

GOLDEN HIND, 1577

SCALE: 1/72
Length: 500mm
Width: 225mm
Height: 460mm

HISTORY:

Golden Hind was a ship of Sir Francis Drake during his circumnavigation of the globe between years 1577-1580. Original name of the ship Pelican but Drake renamed her just during the voyage in 1578. There are no available original plans or construction drawings of the Golden Hind but it is supposed that the ship was about 25 meters long and had about 120tons displacement. The ship was armed by 18 guns of various calibres. This model was basically reconstructed after pictures of Golden Hind on Hondius' map of the world from 1595.

Recommended tool list:

- 1) Modeler's knife or scalpel
- 2) Mini drilling machine
- 3) Drill bits
- 4) Selection of abrasive paper
- 5) Scissors
- 6) Pliers
- 7) Clothes pegs or crocodile clips
- 8) Pencil
- 9) Rule
- 10) Set of needle files
- 11) Electric plank bender
- 12) Mini-lathe

Before you begin:

Before you begin to build the model it is necessary with a vengeance read building instructions and plans. Also chronology of assembly steps is necessary to keep. You check if the parts go together before you glue it respectively you make any corrections with sandpaper. During the gluing, painting, lacquering and at work with another chemical materials is necessary well ventilated in your working room. You cut the parts from sheet until actually required for fitting. You cut by knife only in direction off ward your body so that you head to injury risk. It is recommended to use water based white glue to gluing wooden parts and cyanoacrylate glue for gluing resin and brass parts.

Coloring:

Medieval ships were protected against influence of salt water and woodworms by a mixture of tar and thanks to it the hull of ships was a reddish-brown or brownish-black color. This effect is possible to get by staining of the wood by dark wood stain. It is recommended to use the wood stain before gluing of the parts. Decks of the ships were probably in naturally color of wood. Anchors and other metal parts were a black color.

17th Century galleons were decorated by color geometric shapes painted on their boards. This decoration is possible to do by using of self adhesive tapes (which can be used as mask) and colors commonly used for painting of plastic kits.

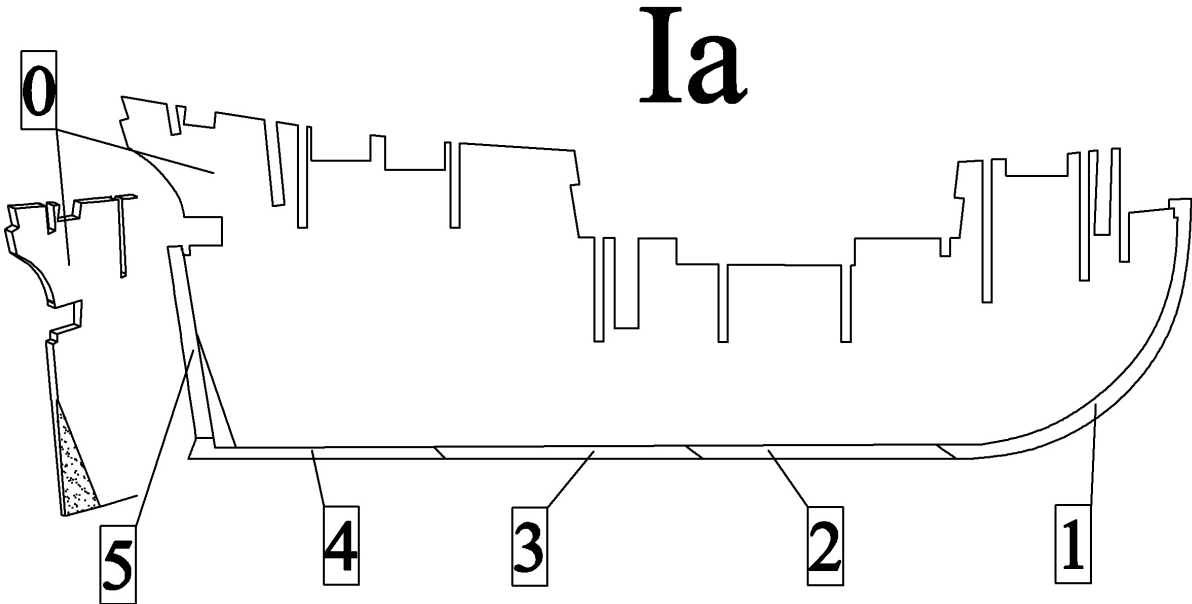
Bending of wooden strips:

The Wooden strips will be more flexible if you will boil it in hot water about 10-15 minutes. You can bend the strips along any cylindrical area but ideal is using of special plank bender (it would be best to use electric plank bender). If you need to do very small radius so you must bend it in more steps.

Model building process:

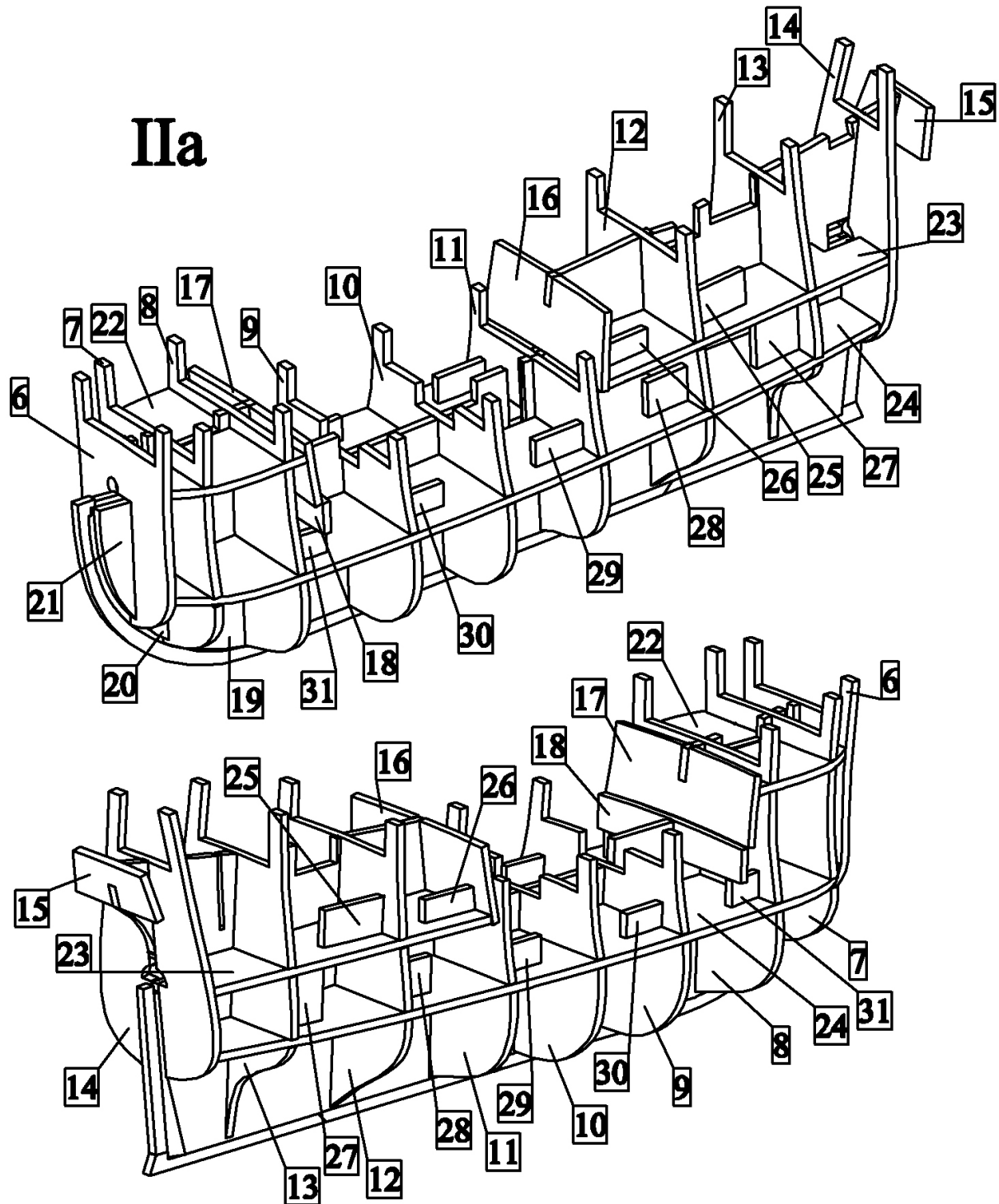
I) Keel:

a) First grind the part 0 on its stern as it is shown on the figure below. Then glue parts of keel 1-5 to the part 0.

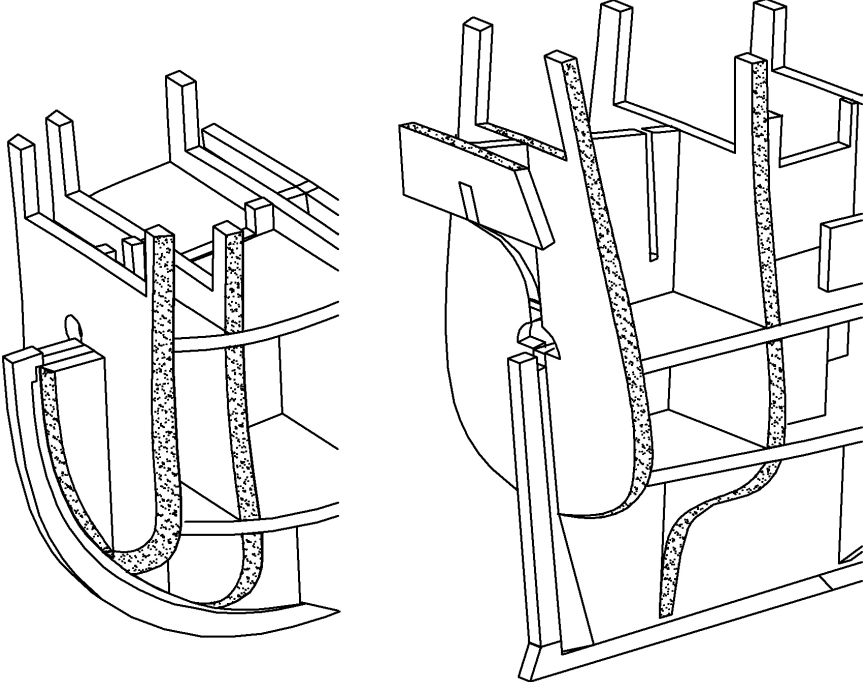


II) Framing of a hull:

a) Glue the framing form parts 0-31 as it is shown below.

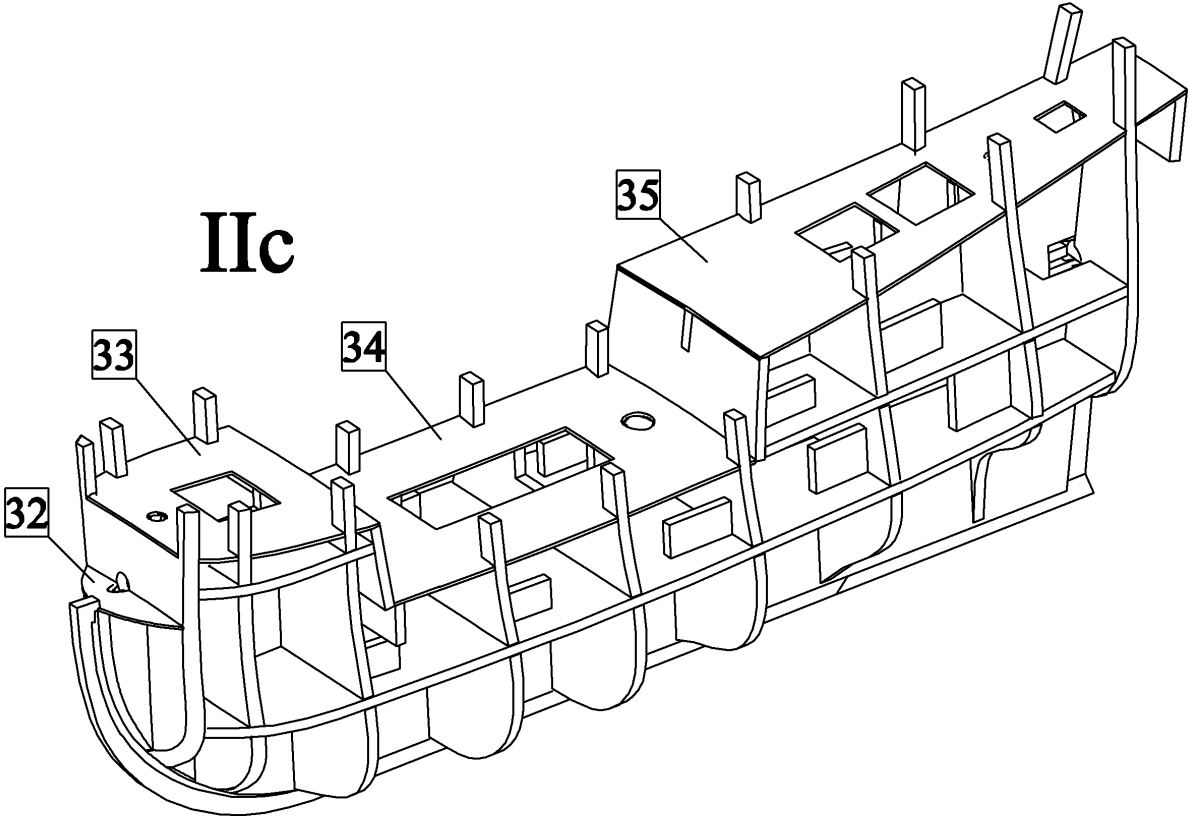


b) Grind the frames on the bow and stern as it is shown in the figure.



IIb

c) Glue decks 32-35 to the framing of the hull.

