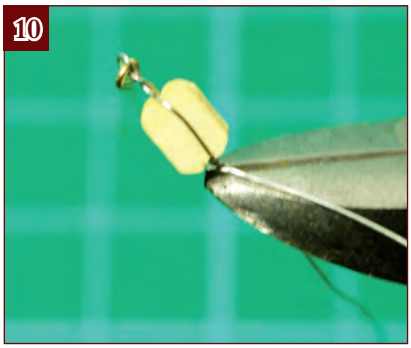
7. Cut a piece of wire about 100 mm long, and slide an eye bolt on it to the centre.



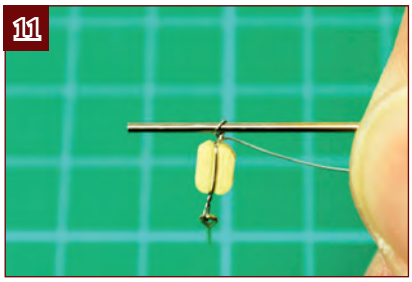
8. Secure the eyebolt with one full twist, using a pair of pliers, and splay the ends as shown.



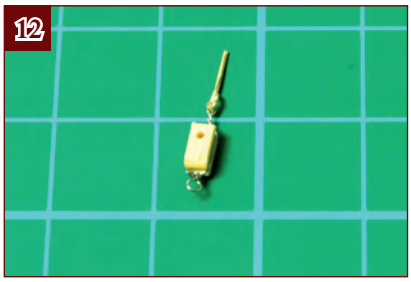
9. Take a new (unrigged) block, and fold the ends of the wire around it. Make two complete twists to secure it tightly.



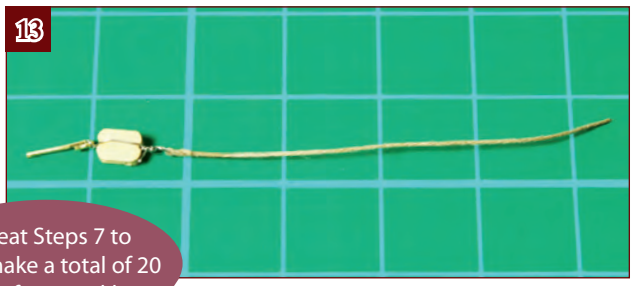
10. Cut off one of the tails close to the twist.



11. Take a 1-mm drill and wrap the remaining tail around it once. Then twist the wire around itself three times to form and secure a tight loop.

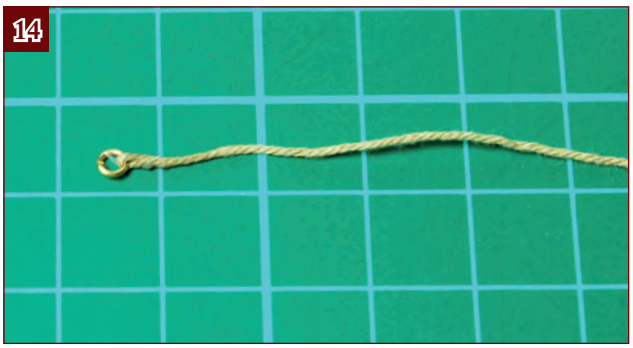


12. Cut the wire tail close to the twist. Be careful handing this assembly, as the wire ends are sharp and some points may be exposed.

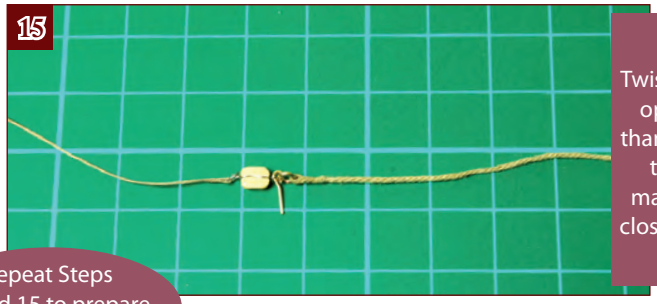


Repeat Steps 7 to 13 to make a total of 20 sets of gun tackle.

13. Cut a 50-mm length of cord. Feed one end through the wire loop, and fold about 3 mm of cord back on itself. Glue this to simulate a splice. Work some glue into the last 3 or 4 mm of the free end of the cord. This will harden the cord, making it easy to thread through the blocks.



