

BUILD LORD NELSON'S  
HMS **Victory**



Pack 12  
Stages 111-120

# BUILD LORD NELSON'S HMS VICTORY

## Pack 12

### Stages 111-120

### Contents

Stage 111: Fitting the main topgallant	502
Stage 112: Fitting the mizzen topsail and yard	506
Stage 113: Fitting the mizzen topgallant and bowlines	512
Stage 114: Fitting the anchors	518
Stage 115: Continuing the bowlines	524
Stage 116: Rigging the davits	530
Stage 117: Rigging the lower sails' sheets and tacks	536
Stage 118: Continue the barge and 18-foot cutter	542
Stage 119: Adding the first flags	548
Stage 120: Completing your model	556
Figurine painting guide	562
Making the cutaway 1	570
Making the cutaway 2	572
Making the cutaway 3	574

Editorial and design by Continuo Creative,  
39-41 North Road, London N7 9DP.

Visit our website [www.model-space.com](http://www.model-space.com)

 De Agostini  
**MODEL SPACE™**

Published in the UK by De Agostini UK Ltd, Battersea Studios 2, 82 Silverthorne Road, London SW8 3HE.  
Published in the USA by De Agostini Publishing USA, Inc., 915 Broadway, Suite 609, New York, NY 10010.  
All rights reserved © 2015

NOT SUITABLE FOR CHILDREN UNDER THE AGE OF 14. THIS PRODUCT IS NOT A TOY AND IS NOT DESIGNED OR INTENDED FOR USE IN PLAY. ITEMS MAY VARY FROM THOSE SHOWN.

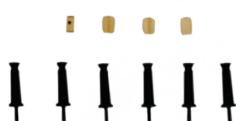
Photo credits Build Lord Nelson's HMS Victory Pack 12: All photographs copyright © Continuo Creative with special thanks to the Royal Navy and the crew of HMS Victory

# Stage 111: Fitting the main topgallant

The components this stage include the main topgallant sail, fitted this time, rigging parts and more dummy guns to add later.

## Fittings

main topgallant sail  
single blocks 4 mm x 4  
dummy 12-pounder gun x 6



## Where the parts fit

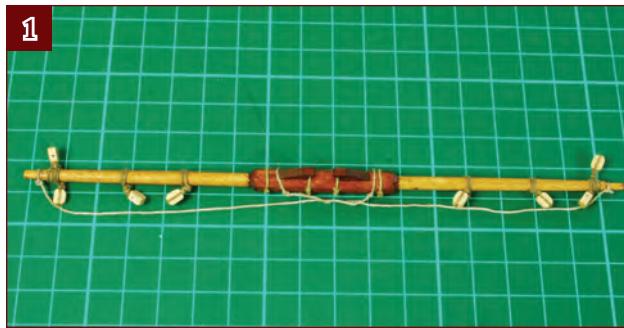
This stage is concerned with fitting and rigging the main topgallant, for which the sail canvas is supplied this time. Whether you are fitting sails or building a bare spars model, you will also need

the main topgallant yard. This was assembled and prepared in Stage 73. The dummy gun barrels supplied can be retained for later fitting, together with the other barrels you have.

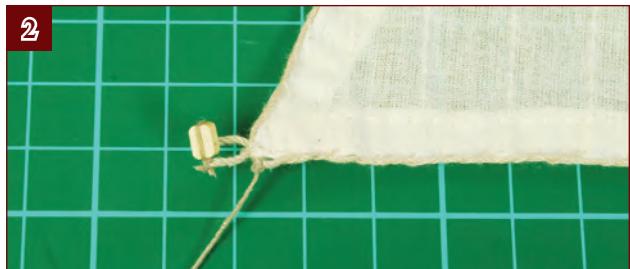


## Fitting the main topgallant yard and sail

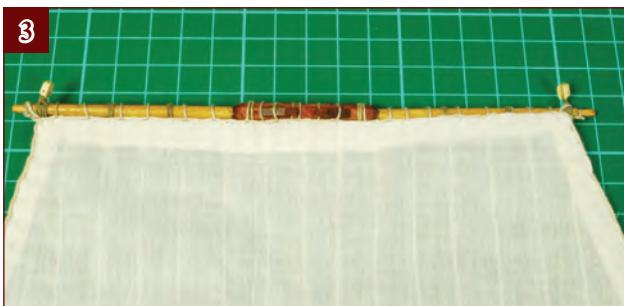
Use 0.25-mm natural thread throughout, and omit Steps 2-4 for a bare spars model.



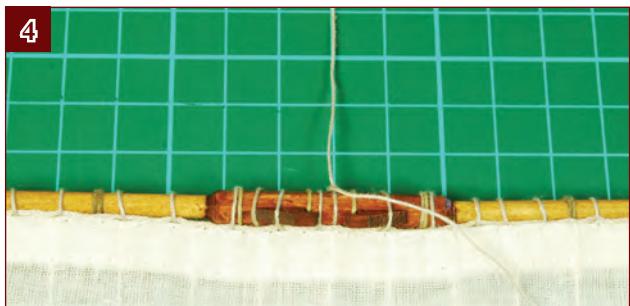
1. Add the horses (footropes) to the topgallant yard.



2. Add 4-mm single blocks to the bottom corner earings of the sail, and tie 700-mm lengths of thread directly to the corners of the sail. These threads are the sheets.



3. Sew the sail to the yard. You will need a thread about four times the length of the yard.



4. Tie an 850-mm length of thread to the centre of the yard to form the tie.

5



5. Thread the tie through the upper hole in the mast and pull the yard up so it is just below the top of the octagonal collar. Then drop the tie down through the hole in the main top.

6



6. Tie the tie off to the port (left hand) belaying pin. Seal and trim the thread.

## Rigging the main topgallant

Use 0.25-mm natural thread throughout, and omit Steps 1-6 for a bare spars model.

1



1. To rig the sheets (A), feed the thread you rigged in Step 2 on the previous page through the block in the end of the topsail yard, and inboard, through the innermost block.

2



2. Take the thread down and tie it to the sixth shroud. Repeat Steps 1 and 2 on the other side of the model and tension both sides simultaneously to make sure the sail is even.

3



3. To make the buntline (B), take a 700-mm length of thread and tie it to the front of the yard by the middle block on the yard. Now bring it under the sail and through the block.



4



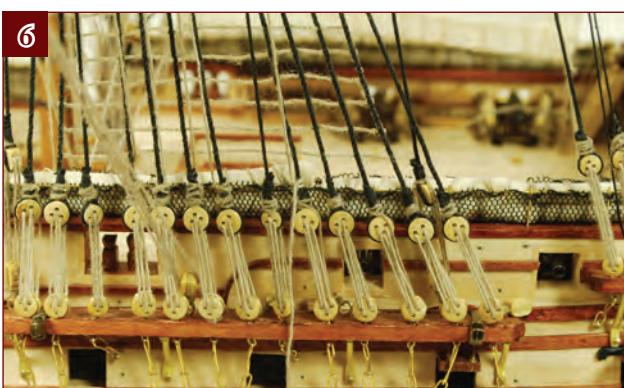
4. Tie this thread off against the next to last shroud on the main top. Repeat Steps 3-4 on the other side of the model and tension both threads, ensuring the sail and yard stay square.

5



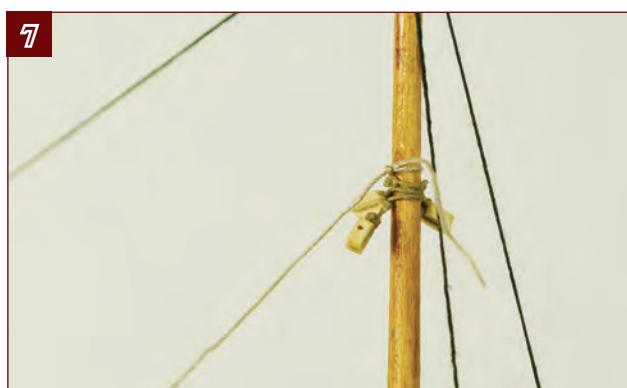
5. To make the clew line (C), tie a 1-m length of thread to the yard by the inner block. Take it down through the block on the corner of the sail and back up to the block on the yard.

6



6. Tie it off to the seventh shroud. Repeat Steps 5-6 on the other side of the model, making sure the yard stays straight.

7



7. To make the lifts (D), cut a 750-mm length of thread. Tie it to the mast just above the double blocks.

8



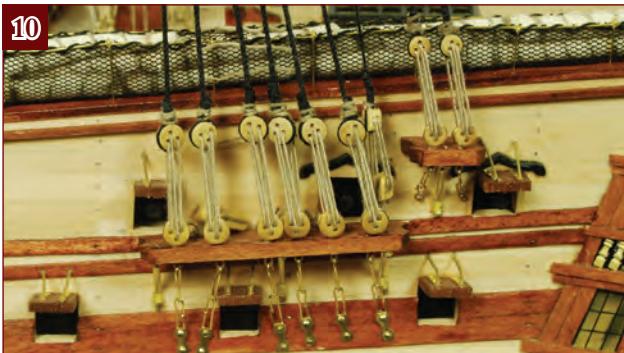
8. Take the thread down through the blocks on the end of the yard, and back up through the blocks on the mast.

9



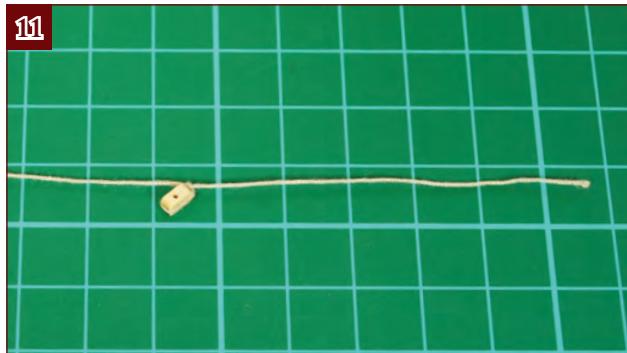
9. Tie the thread off to the rear shroud on the main top. Repeat Steps 7-9 on the other side of the model and tension both sides simultaneously to make sure the yard stays level.

10



10. You can now seal and trim all the lashings on the mizzen mast shrouds.

11



11. To make the braces (E), cut two 1,050-mm lengths of thread and tie a single block about 50 mm from one end.

12



12. Tie the blocks to the stay just below the mizzen mast crosstrees.

13



13. Take the long ends through the blocks on the ends of the yard.

14



14. Bring the threads back through the blocks just fitted.

15



15. Tie the threads to the fifth mizzen mast shroud from the front. Tension both sides together so that the yard stays straight.

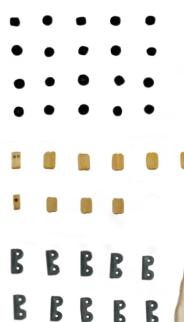


# Stage 112: Fitting the mizzen topsail and yard

The components include the mizzen topsail, which is fitted this time, plus rigging parts.

## Fittings

**mizzen topsail**  
single blocks 4 mm x 4  
double blocks 5 mm x 6  
glass beads x 20  
die-cast parrel spacers x 10



## Where the parts fit

This stage is mainly concerned with fitting and rigging the mizzen topsail, for which the sail canvas is supplied this time. Whether you are fitting sails or building a bare spars model, you will

also need the mizzen's cross jack yard and topmast yard, which run across the top and bottom of the sail. These spars were assembled and prepared in Stages 80 and 81.

## Fitting the cross jack yard

This spar has very little rigging – there is no tie, and the yard is slung solely from a sling. Use 0.25-mm natural thread for all lines except the sling.



**1.** Take the cross jack yard and fit the horses (footropes). Swivel the blocks for the braces (see Step 3 on the last page of this stage) to face forward.



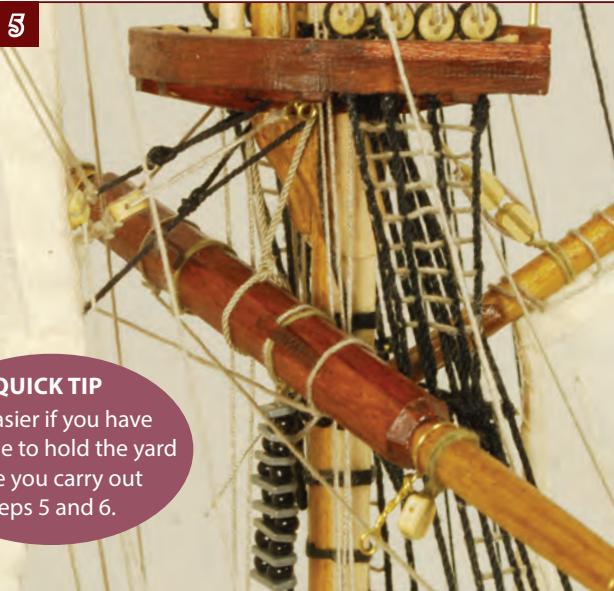
**2.** Tie a 500-mm length of 0.5-mm thread around the centre of the yard to form the sling.



**3.** Prepare a parrel in the same way as the other parrels, using eight ribs and 14 beads on two 500-mm lengths of thread.



**4.** Tie the parrel just inside one of the yard slings.



5

**QUICK TIP**  
It is easier if you have someone to hold the yard while you carry out Steps 5 and 6.



6

6. Tie the sling around the mast cap using the same technique you used for the main and fore mast yards.



7

7. Tie the loose end of the parrel around the back of the mast and the other side of the yard.

## Rigging the cross jack yard

Use 0.25-mm natural thread for all these rigging lines.



1

1. To make the lifts (A in the picture on page 509), tie two 650-mm lengths of thread round the mast cap. Lead one out to port and one to starboard.



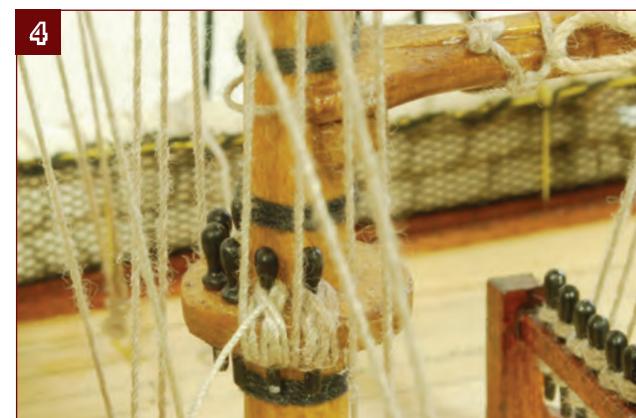
2

2. Feed the ends of the threads through gaps in the shrouds and through the outer block on the end of the yard, picking gaps that give the threads a straight run to the blocks.



3

3. Bring the threads back through the shrouds and to the blocks on the mast cap. Then take the threads down through the hole in the mizzen top.



4

4. Secure the threads to the belaying pins as shown. Tension both sides together to make sure the yard is level, then seal and trim the threads.

# Fitting the mizzen topsail and yard

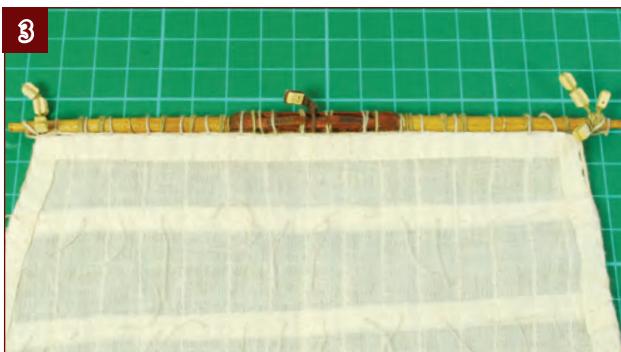
Use 0.25-mm thread throughout. Omit Steps 2, 3 and 10-15 for the bare spars option.



1. Tie the horses (footropes) to the yard in the normal way. Make sure that the blocks for the braces (see Step 7 on the last page of this stage) face aft.



2. Prepare the sail by adding single blocks to the bottom corner earings of the sail. Tie 450-mm lengths of thread directly to the bottom corners of the sail to make the sheets (B).



3. Sew the sail to the topmast yard. You will need a length of thread about four times the length of the yard.



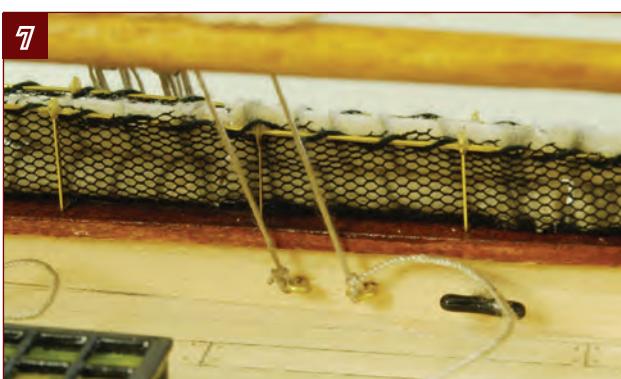
4. Tie a 650-mm length of thread to the mizzen topmast to form the tie that supports the yard.



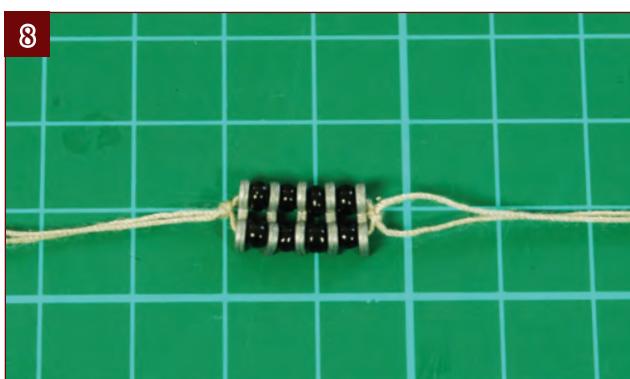
5. Hold the yard in position, and feed the tie through the double block on the yard, going from back to front. Note that the main topgallant braces go behind the yard.



6. Rig the double block on the mast to the block on the yard, and pull the yard up as high as it will comfortably go.



7. Tie the thread off to the aft eyebolt on the starboard (right) side of the model.



8. Prepare the parrel using five ribs and eight beads. (You will need some of the unused parrel parts from earlier stages.)



9. Tie the parrel to the yard, taking it around the mast.



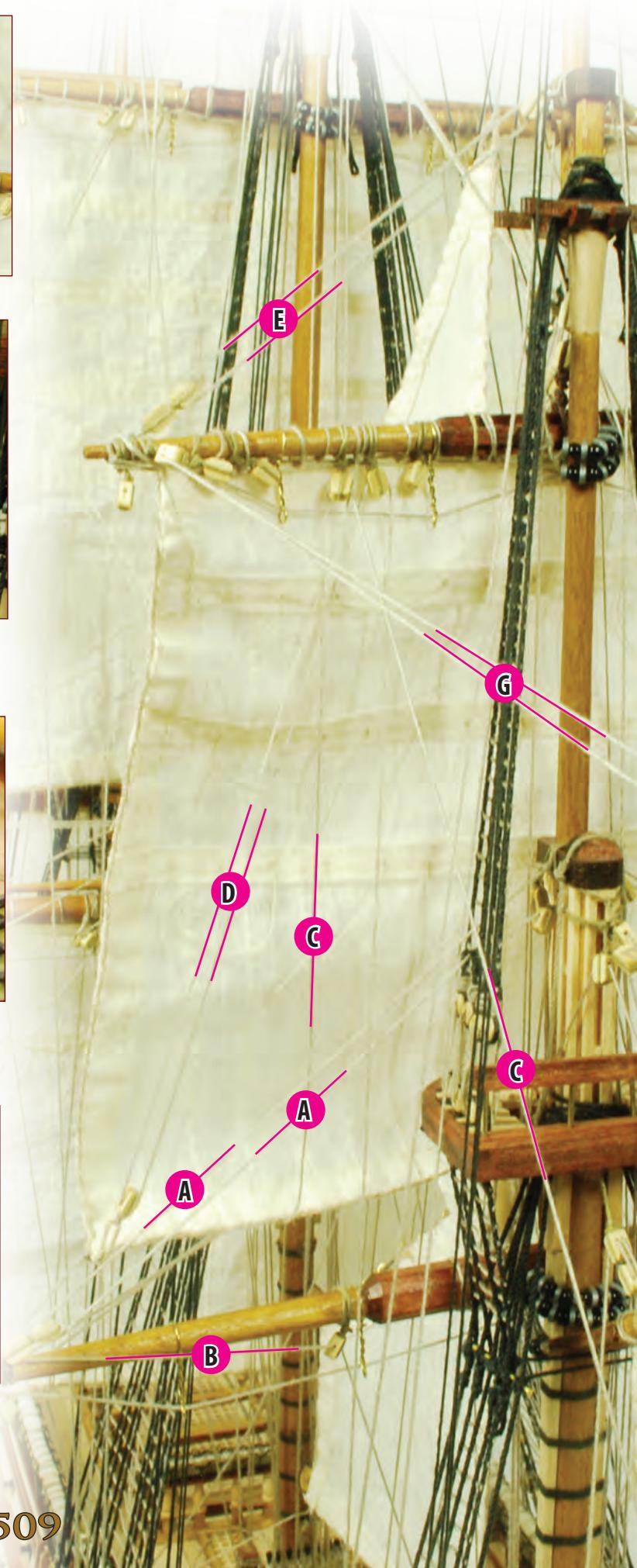
10. Feed the sheet (B) through the block on the end of the cross jack yard, through the block nearest to the middle of the yard and down to the deck.



11. Secure the sheet to the pinrail post. Repeat Steps 10-11 on the other side of the model. Tension both sides of the model together, making sure the yard is square.



12. To make the buntline (C), tie 800 mm of thread to the front of the yard by the third block from the centre of the yard. Take this under the sail and then through the block.





**13.** Tie the threads to the inboard eyebolts on the stern, then repeat Steps 12-13 on the other side. Tension both lines at once, and make sure the yard stays square.



**14.** To make the clew lines (D), tie 800 mm of thread to the yard by the second block from the centre. Run it to the block on the corner of the sail, then back through the block on the yard.



**15.** Tie the end of the thread to the second shroud. Repeat Steps 14-15 on the other side of the model. Tension both lines simultaneously and make sure the yard stays square.



**16.** To make the lifts (E), tie a 750-mm length of thread to the mizzen mast cap.



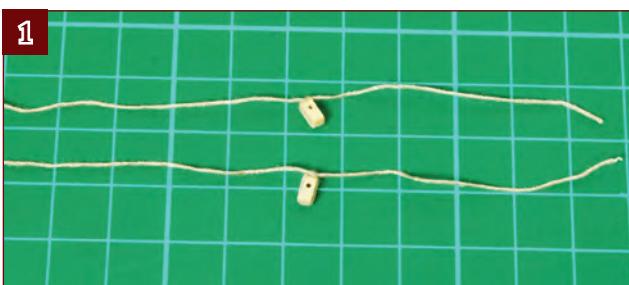
**17.** Take this thread through the block on the end of the yard, and back through the block on the mast cap.



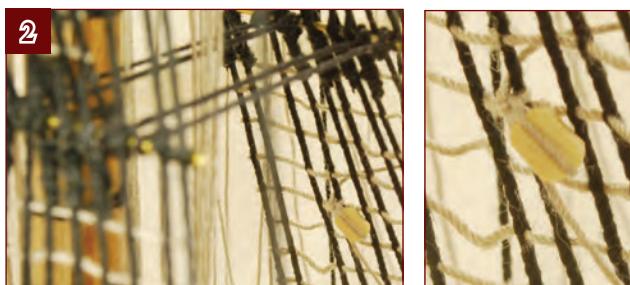
**18.** Tie this thread to the first shroud. Then repeat Steps 17-18 on the other side of the model. Tension both lines simultaneously and make sure the yard stays square.

## Adding the braces

These steps apply whether or not you are adding sails. Use 0.25-mm thread throughout.



**1.** To make the cross jack braces (F), cut two threads, each 850 mm long. Tie a single block (supplied in Stage 108) about 50 mm from one end.



**2.** Tie the blocks inside the main mast shrouds, attaching them to the fourth shroud from the front, four or five ratlines below the catharpins, below the bottom of the staysail.



**3.** Run the threads back to the blocks on the ends of the cross jack yard, crossing them to run from the port shroud to the starboard yardarm, and vice versa.



**4.** Double the threads back on themselves and take them back through the blocks attached to the shrouds.



**5.** Tie the threads off to the next to last mainmast shroud. Tension both sides together, then seal and trim the threads.



**6.** To make the topsail yard braces (G), tie two 800-mm threads to the gaff boom by the top double blocks. Lead one to port, and the other to starboard.



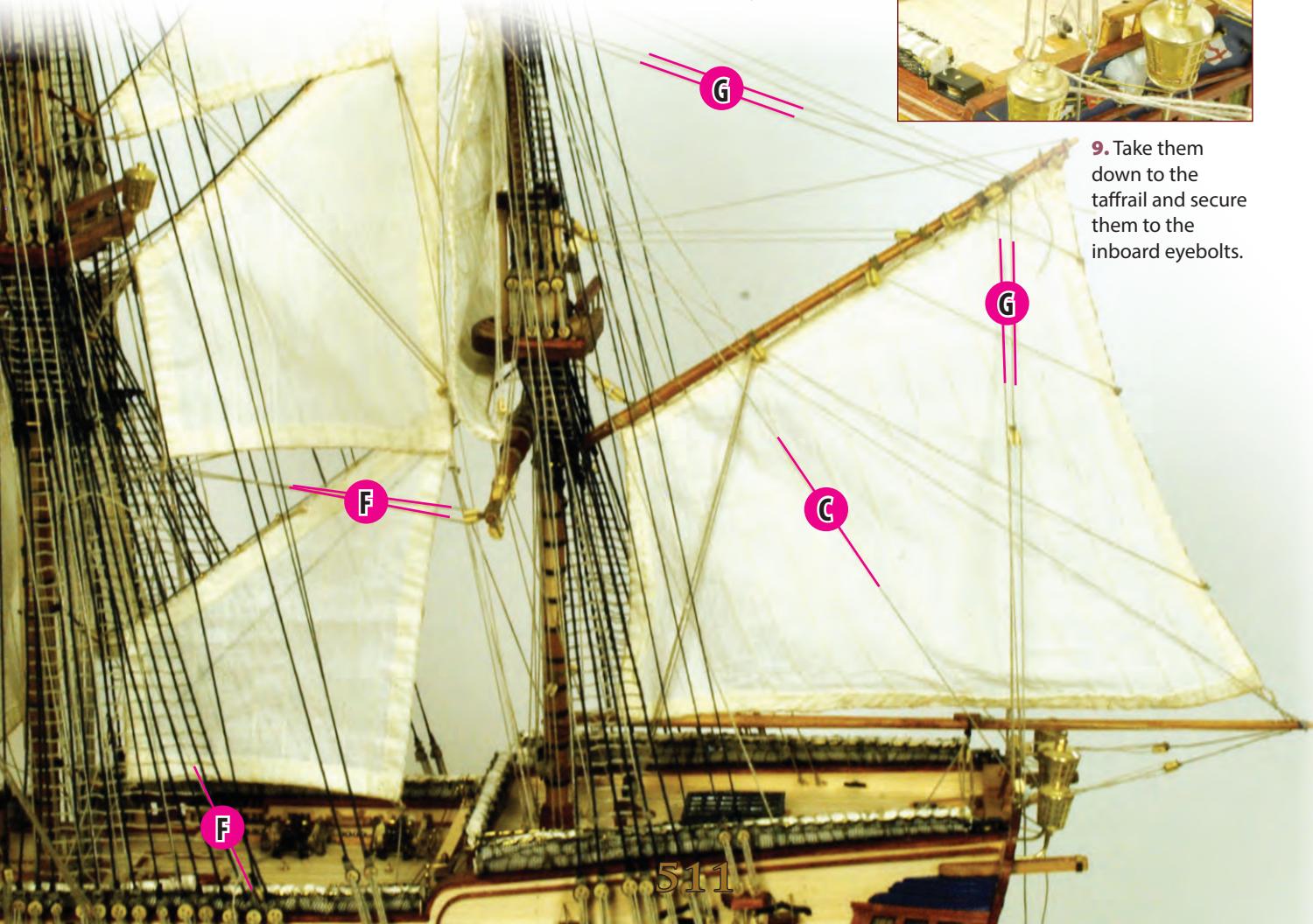
**7.** Take these threads up to the blocks on the ends of the topsail yard.



**8.** Double the threads back and feed them through one of the holes in the double blocks.



**9.** Take them down to the taffrail and secure them to the inboard eyebolts.



# Stage 113: Fitting the mizzen topgallant and bowlines

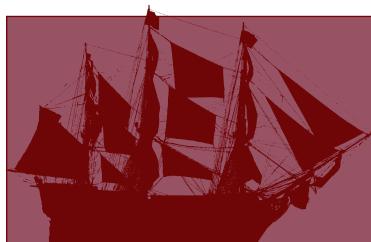
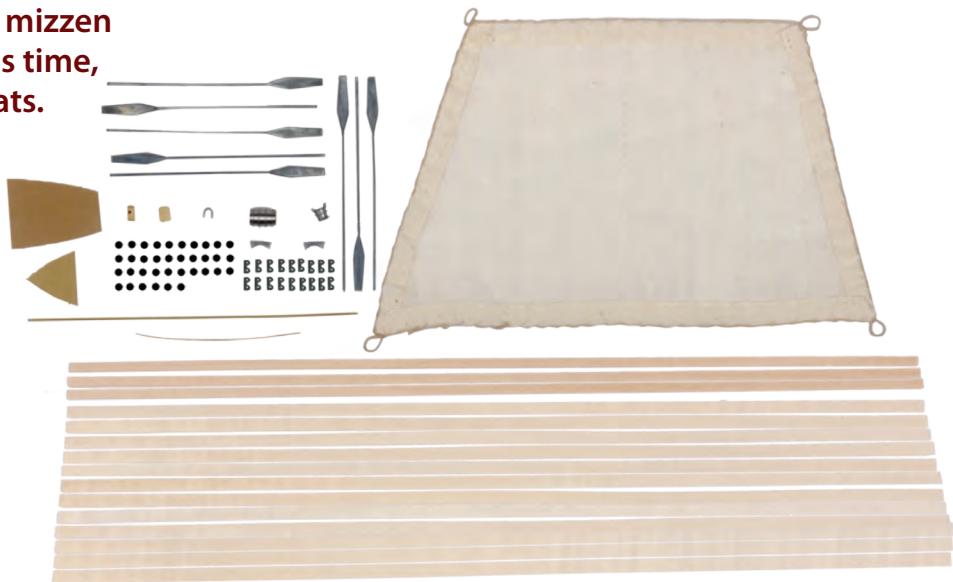
The components include the mizzen topgallant, which is fitted this time, plus fittings for the ship's boats.