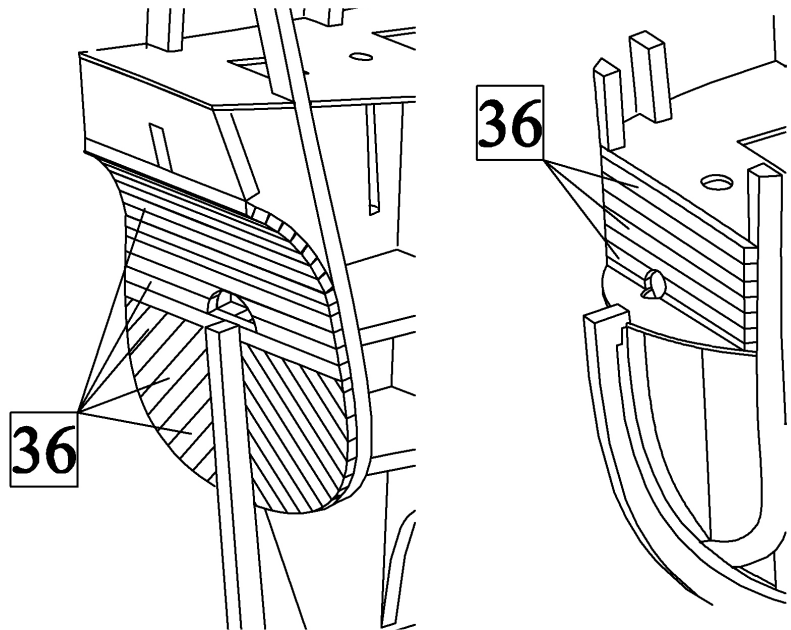


IIc

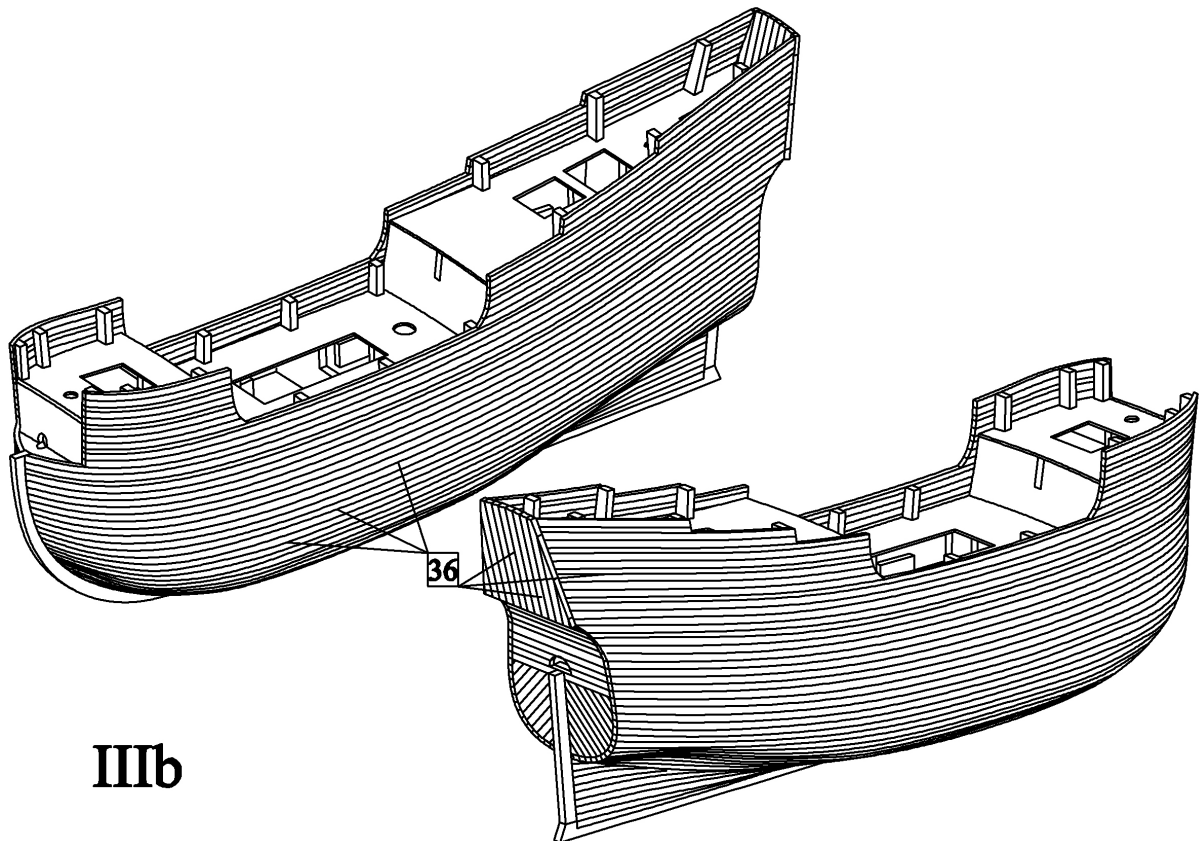
II) Planking I:

a) Plank stern and bow by strips 36 as it is shown in the figure.

IIIa

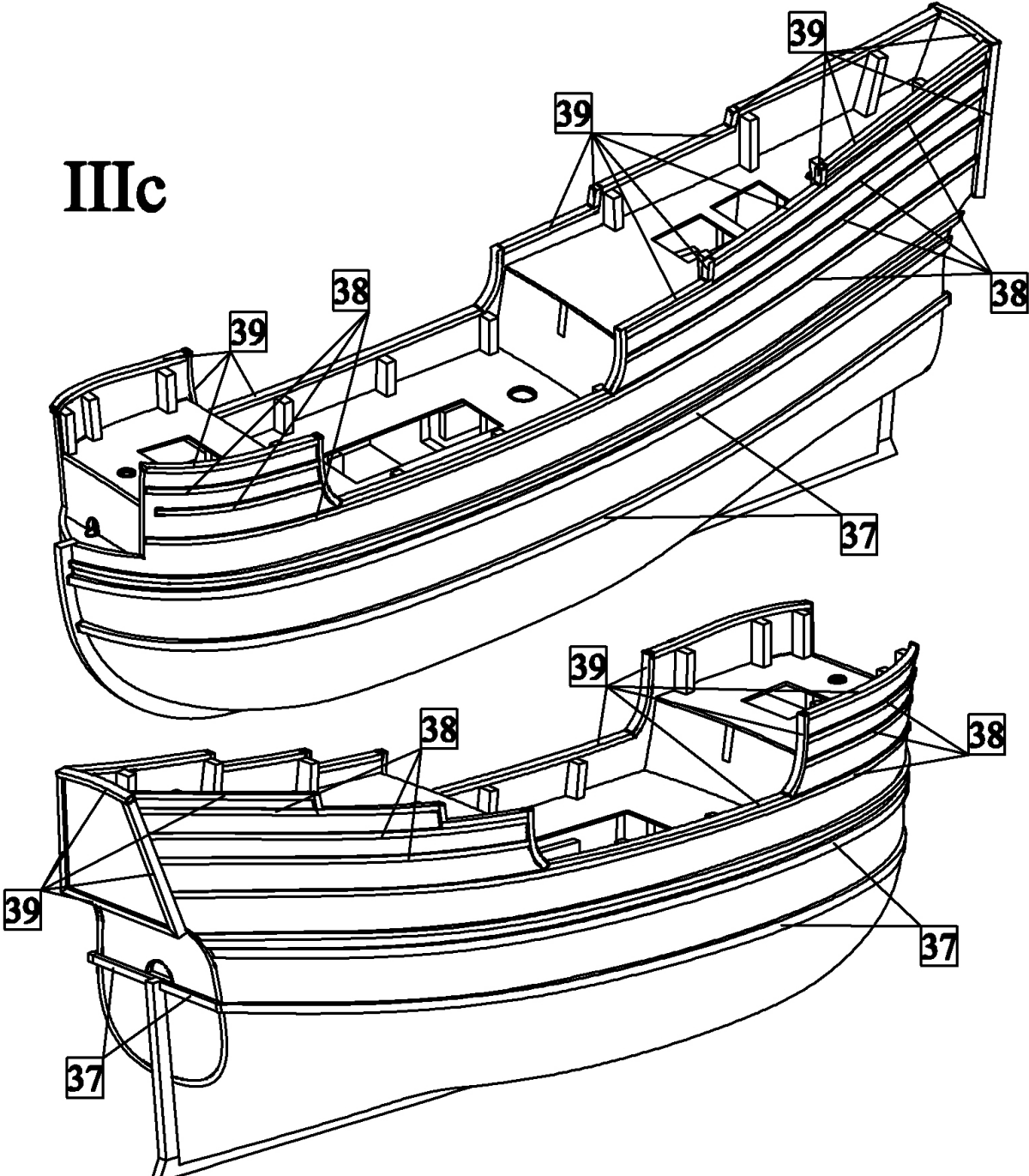


b) Plank the hull by strips 36. Make the planking in directions from the bow to the stern. Finally plank also the stern.

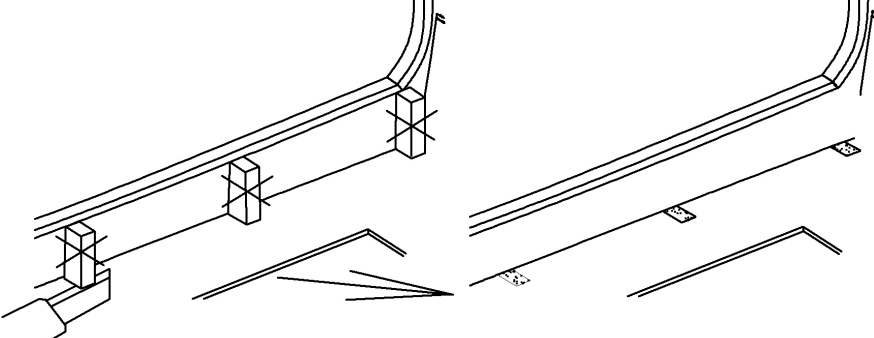


IIIb

c) Glue wales 37 and 38 and edging 39 to the bows and stern.

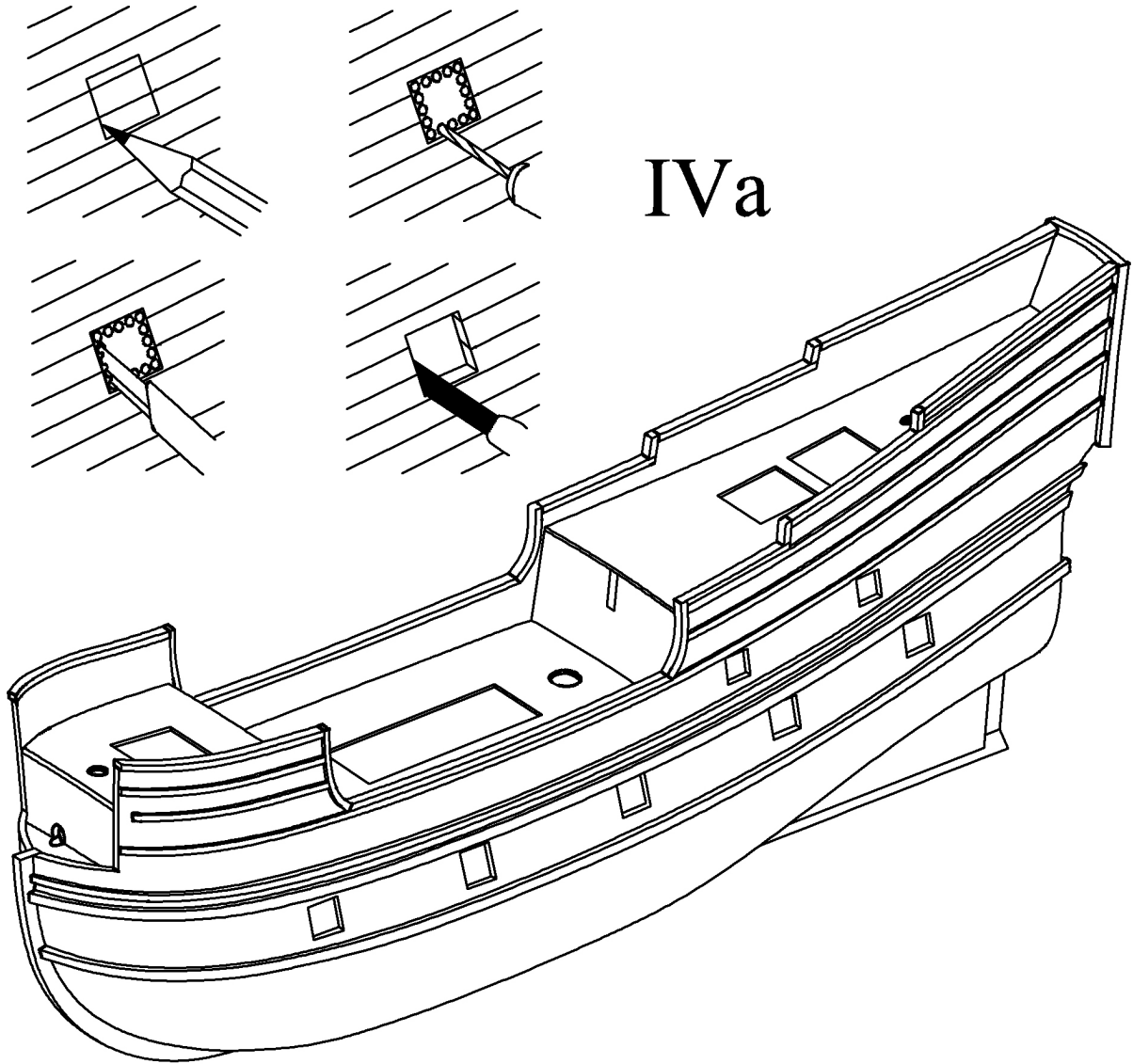


d) Carefully cut off parts of the frames which overhang the decks.



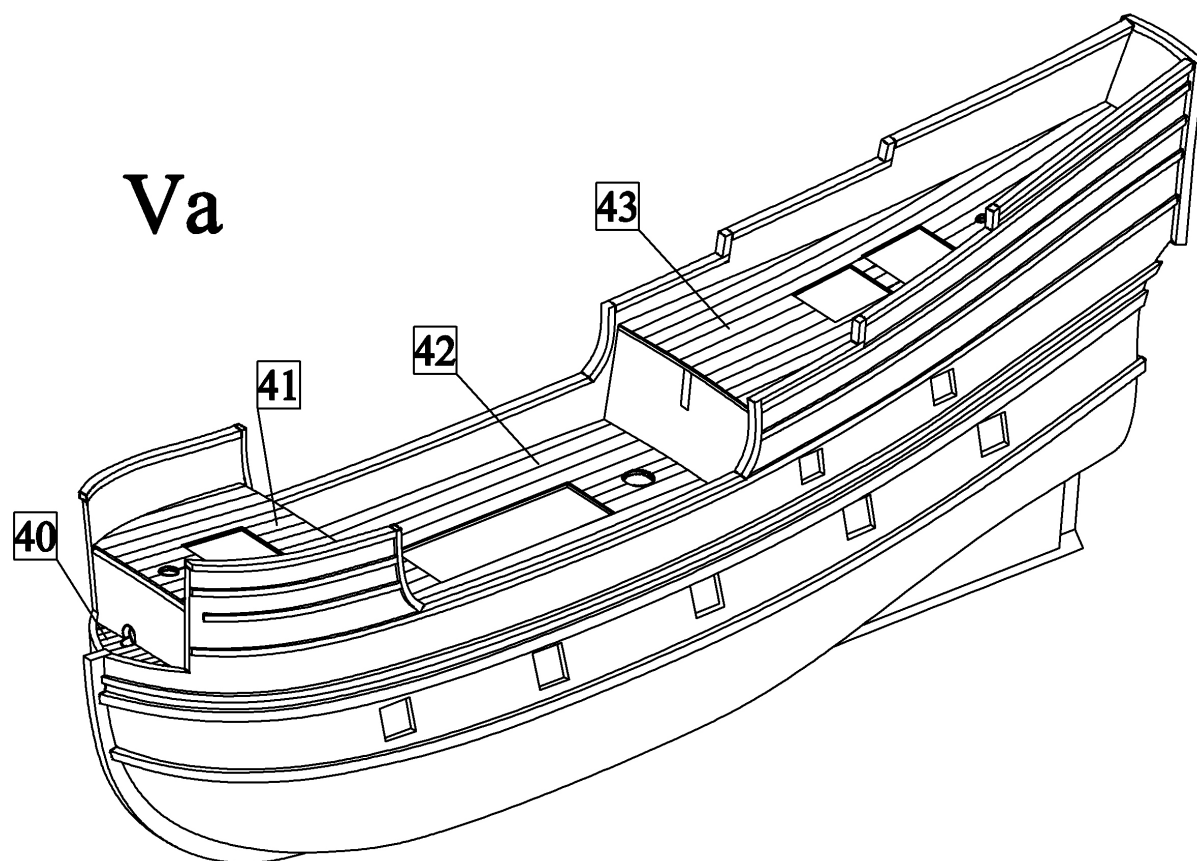
IV) Gun ports:

a) Make gun ports into the hull. First draw outlines of the gun ports by a pencil on the hull. Then drill holes near the outlines. Then cut out the gun ports by a sharp knife or scalpel. Finally sharpen the gun ports by needle files.