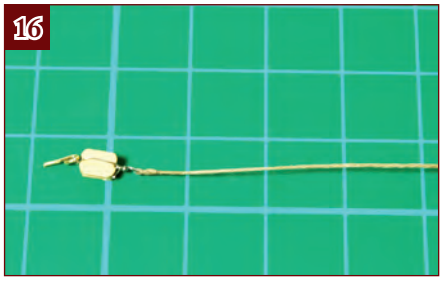
14. To make the breech rope, cut a 90-mm length of the thicker cord. Feed one end through a ring, then fold about 3 mm of cord back on itself. Glue this to simulate a splice, in the same way as you did in Step 13.



Repeat Steps 14 and 15 to prepare 10 sets of tackle.

QUICK TIP
Twisting the ring to open it is easier than trying to splay the ends, and makes it easier to close the ring again neatly.

15. Twist the ring on the end of the breech rope to open it a little. Feed the eyebolt onto the ring, and close the ring again.

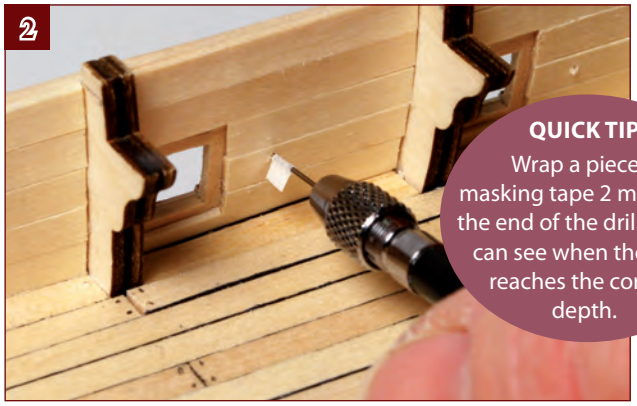


16. Take the remaining 10 sets of block and tackle, and trim the shanks of the eyebolts to 2 mm long using wire cutters.

Rigging the bulwarks

Before fitting the guns, you need to attach the tackle to the bulwarks. Only one example is shown here, so repeat this process alongside all 10 of the gun ports (five on each side) in the centre of the gun deck.

1. Drill a 0.6-mm diameter hole in the centre of the frame next to the gun port, at the height of the centre of the port (close to the bottom of the deck support bracket). This hole needs to be deep enough to take the shank of the full-length eyebolts. Repeat this for all the frames where the guns will be fitted (inset).



QUICK TIP
Wrap a piece of masking tape 2 mm from the end of the drill so you can see when the hole reaches the correct depth.

2. Drill a 0.6-mm hole, 2 mm deep in the bulwarks alongside each of the gun ports. Position it 6 mm forward of the gun port, at the height of the centre of the port. Be careful not to drill right through the hull planking (plug the hole with wood filler if you are unfortunate enough to do so).

3. Glue the **long eyebolts,** with the breech ropes attached, into the **holes in the frames**, using a little superglue. Note that **the ring with the breech rope goes to the top**, and also ensure that **the eyebolt is vertical**.

Repeat Steps 1 to 4 ten times, to rig all ten sets of tackle.

4. Glue the **short eyebolts** (on the tackle without the breech ropes attached) into the **holes in the bulwarks**. Ensure that **the eyebolt is vertical**.

Stage 50: Rigging the guns

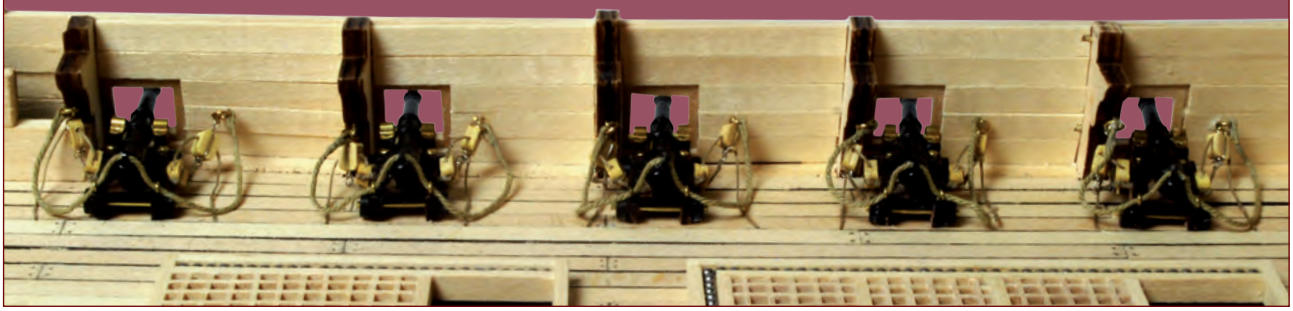
The large strips of wood are for mounting the dummy gun barrels on the upper deck. The smaller parts are used to make *Victory*'s belfry, but this assembly should be held over until you have finished rigging the guns to the deck.