## Fittings

**mizzen topgallant**  
single blocks 4 mm x 2  
glass beads x 36  
die-cast parrel spacers x 18  
brass grating parts  
brass strip 0.3 x 1 mm, 100 mm  
brass wire 0.5 mm, 150 mm long  
diecast oar x 8  
diecast barrel  
diecast supports for barrel x 2  
diecast bucket  
diecast bucket handle

## Wooden strips

12 wooden strips 3 x 0.6 mm, 250 mm long  
3 wooden strips 3 x 1 mm, 250 mm long



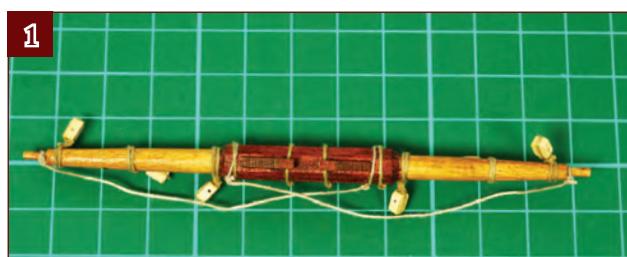
## Where the parts fit

This stage starts with fitting and rigging the mizzen topgallant and its yard, which was assembled and prepared in Stage 81. The rigging is nearly complete, but there are still braces and bowlines

to add, some of which are tackled at this stage. Keep the fittings provided for the ship's boats, as they will be covered when you receive the laser-cut parts for Victory's pinnace.

## Fitting the mizzen topgallant yard and sail

Use 0.25-mm natural thread throughout the rigging process.  
Omit Steps 2 and 3 if you are building the bare spars option of the model.



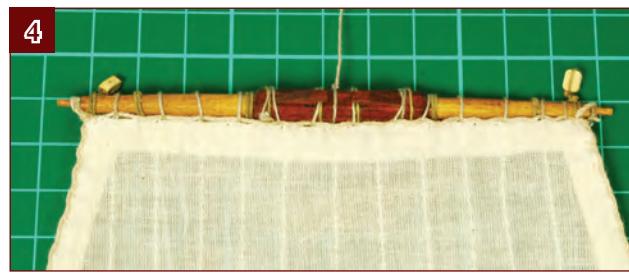
1. Add the horses (foot ropes) to the mizzen topgallant yard, which you assembled in Stage 81.



2. Prepare the sail by adding a single block to each bottom corner. Tie a 600-mm length of thread to each bottom corner to form the sheets.



3. Sew the sail to the yard using the usual method. You will need a piece of thread about five times as long as the yard.



4. Cut 700 mm of thread and tie it to the centre of the yard to form the tye.

5



5. Feed the tie through the upper hole in the topgallant mast. Then pull the yard up so it is just below the octagonal collar.

6



6. Secure the tie to the middle pin on the mizzen mast belaying pin rack.

## Rigging the mizzen topgallant

Once again, use 0.25-mm natural thread throughout the rigging process.  
Omit Steps 1-4 for the bare spars option.

1

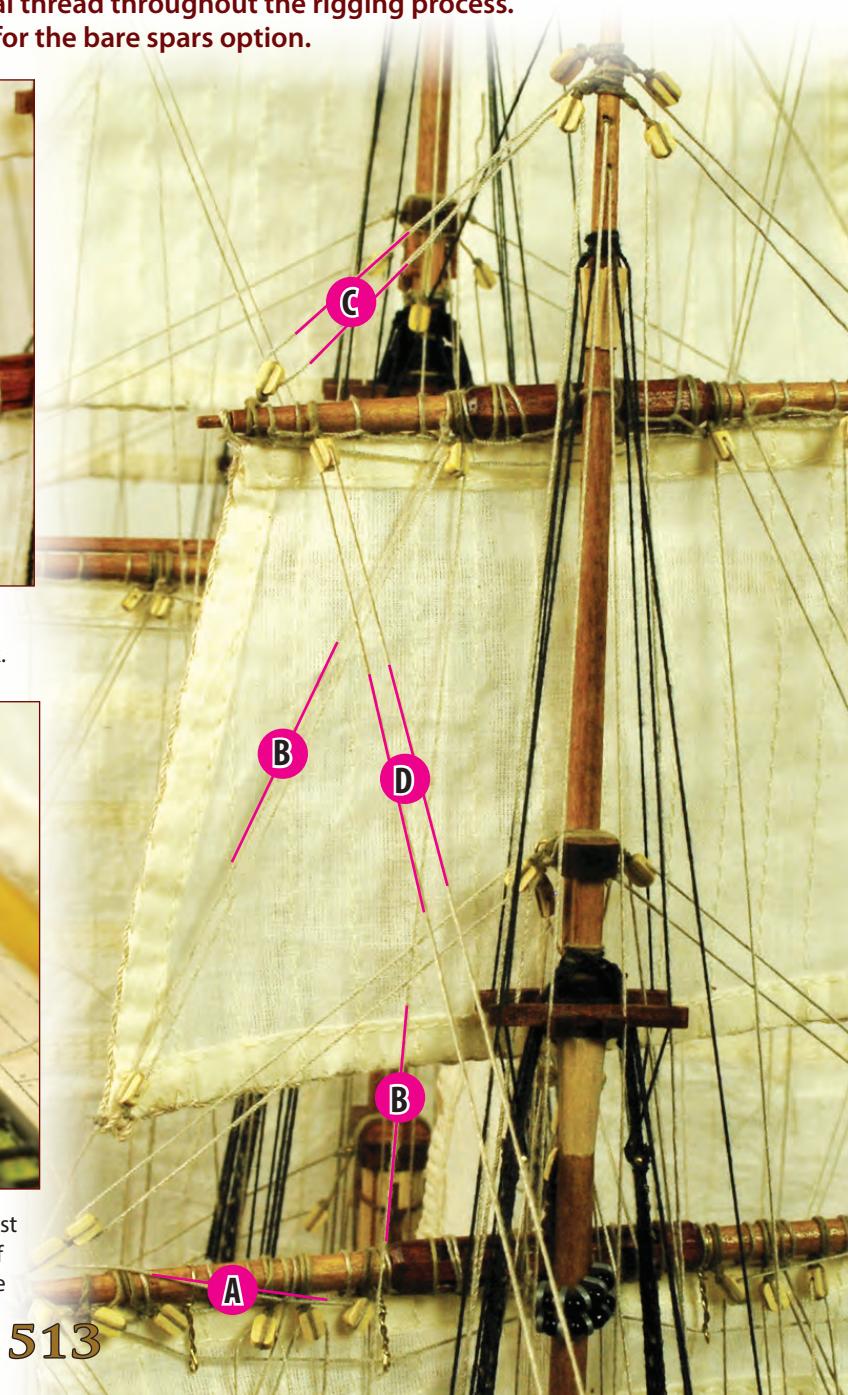


1. Feed the sheet (A) through the block on the end of the mizzen topsail yard, and then through the innermost block.

2



2. Secure the sheet to the outermost pin on the mizzen mast belaying pin rack. Repeat Steps 1 and 2 on the other side of the model and tension both sides at the same time to make sure the sail is even.





**3.** Cut a 750-mm length of thread for the clew line (B). Tie the end to the topgallant yard by the innermost block. Feed it through the block on the bottom corner of the sail, and then back up through the block on the yard.



**4.** Secure the clew line to the fourth mizzen mast shroud. Repeat Steps 3 and 4 on the other side of the model and tension both sides at the same time to make sure that the sail is even.



**5.** Cut a 650-mm length of thread for the lift (C). Tie this to the mast between the two pairs of blocks. Then take it through the block on the yard and back through the block on the mast.



**6.** Secure this thread to the aft shroud on the mizzen top. Repeat Steps 5 and 6 on the other side of the model and tension both sides at once to make sure the sail is even.



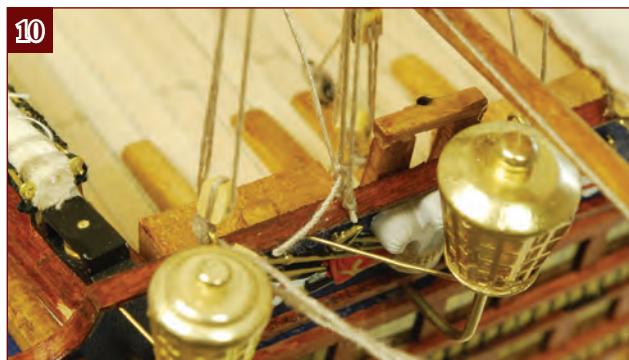
**7.** Cut a 92-inch length of thread for the brace (D). Tie this to the driver boom next to the brace for the mizzen topsail yard.



**8.** Take this thread up through the block near the end of the topgallant yard.



**9.** Take the threads back down through the unused hole in the double block on the driver boom.



**10.** Tie the thread off to the inboard eyebolt on the taffrail. Repeat Steps 7 to 10 on the other side of the model and tension both sides at once to make sure the sail is even.



**11.** To make the topgallant parrel ropes, tie a 250-mm length of thread to the topgallant yard, close to the centre.

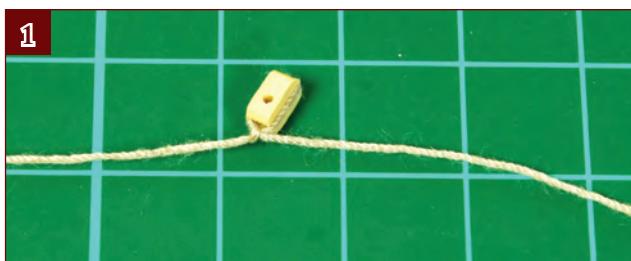
**QUICK TIP**  
The braces can be seen from alternative angles in the other two photos in this stage.



**12.** Feed this around the mast, being careful not to trap any of the other rigging, and tie it off to the other side of the yard. Repeat this on all three topgallant yards.

## Fitting the mizzen bowlines

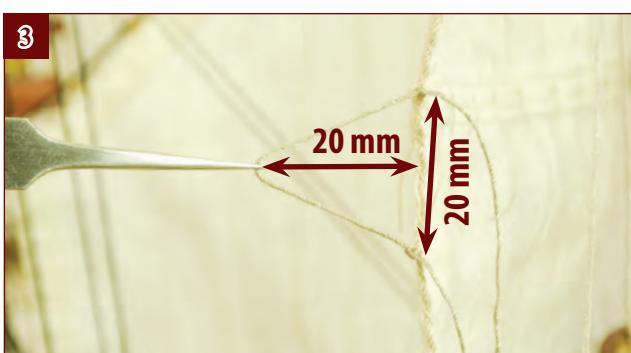
As these lines are only used to control the sails, omit all these steps for the bare spars option.  
Once again, use 0.25-mm natural thread throughout.



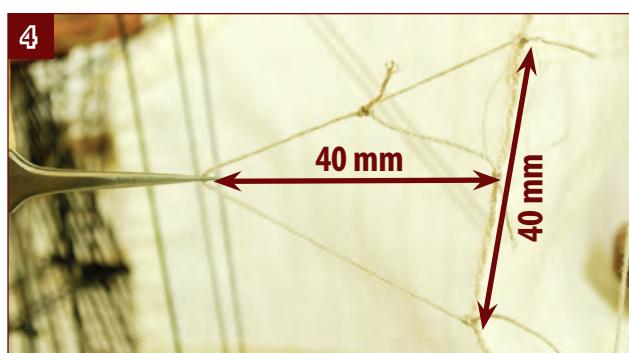
**1.** Tie a 100-mm length of thread to a single block (which was supplied in Stage 108).



**2.** Tie this block to the rearmost shroud on the main mast, just below the catharpins.



**3.** Tie a 150-mm length of thread to the edge of the mizzen topsail, level with the lower reefing band. Tie the other end to the sail, 20 mm lower down, so that you can pull out a triangle measuring 20 mm wide as shown.



**4.** Take another 150-mm thread and tie one end to the apex of the triangle. Do not over-tighten this knot as you may need to adjust its position in tensioning the bowline. Tie the other end 40 mm below the reefing band to make a triangle 40 mm wide.



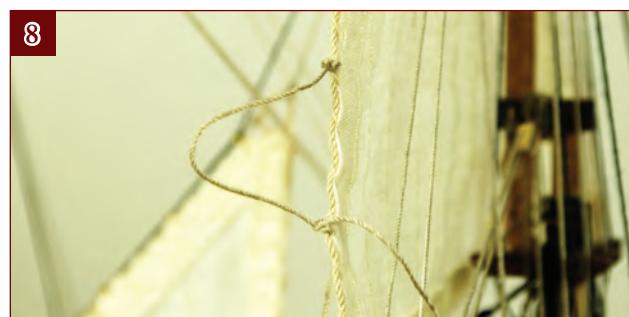
**5.** Take a 450-mm length of thread to make the topsail bowline (E) and tie one end to the apex of the larger triangle. Again, do not over-tighten this knot, so you can move it if necessary.



**6.** Feed the thread through the block fitted in Step 2.



**7.** Now take the thread down and secure it to the tenth shroud. Pull the thread tight and adjust the harness fitted in Steps 3 and 4 so all the legs are equally tight.



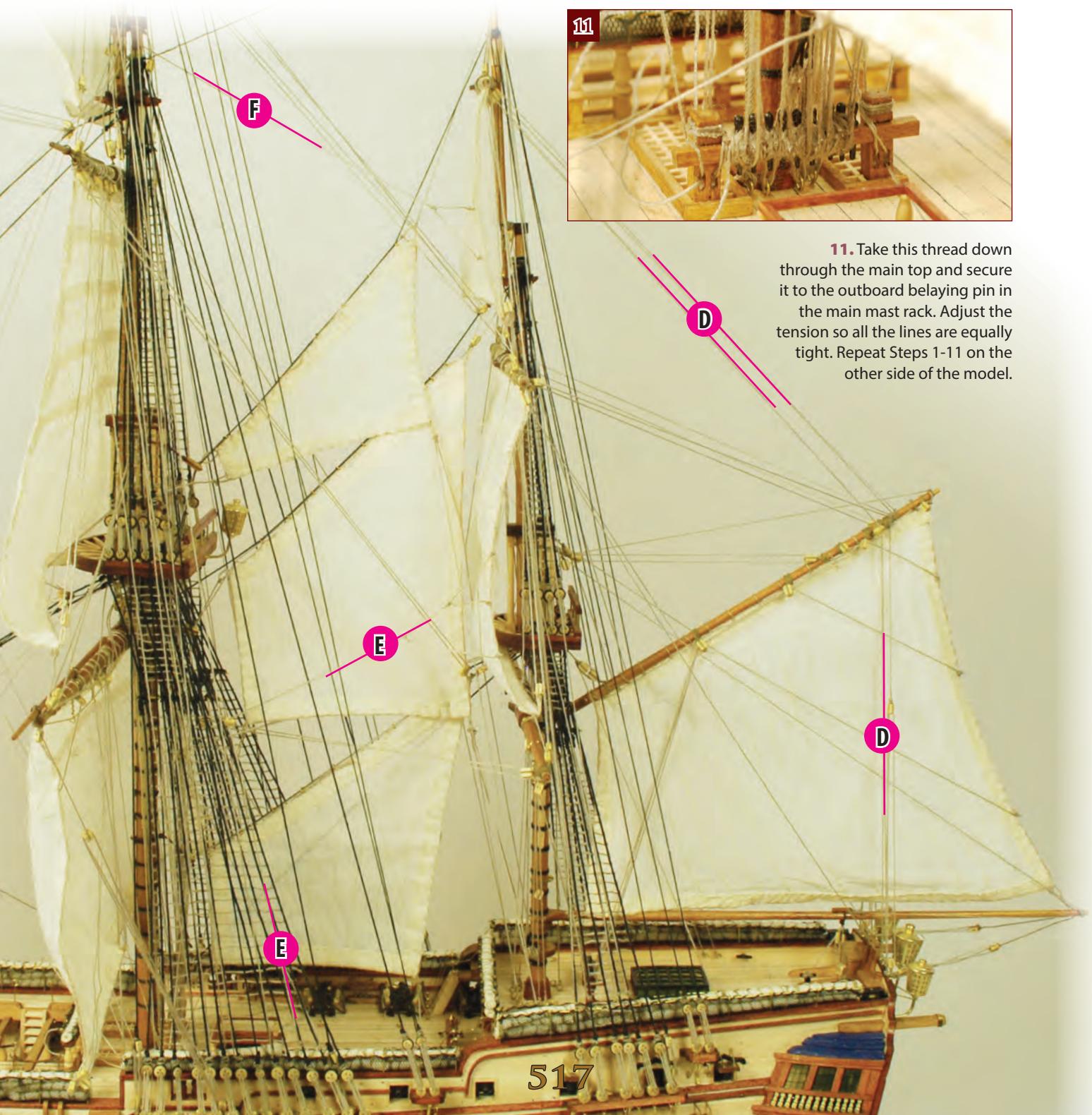
**8.** Tie a 150-mm length of thread to the middle of the edge of the topgallant sail. Tie the free end 20 mm below to form a triangle the same size as in Step 3.



**9.** Cut an 800-mm length of thread to make the topgallant bowline (F) and tie one end to the harness. Do not overtighten the knot, so you can adjust its position.



**10.** Feed the thread through the bracket on the side of the main mast topmast.



**11.** Take this thread down through the main top and secure it to the outboard belaying pin in the main mast rack. Adjust the tension so all the lines are equally tight. Repeat Steps 1-11 on the other side of the model.

# Stage 114: Fitting the anchors

This stage includes a kit to construct the fourth anchor, plus more dummy gun barrels and rigging parts.

## Fittings

double blocks 5 mm x 2  
dummy 32-pounder gun barrels x 6  
dummy 12-pounder gun barrels x 2  
die-cast anchor  
laser-cut parts for anchor stock x 2  
6-mm brass ring  
1.5-mm brown thread x 1 m  
0.15-mm brown thread x 500 mm



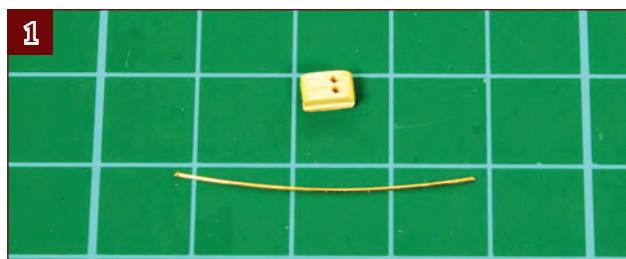
## Where the parts fit

Now that you have all the anchors, you can fit them to the hull. You will need the two anchors that you constructed in Stages 2 and 30, the anchor parts

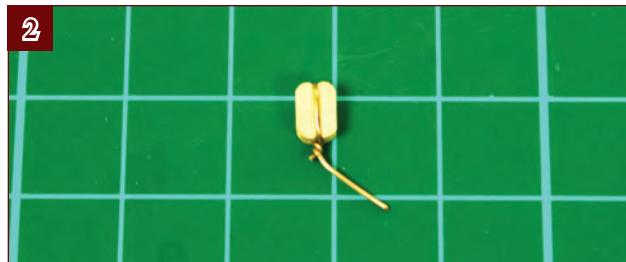
supplied with Stage 94 and this stage, plus the 0.8-mm and 0.15-mm brown thread provided with Stage 89, and some of the brass wire from Stage 113.

## Fitting the anchors

*Victory* carried four main anchors. The following steps describe how to fit the two on the port side of the model. Repeat all the instructions in mirror form to fit the anchors on the opposite side.



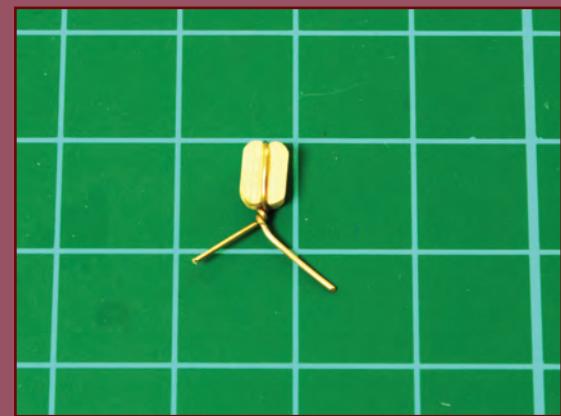
1. Take one of the double blocks, and cut a 30-mm length of the thin brass wire.



2. Wrap the wire around the block and twist the ends together to secure them, then cut off one leg.

### EXPERT TIP

The thin brass wire is much less likely to break when being twisted if you anneal (soften) the metal first. Hold it in a pair of pliers and use a candle flame to heat the wire thoroughly. Be careful not to burn yourself. Allow it to cool naturally and then clean off the tarnish. The wire should now be much easier to bend.





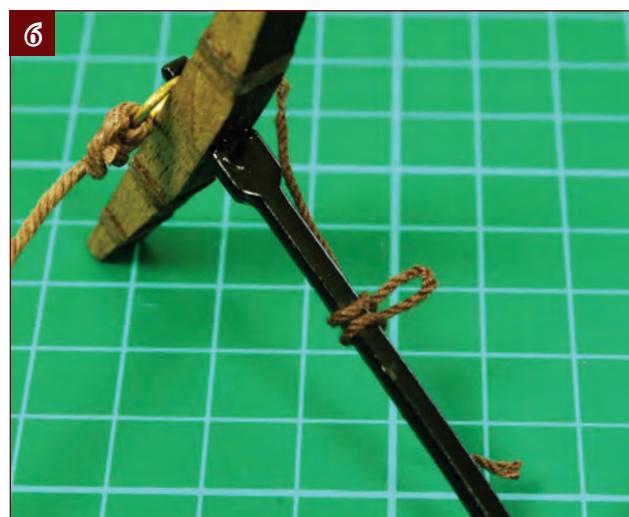
3. Use a pair of needle-nosed pliers to form the remaining leg into a neat hook. Shorten the leg as necessary.



4. Use a short piece of brown 0.8-mm thread to form a loop about 8 mm in diameter.



5. Take one of the anchors you previously assembled in Stage 2 or Stage 30.



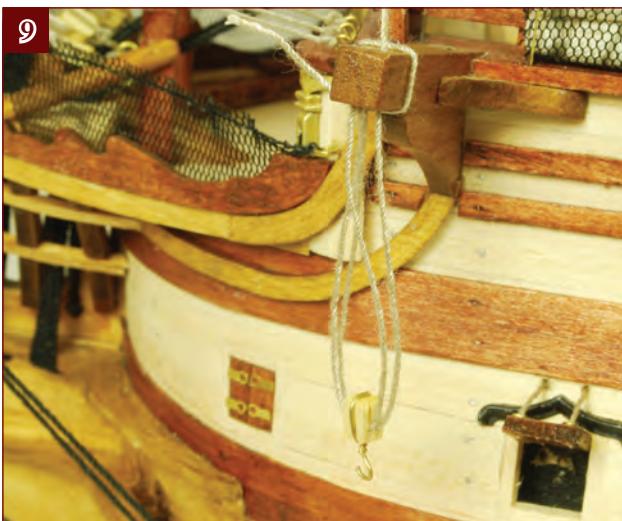
6. Fold the loop around the anchor shank, then tuck the centre of the loop back through itself.



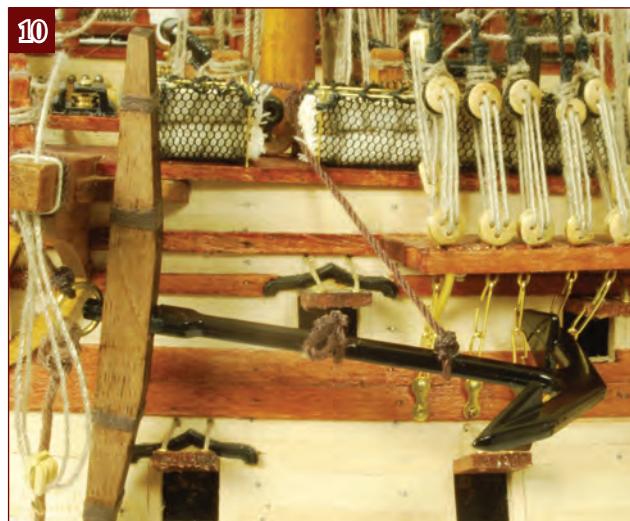
7. Tie a 200-mm length of 0.8-mm brown thread around the brass ring, and another around the bottom of the anchor shank. Seal and trim all the knots, including the loop in the middle.



8. Tie a 450-mm length of 0.25-mm natural thread around the end of the cathead.



**9.** Loosely rig the double block and hook to the cathead using the free end of the thread.



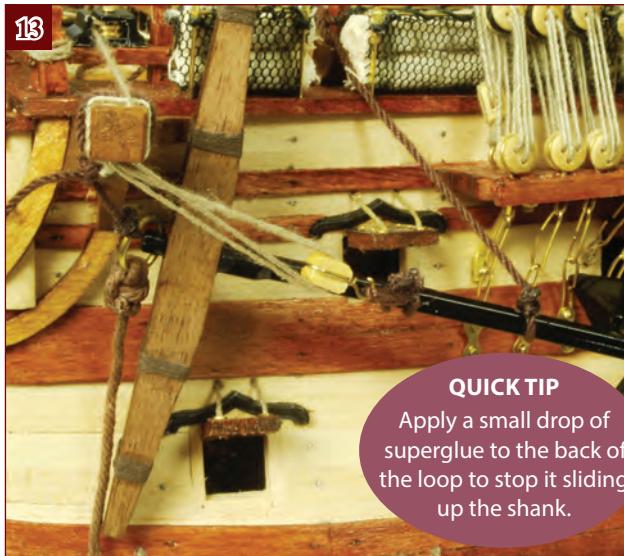
**10.** Lash the anchor in position as shown, securing the ropes as shown in Steps 11 and 12.



**11.** Tie the top of the anchor to the cathead. Wrap the thread around the cathead twice and secure it with two half-hitches.



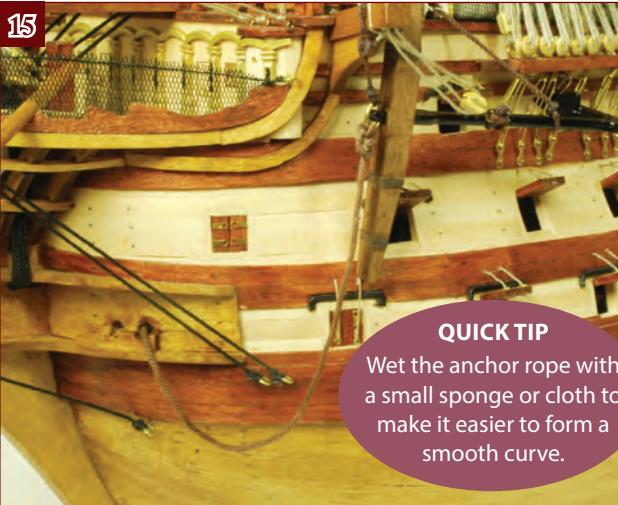
**12.** Tie the bottom end of the anchor to the timberhead just aft of the carronade. Secure the thread with a clove hitch.



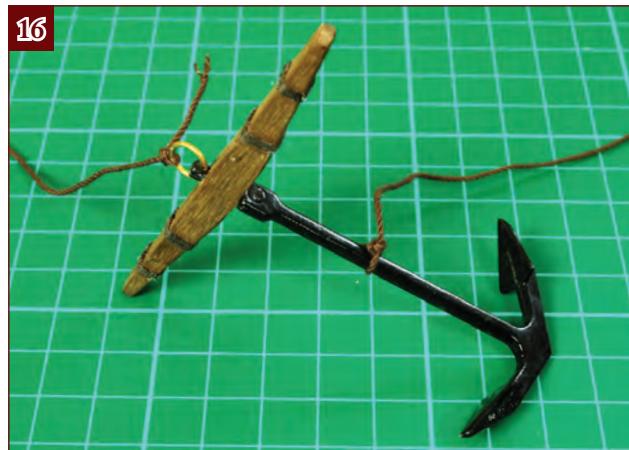
**13.** Hook the double block to the loop of thread on the anchor stock, and then tighten the rigging.



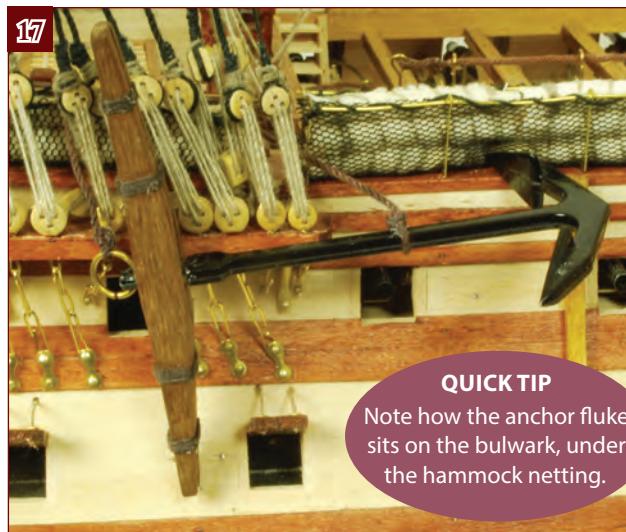
**14.** Take the thread through the snatch block and secure it to the timberhead aft of the block, using a clove hitch.



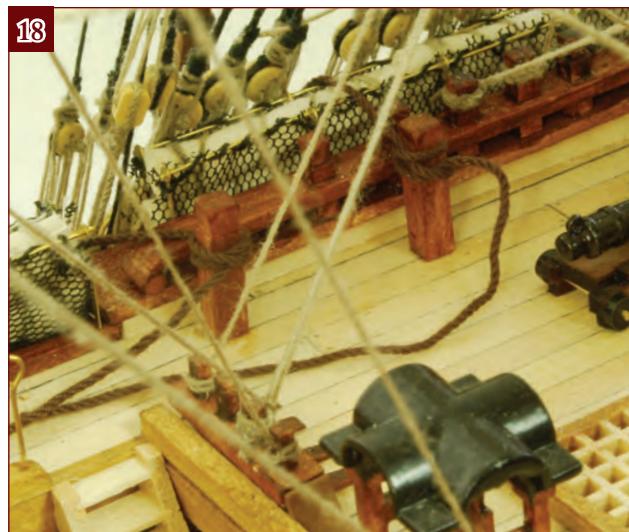
**15.** Cut the anchor rope to length, leaving some slack hanging down, and glue the end inside the hawse hole.