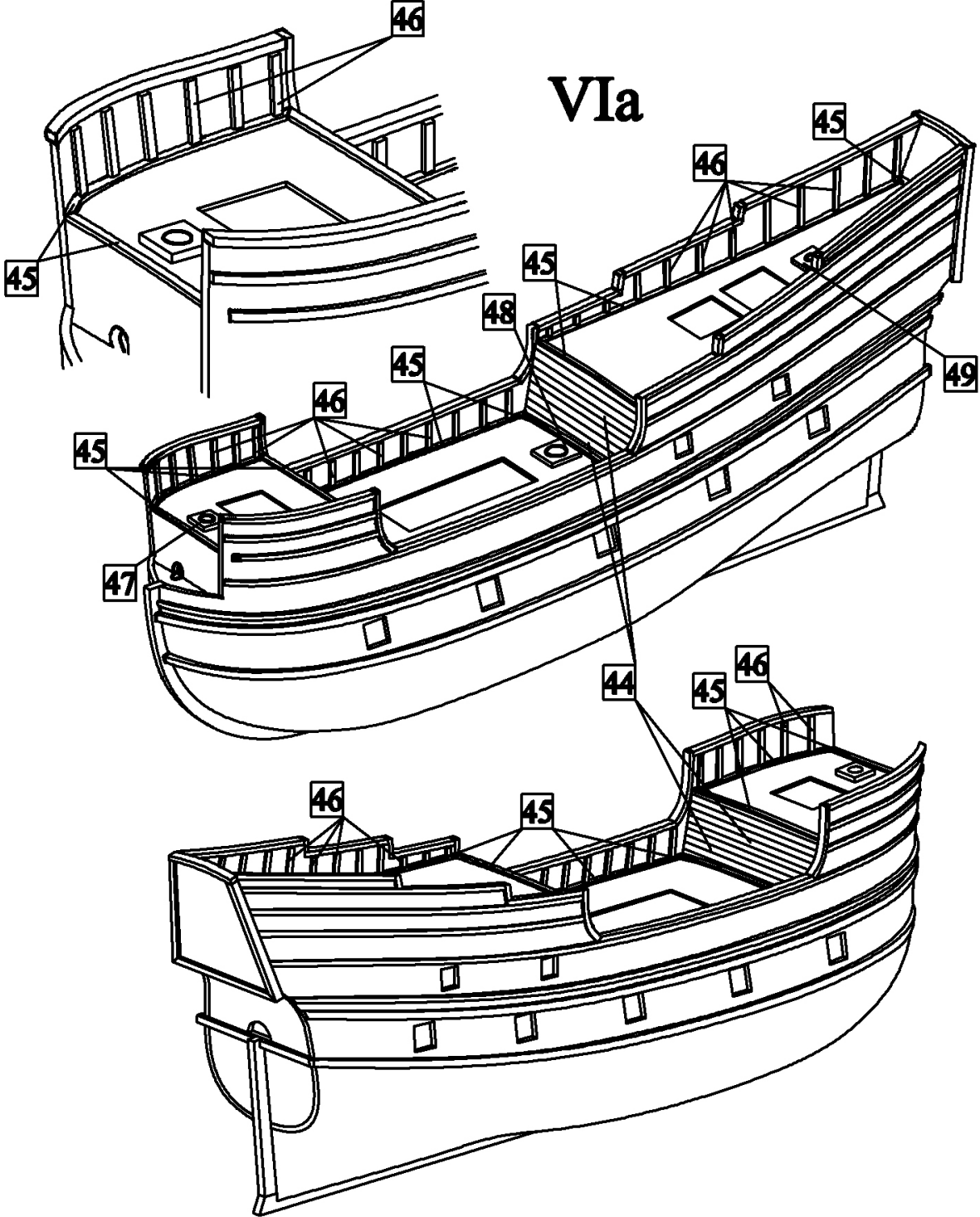
V) Decks:

a) Glue decks 40-43 on their places.



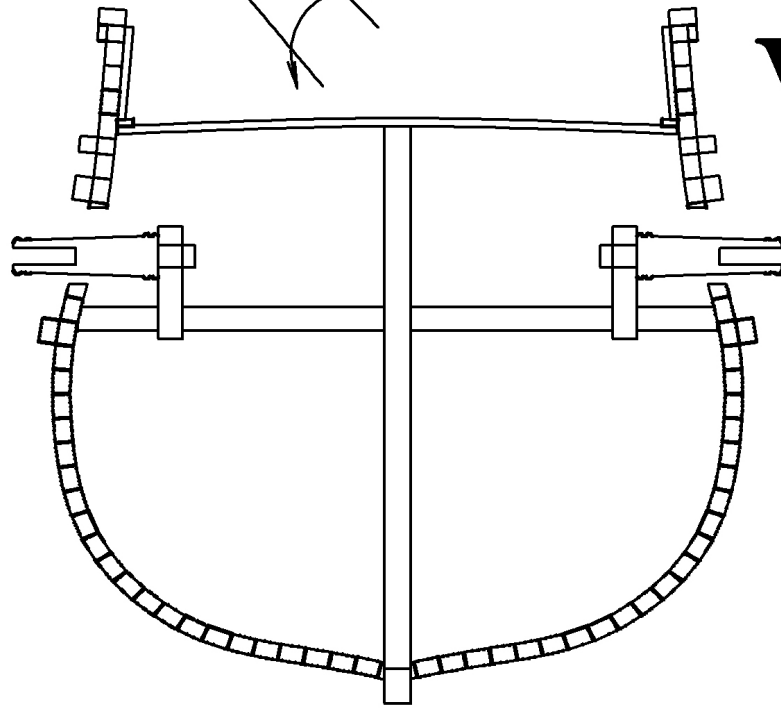
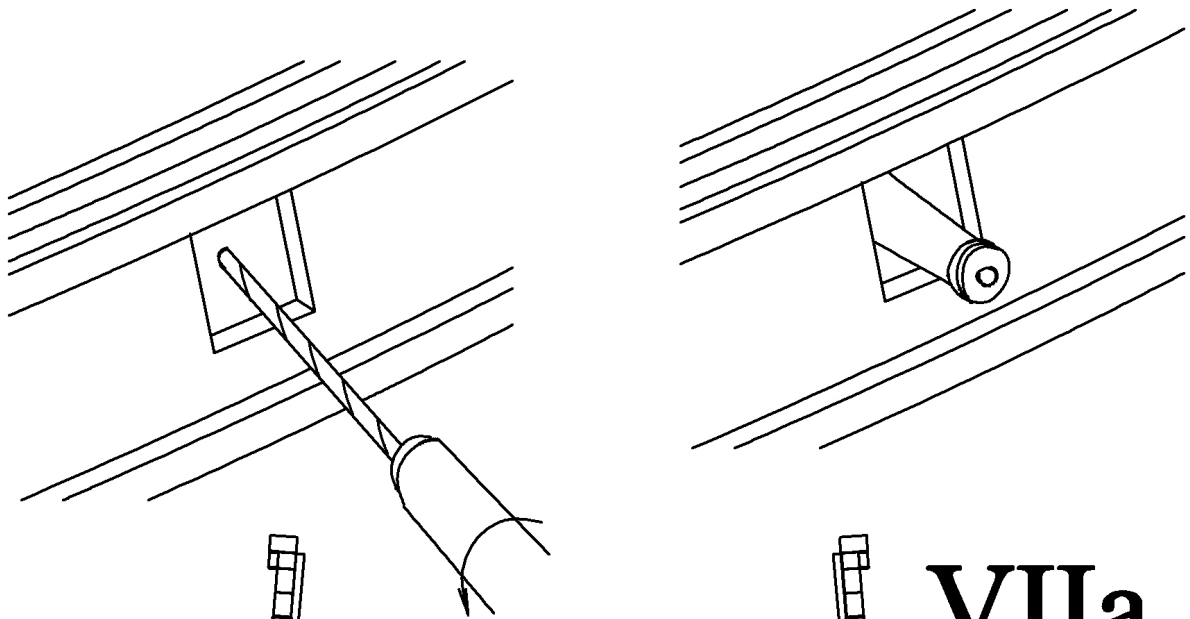
VI) Planking II:

a) First plank the sides of main deck by strips 44. Then glue waterways 45 to all decks and framing 46 to the sides. Finally glue mast foots 47-49 to the decks.



VII) Gun barrels:

a) First drill holes into the frames 25-31 and then glue gun barrels 50 and 51 into the holes.

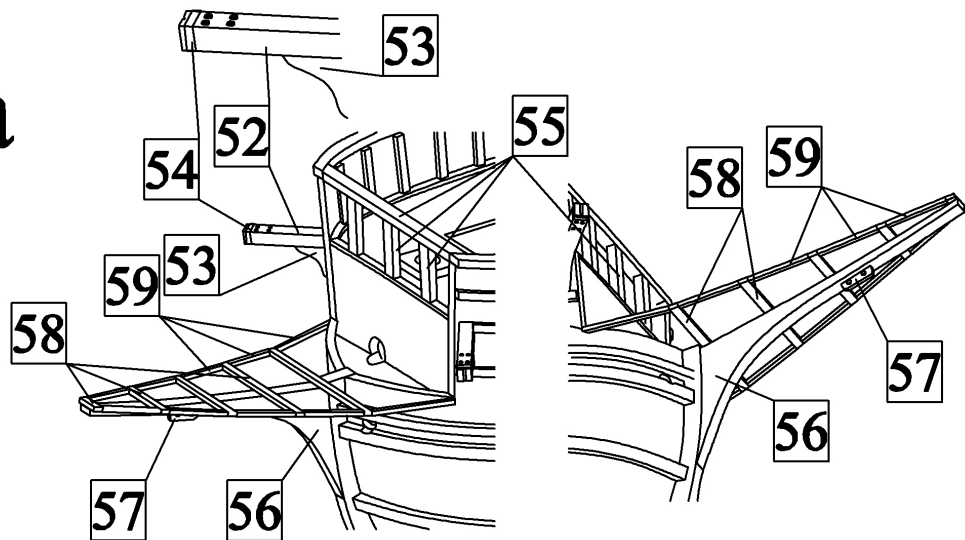


VIIa

VIII) Head:

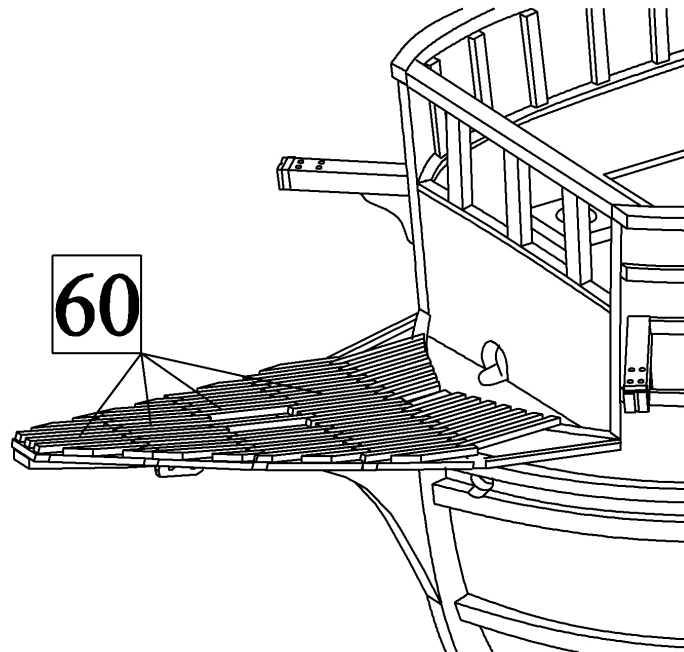
a) First drill hawse holes to the bow. Then make catheads from parts 52-54 and glue them to the hull. Then glue knee of the head 56 with part 57 to the stem. Then glue head timbers 58 and 59 to the bow.

VIIIa



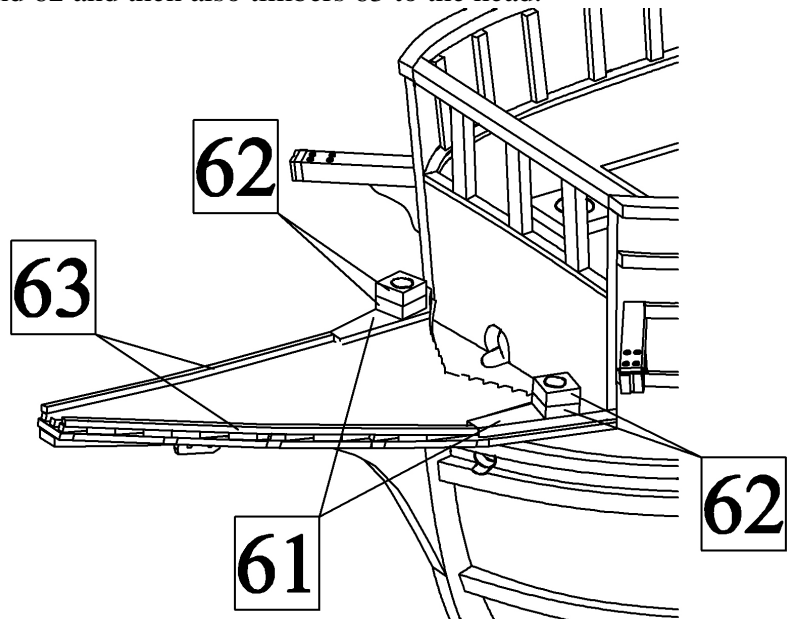
b) Glue head gratings 60 to the bow.