Belfry parts Metal roof casting, bell

Wooden strips Dummy gun supports: 3 wooden strips 4 x 9 mm, 300 mm long
Belfry frame: 1 wooden strip 2 x 2 mm, 30 mm long , l wooden strip 3 x 3 mm, 90 mm long

Where the parts fit

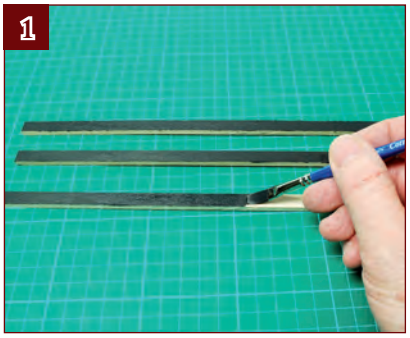
First add mounting blocks to the dummy gun supports using the material supplied. Then it's time to fit the first 10 guns to the open ports, as this area will become inaccessible once the deck above is fitted. As the guns will be visible through the opening in the deck, the assembly steps show the whole rigging process. However, as the breech rope (Steps 7-10) is particularly fiddly, you may prefer to omit it as there is only limited visibility on the complete model. With the guns in place, you can then drill the dummy gun supports to match.



Fitting the gun supports

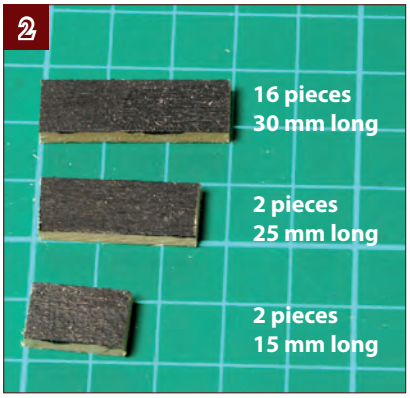
As on the lower decks, the dummy gun barrels are supported by short blocks of wood fixed on top of the long support beams. Add these before rigging the guns.

1



1. Take the three 4 x 9-mm strips supplied and paint one side of each of them black. Try not to get paint on the tops or bottoms of the strips.

2



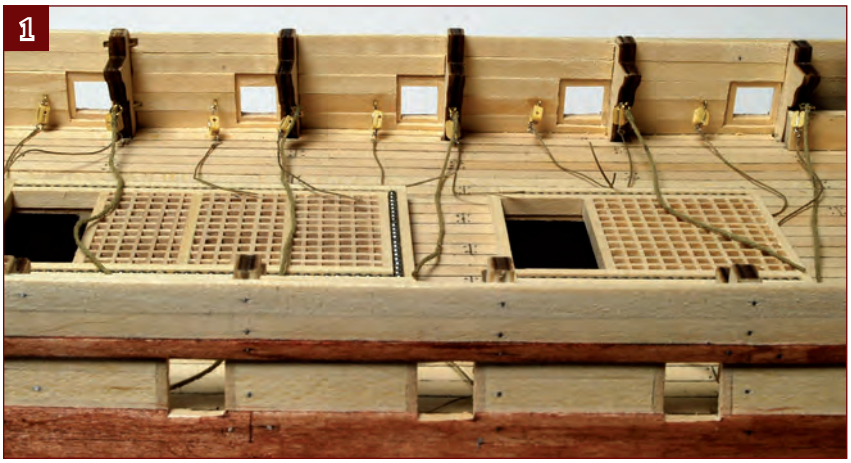
2. Cut the strips into a total of 20 lengths as listed above.

3

3. Glue the pieces on top of the existing cannon support beams. The two 15-mm lengths are fitted at the bow and the two 25-mm lengths at the stern. Allow the glue to dry thoroughly (preferably overnight) before continuing.