**16.** Assemble another anchor using the instructions from Stage 30. There is no need to attach an anchor rope, but tie on two 200-mm lengths of 0.8-mm brown thread – one to the brass ring and the other about halfway along the shank.



**17.** Position the anchor over the fore chainwale as shown, and lash it in place as in the next step.



**18.** Tie both threads to the bitts using clove hitches. Now repeat all the steps on the other side of the hull.



## Adding the bowsprit yard braces

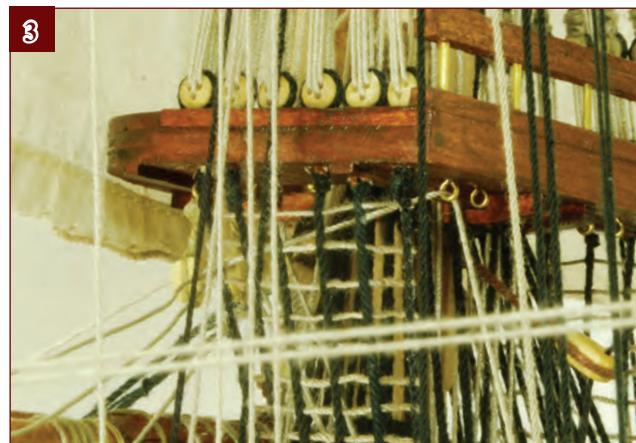
These four lines, which control the position of the two bowsprit yards, should be added whether or not you are fitting sails. Once again, use 0.25-mm natural thread throughout.



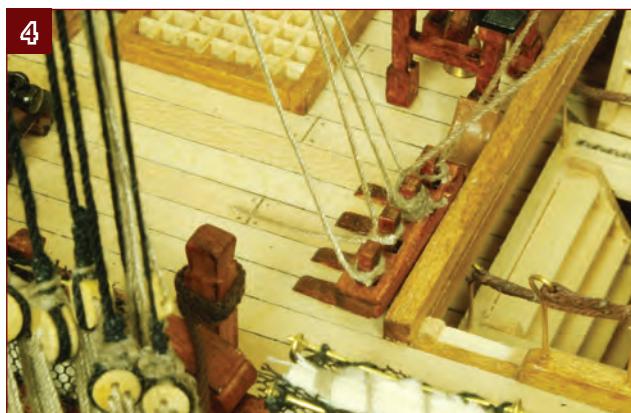
1. To make the spritsail yard brace (A), take a 750-mm length of thread and tie it to the end of the spritsail yard.



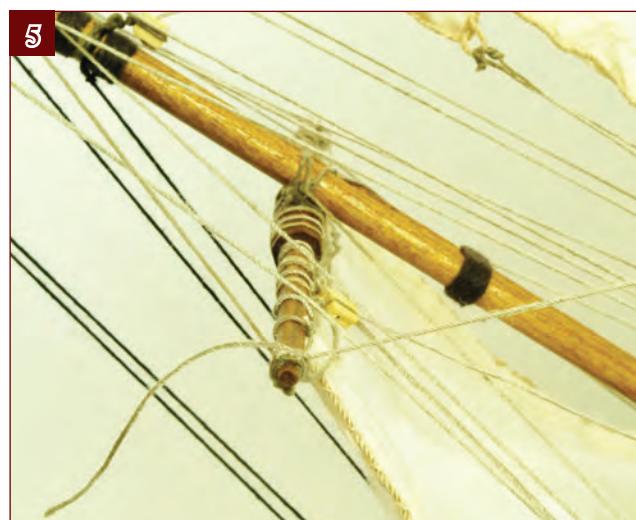
2. Feed this thread through the outer hole in the outer (double) block under the foretop.



3. Feed the thread through the outer eyebolt under the foretop, then down to deck level.



4. Secure the end of the thread to the second pin from the end of the cockpit pinrail. Then repeat Steps 1-4 on the other side of the model.



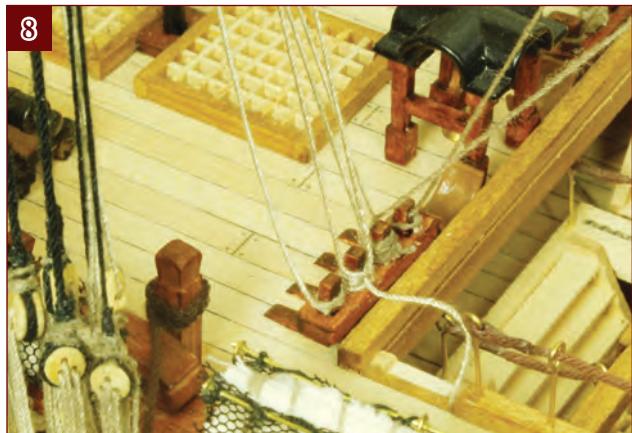
5. To make the spritsail topsail yard brace (B), take an 850-mm length of thread and tie one end to the tip of the spritsail topsail yard.



6. Feed the free end through the inner hole of the outer double block used in Step 2.



7



8



**7.** Take the thread through the inner eyebolt under the fore top, then down to deck level.

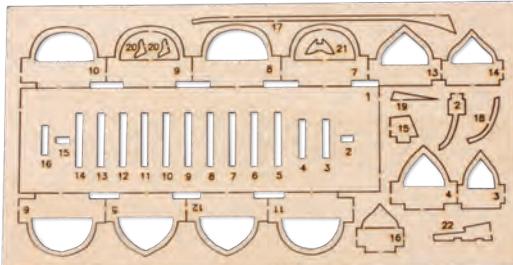
**8.** Secure the thread to the same pin you used in Step 4. Then repeat Steps 5-8 on the other side of the model.

# Stage 115: Continuing the bowlines

This stage includes the laser-cut parts to construct *Victory*'s pinnace, plus rigging parts and dummy guns and port covers.

## Fittings

single blocks 4 mm x 4  
8 x dummy 12-pounder guns  
laser-cut frames for pinnace



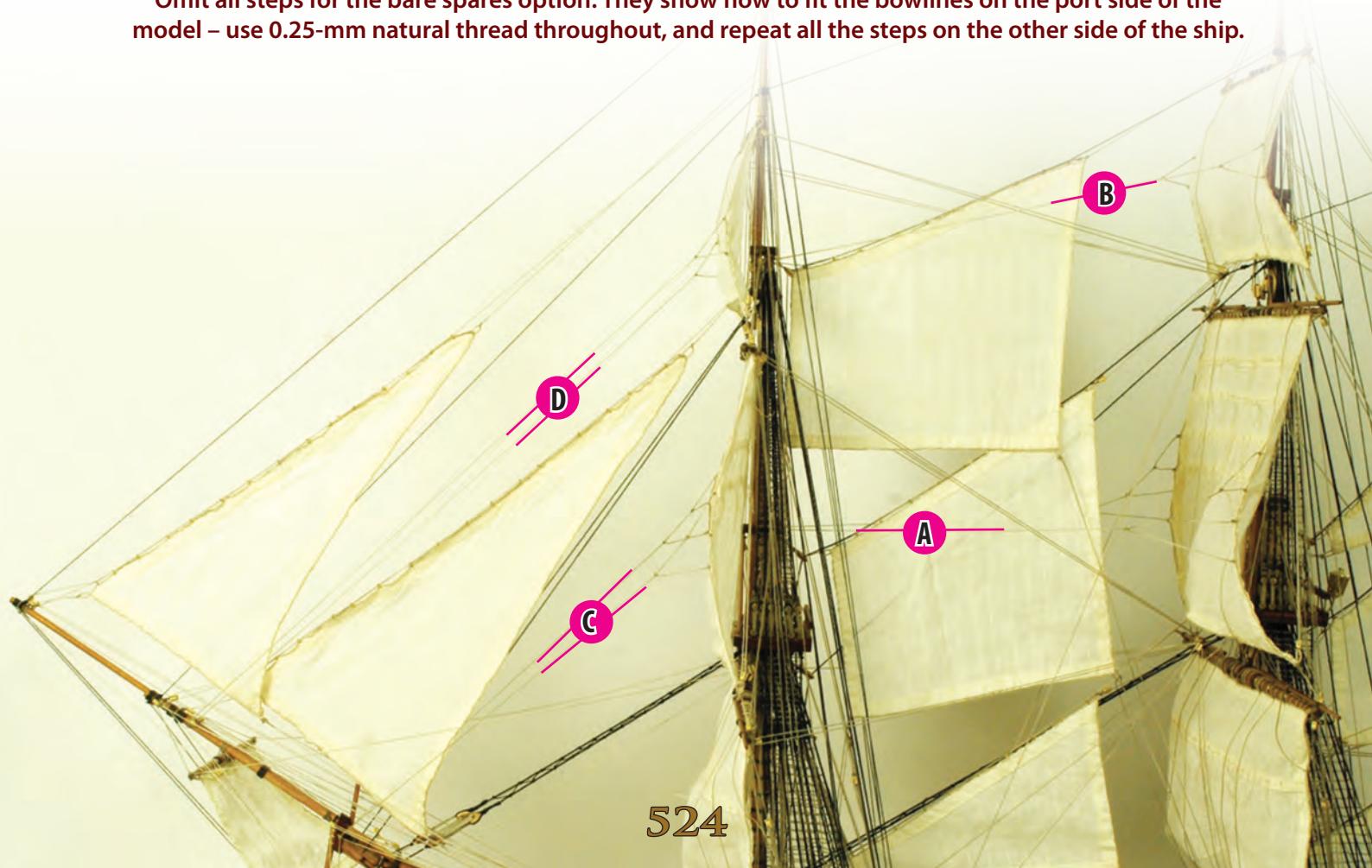
## Where the parts fit

If you have fitted sails to your model, start by adding bowlines to them as shown over the next four pages. If you are building a bare spars model, you can

skip these pages and start assembling the third of the ship's boats, the 28-foot pinnace. The internal fittings for this will be added at a later stage.

## Continuing the bowlines

Omit all steps for the bare spares option. They show how to fit the bowlines on the port side of the model – use 0.25-mm natural thread throughout, and repeat all the steps on the other side of the ship.

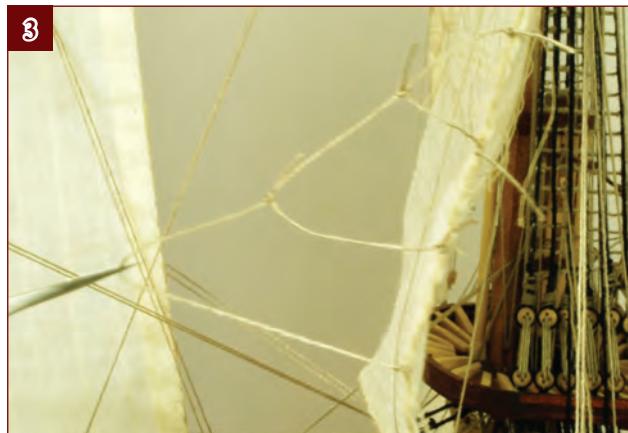




**1.** To make the main topsail bowline (A), tie a 150-mm thread to the topsail level with the third reefing band. Tie the free end 20 mm lower down so that it forms a harness 20 mm x 20 mm, similar to the previous harnesses.



**2.** Tie a 150-mm thread from the centre of this harness to the topsail, to form a triangle 40 mm x 40 mm.



**3.** Now tie a third thread, 200 mm long, to form a triangle 60 mm x 60 mm.



**4.** Take a 700-mm length of thread and tie one end to the harness you have just completed.



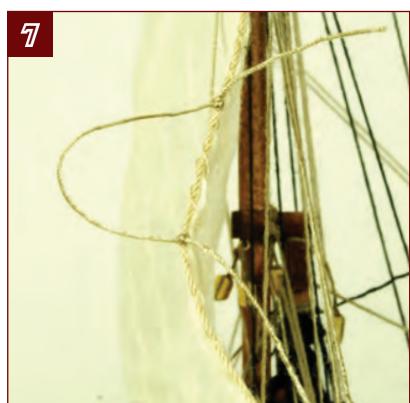
**QUICK TIP**

It can be tricky to feed this line down the mast due to the number of threads already there. You may wish to simplify this step by tying the thread to the fore mast cap.

**5.** Feed the thread through the eyebolt on the fore mast cap. Then feed it down through the fore top.



**6.** Feed the thread through the outer slot in the aft fore mast pinrail post. Tension and adjust it as necessary. Secure the thread round the top of this post. Seal and trim all the knots.



**7.** To make the main topgallant bowline (B), tie 150 mm of thread about halfway down the side of the topgallant sail. Tie the other end lower down to form a triangle 20 mm x 20 mm.



**8.** Tie a 950-mm length of thread to this harness.

9



9. Feed this thread through the bracket on the fore mast, just above the crosstrees. Then feed it down through the fore top. You can simplify the step by tying the thread to the fore mast.

10



10. Secure the thread to the second belaying pin from the end of the pinrail in front of the fore mast.

11



11. To make the fore topsail bowline (C), tie a  $20 \times 20$  mm harness to the sail as before. Align the top of the harness with the bottom reefing band.

12



12. Add another thread to make the  $40 \times 40$  mm harness.

13

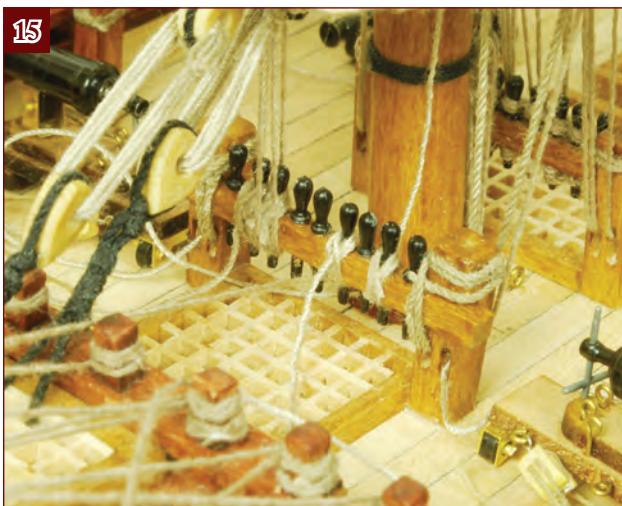


13. Tie an 800-mm length of thread for the bowline.

14



14. Feed this thread through the eyebolt on the bowsprit cap.



**15.** Secure the thread to the belaying pin just to the left (port) of centre. The thread for the starboard (right) bowline should be secured to the centre belaying pin.



**16.** To make the fore topgallant sail bowline (D), tie two of the 4-mm single blocks to the jibboom, just below the bindings. One block should point to port and one to starboard.



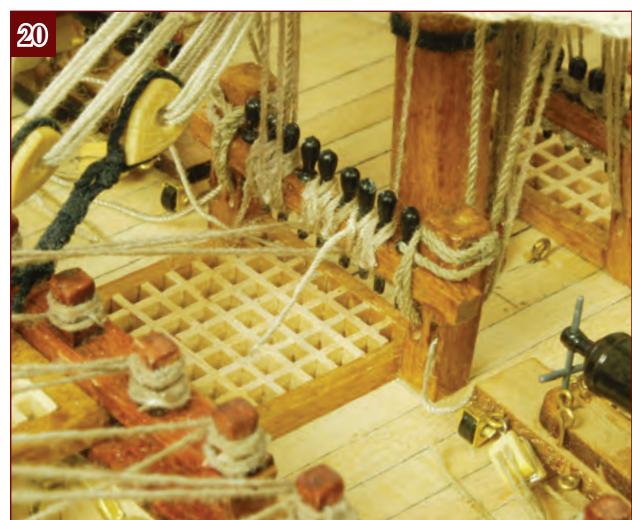
**17.** Tie a 20 mm x 20 mm harness to the fore topgallant sail, in the same way you tied the harness to the main topgallant sail.



**18.** Tie a 1,050-mm thread to the harness.



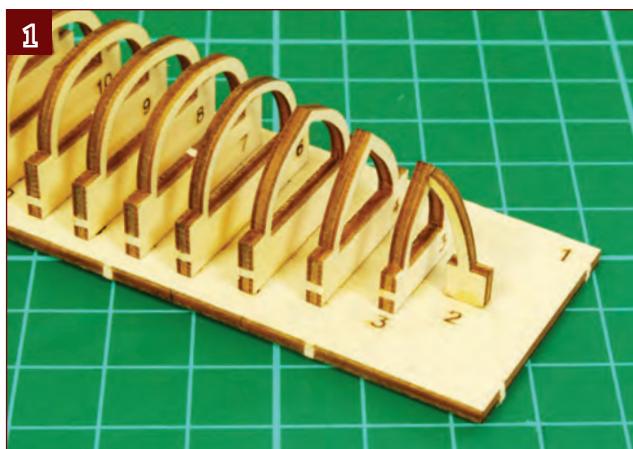
**19.** Feed the thread through the blocks that were just fitted to the jibboom.



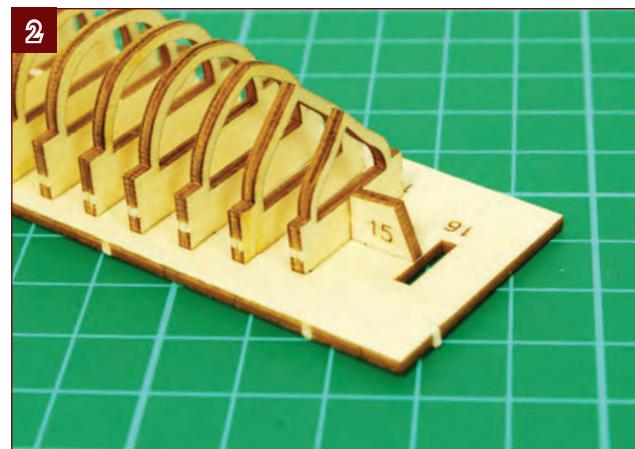
**20.** Bring the thread back and secure it to the third belaying pin from the left. Secure the starboard (right) bowline to the fourth belaying pin from the right (a currently vacant pin).

## Start making the 28-foot pinnace

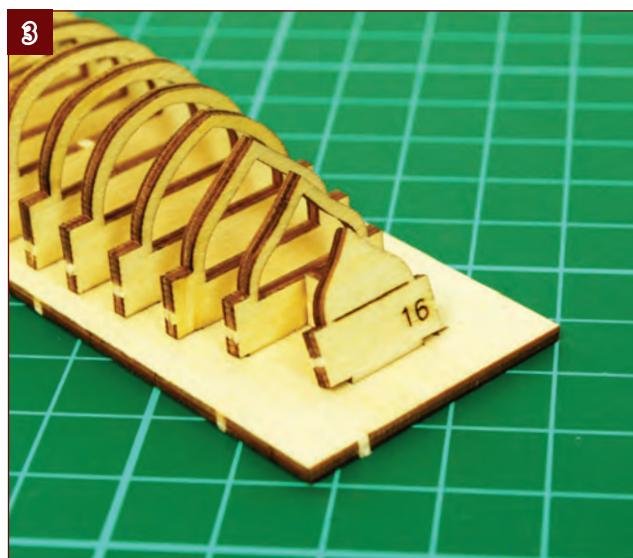
The construction is similar to that done in Stages 6, 7 and 109, which may be useful for reference. You can use superglue for the assembly, but use it sparingly to avoid gluing your fingers to the planks.



**1.** Glue frames 2 to 14 in the numbered slots on the base. Make sure that they are all vertical and that the tip of the bow lines up with the point of frame 3.



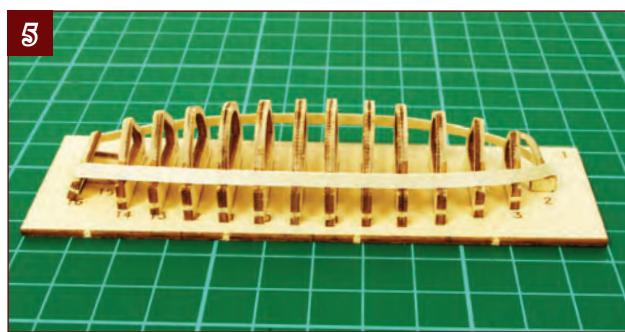
**2.** Glue part 15 to the base. This is only used to set the angle of the transom, so make sure it is glued only to the base, not to frame 14.



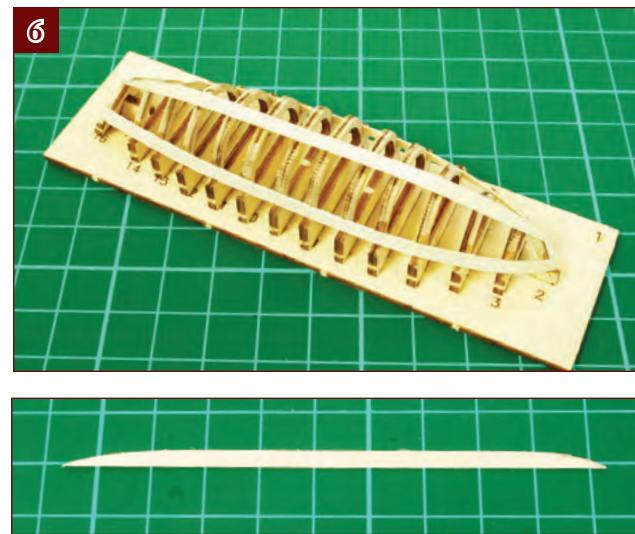
**3.** Chamfer the tab on the transom and glue it into the slot in the base. Do not glue it to part 15, and make sure that the etched line is on the outside.



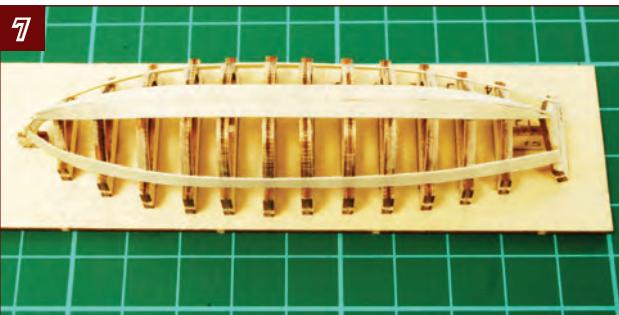
**4.** Use fine sandpaper to fair the frames in a smooth curve so that the planks will sit evenly on them.



**5.** Use the 0.6 x 3-mm planks to plank the pinnace. Fit the first plank so that it sits on the ledge of the frames. Repeat on the other side of the model.



**6.** Curve the ends of the garboard plank in a similar way to the one in the picture above before gluing it on one side of the centre line.



7. Fit the other garboard plank to the other side of the model.



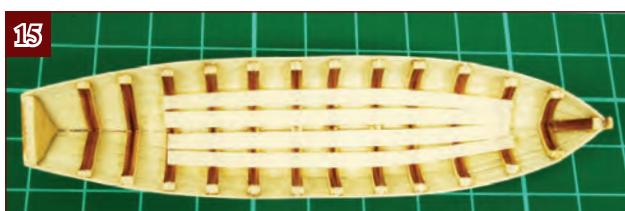
9. The pinnace with all the planks fitted.



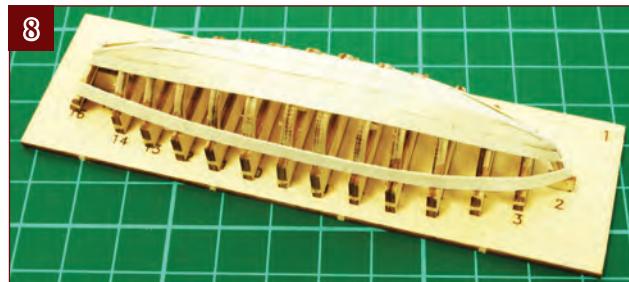
11. Carefully cut the model away from the base with a razor saw, taking care not to damage the planking.



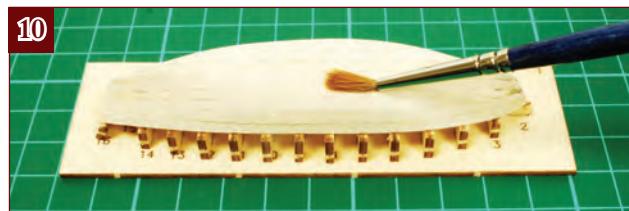
13. Sand the bow, where the keel will fit, until frame 2 just starts to show through the planks. Then glue the main part of the keel in place. The easiest way to do this is to hold it in place with tape and apply superglue to the join with a cocktail stick. Refer to Stage 109 for more details.



15. Fit four footboards to the bottom of the boat between frames 4 and 12, using the 0.6 x 3-mm planks.



8. Continue to plank the pinnace, working from the keel to the bulwark. You will need to taper the planks to get a good fit.



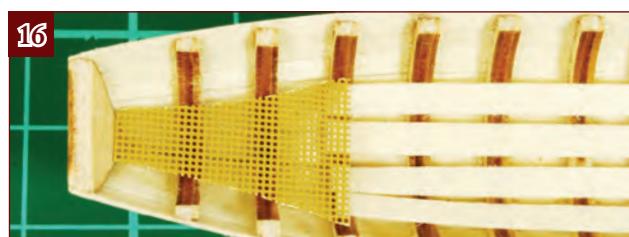
10. Once you have finished planking the model, lightly sand it to remove any marks and to smooth the hull. Be careful not to sand through the planks as they are very thin. Give the hull a coat of sanding sealer. Let this dry and then give the hull a final light sanding.



12. Sand the tops of the frames flush with the bulwark, and sand the transom back to the etched line. You may need to sand the tops of the planks to get a smooth line to the transom.



14. Fit the bow part of the keel in the same way.



16. Cut the grating to fit as shown and glue it in place.

# Stage 116: Rigging the davits

This stage includes the parts to make *Victory's* quarter davits, plus more dummy guns.

## Fittings

10 x dummy 12-pounder guns

single blocks 4 mm x 2

brass strip 0.3 x 2 mm, 50 mm long

brass eyebolts 7 mm x 6

brass pins x 4

cleats, brass x 2

cleats, black x 2

## Wooden strips

1 wooden strip 2 x 2 mm, 150 mm long

1 wooden strip 3 x 3 mm, 130 mm long



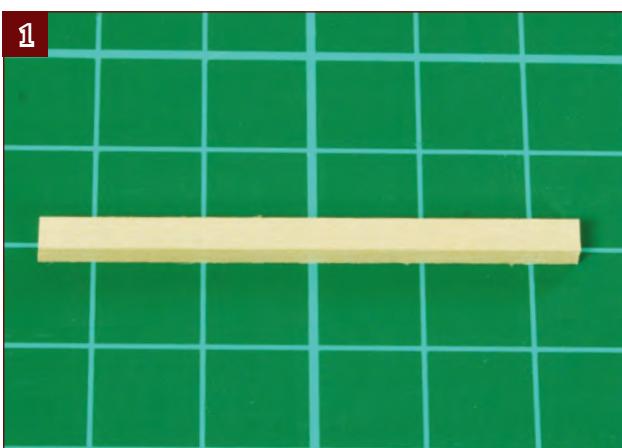
## Where the parts fit

Use the parts supplied this time, and fittings you have already received, to make and rig the quarter davits used to launch the ship's boats from the sides of the hull. You have the option of fitting the davits in their vertical, stowed position, or in their horizontal position, ready for use (see the 'Rigging the davits' section later in this

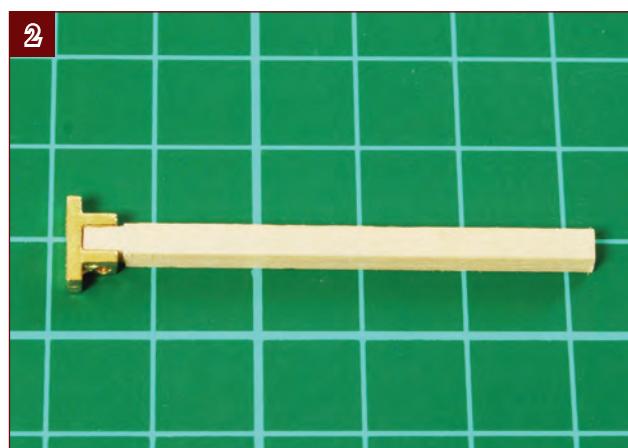
stage). If you are fitting the davits in the stowed position, you need to omit the cleats and block and tackle used to raise and lower the boats. The main demonstration shows how to rig the davits in the stowed position, but there are additional instructions if you have chosen to fit them in the alternative, lower position.

## Making the quarter davits

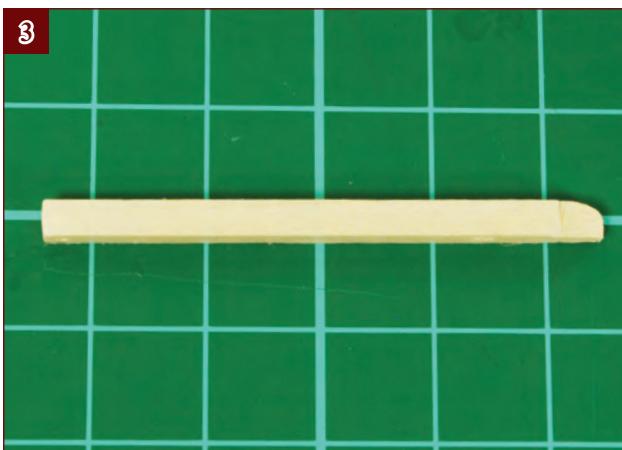
Make four identical davits following these steps. You will need the parts supplied this time and similar materials provided in Stage 104.



1. Take the 3 x 3-mm wood and cut four 48-mm lengths to form the davit arms.



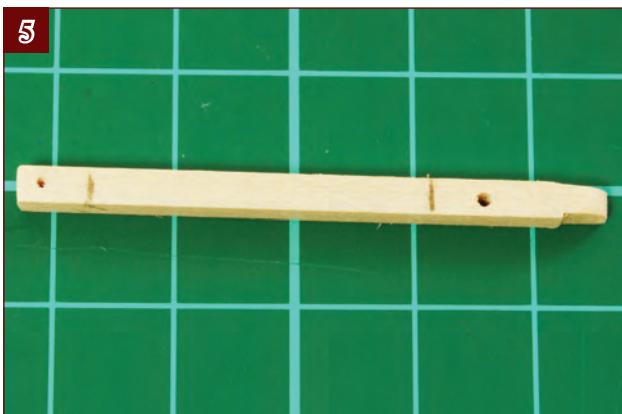
2. Cut back 3.5 mm of the end of the arm on two sides so that the davit will slide between the tabs of the hinge.