VIIIb



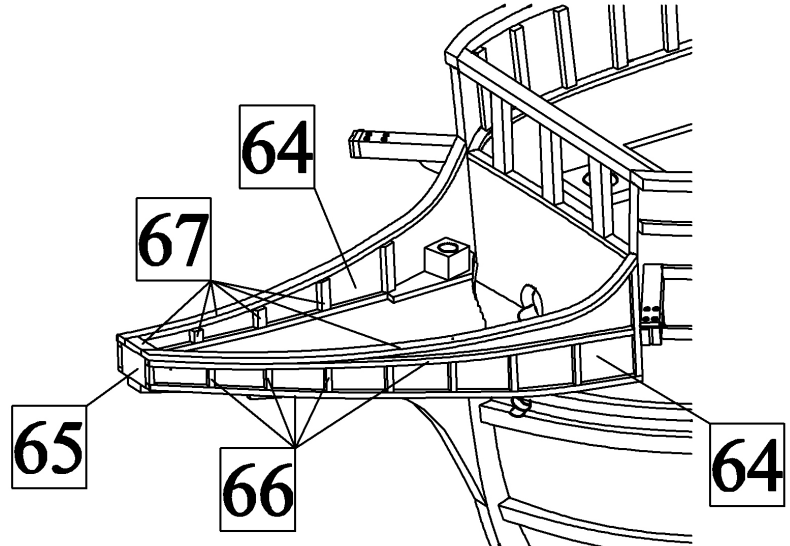
c) First glue parts of toilets 61 and 62 and then also timbers 63 to the head.

VIIIc



d) Glue parts 64 and 65 to the head and then reinforcement them by strips 66 and 67.

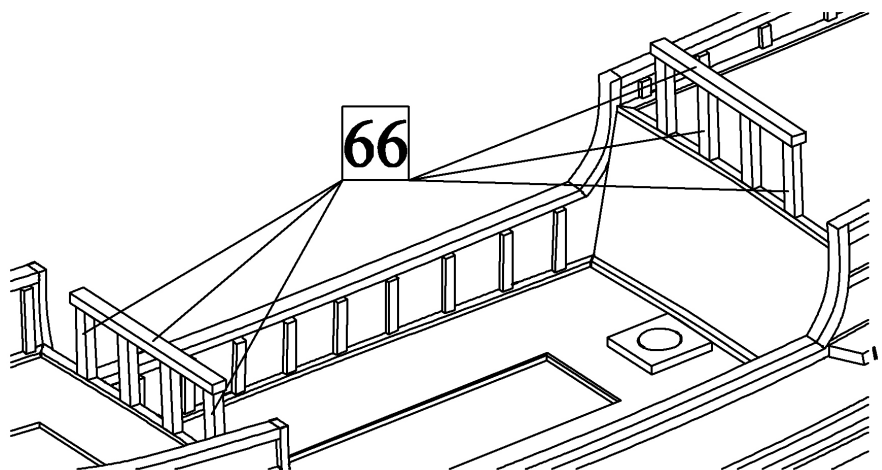
VIII d



IX) Details:

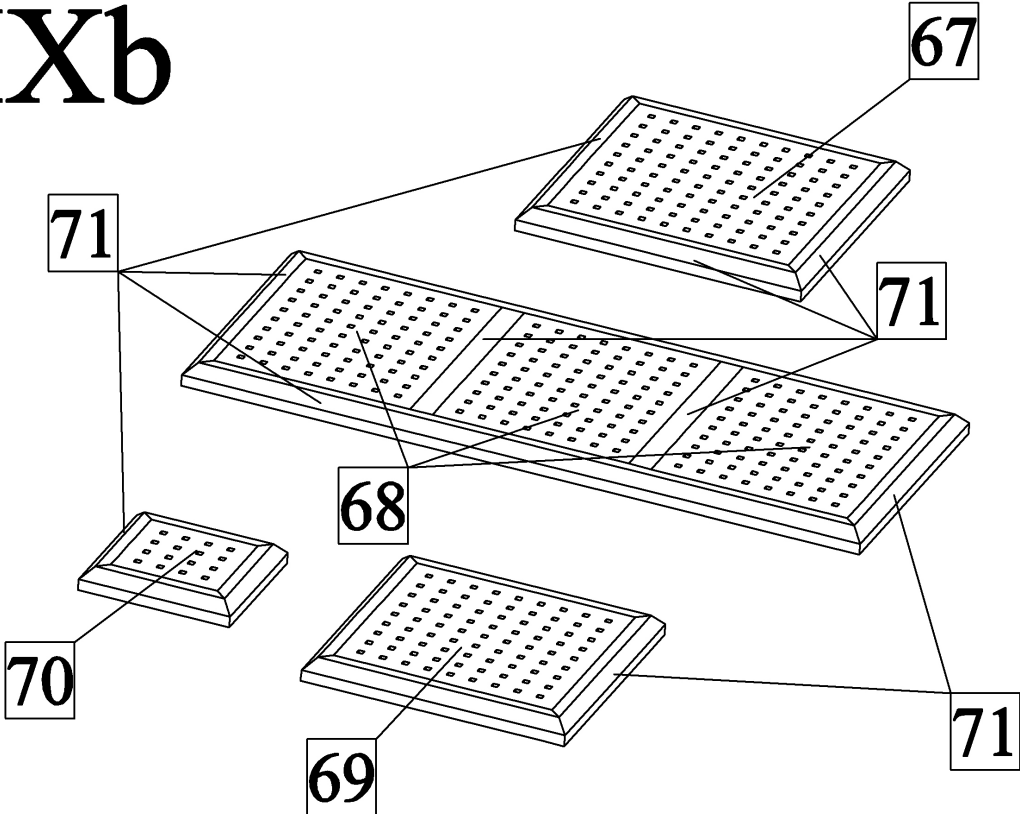
a) Make railing 66.

IXa

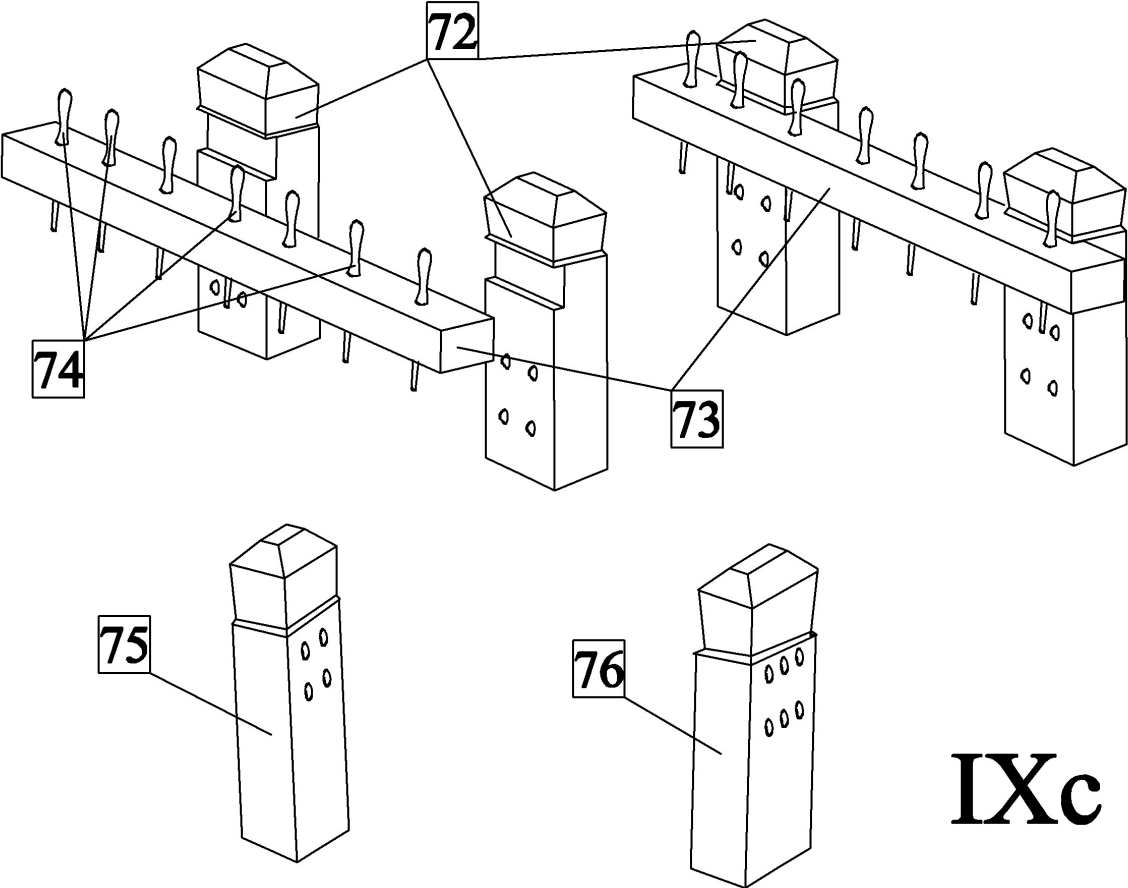


b) Make deck gratings from parts 67-71.

IXb



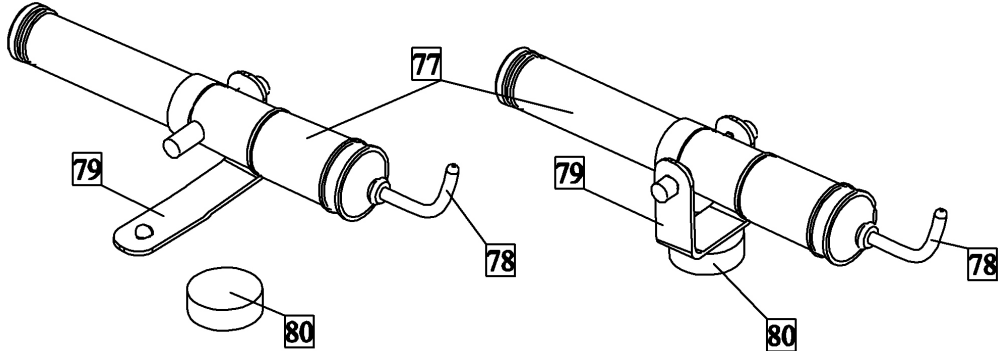
c) Make knightheads from parts 72-76.



IXc

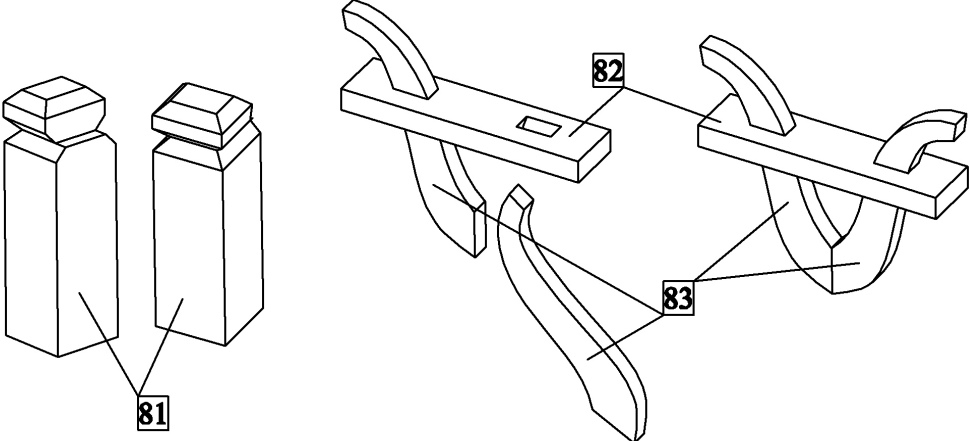
d) Make swivel guns from parts 77-80.

IXd



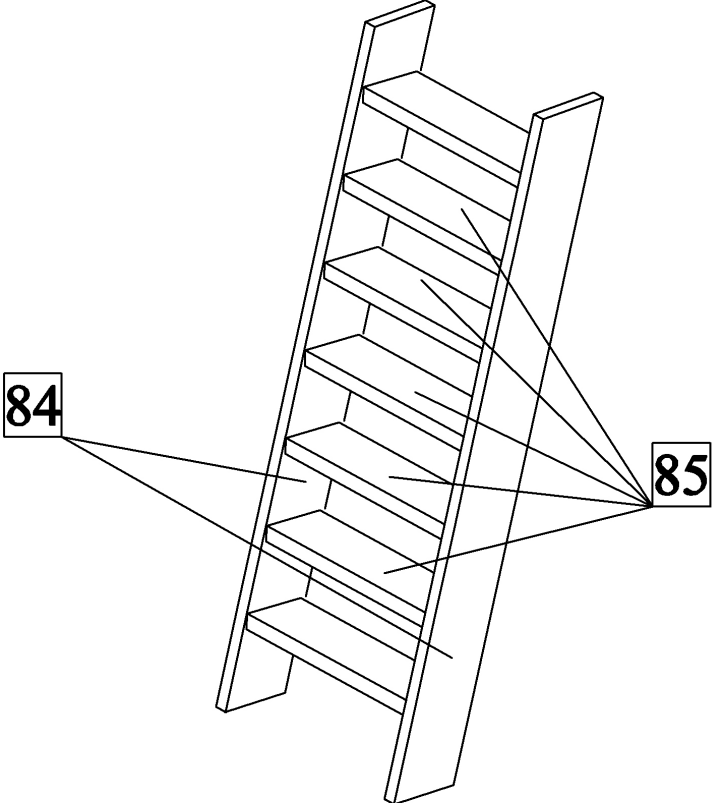
e) Make staghorns and kevel blocks from parts 81-83.

IXe

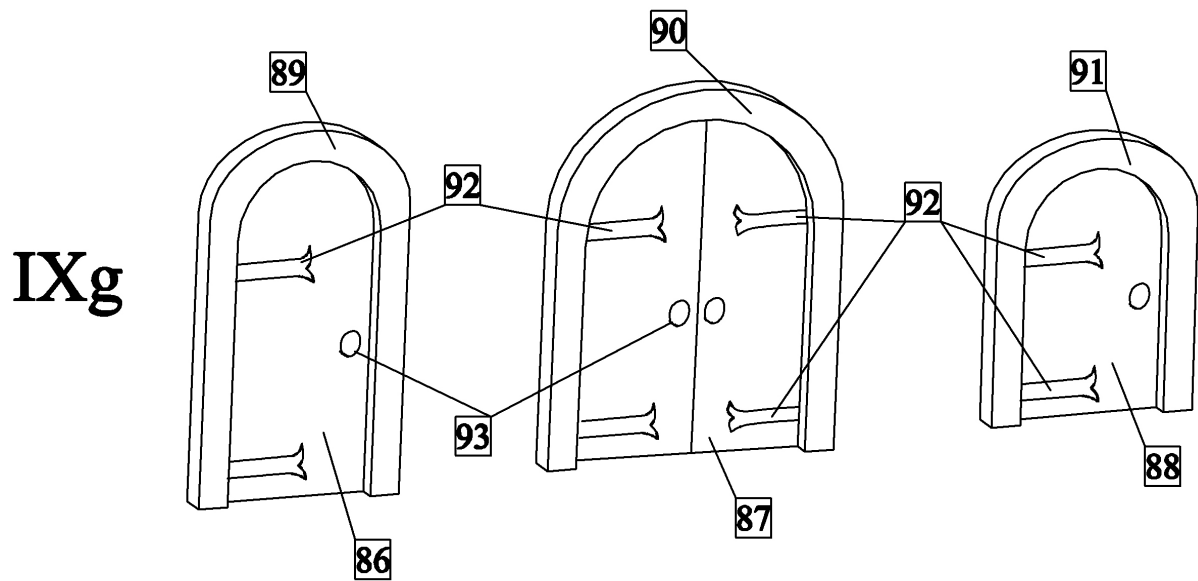


f) Make stairs from parts 84 and 85.