Rigging the guns

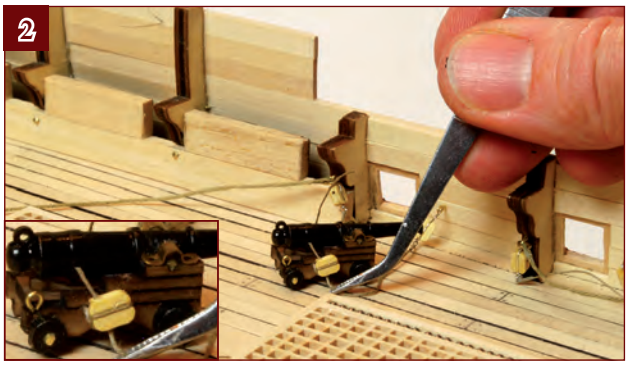
As well as attaching the breech ropes and tackle, pin the guns securely to the deck so that they stay in place while the model is turned upside down to carry out further work on the hull.



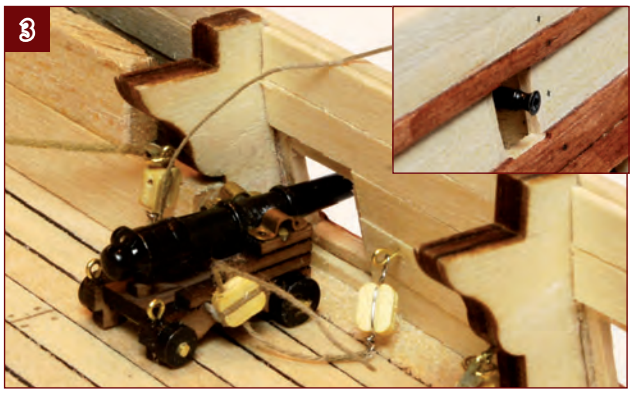
1. Check that none of the rigging lines you attached in Stage 49 are tangled or twisted, and leave the long ends running back across the deck.

EXPERT TIP

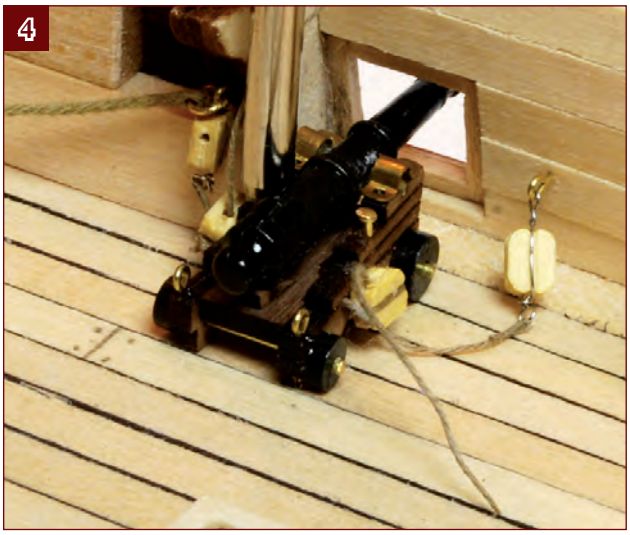
The pins used to fix the guns are supplied with the individual gun kits. Test a pin through the holes in the sides of each gun carriage **before** rigging the gun, just to ensure that it is an easy sliding fit. If the pin is tight, drill the hole a little larger.



2. Start at one end of the row of gun ports. Take the first gun and feed both of the two ropes leading from the side tackles **up through the blocks attached to the gun carriage**. This is most easily done before the gun is fixed in place.



3. Try the gun in position. The barrel should protrude from the hull by about 2 mm, as shown on the inset picture. (The rings around the muzzle make it easy to line the guns up evenly.)