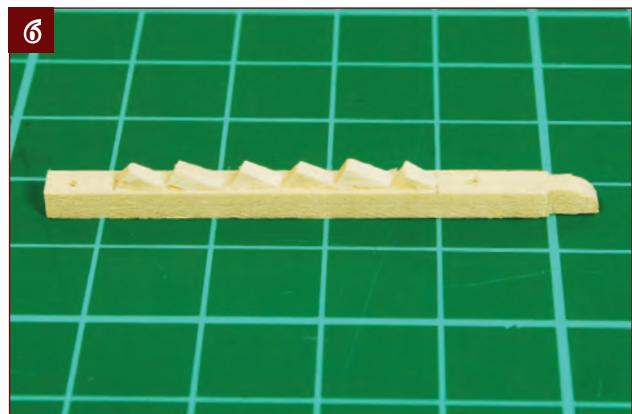
3. Sand a radius on the top of the narrowed end, so that it can hinge upward.



4. Drill a 0.7-mm hole 2 mm from the plain end of the davit arm. If you are fitting the davits in their lowered position (see the 'Rigging the davits' section), drill a 1.2-mm hole, 10 mm from the narrowed end.



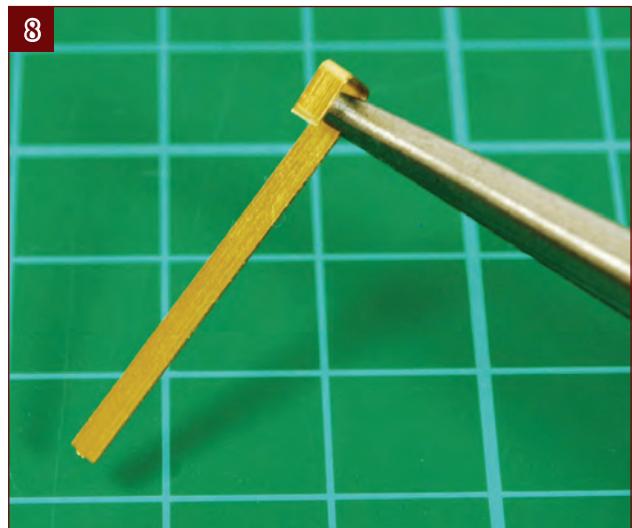
5. Draw a light pencil line 15 mm from the thinned end, and 6 mm from the other end. These are used to position the footholds shown in the next step.



6. Cut small triangles of wood from the 2 x 2-mm strip, so that you can glue six footholds to the upper side, evenly spaced between the marks drawn in Step 5.



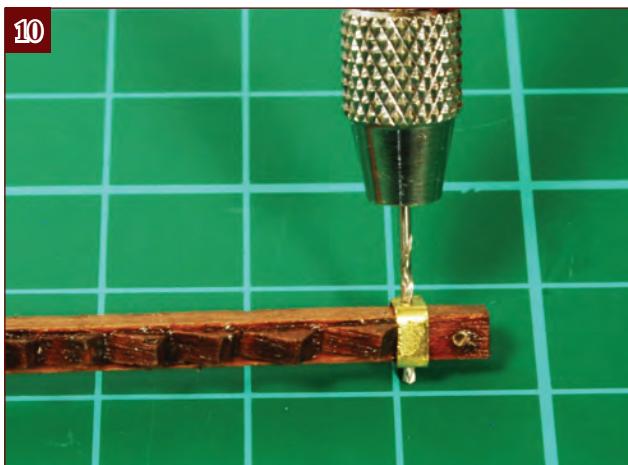
7. For the natural finish model, stain the wood walnut to match the wales.



8. Form a 3-mm square on the end of the brass strip, using a pair of long-nosed pliers.



9. Cut the brass square off the end of the strip and glue it onto the davit arm using superglue.



10. Drill a 0.7-mm hole in each side of the davit, right through the brass square.



11. Cut down the shanks of the eyebolts to 1.5 mm, and glue them into the holes so that they lie in line with the direction of the arm.

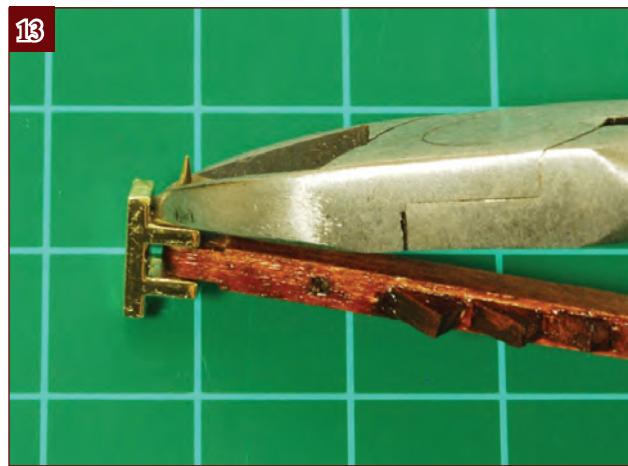
### Painted option

For the painted version, finish the davit arm, brass strip and eyebolts with black paint before you fit the hinge, which should be left unpainted.



**QUICK TIP**  
Drill a 0.3-mm pilot hole to stop the wood from splitting.

12. Fit the davit between the tabs of the hinge, and insert a nail to act as a pivot.



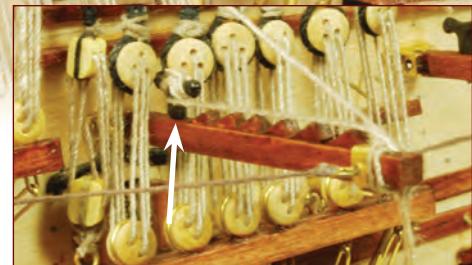
13. Cut the tip off the nail, being careful not to let the cut end fly off.

## Rigging the davits

The optional cleats shown below are supplied in this stage and Stage 104. You will also need 0.25-mm brown thread from Stage 91. Repeat all the steps to complete the davits on the other side of the model.



The davits pivot from hinges on the sides of the ship. Before fitting them, choose whether to model the davits raised and stowed back against the shrouds, or in their lowered position (inset). If you choose to raise them, omit the cleats used to secure the falls (arrowed), as these stop the arms from being raised fully.



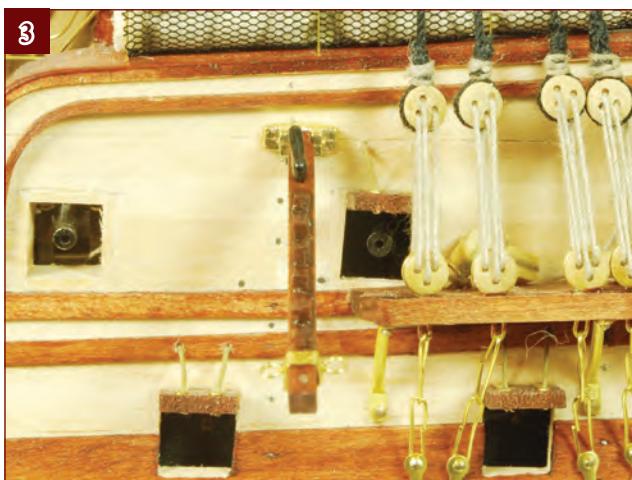
**1.** If you are fitting the davits in their lowered position, glue the cleats into the upper side of the 1.2-mm holes you drilled in Step 4 of the 'Making the quarter davits' section earlier in this stage.



**2.** File the base of the hinge casting to remove any mould line. Then glue the first davit to the hull between the fifth and sixth mizzen shrouds, just above the wriggle.

### QUICK TIP

The cleats are shown in position to demonstrate the lowered option, but cannot be fitted if you wish to raise the arms to the vertical.



3. File the base of the hinge on the second davit flat and glue this in place as shown.



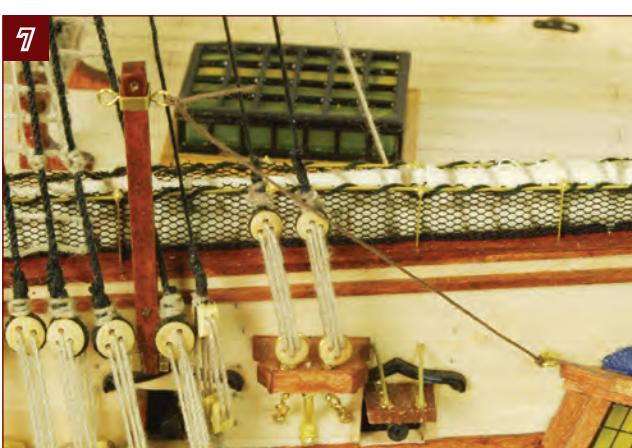
4. Fit an eyebolt just behind the small main mast chainwale.



5. Fit another eyebolt by the top of the gallery.



6. Using the 0.25-mm brown thread, rig the forward davit arm to the forward eyebolt. Ensure that you have the arm in its final vertical or horizontal position when you tension the thread.



7. Rig the aft davit arm to the aft eyebolt in the same way.



8. Tie a length of thread between the eyebolts on the arms.



**9.** Tie a length of natural 0.25-mm thread to the tips of both davit arms. Take it around behind the shrouds so that its two sides can be pulled into a triangle as shown. If you are fitting the davits in the vertical, stowed position, the triangle needs to measure about 35 mm from base to apex. For davits in the horizontal position, it needs to measure about 80 mm.



**10.** Tie a 300-mm length of natural 0.25-mm thread to the thread just fitted. Do not overtighten this knot, so its position can be adjusted as necessary.



**11.** Feed this thread through the block on the mizzen mast, and then secure the thread to the front port (left) belaying pin. Seal and trim all knots.



**12.** If you have fitted the davits in the lowered position, you can add a block and tackle to each arm. Tie a 200-mm length of 0.25-mm natural thread to the end of the davit arm. Feed the thread through the block, up through the hole in the end of the davit arm, and secure it to the cleat.

# Stage 117: Rigging the lower sails' sheets and tacks

This stage includes pieces to assemble the last spars fitted to your model *Victory*, the lower studdingsail booms – plus more dummy gun barrels and the rudder chains.

## Wooden strips

2 wooden dowels 3 mm, 230 mm long



## Fittings

4 x dummy 12-pounder guns  
brass strip 0.3 x 2 mm, 120 mm long  
brass wire 0.5 mm, 50 mm long  
brass eyebolts 10 mm x 3  
brass chain x 400 mm



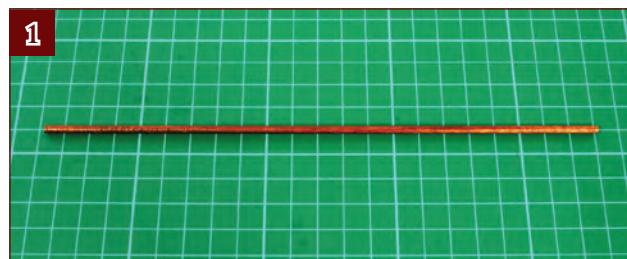
## Where the parts fit

Use the dowels, brass strip and wire supplied this time to make the studdingsail booms that hinge out from the main chainwales. Then fit eyebolts to the hull so that you can rig the lines that control the lower yards and sails. If you are making a bare spars model, you

can omit the lines that are attached to the sails, but you should include all those that are fixed to the booms, as detailed in the steps. The rudder chains and the dummy gun barrels will be fitted at a later stage, so keep them to the side for now.

## Fitting the lower studdingsail booms

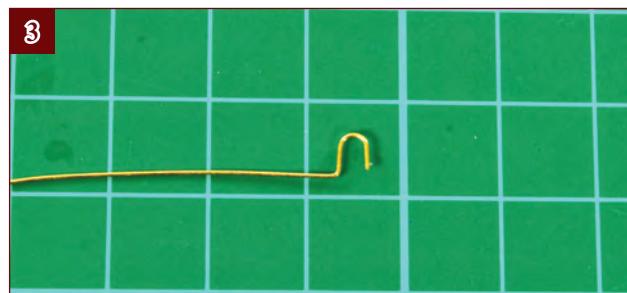
The steps illustrate one side of the model only. Repeat all steps on the other side.



1. Cut a 218-mm length from the 3-mm dowel and stain it walnut unless you are following the painted option.



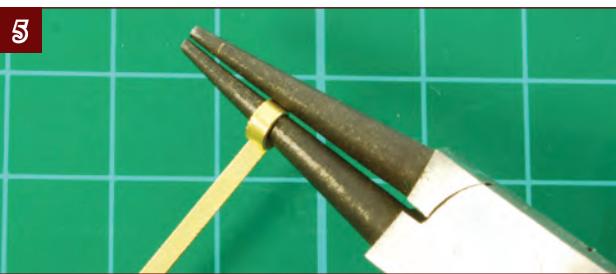
2. Bend a 3-mm-diameter 'U' in the brass wire. A pair of round-nosed pliers will make this easier.



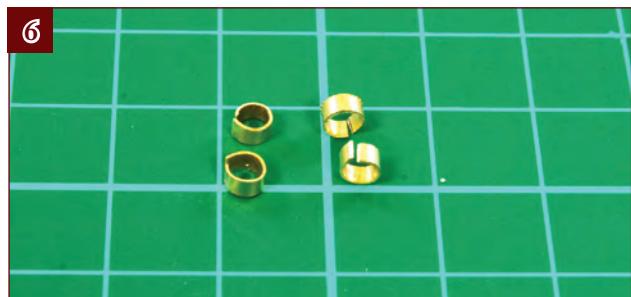
3. Bend the long leg back at a right angle.



4. Cut the excess wire, leaving a leg of about 5 mm.



5. Bend 3-mm-diameter rings from the brass strip. Again, round-nosed pliers will make this easy.



6. You will need to make four rings.



7. Glue a ring to one end of the boom.

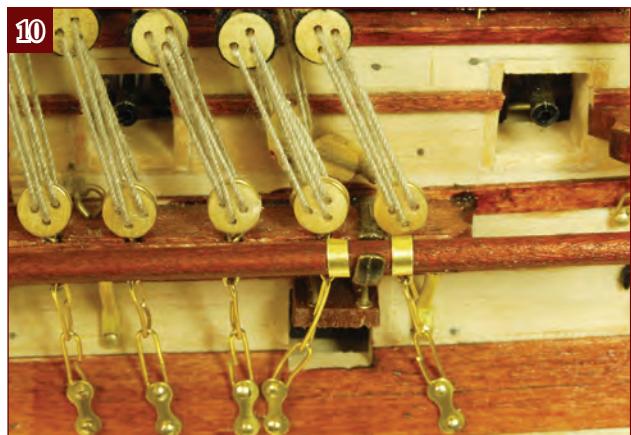


8. Drill a 0.5-mm hole in the end of the boom and glue the hook in place.

**QUICK TIP**  
Ensure the join in the ring is at the bottom when the hook is this way up.



9. Place the hook through the hole in the fitting on the main chainwale. (Simply place the hook over the fitting if you did not choose to drill the hole when you installed the fitting.) Do not glue the boom in place yet.



10. Fit a brass ring on each side of the boom support. Remove the boom, being careful not to move the rings, and glue them in position. Make sure that the joins are at the bottom.



11. Glue the last ring to the far end of the boom.



12. Glue the boom in position, applying superglue to the hook and to the support fitting.

### Painted option

If you are building a painted model, finish the whole of the boom and fittings with black paint.



## Fitting the barrels

To mount the barrels assembled in Stage 19 on deck, apply a little glue to the bottoms of the support beams and place the barrel assembly in front of the compass binnacle.



## Fitting eyebolts to the hull

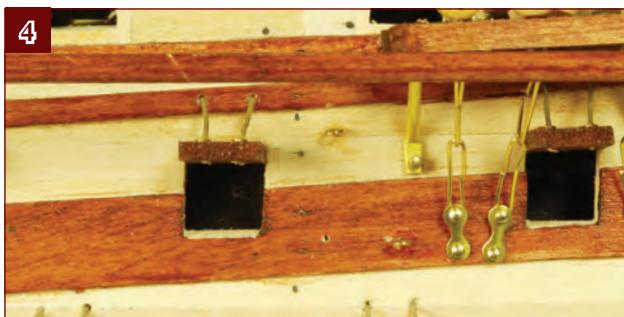
Several eyebolts (supplied with Stage 110) need to be fitted to the hull to hold the rigging. The steps show one side only, so repeat the instructions to fit eyebolts to both sides of the hull.



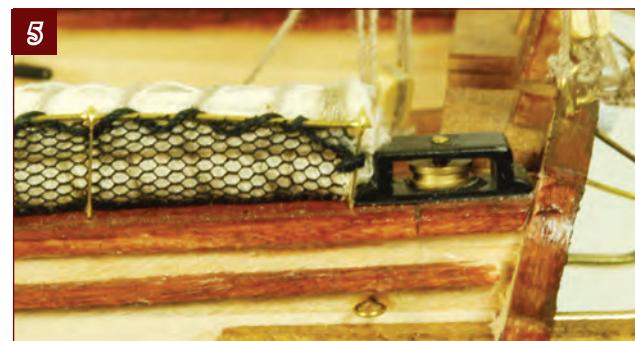
1. Fit two eyebolts to the bow, one just below the decoration and one below the front of the dolphin.

2. Fit an eyebolt above the first open middle gun port.

3. Fit two eyebolts by the fifth upper gun port, and another two by the seventh upper gun port.



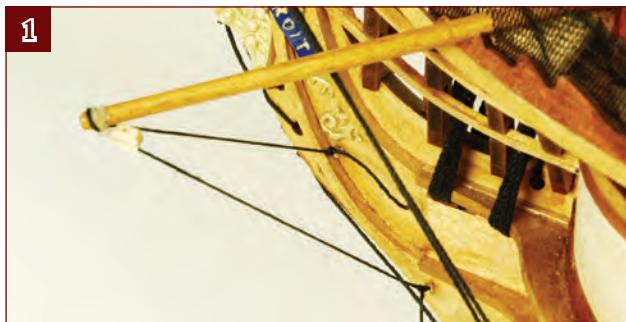
4. Fit two more eyebolts between the 13th and 14th upper deck gun ports.



5. Fit an eyebolt below the aft pulley block.

# Rigging the lower sails' sheets and tacks

The steps describe one side only, so repeat the entire sequence to complete the rigging on the other side of the model. Use 0.25-mm natural thread throughout, except for the boomkin stays (Step 1). For a bare-spars model, omit all but Steps 1 and 19-22.



**1.** Use 0.25-mm black thread to make the boomkin stays. Tie the thread to one eyebolt on the stem, then tie it to the end of the boomkin, and finally, back to the other eyebolt.



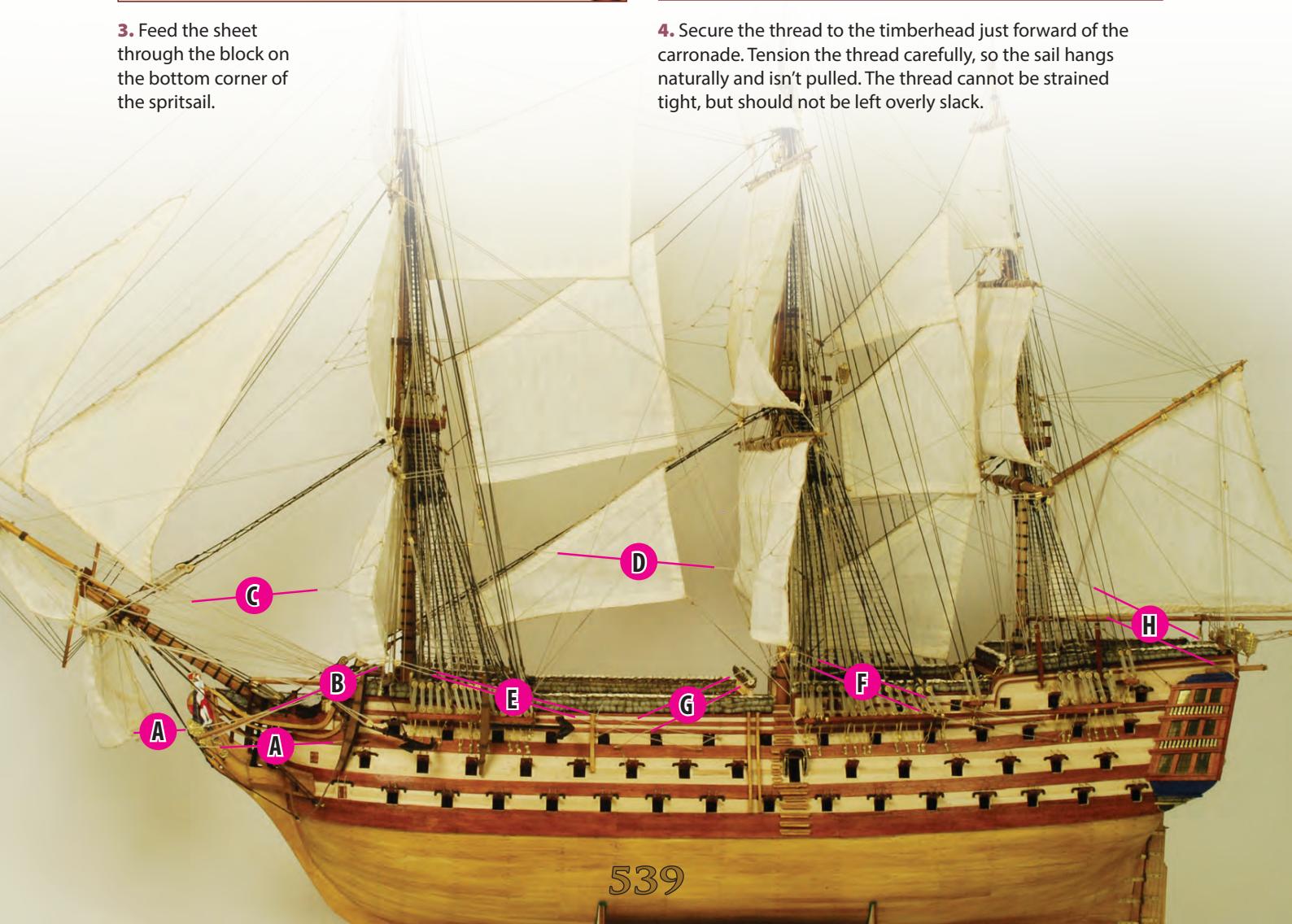
**2.** To make the spritsail sheet (A), cut a 550-mm length of thread and tie one end to the eyebolt above the forward gun port.



**3.** Feed the sheet through the block on the bottom corner of the spritsail.

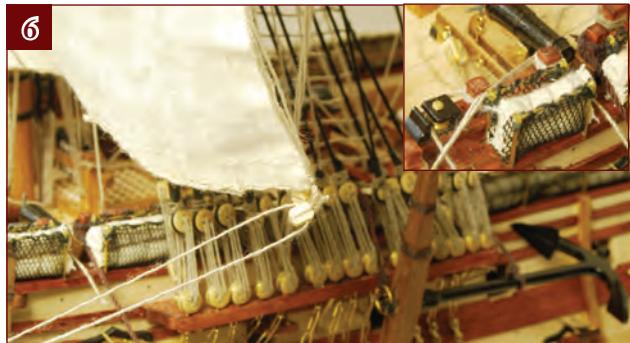


**4.** Secure the thread to the timberhead just forward of the carronade. Tension the thread carefully, so the sail hangs naturally and isn't pulled. The thread cannot be strained tight, but should not be left overly slack.





5. To make the foresail tack (B), tie an 800-mm length of thread to the end of the boomkin.



6. Take the thread through the block on the bottom corner of the foresail and back through the block on the boomkin. Secure the thread to the same timberhead as used in Step 4.



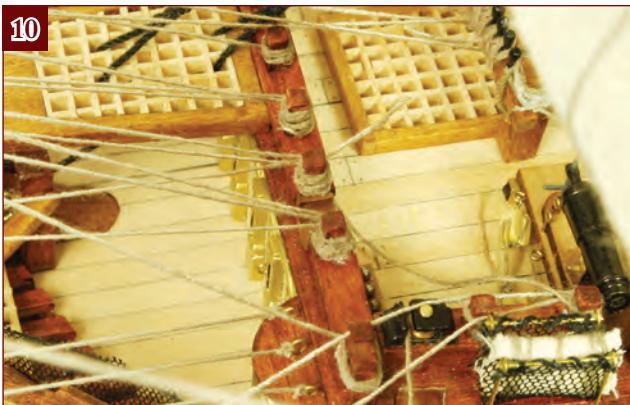
7. Tension the foresail clewline and secure the thread around the top of the forward pinrail support. For more information, refer to Stage 105.



8. To make the foresail bowline (C), tie a double harness to the foresail, with the top securing point at the reef band. Now tie a 600-mm thread to the harness.



9. Feed this thread through the eyebolts on the bowsprit.



10. Secure this thread to the timberhead just inboard of the U-channel.



11. To make the mainsail bowline (D), tie a single block (supplied in Stage 115) to the fore mast shrouds on the starboard (right) side of the model. Tie it to the aft shroud about seven ratlines from the top.



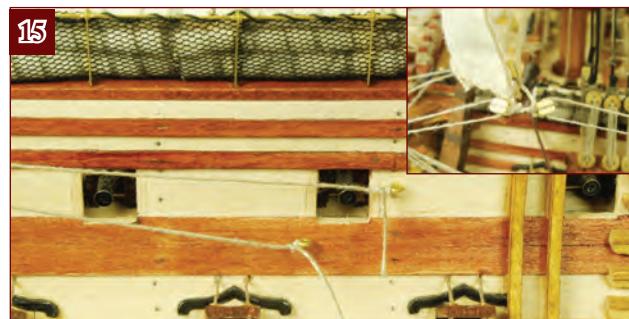
12. Tie a double harness to the main sail, starting 20 mm below the reefing band. Then tie a 650-mm thread to the harness.



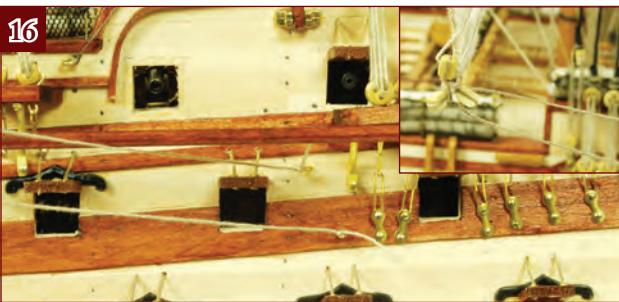
13. Feed the thread through the block fitted in Step 11, so that it crosses over to the opposite side of the model.



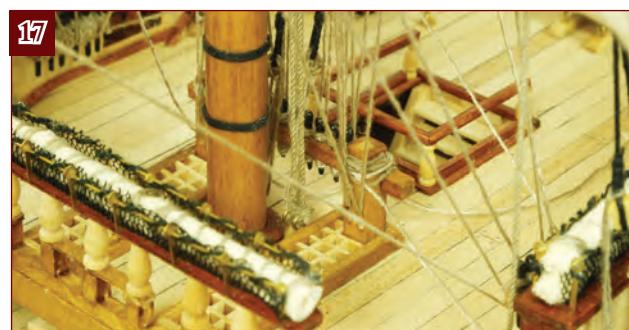
**14.** Tie the thread to the last-but-one shroud, just above the deadeye.



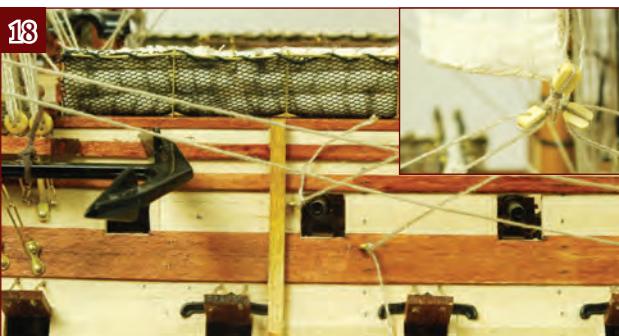
**15.** To make the foresail sheet (E), tie a 650-mm thread to one of the eyebolts just forward of the boarding steps. Take this through the block on the bottom corner of the foresail, and tie it off to the other eyebolt.



**16.** To make the mainsail sheet (F), tie a 600-mm thread to one of the eyebolts by the mizzen chainwale. Take this thread through the block on the mainsail and tie it off to the other eyebolt.



**17.** Tension the mainsail clewline and secure it around the main mast pinrail support post. Refer to Stage 108 for further details on this process.



**18.** To make the mainsail tack (G), tie a 500-mm length of thread to one of the eyebolts just aft of the anchors. Feed this through the block on the mainsail and tie it off to the other eyebolt.



**19.** To make the main yard brace (H), tie a 1,100-mm length of thread to the eyebolt below the aft pulley.



**20.** Feed this thread through the block on the end of the main yard.



**21.** Feed this back through the pulley.



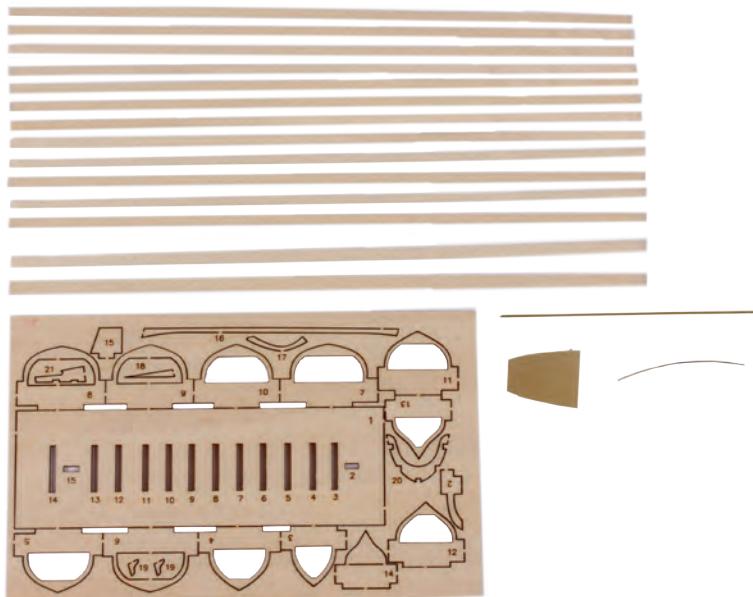
**22.** Secure the thread to the cleat on the bulwark. Tension both port and starboard braces simultaneously so that the lines are tensioned and the main yard is kept straight.