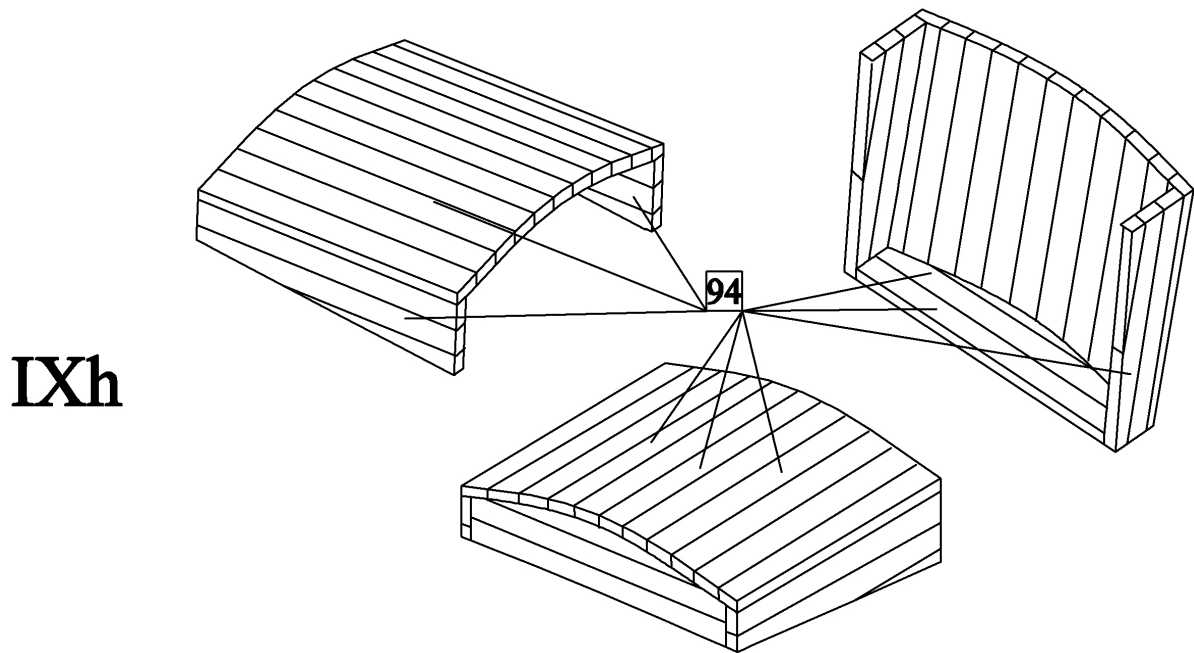
IXf



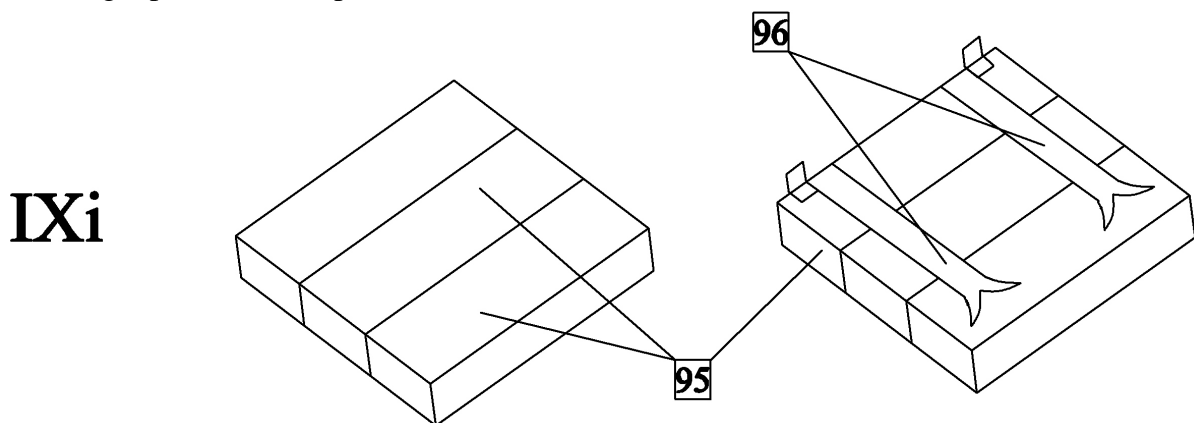
g) Make doors from parts 86-93.



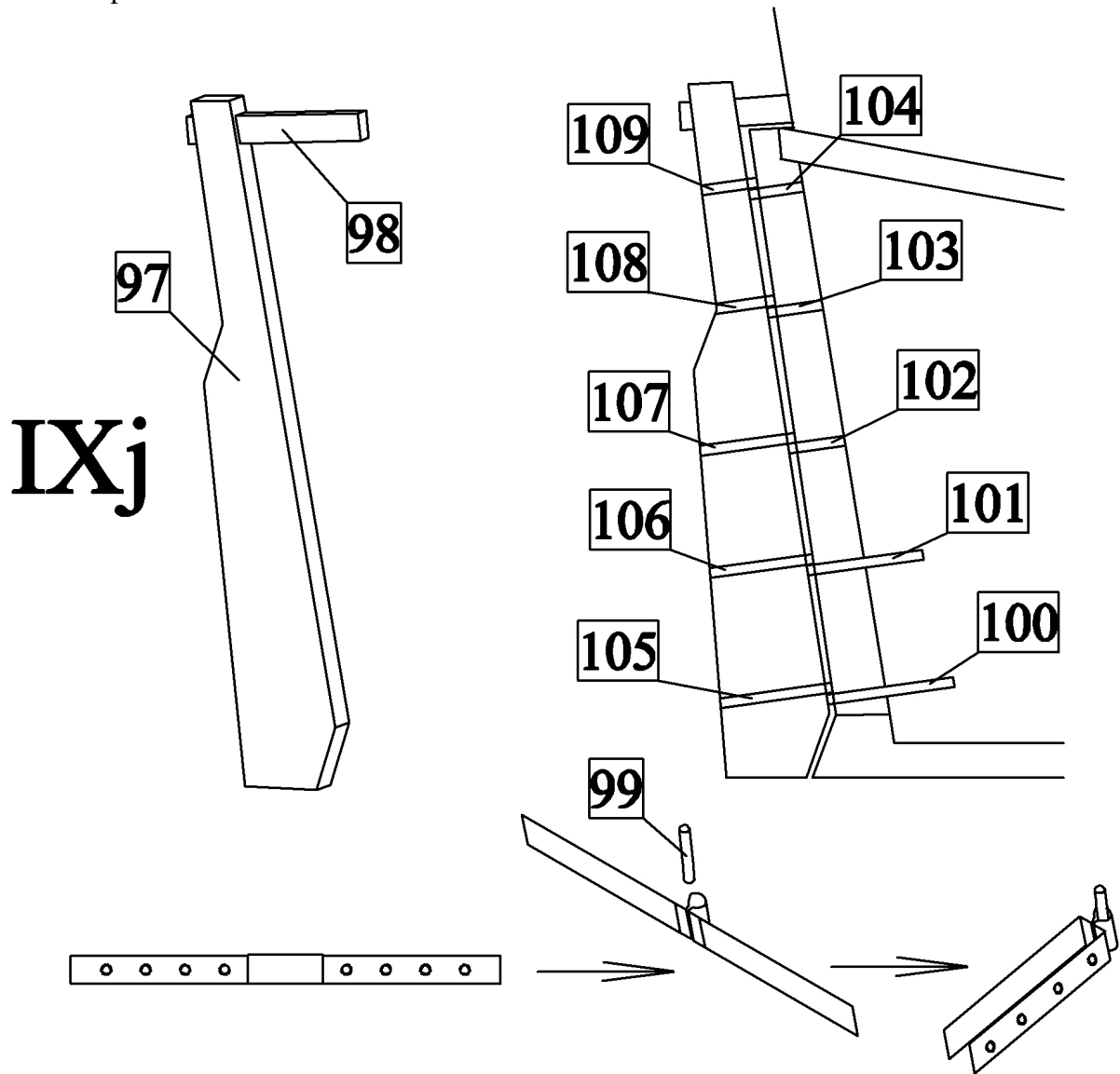
h) Make a helmsman's shelter 94.



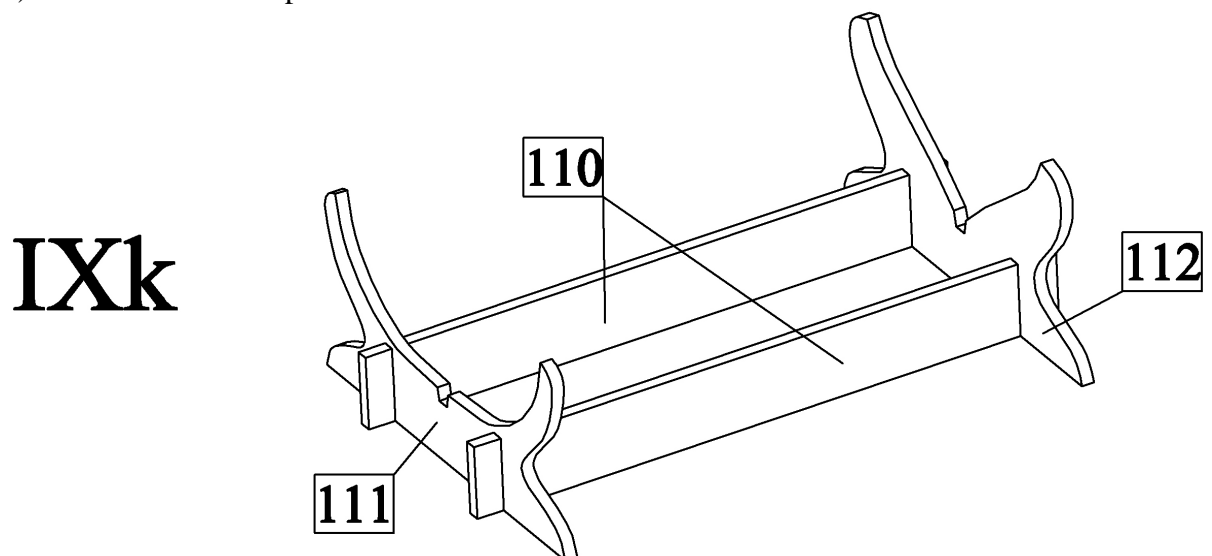
i) Make gunport lids from parts 95 and 96.



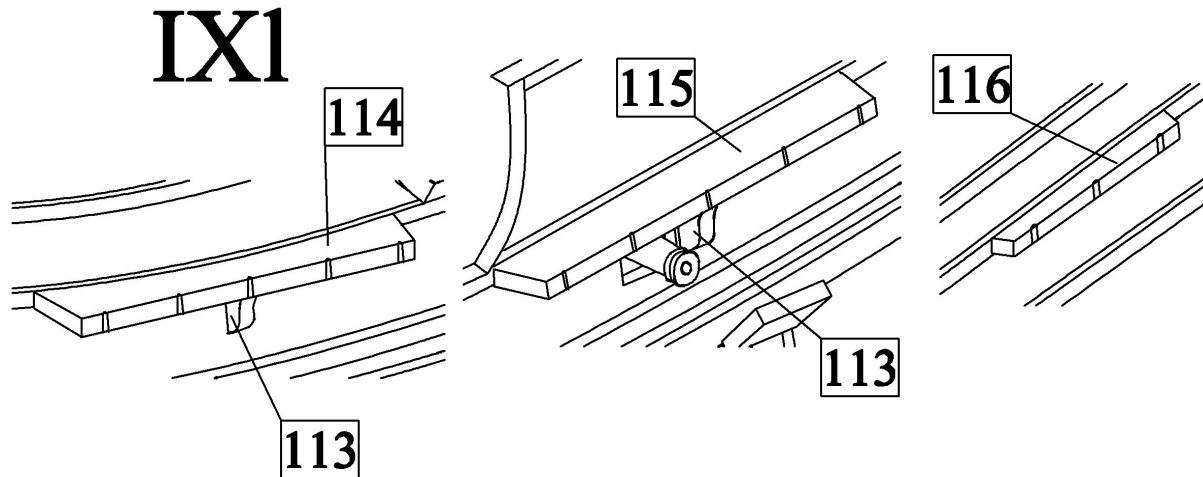
j) First make a rudder from parts 97 and 98. Then install the rudder through hinges 100-109 to the stern post.