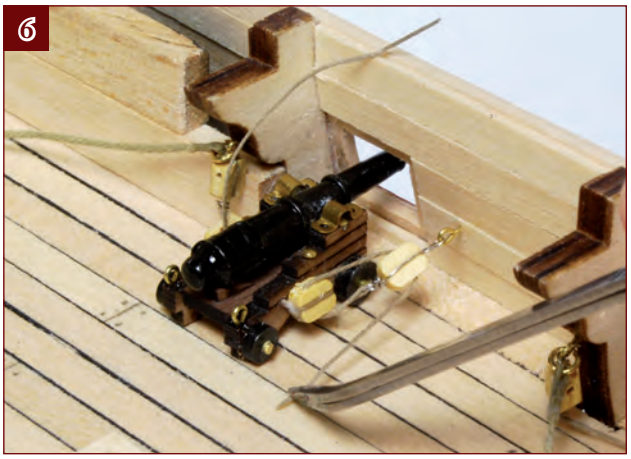


4. Apply drops of superglue to all four wheels and put the carriage in position. Drop pins through the two holes in the carriage, and gently use a pin pusher to push them home into the deck.

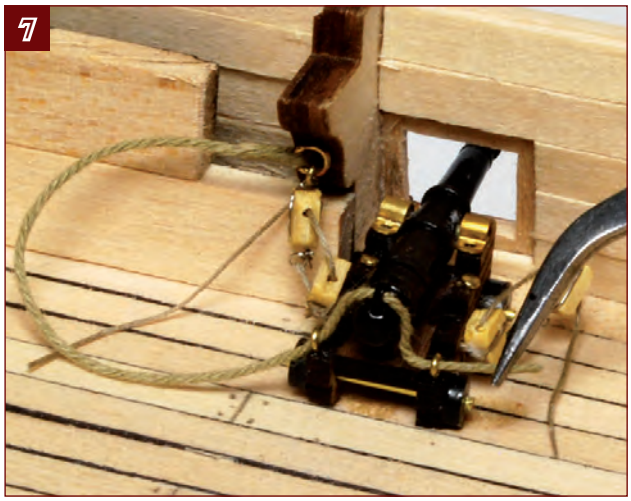
5. Feed the rope **down through the holes in the blocks on the frame** and bulwark.

EXPERT TIP

The blocks on the side of the gun closest to the rib will be very close, or possibly touching. This is inevitable as the blocks are overscale, due to manufacturing limitations.



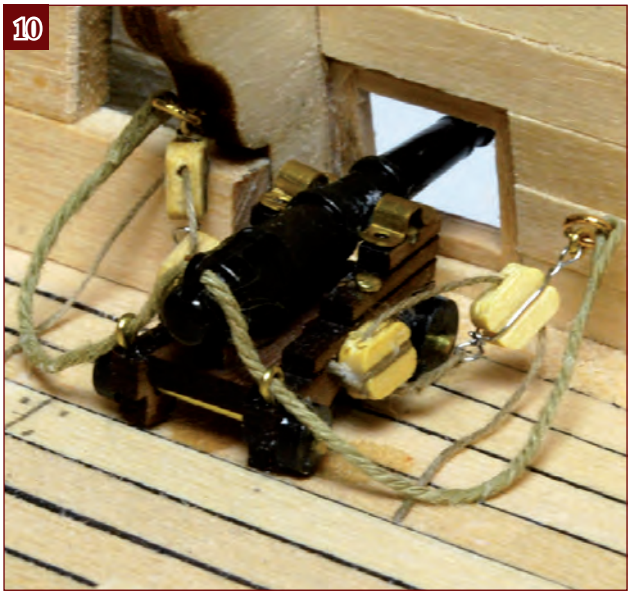
6. Gently pull the rope tight, using tweezers or needle-nosed pliers. Pull the rope between the top of the blocks tight before pulling the loose end tight.



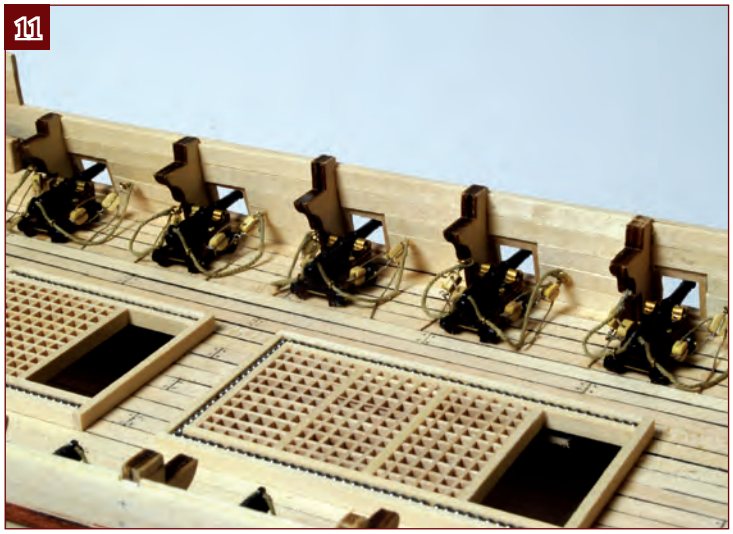
7. Take the breech rope and feed it through the eye, the thimble, and finally the second eye.