# Stage 118: Continue the barge and 18-foot cutter

This stage includes pieces to assemble the admiral's barge for your model *Victory*, and to continue fitting out the other ship's boats.

## Wooden strips

12 wooden strips 0.6 x 3 mm, 280 mm long  
2 wooden strips 1 x 3 mm, 280 mm long



## Fittings

Etched brass grating  
Brass strip 0.25 x 1mm x 100 mm  
Brass wire 0.25-mm diameter, 50 mm long

## Shaped wooden parts

Laser-cut frames for admiral's barge



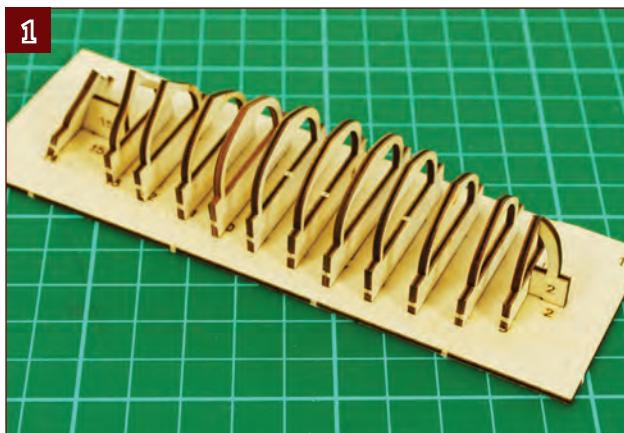
## Where the parts fit

Construction of the admiral's barge is very similar to that of *Victory*'s previous ship's boats, which you will find in Stages 6-10, 109 and 115. In addition to the parts supplied this time, you will need the 3 x 0.6-mm planks supplied in Stage 113. Once you have assembled

the main hull for the barge using the parts provided, you can switch to fitting out the interior for the 18-foot cutter and pinnace that you have previously assembled. You will complete the details for all three boats and finish off by painting them in the next stage.

## Making the barge hull

The steps illustrate one side of the model only. Repeat all steps on the second side.

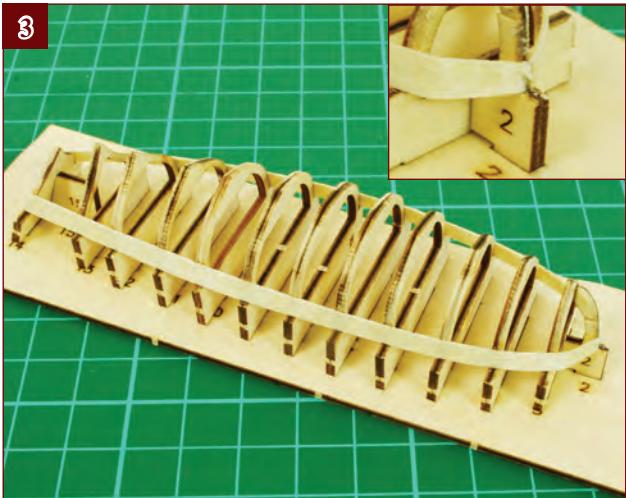


1. Glue the frames to the base board in the same way as for the previous ship's boats. Remember that part 15 is a temporary jig for setting the angle of the transom. Make sure that it is only glued to the base, not the transom or rib 13.



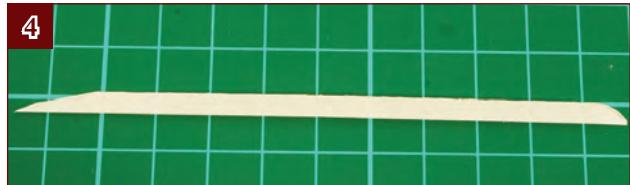
2. Fair the edges of the frames using a sanding block, so that the planks will lie smoothly against them.

3



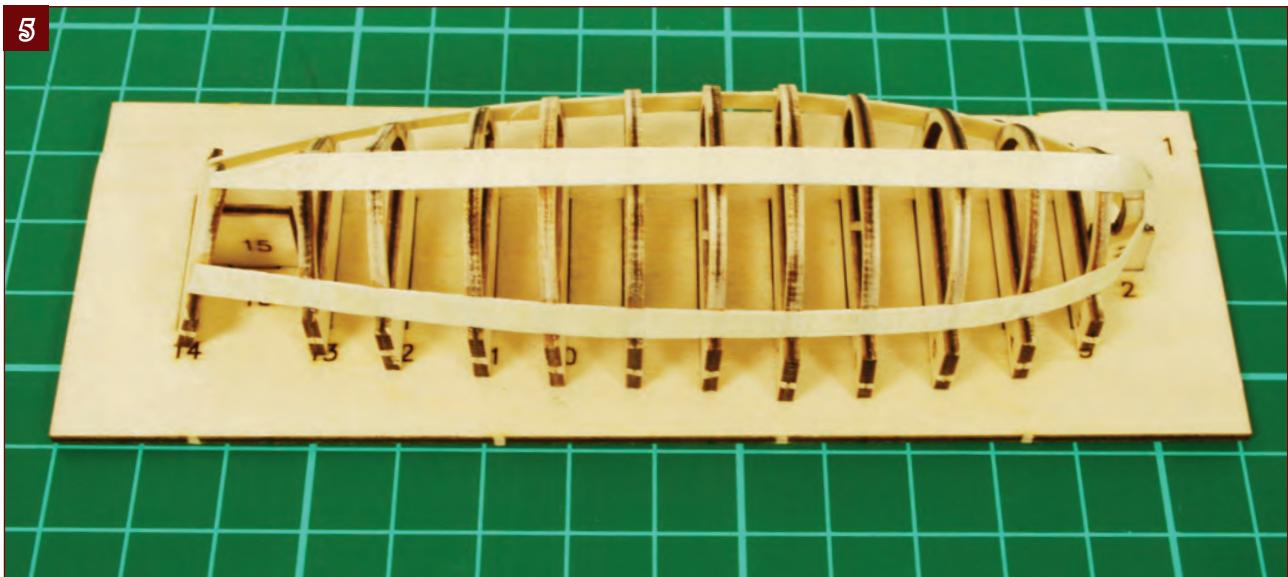
3. Add a 3 x 0.6-mm plank around the gunwale of the model. You will have to taper the front of the plank a little between rib 3 and the bow as shown inset. Repeat on the other side of the model.

4



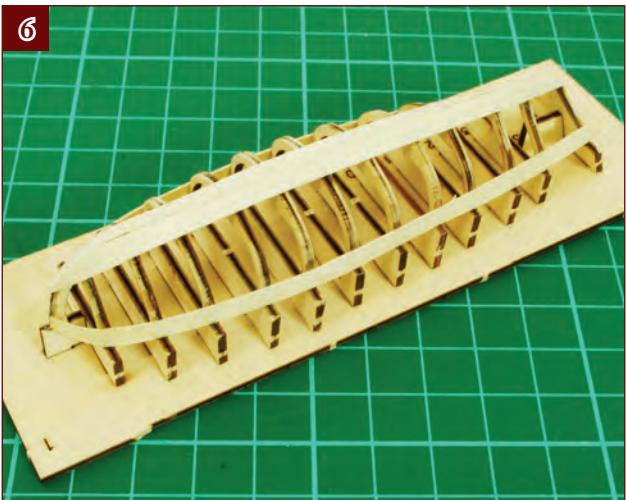
4. Shape the garboard planks in a similar way to that shown. Use your model to gauge the actual shape.

5



5. Glue the garboard plank in place.

6



6. Repeat on the other side.

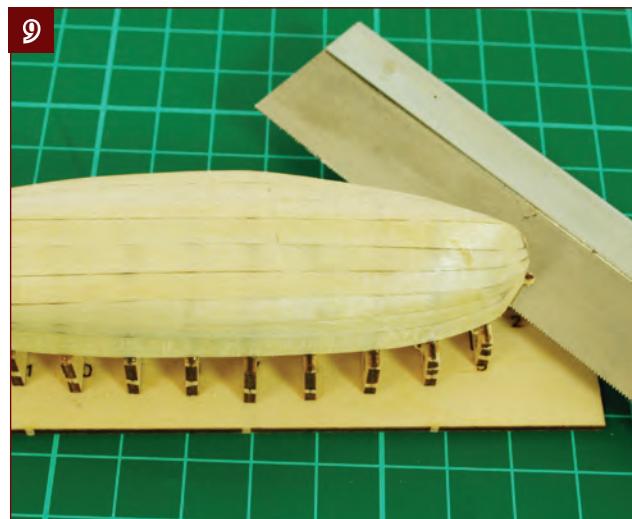
7



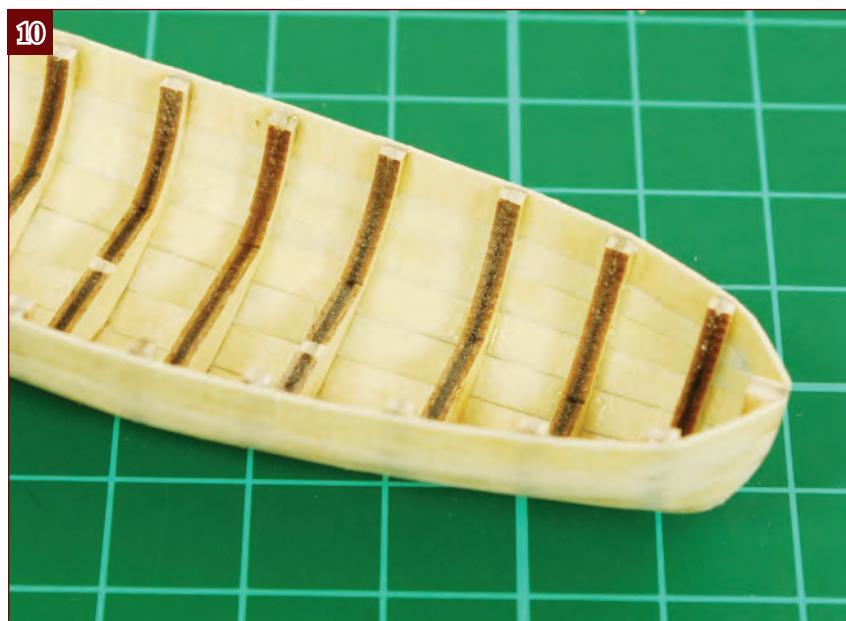
7. Continue planking the model using the same technique you used on the previous boats.



8. Carefully sand the planking smooth and coat it with sanding sealer. Then give it a final light sanding.



9. Remove the model from the building jig by carefully sawing through the frames just below the planking.



10. Sand the gunwales and tops of the ribs smooth.



11. Sand the planking at the bow until the stem post shows through. Be careful not to damage the adjacent planks.



12. Test-fit the main part of the keel, with the rear of the keel aligned with the transom. You may have to sand the bottom of the hull planking to get a good fit. Then hold the main part of the keel in place with tape, and run superglue into the joint. Remove the tape when the glue is dry.



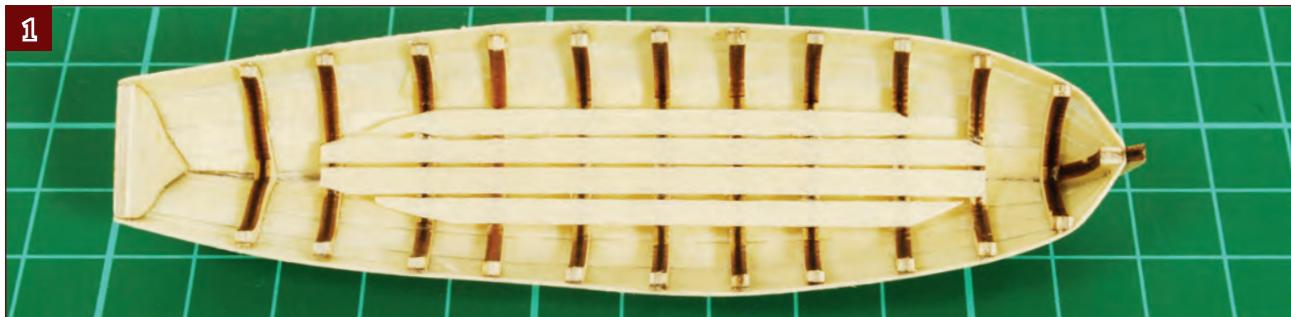
13. Glue the forward part of the keel in place.

**QUICK TIP**

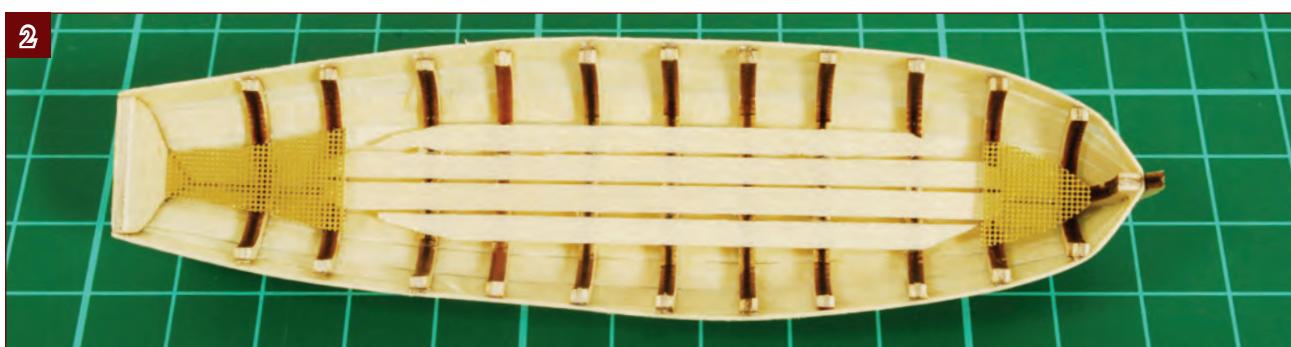
Test-fit the forward part of the keel as shown. If the stem post falls short, reduce the height of the gunwale by sanding it down a little.

## Fitting out the barge

Fit the four floorboards, the fore and aft duckboards and the thwart support rails. You will add the thwarts next time.



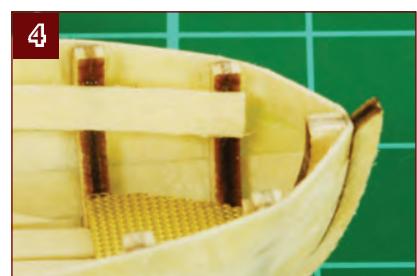
1. Cut 3 x 0.6-mm planks to make four footboards and glue them in place as shown.



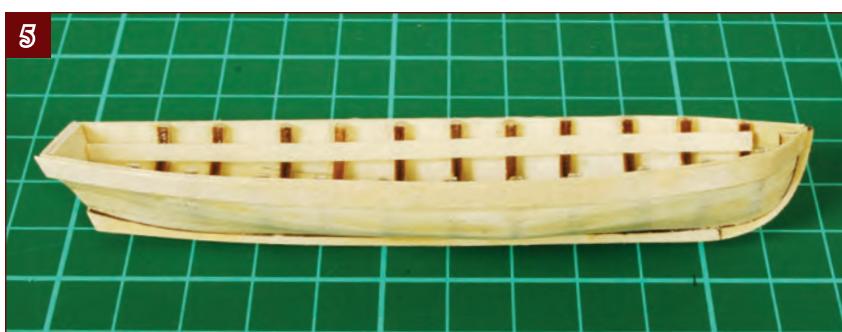
2. Cut the brass grilles to size for the duckboards, and glue them in place with a small amount of superglue.



3. Use 3 x 0.6-mm strip to make the thwart support rail. Cut a 105-mm length and angle the aft end to match the angle of the transom. Glue the rail in place 3 mm below the gunwale (use a scrap of 3-mm strip to gauge this).



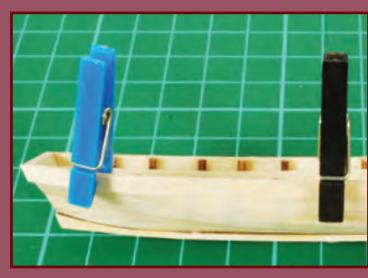
4. Trim the forward end flush with the foremost frame. Use a fresh knife blade, and be careful not to damage the hull planking. Repeat Steps 3 and 4 on the other side of the model.



5. Use a 3 x 0.6-mm strip to double the thickness of the gunwale plank. Trim this to fit the bow, and then glue it in place along the side of the model. Finally trim the end flush with the transom.

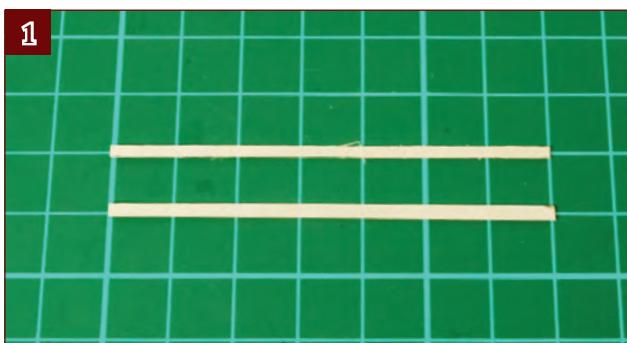
### EXPERT TIP

Miniature clothespins (available from craft shops) make handy clamps for this job.



## Fitting out the 18-foot cutter

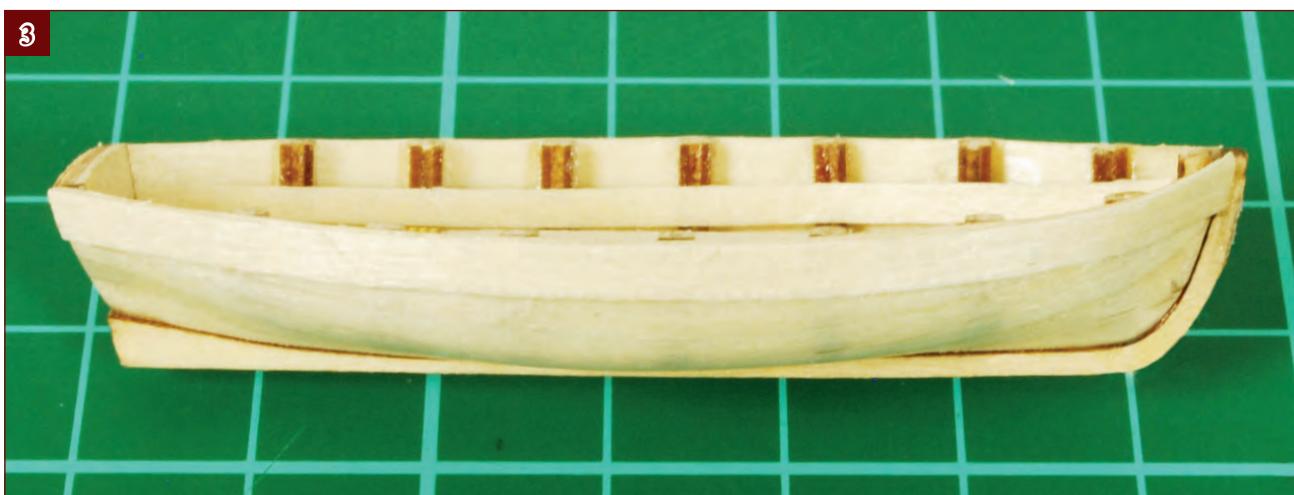
Follow these steps to continue fitting out the interior of the hull that you assembled in Stage 109.  
Repeat the process on both sides of the model.



**1.** Take two 105-mm lengths of 3 x 0.6-mm strip and cut, trim or sand them to make them 2 mm wide.



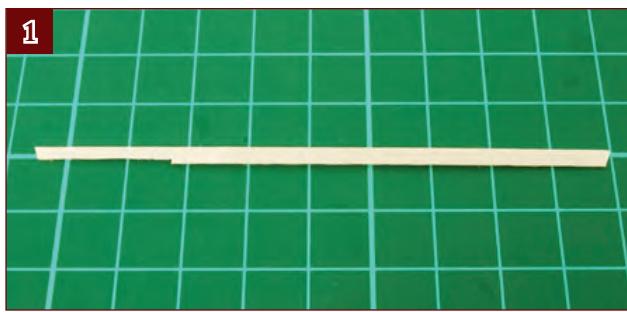
**2.** Glue these strips in place 3 mm below the gunwale.



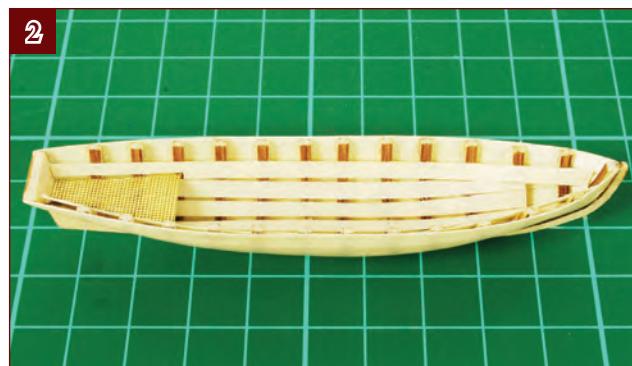
**3.** Use a 3 x 0.6-mm strip to double the thickness of the gunwale plank on each side.

## Fitting out the pinnace

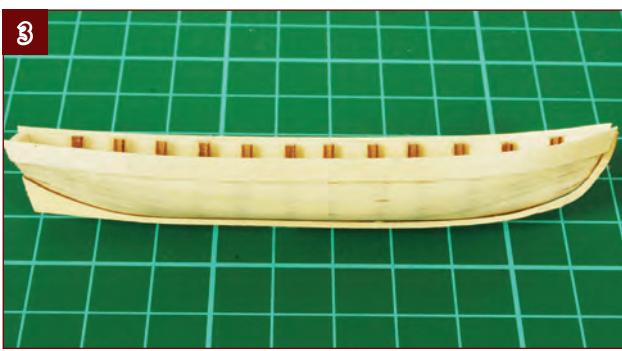
Start to add the interior details to the hull that you assembled in Stage 115.



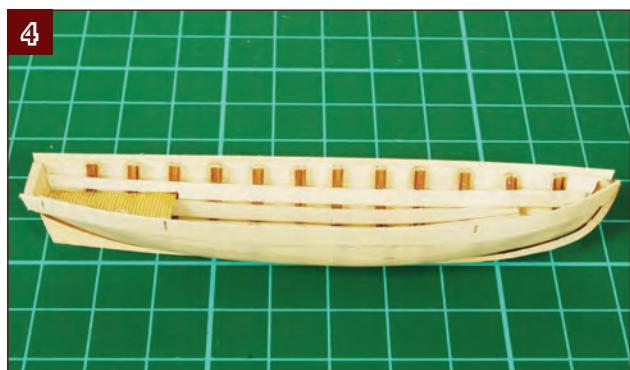
**1.** Use 3 x 0.6-mm strip to make the thwart supports. You may have to trim the area above the grating so that the support can be placed 3 mm below the gunwale.



**2.** Glue the strip in place, 3 mm below the gunwale.



**3.** Use a 3 x 0.6-mm strip to double the gunwale plank. Glue this in position so that the upper edge of the plank is 1 mm higher than the gunwale.



**4.** Make light pencil marks at the third frame from the bow, the third frame from the stern, and about 3 mm from the stern.



**5.** Cut or sand the plank flush with the gunwale at the centre and the very stern of the model. Angle the ends of the raised sections at about 30 degrees.



**6.** Cut a piece from an offcut of 2-mm planking for the point of the prow. Make it about 3 mm wide and 3.5 mm high, but check to ensure it fits your model. Glue this part to the prow.

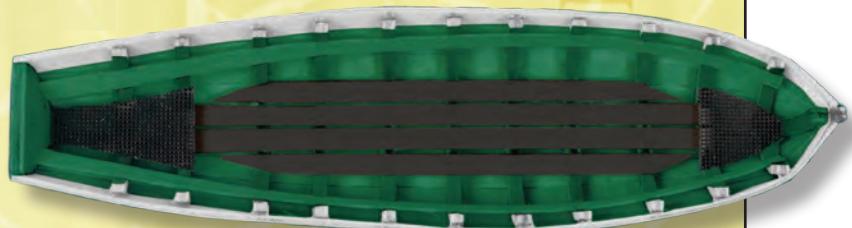
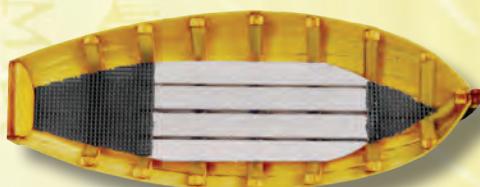
### Painted option

If you are building a painted model, you can start to paint the interiors of the boats during this part of the assembly, as it is much easier to do this before you start adding the thwarts, which are a different colour.

**For the cutter and pinnace**, use the colour scheme on the left. The whole of the inside of the hull and thwart support

plank should be yellow. Paint the foot boards white, and the gratings black.

**For the barge**, paint the whole of the inside of the hull green and thwart support plank green apart from the uppermost plank, which should be white. Paint the floorboards and both of the gratings black.

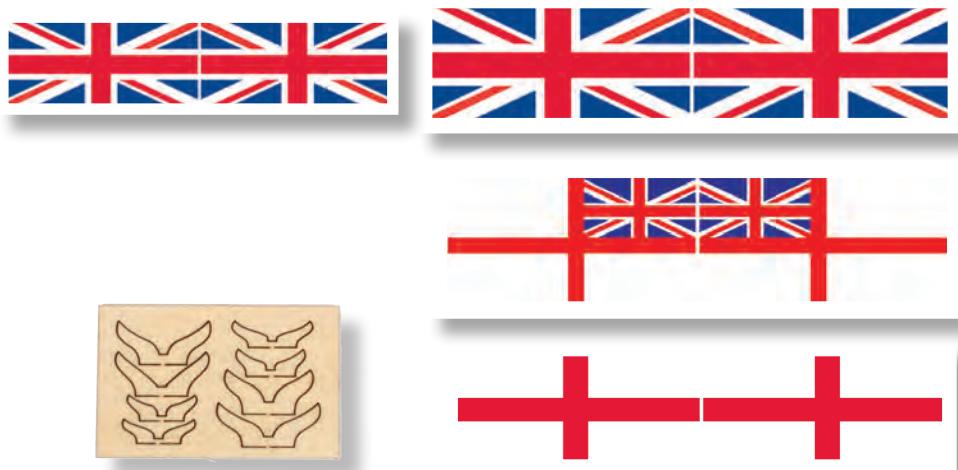


# Stage 119: Adding the first flags

This stage's parts include the first of *Victory's* flags, and you will also continue fitting out the hull and the ship's boats.

## Fittings

Union Jack for jackstaff  
Union Flag for main mast  
White Ensign for driver gaff  
St. George's Cross for fore mast  
Laser-cut frames for chocks



## Where the parts fit

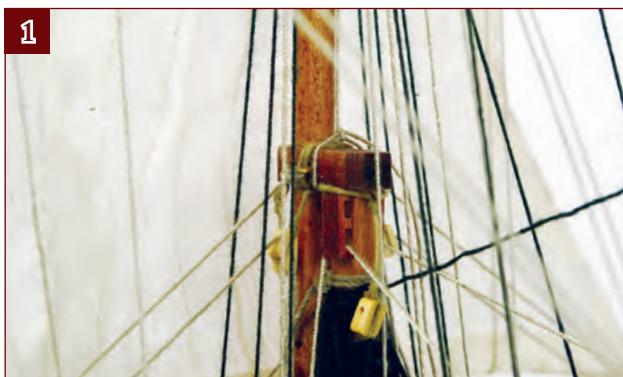
Start by attaching the flags provided this time, which fly from the mastheads (below), driver gaff and jackstaff. You will receive more flags (including Nelson's signal flags) next time. You can also add finishing touches to the hull by fitting

the dummy guns supplied with previous stages and the rudder chains provided with Stage 117. Finally, complete the three remaining ship's boats, which you can then paint if you have chosen a painted finish for your model.



## Fitting the flags

**Use 0.25-mm natural thread throughout. Do not seal the knots until after the flags are fitted. This allows you to re-tension the threads if necessary.**



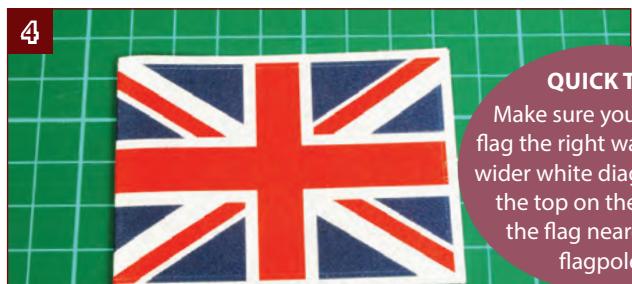
**1.** To add the Union Flag on the main mast, take a 1,300-mm length of thread, and tie one end to the main mast cap.



**2.** Feed the thread through the block on the top of the main mast.



**3.** Tie the thread off to the eighth shroud on the port main chainwale, just above the deadeyes. This thread needs to be pulled quite tight to hold the weight of the flag.



**4.** Take the larger Union Flag. Without removing the backing, fold the flag in half and crease it.



**5.** Remove the backing paper and stick the flag to itself around the thread. Use the vertical section of thread between the mast cap and block so that the flag hangs straight.



**6.** To add the St. George's Cross on the fore mast, take a 1,100-mm length of thread and tie it to the foremast cap.



**7.** Thread it through the block on the top of the fore mast.



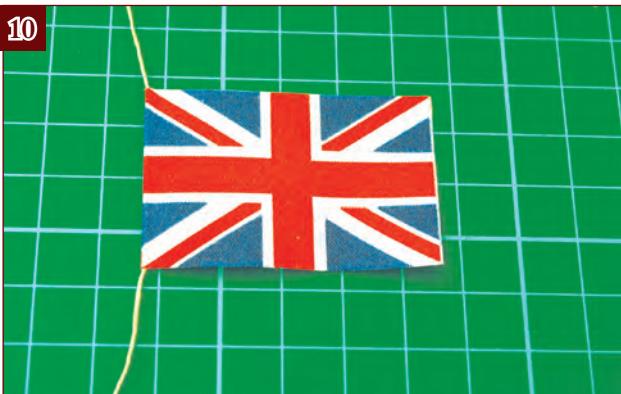
**8.** Tie it to the eighth fore mast shroud.