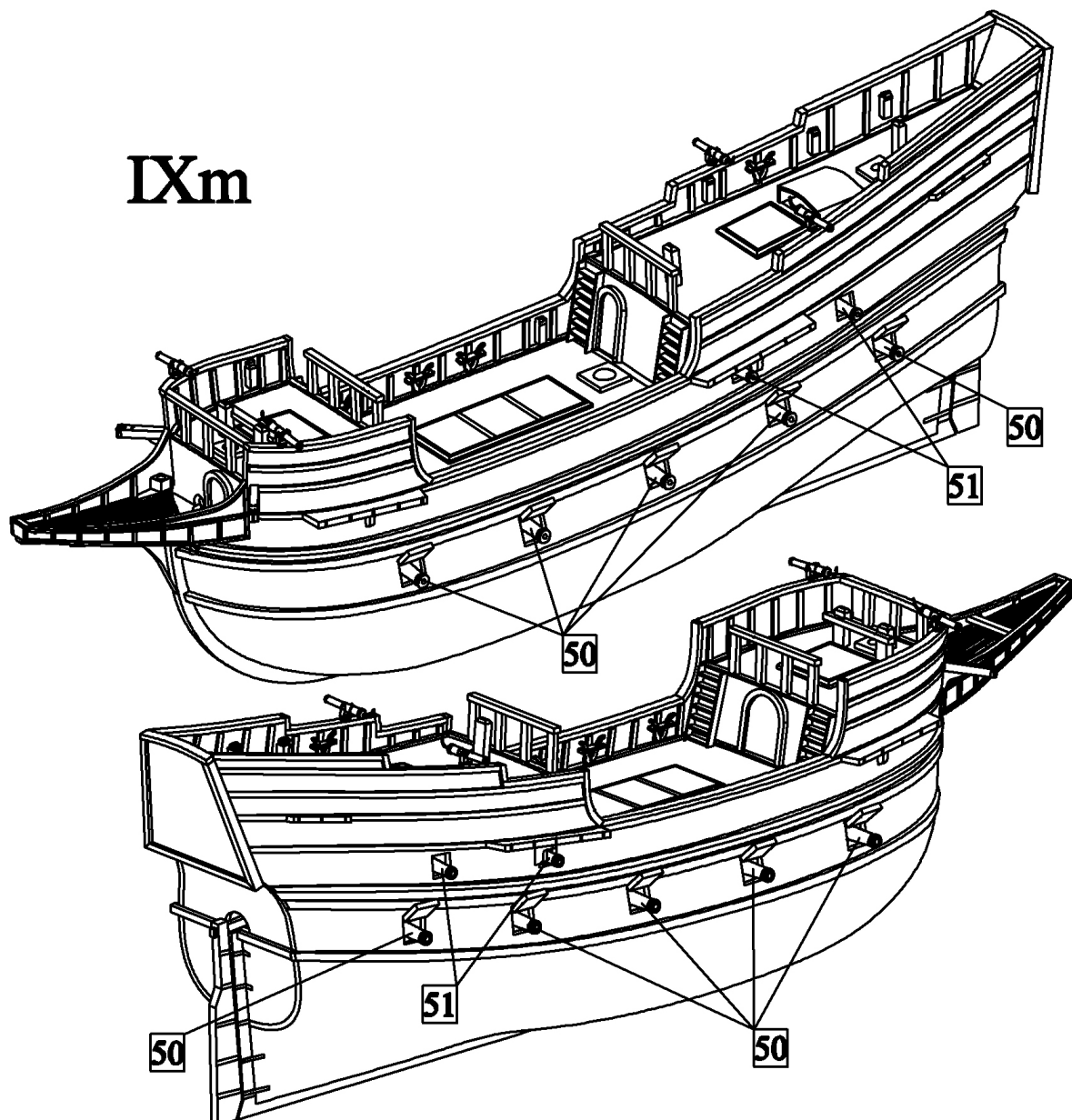
k) Make a stand form parts 110-112.



l) Glue channels 113-116 to the hull.

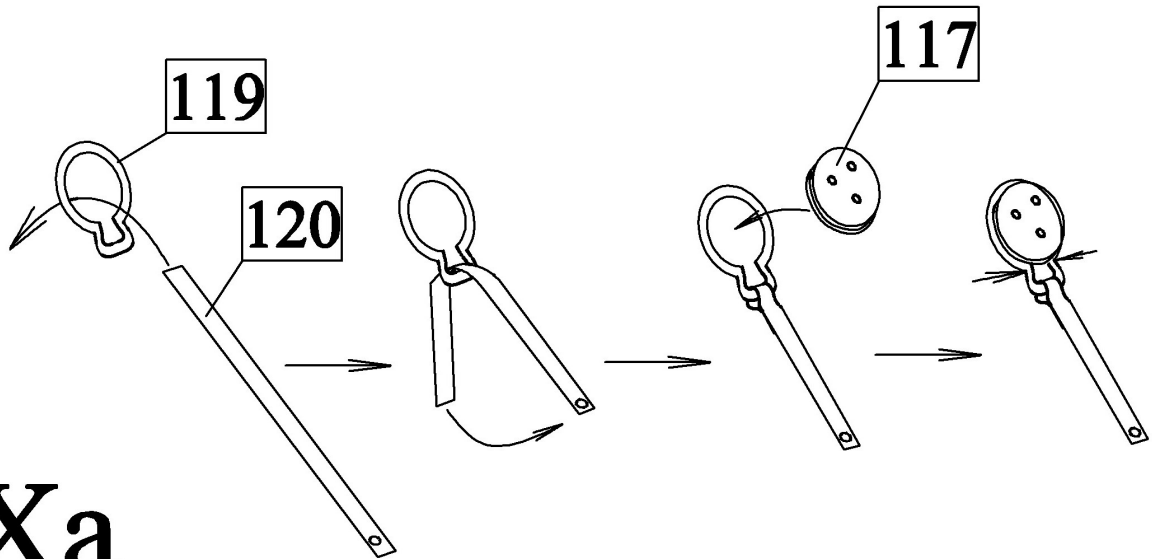


m) Install the simple details to the ship as it is shown in the plan.

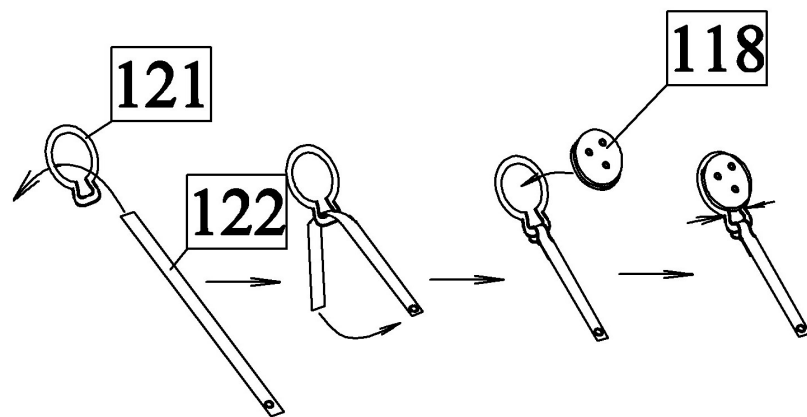


X) Deadeyes blocks:

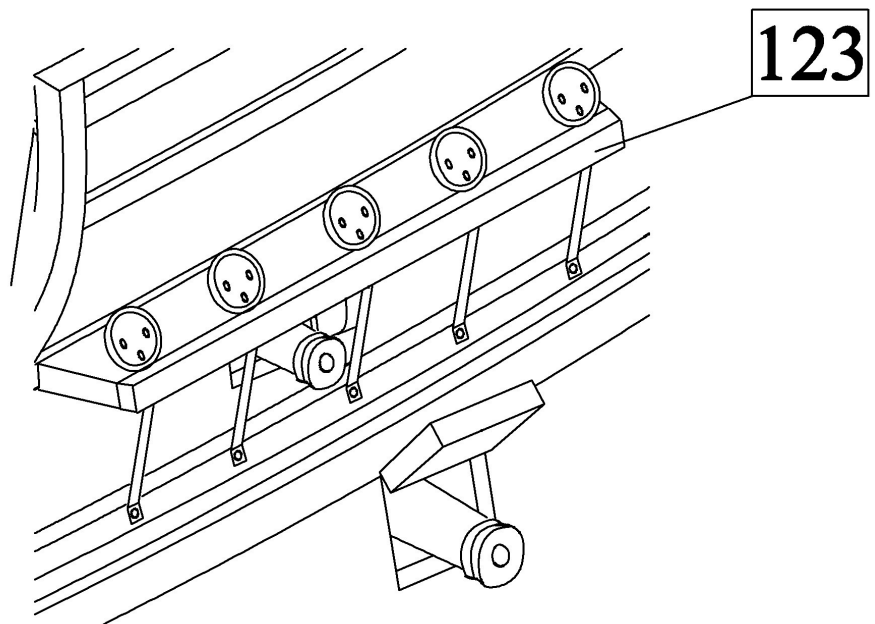
a) First pass parts 120 and 122 through hoops 119 and 121 and then bend them and glue them. Then put deadeyes blocks 117 and 118 to the hoops. Finally press the hoops in their neck as it is shown in the picture.



Xa



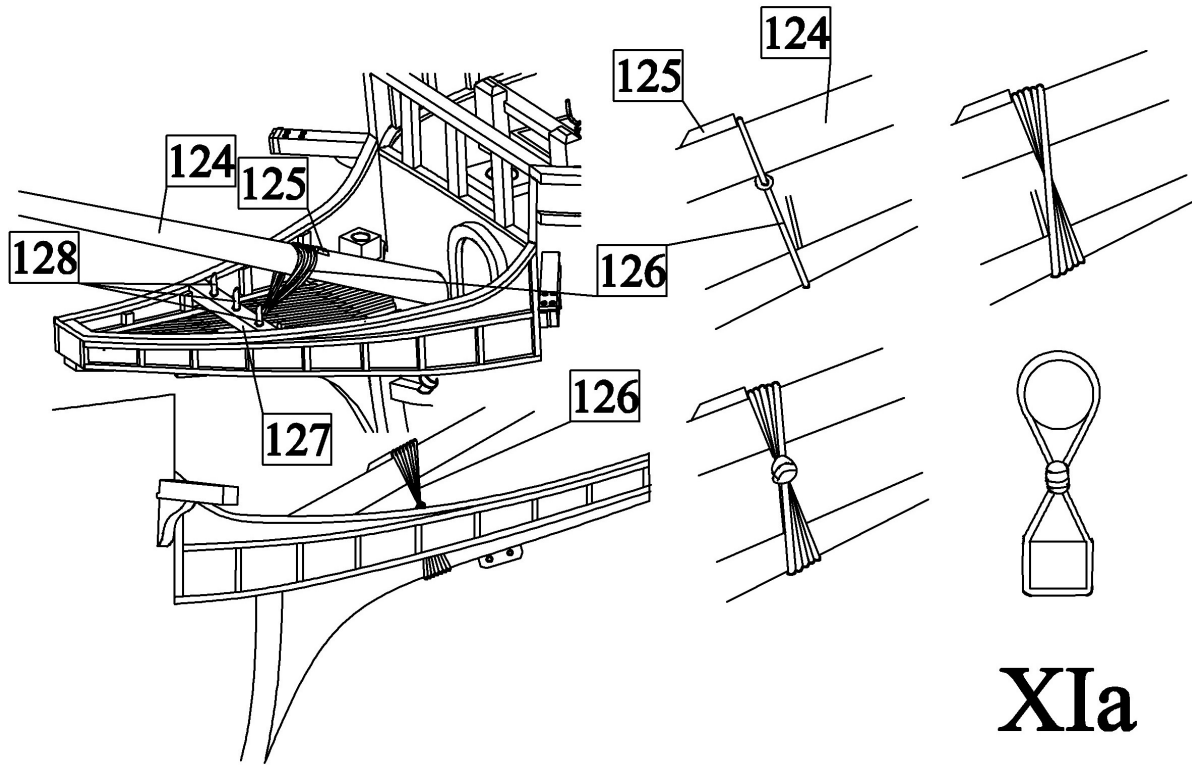
b) First glue the deadeyes to the channels and then glue capping strips 123 to the channels too.



Xb

XI) Bowsprit:

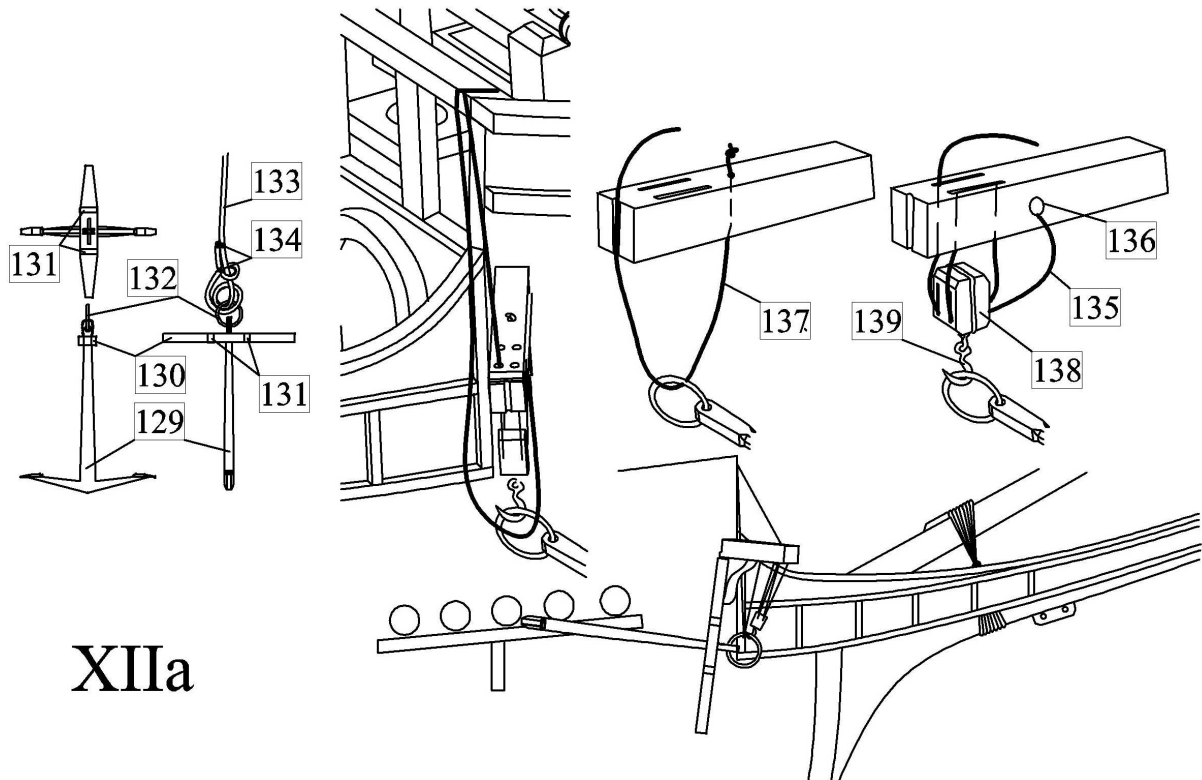
a) First make a bowsprit 124 and then install it to the bow. Then tie the bowsprit to the knee by rope 126. Then glue fife rail 127 with belying pins 128 to the head.