8. Feed the end of the rope through a small ring, fold it back on itself and glue the rope to itself to simulate a splice.

9. Twist the ring open, insert it through the eye on the bulkhead, and close the ring again.



10. Finish off by evening up the breech rope, then cut the tackles to the same length. The ropes can be kept in position by using a little diluted glue if desired.



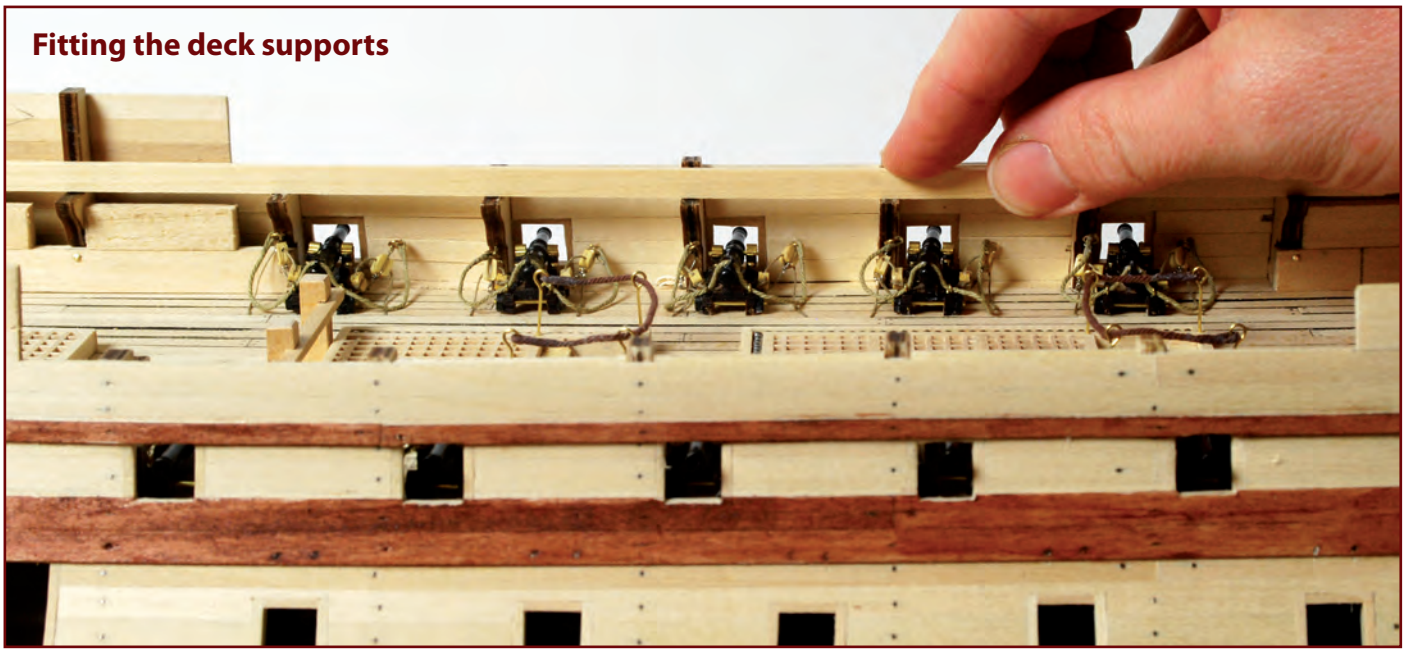
11. Repeat the rigging process for all 10 guns.

12. Carefully drill 2-mm holes in the false cannon support rails. Position the holes so that the barrels are in line with the real cannons you have just fitted.

BUILD LORD NELSON'S HMS VICTORY

Coming in Pack 6

Stages 51-60 add the ship's rudder, the first of the deck supports, construct the ship's wheel and start cutting the quarterdeck gun ports



Fitting the deck supports

Finishing off the poop deck

Fitting the cabin partitions