**9.** Fit the St. George's Cross in the same way as you fitted the flag in Step 5.

### QUICK TIP

If the backs and fronts of the flags don't line up quite perfectly, simply trim the edges down with a pair of scissors.



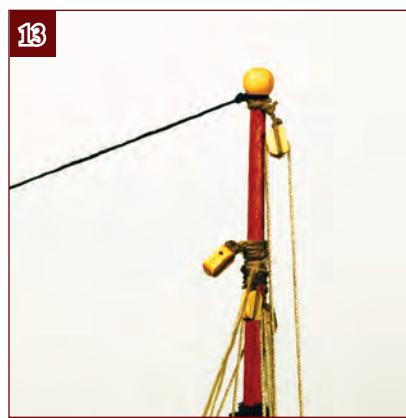
**10.** To add the Union Jack on the jackstaff fitted to the bowsprit, attach the smaller Union Jack to the middle of a 300-mm length of thread.



**11.** Feed the thread at the top of the flag through the block at the top of the jackstaff, and then tie both ends to the eye at the bottom of the jack.



**12.** To add the pennant on the mizzen mast, take a 900-mm length of thread and tie one end to the mizzen mast cap.



**13.** Feed this through the block on the top of the mizzen mast.



**14.** Tie this to the third mizzen shroud.



**15.** To add the White Ensign on the driver gaff, start by fitting 7-mm eyebolt near the end of the taffrail. Be careful not to let the drill come out through the wood at the stern.



**16.** Take a 600-mm length of thread and feed it through the block on the end of the driver gaff.



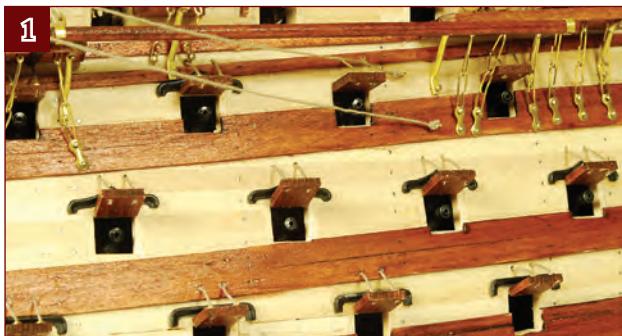
**17.** Tie both ends to the eyebolt you just fitted.



**18.** Fold the White Ensign over the thread as you did with the earlier flags.

## Fitting the dummy guns

Add the remainder of the dummy guns that project from the open gun ports.



**1.** Fit the smaller guns on the middle and upper gun decks using superglue. Insert a cross-stitch needle or similar pointed object into the muzzles to help you line up the barrels.



**2.** Fit the larger guns on the lower gun deck. Use a toothpick to help position these barrels.

## Fitting the rudder chains

**The two rudder chains (supplied with Stage 117) hang slackly down each side of the hull. They were only brought into action during an emergency when the main steering was damaged.**



**1.** Take one of the eyebolts and twist it to open the loop.



**2.** Insert the eyebolt through the end link, and then twist the eye closed again.



**QUICK TIP**  
Hold the eye of the eyebolt with long-nosed pliers.

**3.** Drill a 0.7-mm hole in the wale just under the mizzen chainwale. Then glue the eyebolt in place.



**QUICK TIP**  
Leave a little slack, but make sure you use less than half the chain supplied.

**4.** Hold the chain in place against the eye in the rudder. Then cut the chain to length with a pair of cutters.



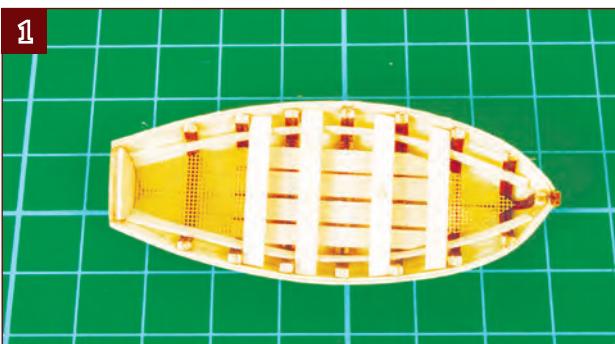
**5.** Use a 2-mm brass ring (supplied in Stage 100) to link the end of the chain to the eyebolt on the rudder.



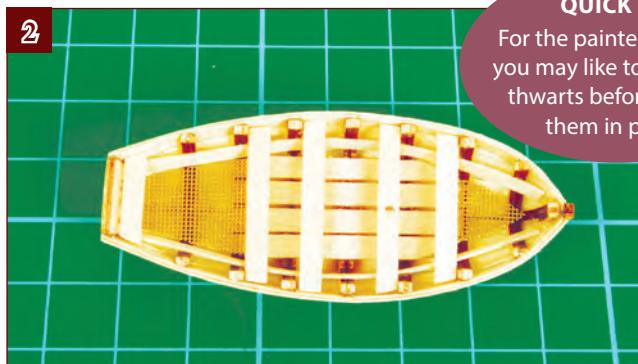
**6.** Repeat Steps 1-5 on the other side of the model, making sure the chains hang down evenly.

# Fitting out the 18-foot cutter

Add the seats and rudder using wood, brass strip and brass wire supplied with Stage 113.



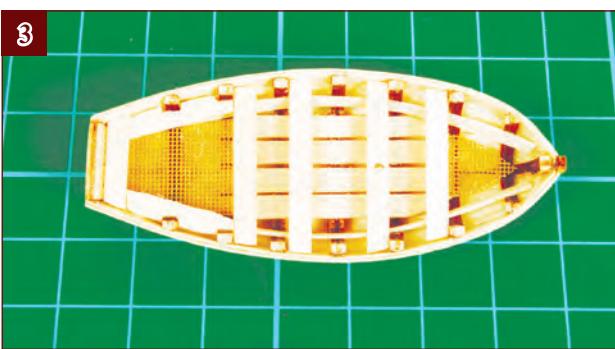
**1.** Cut four thwarts from 1 x 3-mm wood, and fit them to the cutter as shown. Note the positions in relation to the frames. Drill a 1.5-mm hole in the second thwart.



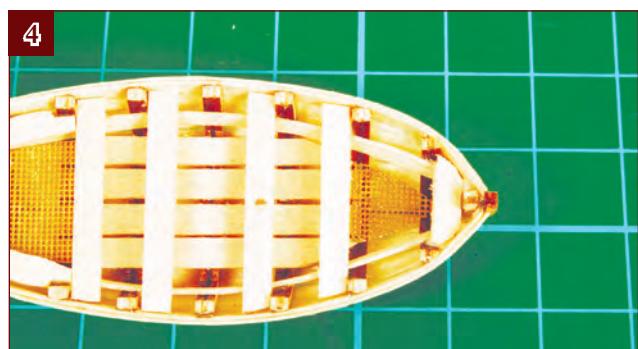
**2.** Add a strip of 1 x 3-mm wood across the transom, resting on the thwart supports.

## QUICK TIP

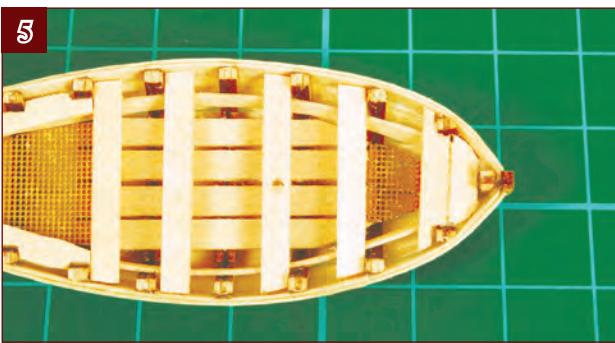
For the painted version, you may like to paint the thwarts before gluing them in place.



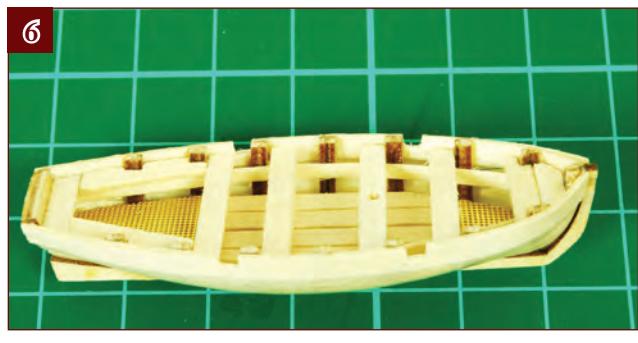
**3.** Use 1 x 3-mm wood to add two seats to the sides, carefully notching the wood to fit round the frames so that they sit on the thwart supports.



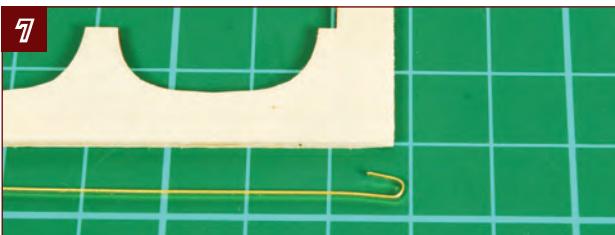
**4.** Add a short length of 1 x 3-mm wood to the bow. This also sits on the thwart support.



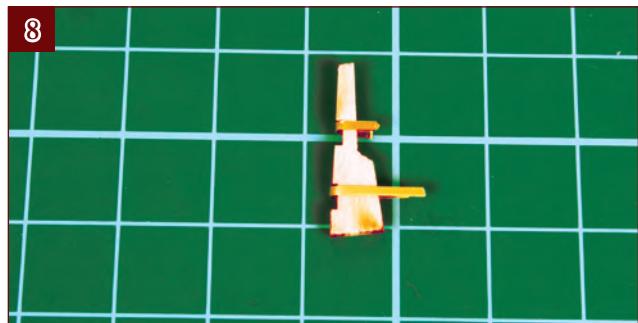
**5.** Add a second strip to complete the bow decking.



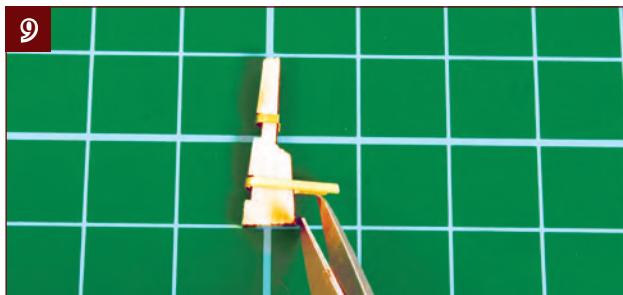
**6.** Cut four slots, two on each side, to represent the rowlocks. Note the positions in relation to the thwarts and frames.



**7.** Take the thin brass strip and bend the end to form a U shape. You can either form it with needle-nosed pliers, or simply fold the strip over the end of the scrap ply fret. Adjust the fit with pliers as necessary. You will need two 'U's – one about 5 mm long and the other about 8 mm long.



**8.** Glue the 'U' shapes over the top halves of the cut-outs in the rudder, lining up flush with the edge.



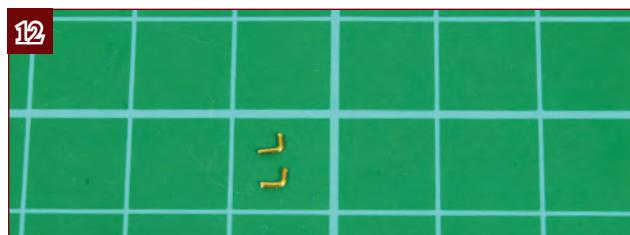
9. Trim the excess off with a small pair of cutters or a pair of sharp scissors.



10. Hold the rudder in place against the transom and mark the position of the bottom of each brass strip.



11. Drill 0.5-mm holes at each pencil mark.



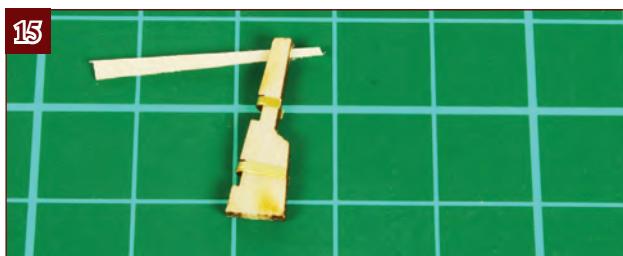
12. Bend and cut the wire into two Ls, with each leg about 2 mm long.



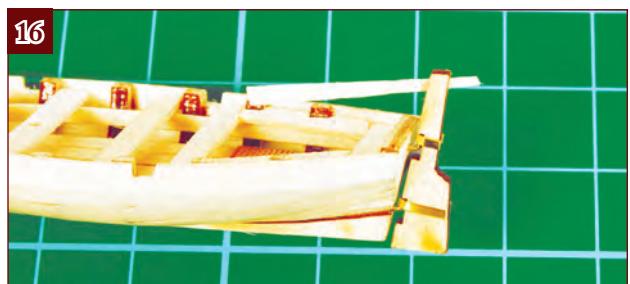
13. Glue the wire Ls into the holes.



14. Cut a 25-mm-long tiller from a piece of 1 x 3-mm wood. The narrow end should be 1 mm wide, spreading to 2 mm wide at the other end.



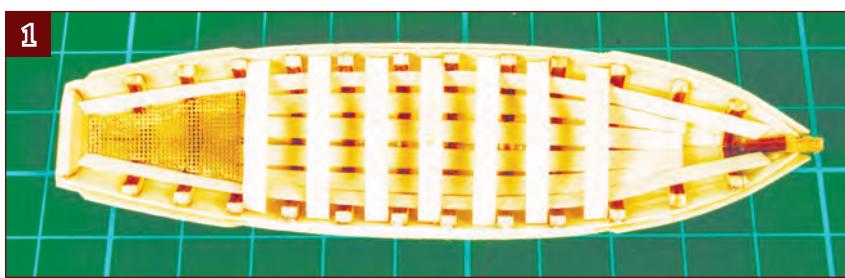
15. Carefully drill a 1-mm hole in the top of the rudder at an angle, and glue the tiller in place.



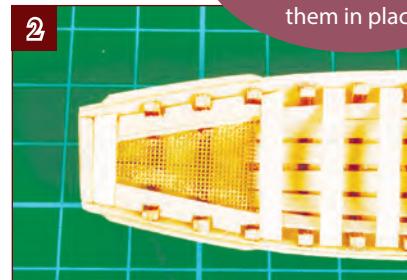
16. Mount the rudder as shown.

## Fitting out the pinnace

Add the seats and rudder as on the cutter, using wood supplied with Stage 113.



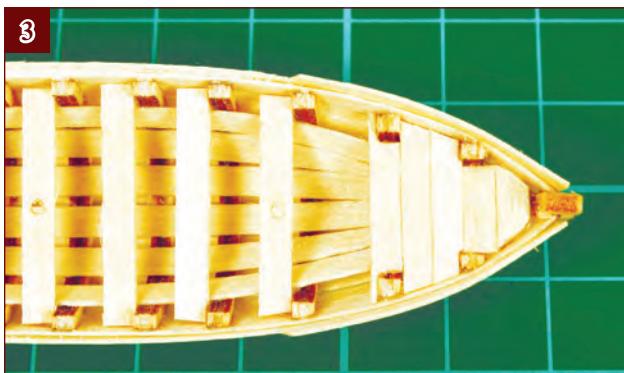
1. Add seven thwarts made from 1 x 3-mm wood. Note the position in relation to the frames. Drill 1.5-mm holes in the first and fourth thwarts.



2. Add stern seats in the same way you did with the cutter.

### QUICK TIP

For the painted version, you may like to paint the thwarts before gluing them in place.



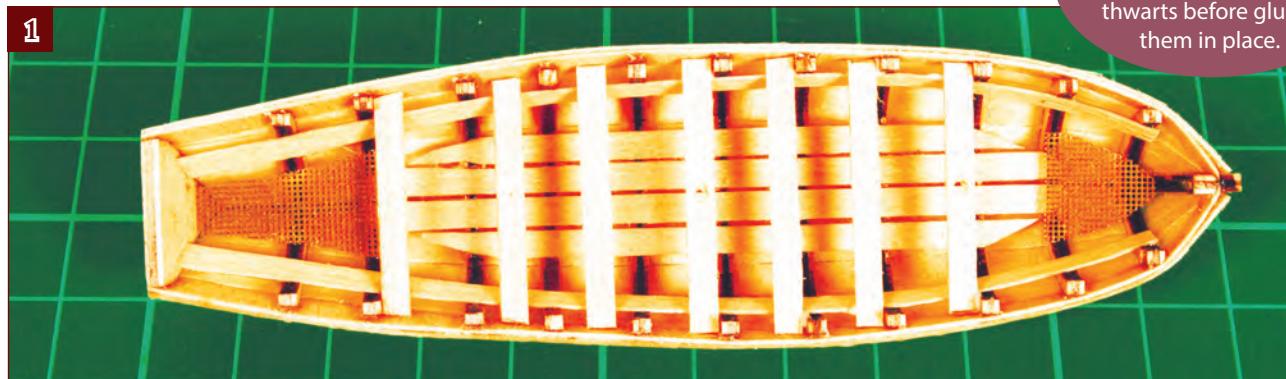
3. Add five 1 x 3-mm planks to make the bow decking, carefully cutting notches for the frames.



4. Construct and mount the rudder using the instructions given for the cutter's rudder.

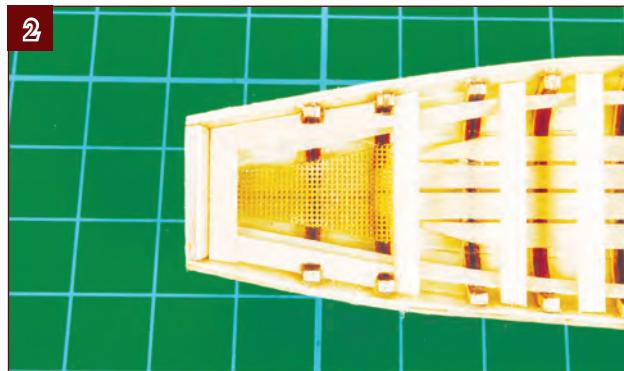
## Fitting out the barge

The barge is completed in a similar way to the other boats.

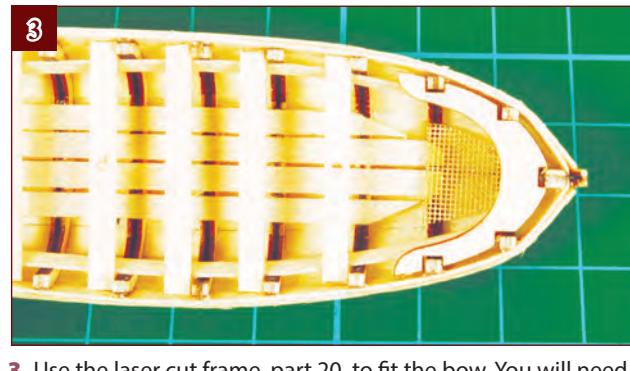


1. Add seven thwarts noting the positions related to the frames. Use 1 x 3-mm wood and drill 1.5-mm holes in the first and fourth.

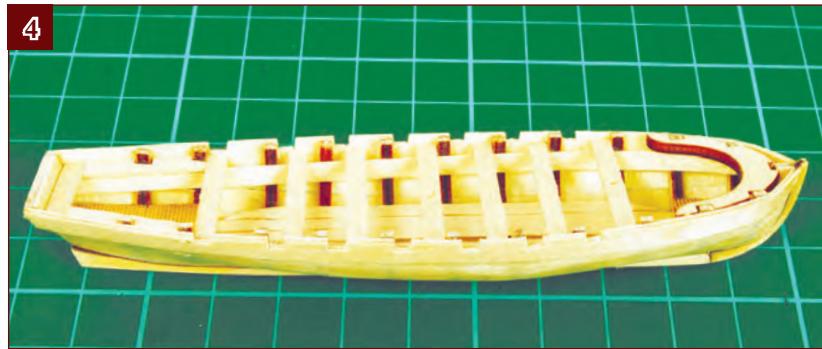
**QUICK TIP**  
For the painted version, you may like to paint the thwarts before gluing them in place.



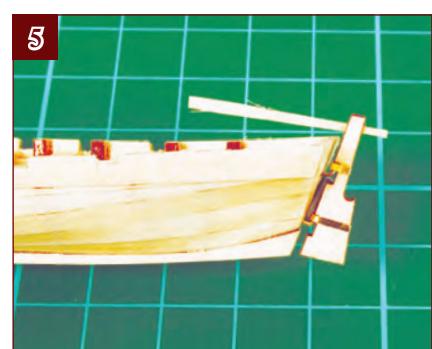
2. Add the stern seats using the same method as before.



3. Use the laser cut frame, part 20, to fit the bow. You will need to chamfer the edges and the slots to get it to fit correctly.



4. Cut out seven notches each side for the rowlocks. Note they are located just ahead of the frames.



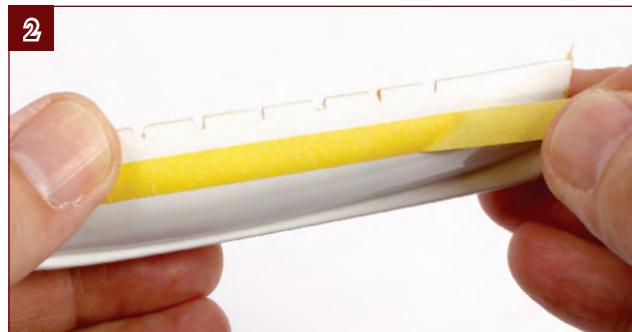
5. Construct and mount the rudder in the same way as the cutter's rudder.

## Painting the boats

The cutter and pinnace have similar paintwork to the launch and can be finished using the techniques shown in Stage 9. The admiral's barge has a slightly different colour scheme, so you need to adapt the technique a little. Use the painting references below as a guide to positioning the bands of colour.



**1.** Paint the outside of all three boats and the whole of the rudders white. It's better to apply two or more thin coats, sanding each one lightly when it has dried thoroughly, before applying the next coat. This will give a more even finish.



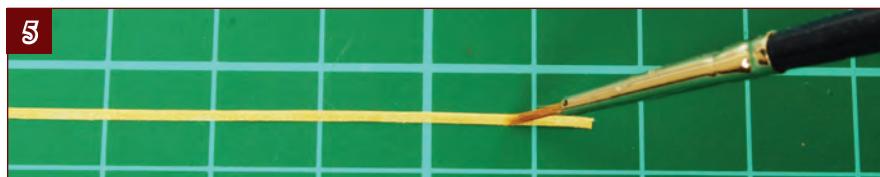
**2.** After cutting slots for the oars, apply masking tape around the hull, slightly below the point where the upper band of yellow ochre finishes. **Omit this step for the admiral's barge, as the upper band is white.**



**3.** On the cutter and pinnace, paint the area above the tape with yellow ochre, going slightly over the tape and ensuring you paint the inside of the slots for the oars, too. **On the admiral's barge, you only need to touch up the white paint in the slots for the oars.** Allow the paint to dry, then carefully remove the tape.



**4.** Stick masking tape over the yellow bands, leaving the lower edges exposed. **Tape the same area of the barge, to leave an upper band of white.** Add more strips of tape along the base of the lower stripe on the hull. Paint the exposed stripe black, or green in the case of the barge, which also has a green transom. Carefully remove the tape when the paint is dry.



**5.** To create the gold stripe around the middle of the green band on the barge, paint a strip of 1-mm masking tape gold. Allow it to dry and stick it over the stripe you painted green.



Cutter colour scheme



Pinnace colour scheme



Barge colour scheme

**QUICK TIP**

Paint the upper half of the barge's rudder green down to the base of the transom, leaving the bottom white.

# Stage 120: Completing your model

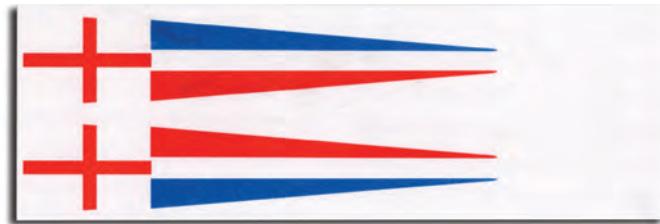
This stage provides the final set of flags, plus the "Victory" name for the stern of your model.

## Fittings

Rectangular signal flags x 3

Triangular pennant

Waterslide "Victory" transfer



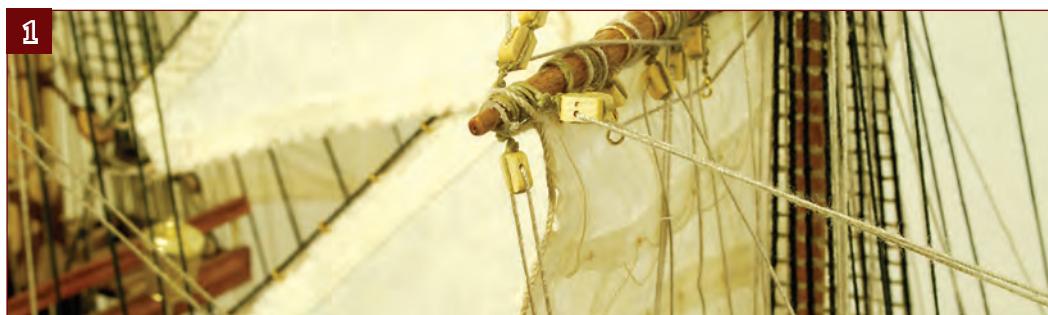
## Where the parts fit

Start by fitting the parts provided this time. They include the triangular pennant and three signal flags, which are attached to lines in a similar way to the flags you fitted in the previous stage. Then add the ship's name to the stern counter, using the waterslide

transfer supplied. With that done, you can finish off the remaining details inside the ship's boats using parts supplied in earlier stages. Finally, install the boats themselves on the quarter deck, using the boat chocks supplied with Stage 119 to cradle each boat.

## Fitting the remaining flags

Complete the flag display by adding the array of signal flags, which display code 253 for "England" – the first word of Nelson's famous signal – plus the pennant.



1. Take an 800-mm length of thread and feed it through the block on the port end of the mizzen topmast yard.



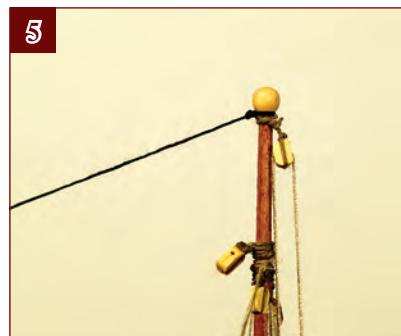
2. Tie both ends to the second mizzen shroud.



3. Fit the three signal flags around one side of the new line just below the yardarm, in the order shown.



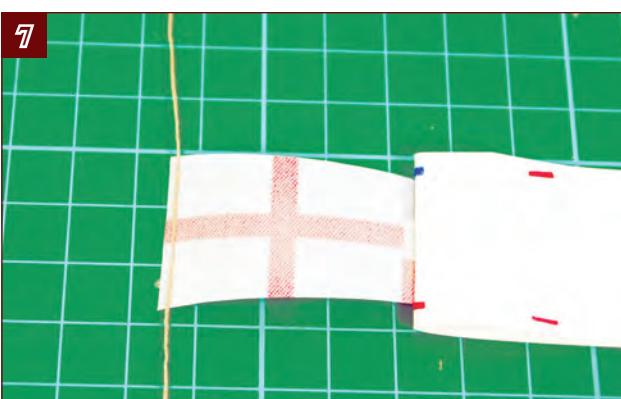
4. To attach the pennant to the mizzen mast, take a 900-mm length of thread and tie one end to the mizzen mast cap.



5. Feed the thread up and through the block on the top of the mizzen mast.

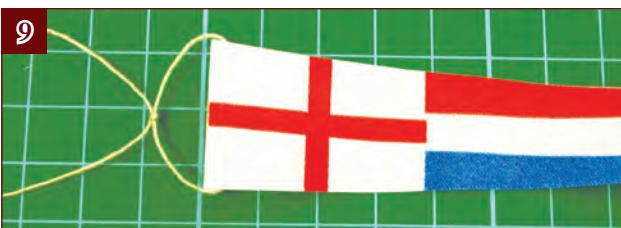
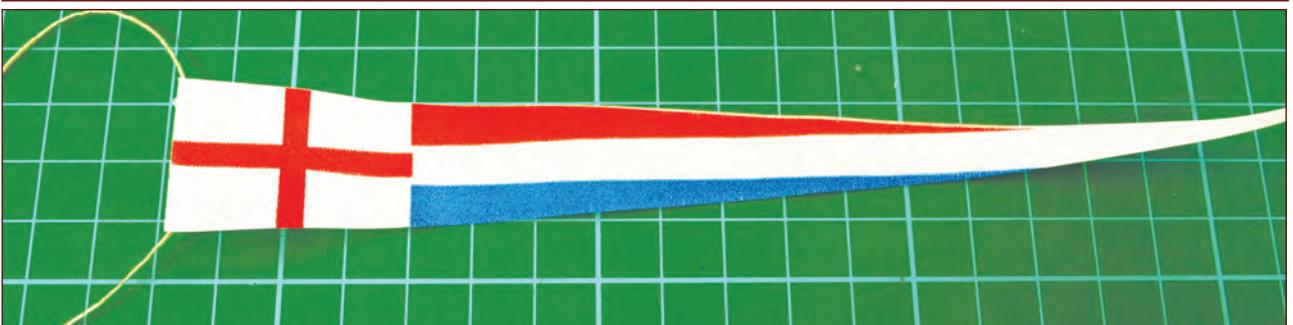
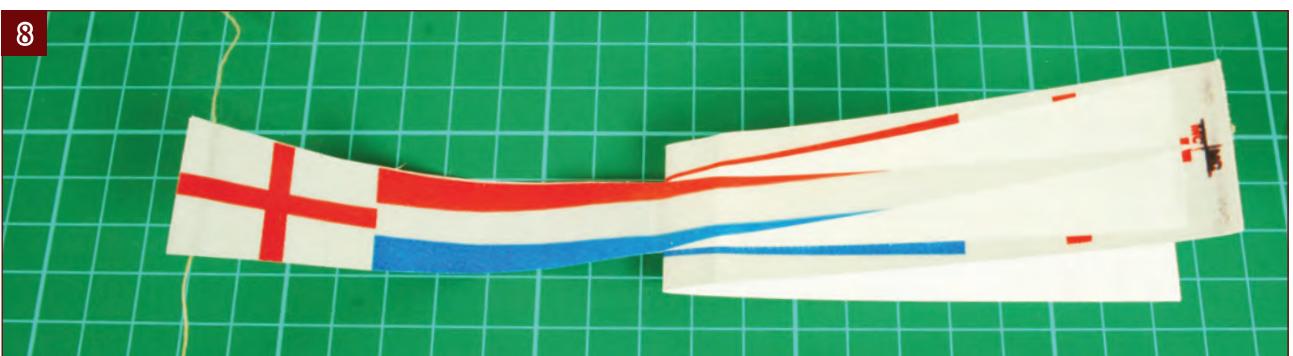


6. Tie the thread off to the third shroud.



7. Use scissors to separate the two halves of the pennant by cutting down the centre, avoiding the edges of the flags. Then carefully peel off the first section of backing paper, and lay a 300-mm length of thread 2-3 mm from the edge of the flag.