XIa

XII) Anchors:

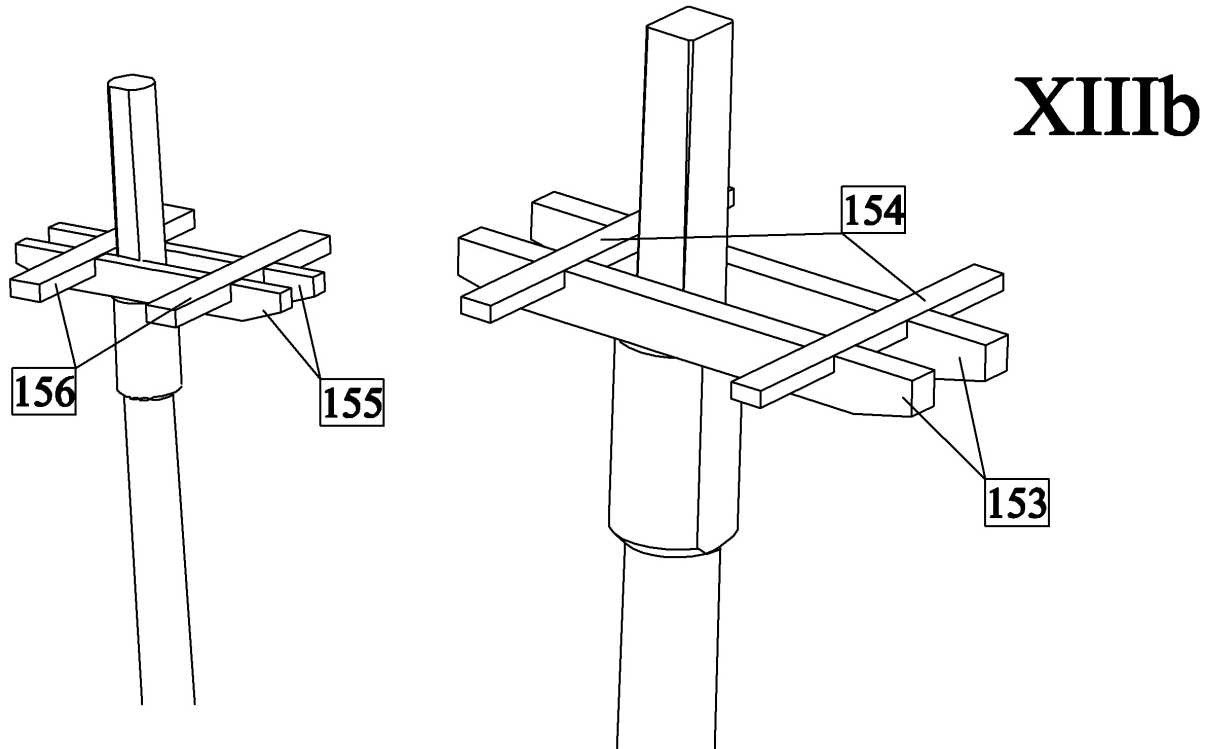
a) First make anchors from parts 129-132 and then tie them to the hawse cable 133. Then install the anchors to the catheads as it is shown in the picture.



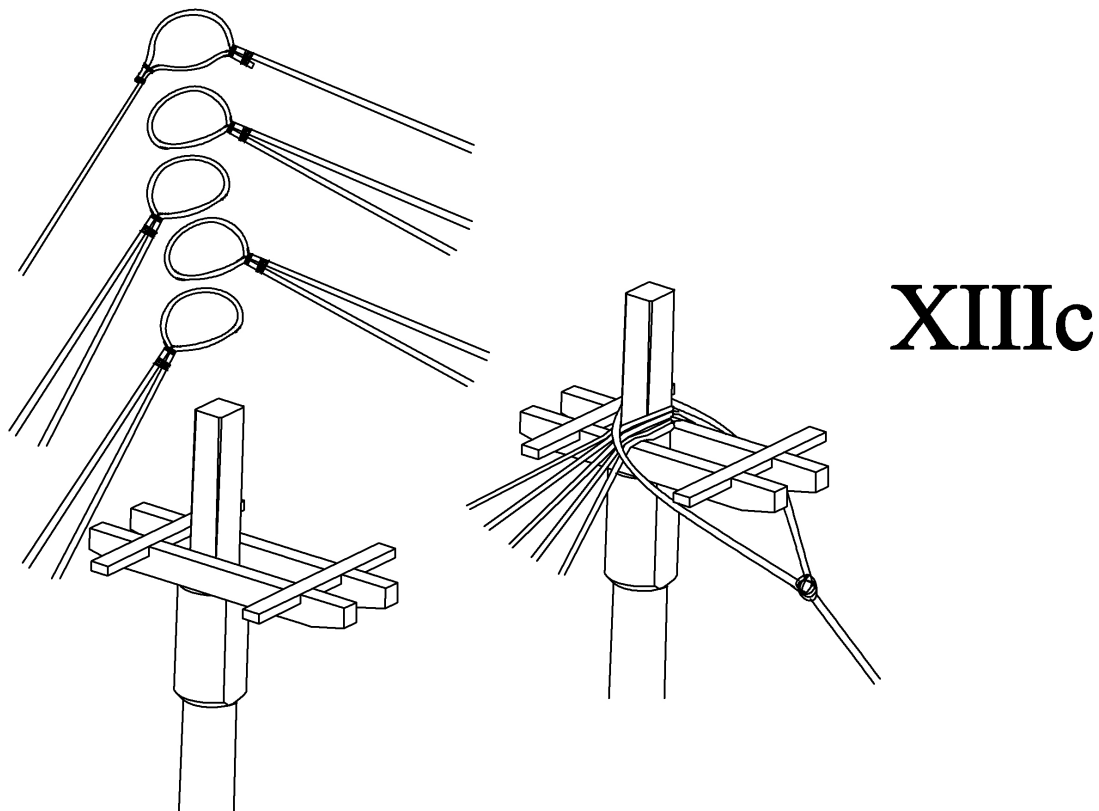
XIIa

XIII) Masts and standing rigging:

- a) First grind the masts, topmasts and flagpoles into needed shapes. This work will be easier if you will use modeller lathe.
- b) Glue trestle trees and cross trees on the top of the masts and topmasts as it is shown in the picture.

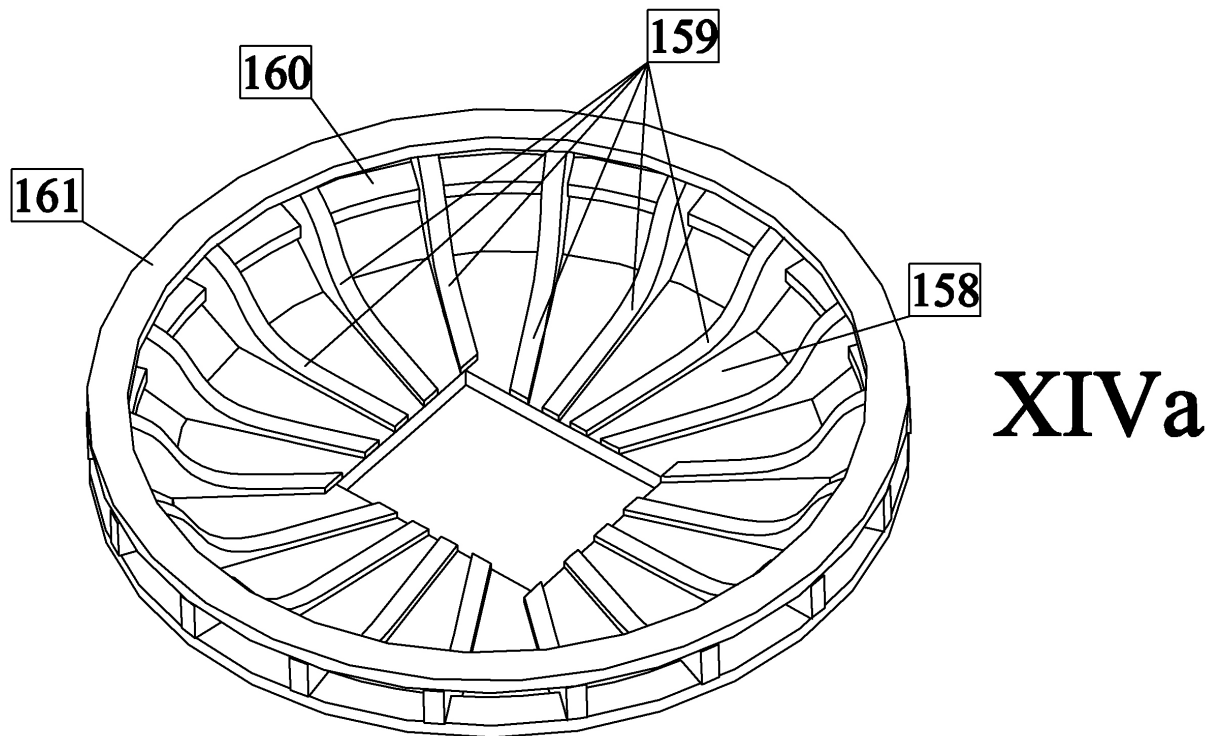


- c) Install the masts to the hull and then tie standing rigging to them.

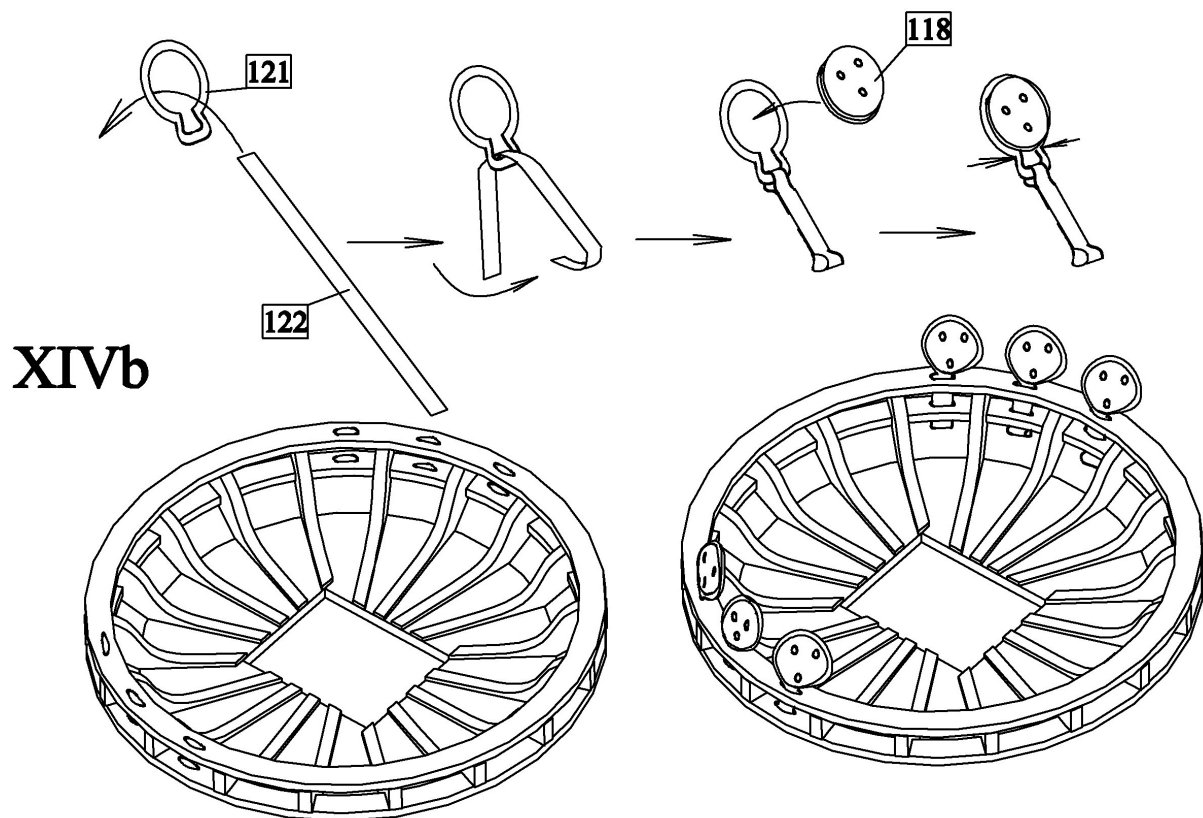


XIV) Tops:

a) Glue the tops from parts 158-161.

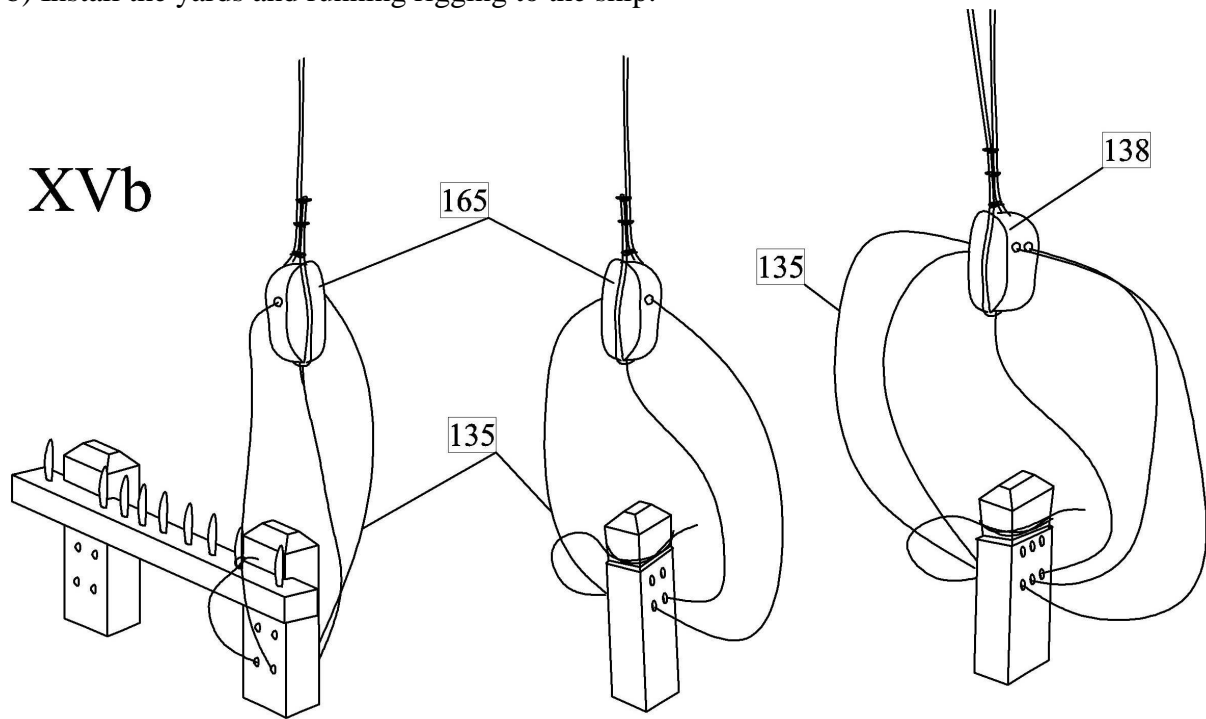


b) First fix deadeyes blocks 118 to the hoops as it is shown in the picture and then install them to the tops. Finally glue the tops to the masts.