8. Peel the backing paper off the second half of the pennant and carefully place it over the first, making sure it is perfectly aligned. Carefully remove the remaining backing paper to stick the two halves together.



9. Tie the two ends of the thread together with a reef knot.



10. Tie the pennant to the thread at the top of the mast.

## Applying the "Victory" name

The "Victory" name on the stern of the model is supplied as a waterslide transfer sheet with all the letters in the correct positions.



**1.** Soak the backing paper in water for 20-30 seconds until the transfer slides off easily, then quickly apply this to the model. Do not touch the glue on the back of the transfer.



**2.** Position the transfer carefully, making sure the letters are central in both directions, then slide the paper out from under the transfer. Use a soft tissue or cotton swab to remove any excess water once the lettering is in place. Allow to dry fully, then seal with a thin coat of varnish.



# Completing the launch

Finish off the launch by adding the loose equipment stored on board.



**1.** Glue the bucket handle to the bucket. You can glue it vertically, but it is more realistic to glue it laid down.



**2.** Spray the barrel, supports and bucket with an automotive primer. Paint them black when the primer is dry. (It is easier to get neat bands this way than by painting the bands afterward.)



**3.** Carefully paint the sides and ends of the barrel and the side of the bucket brown, leaving the raised bands black.



**4.** Glue the two supports to the barrel, making sure that they will sit flat on a flat surface.



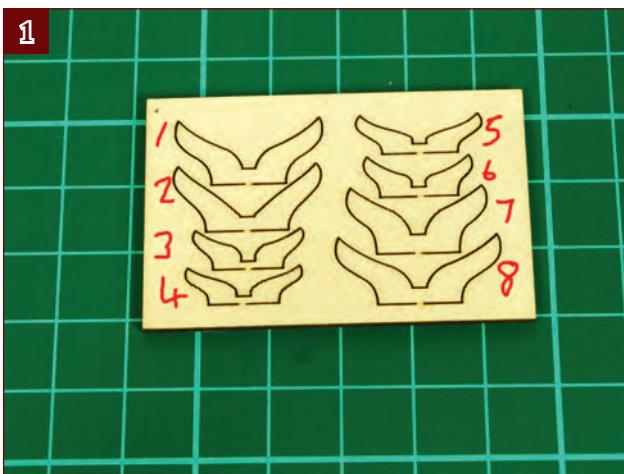
**5.** Prime the oars, then paint them white with yellow ochre blades. Tie them together into groups of four with thin natural-coloured thread.



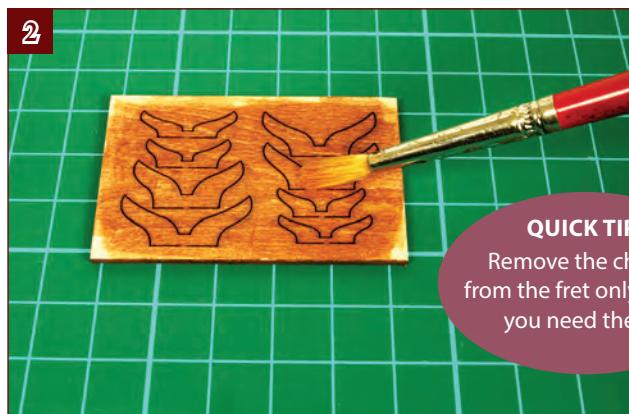
**6.** Arrange the barrel, buckets and oars, along with the set of oars and the mast, rope, anchor and tiller supplied earlier in the series. We have shown a suggested layout, but you can arrange them as you wish. Glue the parts in place with small amounts of superglue.

## Mounting the boats

The boats are stacked on deck, using the boat chocks supplied with Stage 119. As they are all different, take care not to mix them up, and do a dry assembly before gluing them permanently.



1. Identify the chocks with numbers as shown, making sure that the numbers don't stray onto the chocks themselves.



**QUICK TIP**  
Remove the chocks from the fret only when you need them.

2. Stain both sides of the chocks walnut to match the cockpit beams, or paint them black for the painted version. It is easiest to do this while they are still attached to the fret, and then touch up the edges later.



**QUICK TIP**  
Do a dry assembly of Steps 3 to 8, using adhesive putty to ensure you have everything in the right place.

3. Start with the barge. Glue chock 1 to the front of the barge, 79 mm from the rear of the keel. You may have to adjust the chocks with sandpaper or a sharp knife to get a good fit to the boat hull. Sand the bottom of the chock to give a clean smooth surface.



4. Glue chock 2 over the keel, 35 mm from the stern.



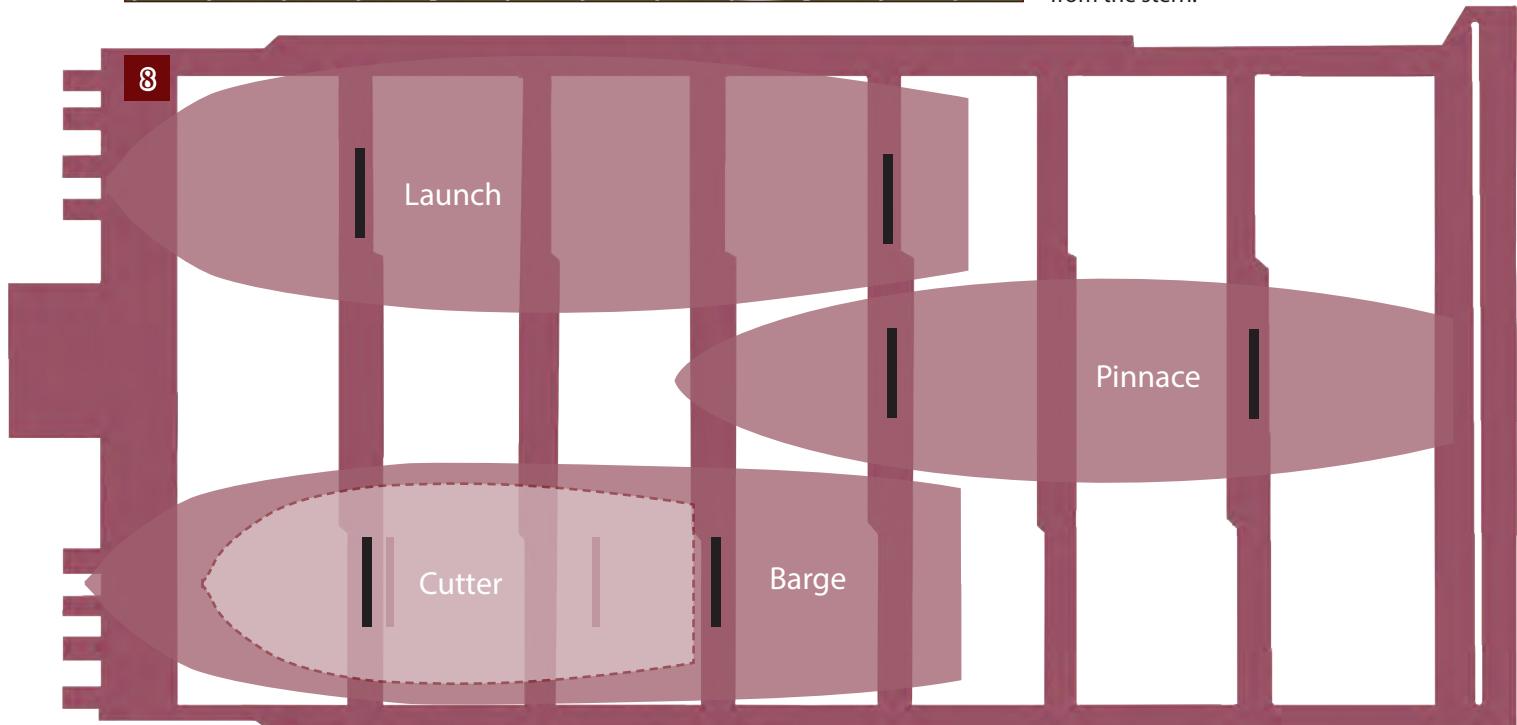
5. Take the cutter and glue chock 3 over the keel, 42 mm from the stern. Glue chock 4 to it 14 mm from the stern.



6. Take the pinnace and glue chock 5 over the keel, 66 mm from the stern. Glue chock 6 in place 21 mm from the stern.



7. Take the launch and glue chock 7 to it, 78 mm from the stern. Glue chock 8 in place 9 mm from the stern.



8. Glue the boats to the cockpit opening using the plan above as a guide to the correct positions. The chocks align with the centres of the skid beams, except for those on the cutter, which sit on the thwarts of the barge.



That completes the mounting of the boats – the final essential stage of the build. The following pages will deal with the painting of the figurines and completion of the optional cutaway.

# Figurine painting guide

Use these basic techniques together with the colour charts on the following pages to paint each of the figurines supplied with this pack.



1. Use a needle file to carefully remove any mould lines or casting marks.



2. Clean the figurines thoroughly with detergent and a toothbrush to remove any residue left over from the moulding process, as this will interfere with paint adhesion. Rinse well and dry. The figurines must be completely dry before painting.



3. Hold the figurines with a clothes peg for painting.

## YOU WILL NEED

- Needle files
- Kitchen roll and cotton buds
- Clothes peg (optional)
- Metal primer (automotive or model spray can)
- Paints (see colour guide on the next pages)
- Small modelling paintbrushes
- Razor saw or metal cutters



4. Spray the figurines with an automotive or model primer. Do this outdoors or in a well ventilated room, and spray only a light coat to avoid filling in any of the detail. Allow the primer to dry thoroughly before continuing.



5. Start by painting the face and hands (and feet and torso for the crew) with a flesh colour.



6. Paint the hair white for the officers and a colour of your choice for the crew. It is best to vary the hair colour amongst the crew.



7. Paint thin black lines to represent the eyes. It is very difficult to paint detailed eyes at this scale.

8



8. Add a touch of red to the flesh colour and paint a thin line to represent the mouth.

9



9. Paint the uniform next. As a rule of thumb, start with the lighter colours first. Paint the shirts and trousers cream.

10



10. Paint the coats and hats black.

11



11. Paint shoes or boots black.

12



12. Add gold braid, sword, medals and other details with a fine brush.

13



13. Leave the figurines for at least two days to let the paint harden fully. You now have two options for how to fix the figurines to the model:

- Cut off one peg (left). Drill a 1.6-mm hole in the deck and glue the remaining peg into this.
- Alternatively, you can cut off both pegs and simply glue the figurine to the deck with super glue. This method is much easier when positioning the gun crew closely around the gun.

Either way, smooth the bottom of the foot with a needle file.

14



14. Drill a 1-mm hole in the end of the sponge swab.

15



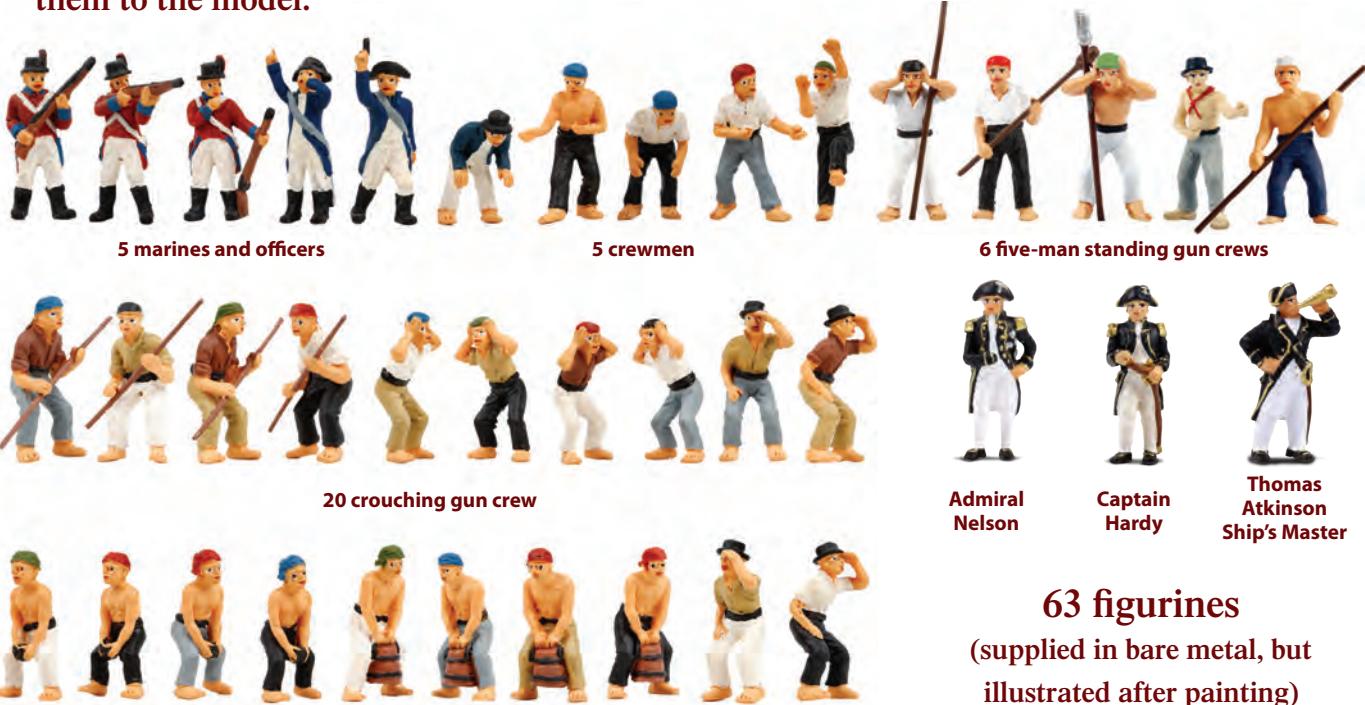
15. Cut a 20-mm length of wire from a large paper clip and glue this into the hole in the sponge swab.

16



16. Paint this brown. Make the wad hook in the same way, painting it according to the guide. The handspike is simply a painted 20-mm length of wire.

Collect all 63 of the metal figurines supplied with this pack, which can be divided into the groups shown below. Then follow the colour charts to finish them before fitting them to the model.



### 63 figurines

(supplied in bare metal, but illustrated after painting)

## Where the parts fit

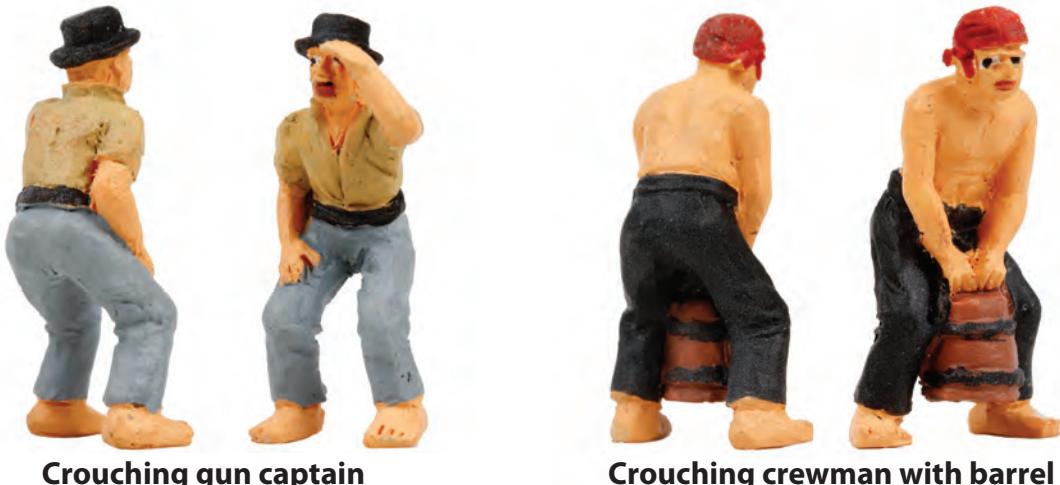
Your 63 cast-metal figurines include 20 crouching gunners designed to fit in the space between decks, so they can be shown working the guns in the cutaway, if you chose to incorporate this during the build. You have also received six sets of gunners, who can be added to the guns on the quarterdeck, plus five marines and officers, and five crew members who can

be placed on deck and in the rigging to add to the action there. Finally, you have received individual figurines of Admiral Nelson, Captain Hardy and Thomas Atkinson, the *Victory*'s ship's master. Paint all of the figurines as shown in the colour charts over the next pages, allow to dry, then follow the instructions in the *Making the cutaway* section to fit them to your model.

## Painting your figurines

For basic painting techniques, follow the instructions of the previous pages. You should vary the colours of the crewmen, as they have no uniforms, but use the suggested colours for the marines and officers.

## Colour chart 1



Crouching gun captain

Crouching crewman with barrel



Crouching crewman with handspike



Crouching crewman with shot

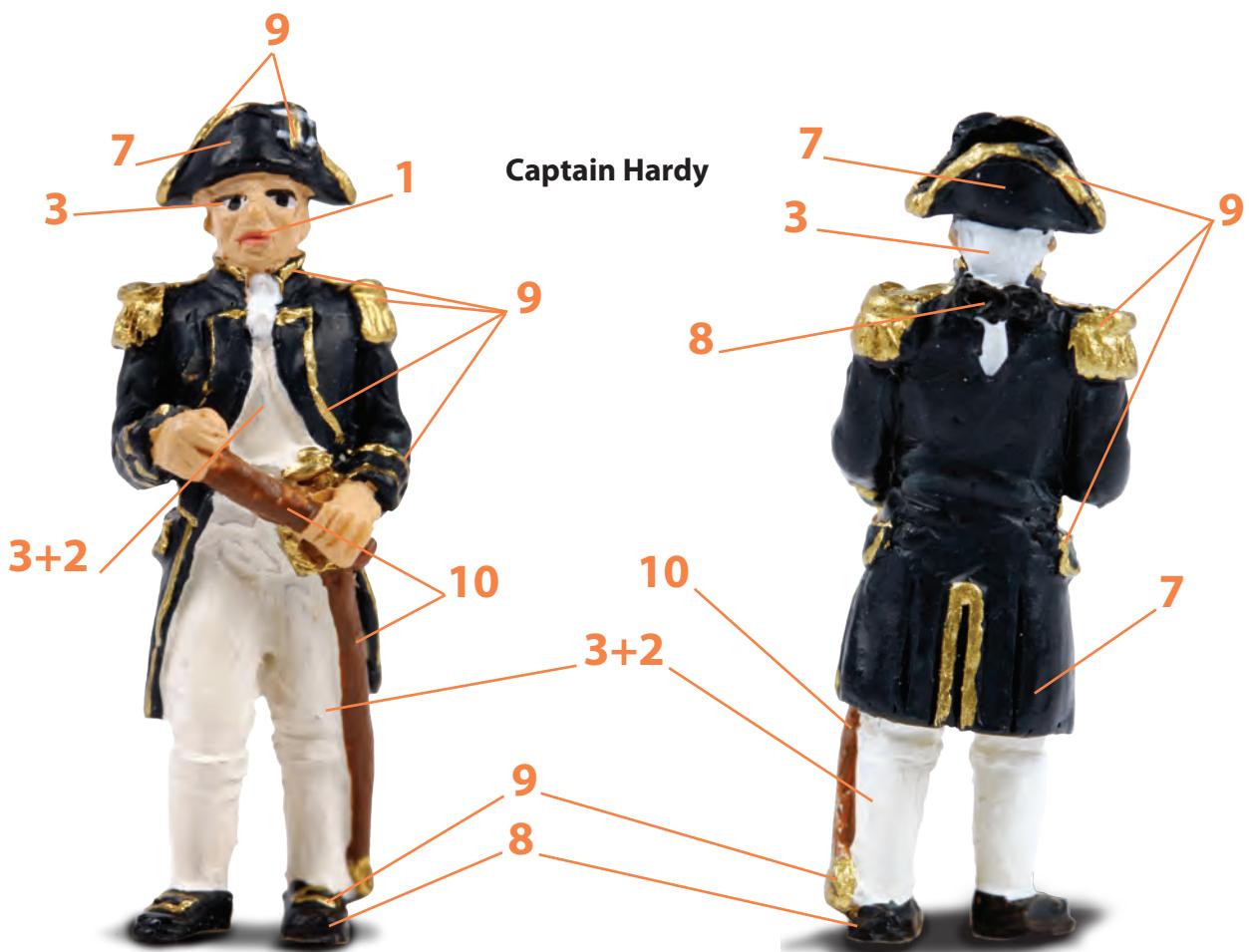
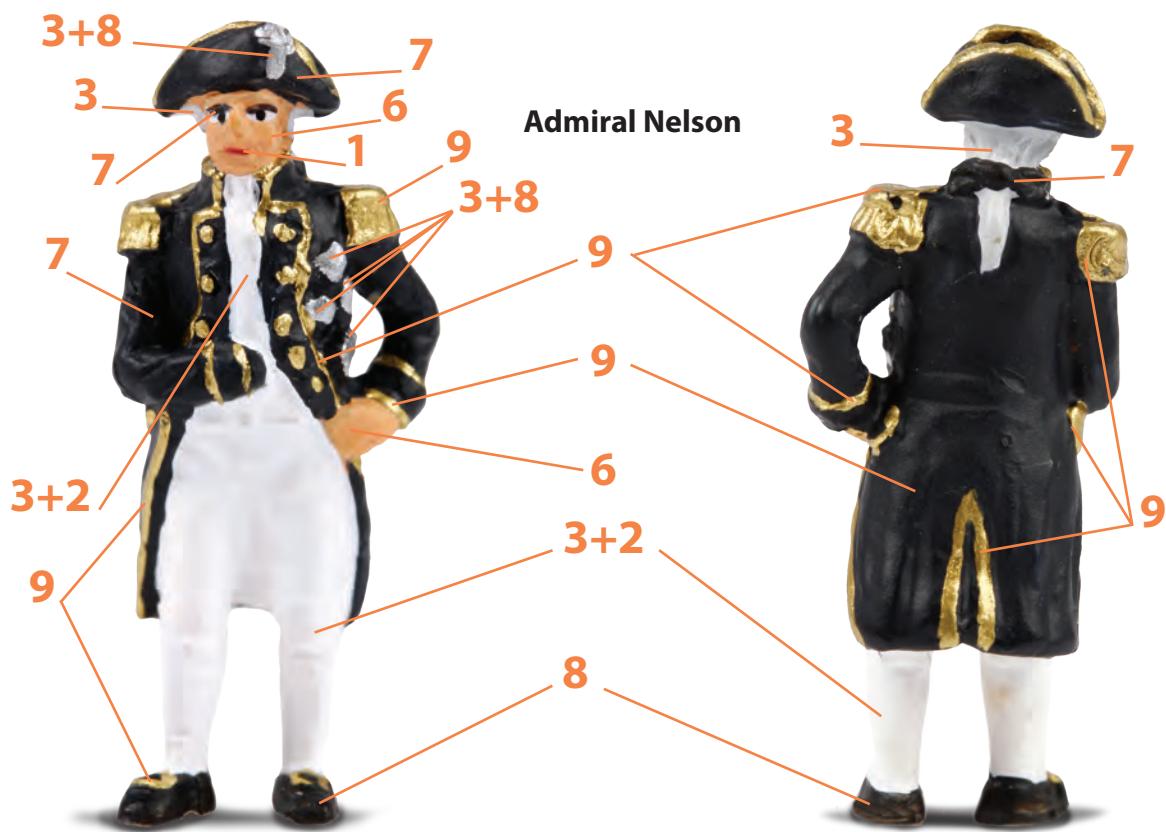


Midshipmen (two poses)



Marines (three poses)

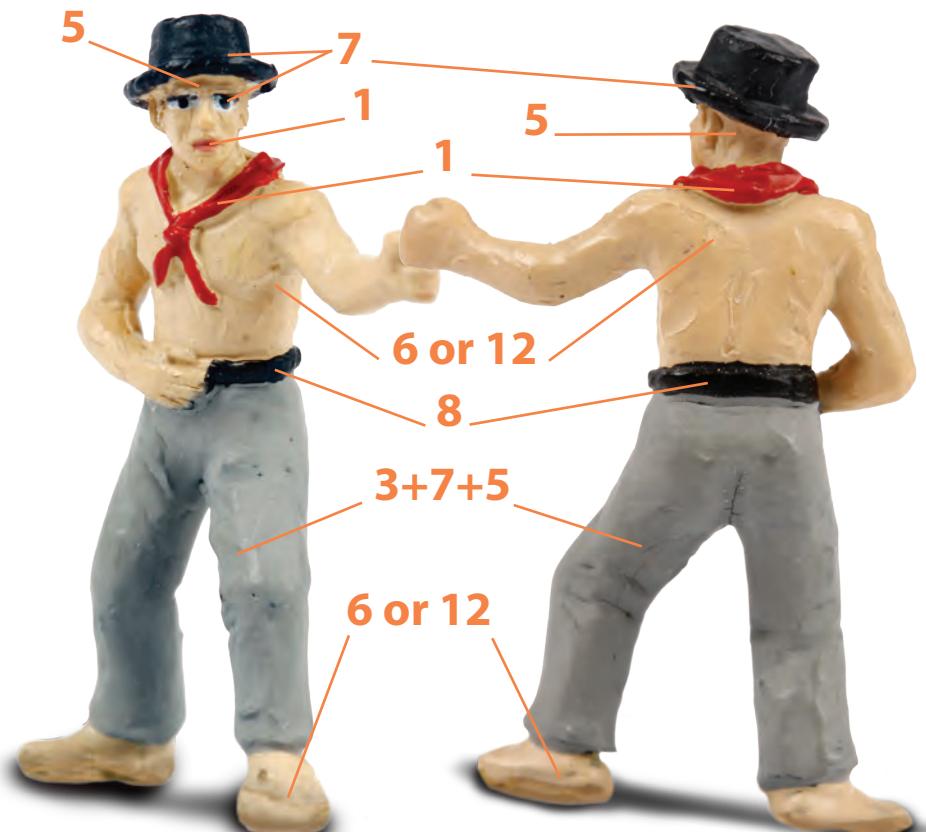
## Colour chart 2



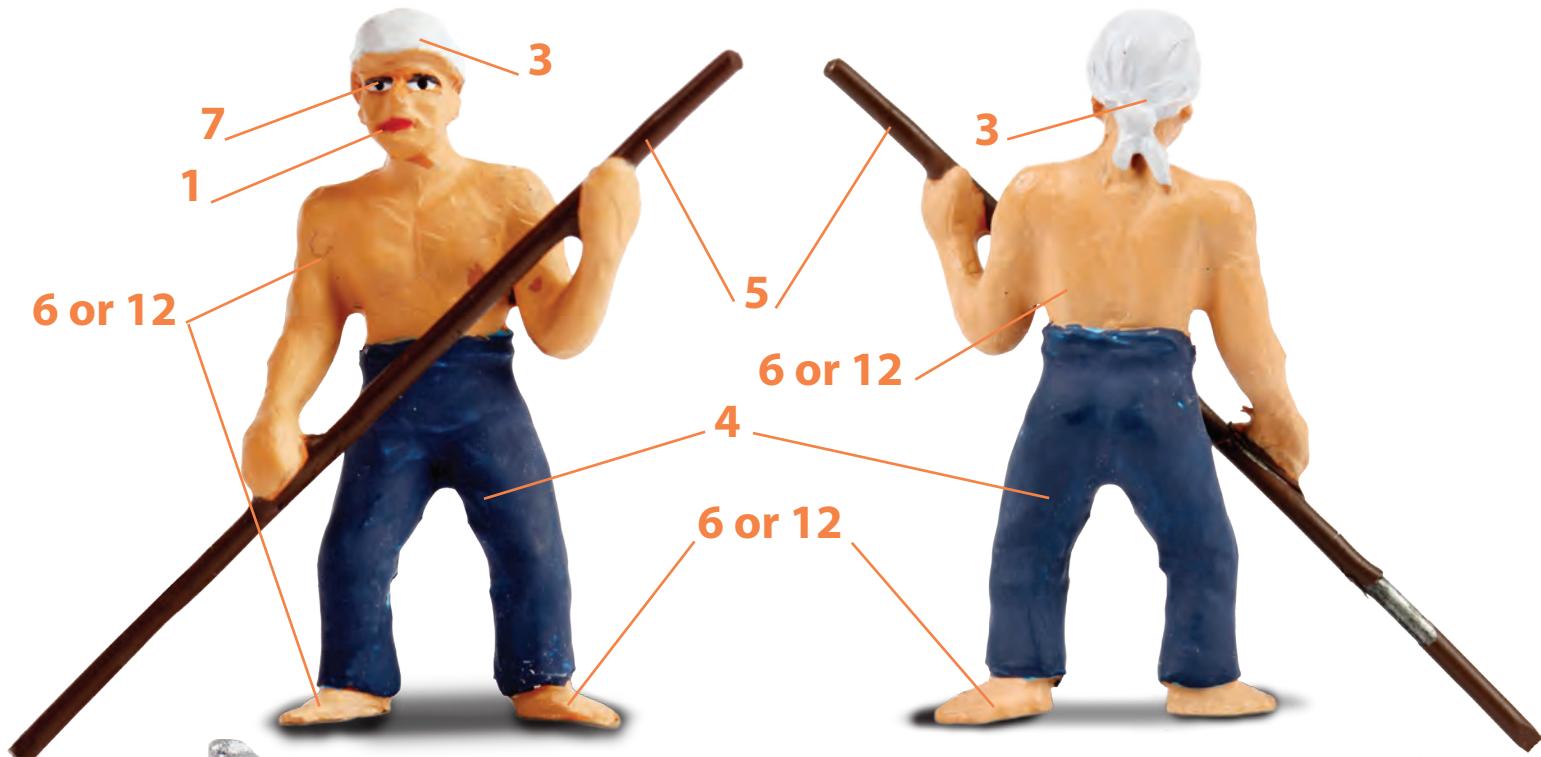
Thomas Atkinson  
Ship's Master



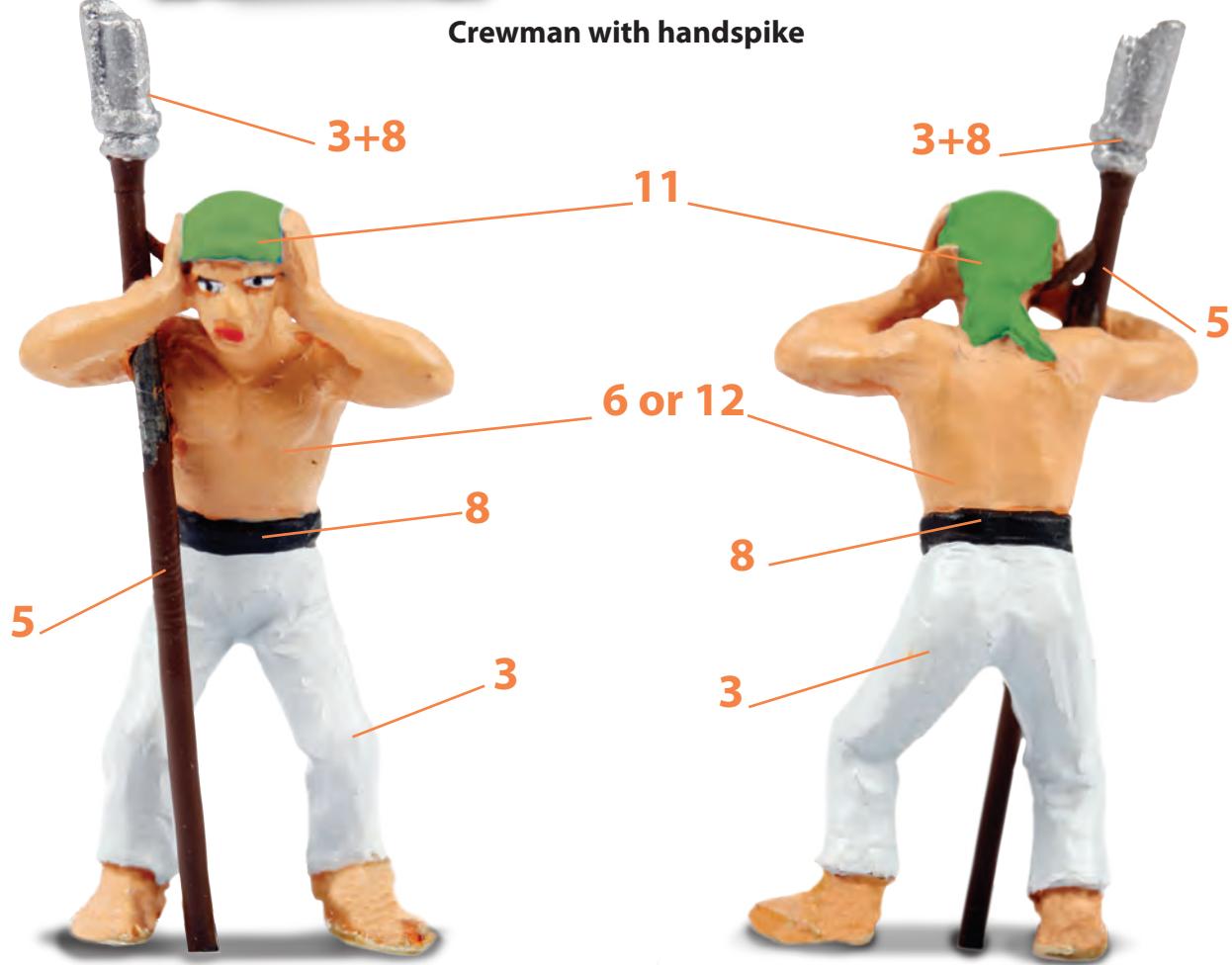
Gun captain (stands at the back of the gun)



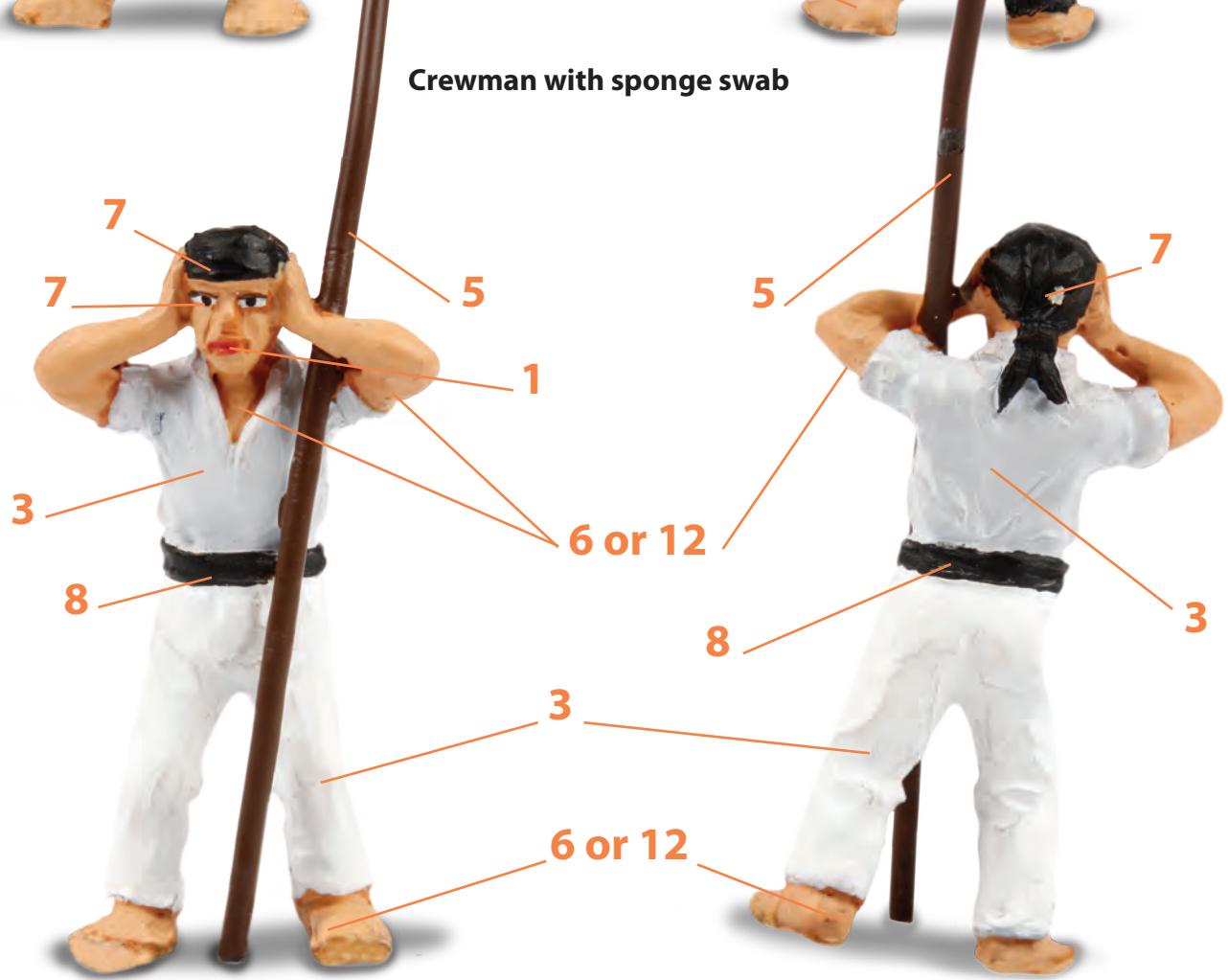
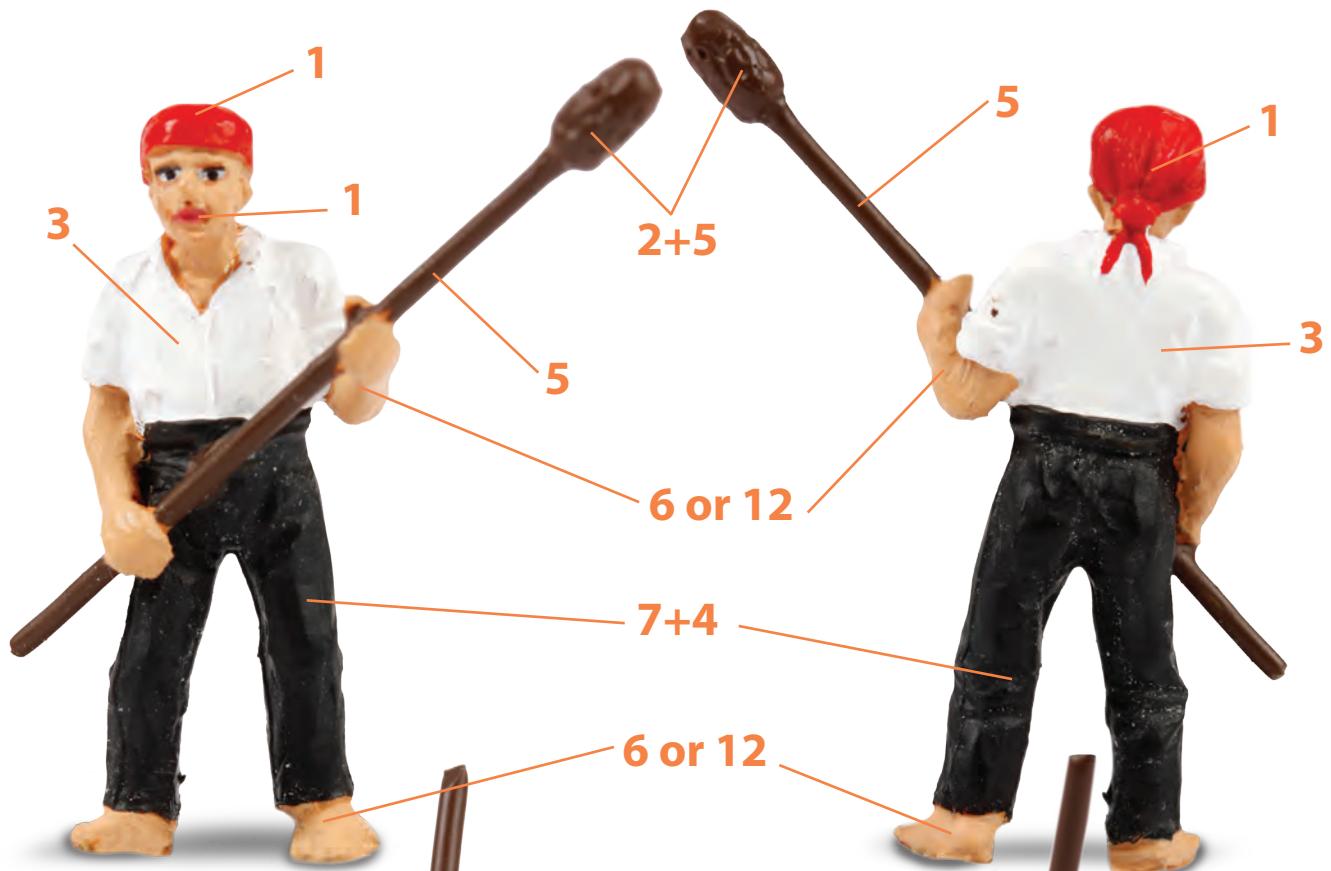
## Colour chart 3



Crewman with handspike



Crewman with wadhook



Crewman with handspike

# Making the cutaway 1

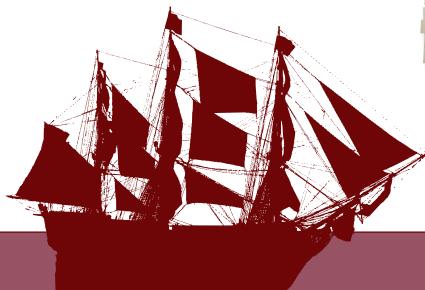
The parts provided in this pack include components for the two slide-in deck panels that form the basis of the cutaway dioramas. Follow these instructions to assemble them.

## Wooden parts

**30 x wooden strips**  
0.6 x 3 mm, 150 mm long

**2 x wooden strips**  
2 x 3 mm, 150 mm long

**2 x wooden veneers**  
0.6 mm thick, 130 x 75 mm



## Where the parts fit

The wooden parts include two base veneers, planking and edging strips to construct two deck panels to fit inside the openings you left in the side of the hull. These panels will be glued on top of the plywood decks that form part of the hull framework, and the guns and figurines will be glued on top.

It is best to make the deck panels only when you are ready to fit them to the hull (after you have completed all the guns and the figurines). This will minimise the chances of the thin veneer warping. Once you have made the deck panels, store

them under a heavy book (or something similar) to keep them flat until you need them.

All six of the guns are provided together, so you can assemble them ready for installation. The basic construction is the same as for the 12-pounder guns that you have assembled before, but there are a few extra points to note – including how they are mounted on the deck. The second pack of parts will include the figurines and the instructions for finishing them before installing the two dioramas inside the hull.

## Constructing the deck panels

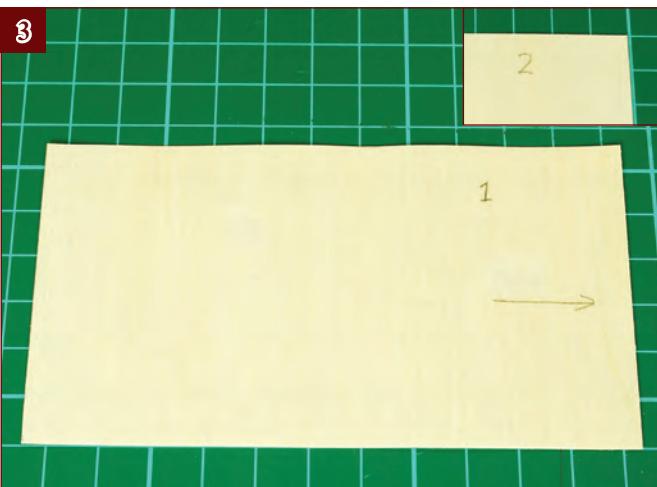
The deck planks are laminated on top of a piece of veneer cut to fit inside the hull. To stop the assembly warping, keep the completed deck panels pressed flat until you are ready to glue them in place and complete the cutaway.



1. Take one of the sheets of veneer and draw a line across it to mark the exact width of the opening in the middle gun deck. Make sure that the line is square, then cut the veneer to width.



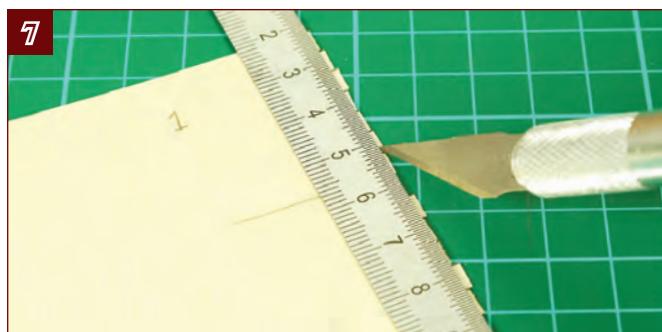
2. Insert the trimmed piece of veneer into the opening as far back as it will go. It will stop when it contacts a ladder. Then run a pencil along from underneath to mark where the edge of the deck comes on the veneer. Remove the panel and cut along the pencil mark to trim the veneer to the correct size to fit the deck.



3. Mark the front with a pencil arrow on the underside, and label this panel with a number 1. (When you make the lower panel, label it number 2.)



5. Cut a plank slightly longer than the veneer. Apply a thin layer of adhesive to one side and glue it in place. Ensure that the edge of the plank lines up exactly with the edge of the veneer, and be careful not to get glue on top of the plank. Let this dry before continuing.



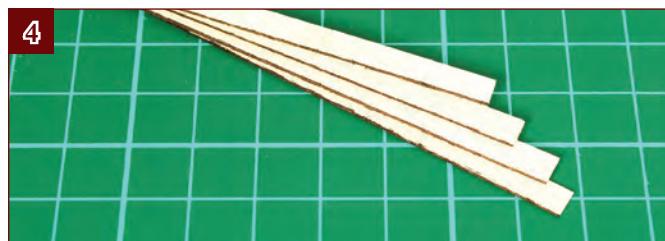
7. Turn the panel over and trim off all the excess planking that overhangs the veneer.



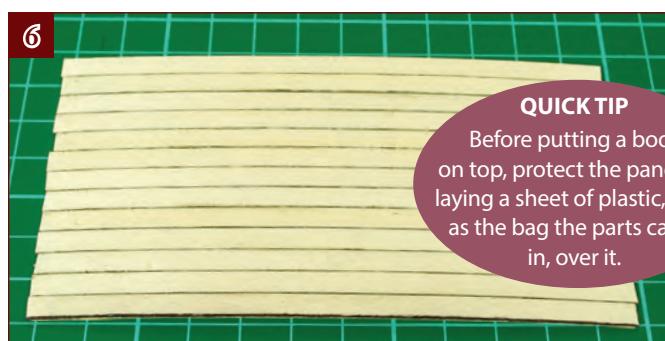
9. Alternatively, you can scrape the surface smooth by using a straight knife blade held almost, but not quite, upright (at an angle of about 75 degrees).

#### EXPERT TIP: GLUES AND INKS

Use a solvent-based general-purpose adhesive to glue the planks to the veneer, as a water-based adhesive is likely to make the panel warp. Before using a black marker pen to 'caulk' the planks, it is essential to test that the glue doesn't make the ink run. Whiteboard marker pens are recommended, as solvent glues are generally less likely to make this type of ink run. Alternatively, you can use a soft pencil to caulk the planks.



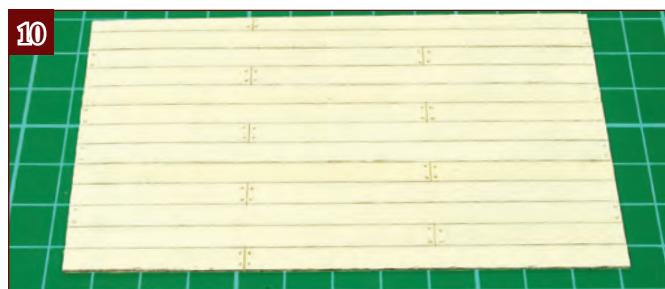
4. 'Caulk' the planks by running a black marker pen along one edge of each one (see Expert Tip above).



6. Continue gluing the planks until the whole veneer is covered. Place the panel under a heavy book or similar object to keep it flat while the glue hardens. Allow it to dry overnight.



8. Lightly sand the planking smooth. Work only in the direction of the grain to avoid getting ink into it and staining it.



10. Use a pencil to simulate the joints and nails in the planks as shown above. Then store the complete panel under a heavy book or similar weight to keep it flat until needed. Repeat the whole process to make panel number 2 for the lower gun deck.

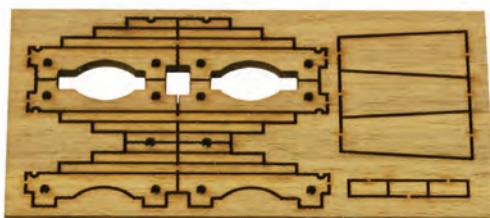
# Making the cutaway 2

The parts provided include components for the six guns (three per deck) that appear in the cutaway. Follow these instructions to assemble them.

## Gun parts

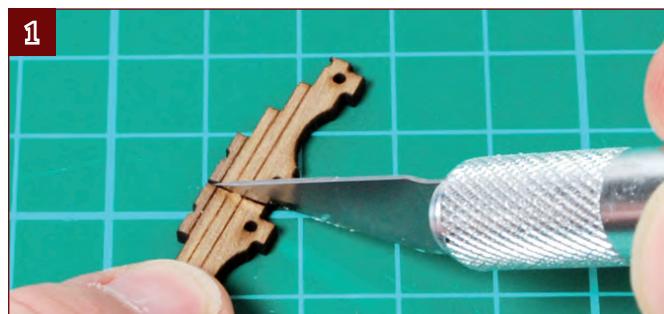
Ensure that you have all the components pictured in these checklists

1 x set of 3 large gun carriages  
(for the lower gun deck)

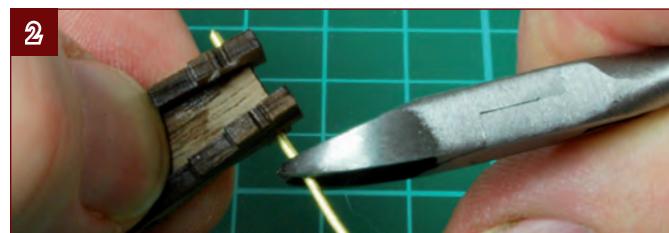


## Making the middle deck guns

Pre-assemble all three of the smaller guns – but do not glue the barrels yet, as you will need to line them up with the barrels already fitted into the gun ports. Keep any remaining parts until you are ready to complete the assembly.



1. Separate the two carriage sides from each other.



2. Fit the sides to the base, with the ridges on the outside and the narrow end of the taper to the front. Push the brass wire through one pair of axle holes and cut it to leave about 3 mm protruding on each side. Repeat this with the second axle.

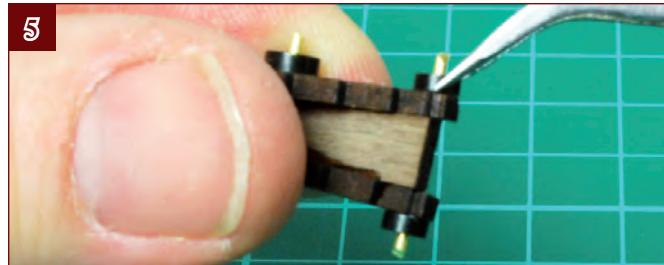


3. Hold the carriage together, with the axles centred and the base pushed down against them. Run a drop of superglue into the joints and under each axle to hold the parts together.



**QUICK TIP**  
If you are following the painted option, paint the carriage yellow ochre before adding the wheels and barrel.

4. Put a drop of superglue on the end of the front axle and place one of the larger wheels onto it, then repeat on the other side.



5. Glue a smaller wheel to the rear axle. Repeat on the other side.



6. File the ends of the axles flat, leaving about 0.5 mm protruding beyond each wheel.



7. Lay the brass wire across the top of the carriage. Cut it to length, file the ends flat and fit it through the hole in the barrel.



8. Lay the barrel in the carriage, but do not glue it. Make sure you don't lose the small brass cap squares and other small parts that aren't being fitted just yet.

## Making the lower deck guns

The larger guns fitted to the lower deck are similar to those on the middle deck, but as the carriage has an extra piece running across the front, it must be assembled slightly differently.



1. Separate the parts of the carriage and glue the base to one side. It must be level with the tops of the axle holes, and should be set back 2 mm from the front of the carriage.



2. Check that the barrel fits between the carriage sides before gluing the second side in place. If necessary, file the inside of the carriage a little to increase the clearance.



3. Glue the second side to the base, making sure that it fits just above the axle holes in the same way as the first side.



4. Glue the front piece to the carriage (you may need to trim it to fit). The top of this part should be 0.5 mm above the base.



5. Paint the carriage yellow ochre, if you are following the painted option.



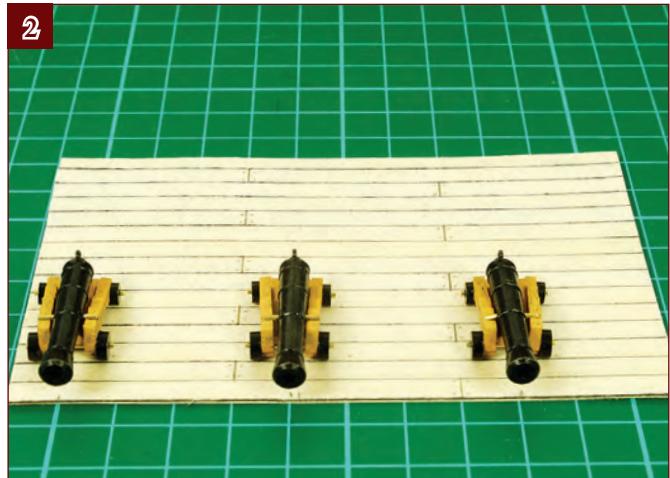
6. Add the axles. Then fit wheels and prepare the barrel in the same way as for the guns on the middle deck.

# Making the cutaway 3

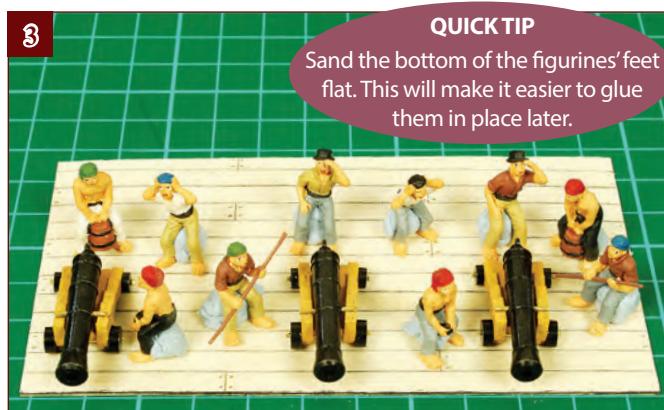
It is now time to complete the cutaway, which you will do by adding the 20 crouching gunners finished in the figurine painting guide. Begin by assembling the dioramas using the decks and guns you made in Parts 1 and 2, then slot these into the hull.



1. Take the lower deck and slide it into position, then put the larger guns in place. (Use the wider, lower carriages and the larger barrels.) As the arrows indicate, the muzzles should be positioned directly below the upper deck guns, and angled so they align with the dummy gun barrels on either side. Indicate the positions of the front wheels of the carriage with light pencil marks.



2. Remove the deck and place the guns back on their pencil marks, but do not glue them yet.

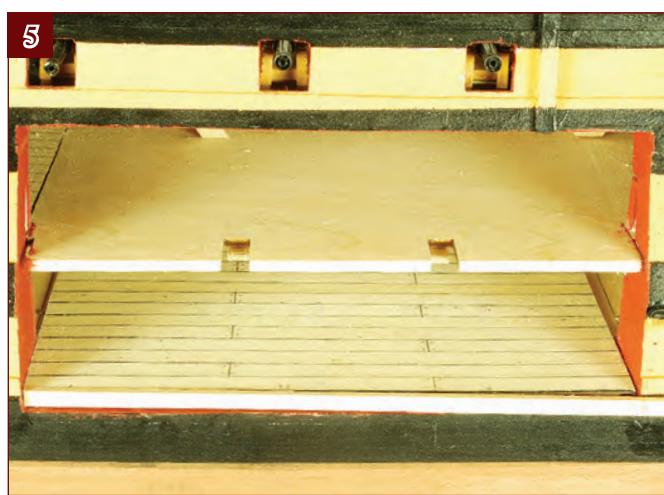


**QUICK TIP**  
Sand the bottom of the figurines' feet flat. This will make it easier to glue them in place later.

3. Take half of the crouching gunners and place them around the guns. You can vary the arrangement shown, but you will need to remember which goes where. Use pieces of sticky blue putty to stop the figurines falling over. Then indicate the position of each figurine's feet with light pencil marks.



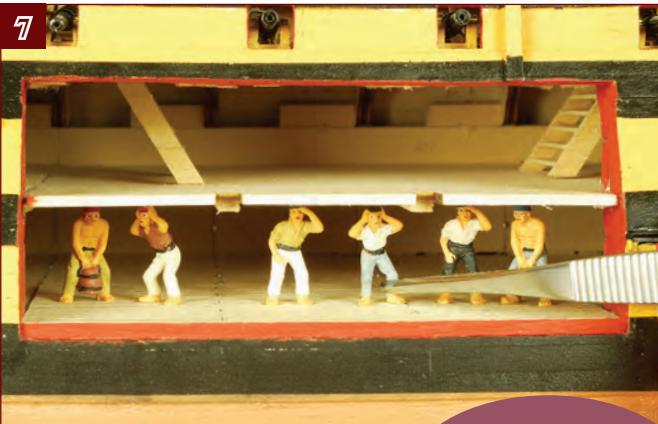
4. Remove the guns and figurines, then glue the deck in position using a solvent-based general-purpose adhesive (not a water-based glue, as this can cause warping). Spread an even layer of adhesive over the bottom of the deck and quickly put it in place. Press the whole deck down firmly until the glue sets.



5. Take a piece of 2 x 3-mm wooden strip, then mark and cut it to the length of the cutout in the hull planking.



6. Paint the outer face of the strip either black or red ochre, then glue it in place to cover the visible edge of the deck.



7. Using a pair of tweezers, glue the figurines in place on their marks, starting with the ones at the rear. Use a small drop of superglue for each foot.

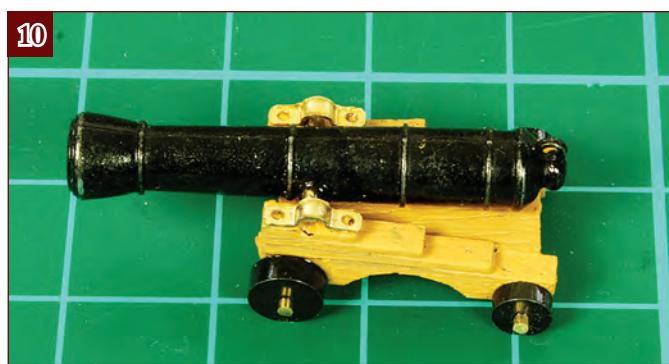
**QUICK TIP**  
If the gunner wearing the hat is too tall, sand down his hat a little.



8. Continue to fit the remaining figurines at the front.



9. Put the guns back in place but do not glue them. Set each barrel at the right angle to align with the dummy guns (as in Step 1), then apply drops of superglue to the trunnions to fix its position.



10. Carefully remove each of the guns and glue the cap squares in position to cover the trunnions.



11. Now glue the guns back in the diorama, applying superglue to the bottom of each wheel to fix the carriage to the deck.



12. Paint the tampions red ochre and place them in a position of your choice. (You may prefer to omit them, as they were not necessarily stowed beside the gun during action.)



13. Repeat the process to assemble the diorama on the middle deck. Space the guns to match the dummy barrels, noting their offset positions in relation to the upper and lower deck guns.

**THE  
CUTAWAY IS  
COMPLETE**



Congratulations!  
You have now completed  
your 1:84 scale model of  
**HMS *Victory***  
We hope you enjoy it!