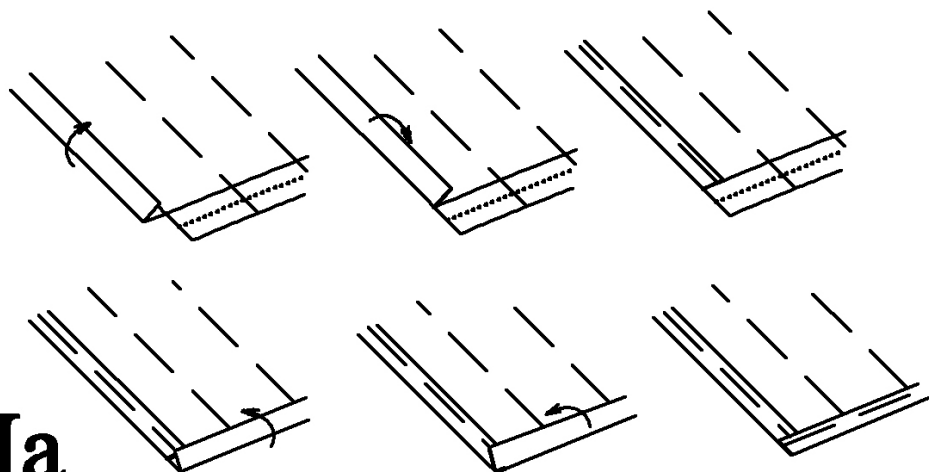
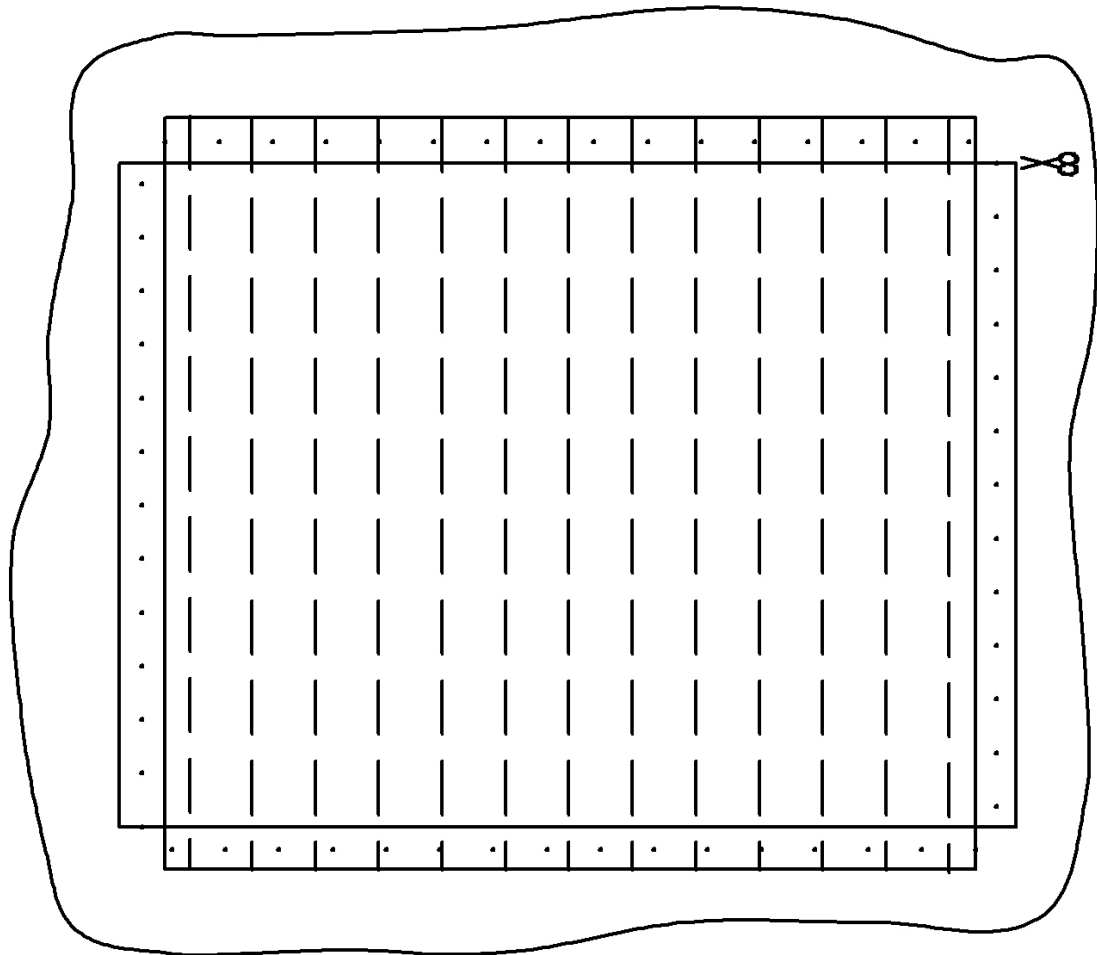
XV) Yards and running rigging:

- a) First grind the yards into needed shapes. This work will be again easier if you will use modeller lathe.
- b) Install the yards and running rigging to the ship.

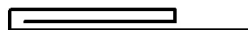


XVI) Sails and flags:

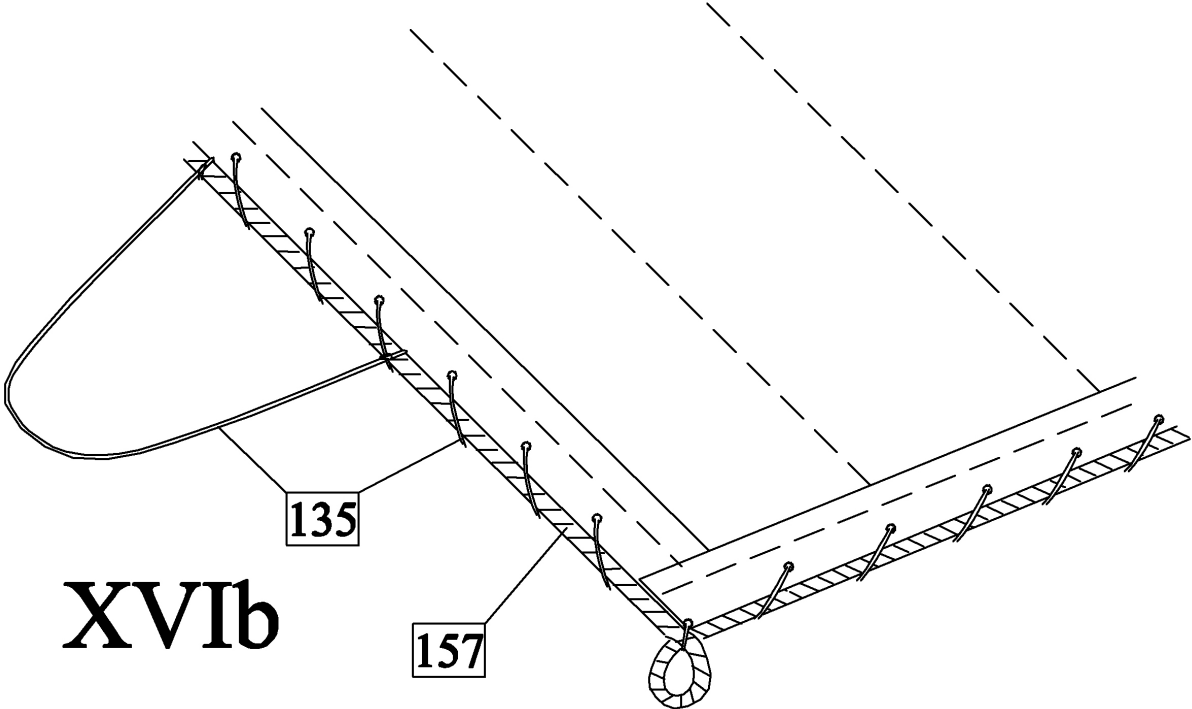
a) First draw by pencil contours of the sail on the cloth. To the border of the sails add about 10mm for fell. By the pencil draw on the cloth also seams which divided the sail into simple segments. Then scissor the sail with fells and sewn it like it is shown below.



XVIa

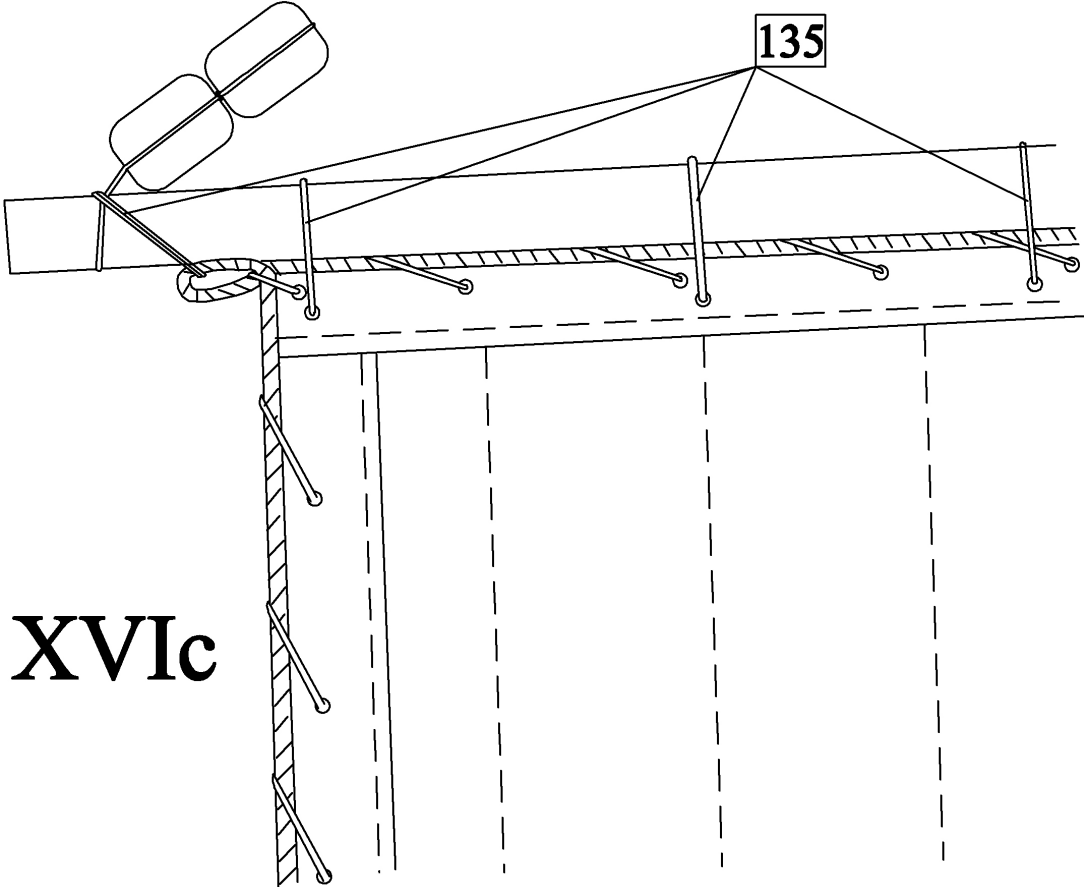


b) To the circumference of the sails sew on ropes 157 so that in the corner of the sail will eyes with diameters about 3mm. Then tie ropes 135 to the sides of the sails.



XVIb

c) Tie the sails to the yards by rope 135.



XVIc

d) Tie flags to the flagpoles.

Part list:

0	Keel	plywood 3mm	1pc.
1-5	Keel	wood 3mm	1pc.
6-18	Frames	plywood 3mm	1pc.
19-21	Frames	plywood 3mm	2pcs.
22-24	Frames	plywood 3mm	1pc.
25-31	Frames	plywood 3mm	2pcs.
32-35	Deck	plywood 0,8mm	1pc.
36	Planking	strip 2x3mm	100pcs.
37	Wales	strip 2x3mm	100pcs.
38	Wales	strip 1x2mm	15pcs.
39	Plank sheer	strip 2x3mm	100pcs.
40-43	Deck	veneer 0,5mm	1pc.
44	Planking	strip 2x3mm	100pcs.
45	Waterways	strip 1x2mm	15pcs.
46	Frames	strip 1x2mm	15pcs.
47-49	Mast foot	wood 2mm	1pc.
50	Gun barrel	gun barrel 17mm	10pcs.
51	Gun barrel	gun barrel 15mm	4pcs.
52	Cathead	wood 3mm	2pcs.
53	Cathead	wood 2mm	2pcs.
54	Cathead	photo etched part	2pcs.
55	Railing	strip 2x3mm	100pcs.
56	Head	wood 3mm	1pc.
57	Tack	plywood 0,8mm	1pc.
58	Timbers	strip 1x2mm	15pcs.
59, 60	Timbers	strip 1x1mm	4pcs.
61	Toilets	wood 2mm	2pcs.
62	Toilets	wood 2mm	4pcs.
63	Timbers	strip 1x1mm	4pcs.
64	Head wall	veneer 0,5mm	2pcs.
65	Head wall	veneer 0,5mm	1pc.
65	Timbers	strip 1x1mm	4pcs.
65	Frames	strip 1x2mm	15pcs.
66	Railing	strip 2x3mm	100pcs.
67	Gratings	wood 2mm	1pc.
68	Gratings	wood 2mm	3pcs.
69, 70	Gratings	wood 2mm	1pc.
71	Gratings	strip 2x2mm	2pcs.
72	Knighthead	wood 3mm	2pcs.
73	Knighthead	wood 2mm	1pc.
74	Belaying pins	belaying pin	10pcs.
75, 76	Knighthead	wood 3mm	1pc.
77	Gun barrel	gun barrel 18mm	4pcs.
78	Gun	wire 0,5mm	0,1m
79	Gun	photo etched part	4pcs.
80	Gun	wood 2mm	4pcs.
81	Kevel blocks	wood 2mm	8pcs.

82	Staghorns	plywood 0,8mm	8pcs.
83	Staghorns	plywood 0,8mm	16pcs.
84	Stairs	plywood 0,8mm	8pcs.
85	Stairs	plywood 0,8mm	8pcs.
86-88	Doors	plywood 0,8mm	3pcs.
89-91	Doors	wood 2mm	3pcs.
92	Doors	photo etched part	8pcs.
93	Ring	photo etched part	4pcs.
94	Helmsman's shelter	strip 1x2mm	15pcs.
95	Gunport lids	strip 2x3mm	100pcs.
96	Gunport lids	photo etched part	20pcs.
97	Rudder	wood 3mm	1pc.
98	Rudder	strip 2x3mm	100pcs.
99	Rudder	wire 0,5mm	0,1m
100-109	Rudder	photo etched part	1pc.
110	Stand	plywood 3mm	2pcs.
111, 112	Stand	plywood 3mm	4pcs.
113	Channels	wood 2mm	4pcs.
114-116	Channels	wood 2mm	2pcs.
117	Deadeye blocks 5mm	deadeye block 5mm	40pcs.
118	Deadeye blocks 3,5mm	deadeye block 3,5mm	36pcs.
119, 120	Chain plates	photo etched part	20pcs.
121,122	Chain plates	photo etched part	18pcs.
123	Capping strips	strip 2x2mm	2pcs.
124	Bowsprit	dowel 8mm	1pc.
125	Gammoning saddles	strip 1x1mm	4pcs.
126	Rope dark 1mm	rigging dark 1mm	10m
127	Fife rail	strip 2x3mm	100pcs.
128	Belaying pins	belaying pin	10pcs.
129	Anchor	casted part	2pcs.
130	Anchor	wood 2mm	2pcs.
131	Anchor	photo etched part	4pcs.
132	Ring 6mm	ring 6mm	2pcs.
133	Rope hell 1,75mm	rigging hell 1,75mm	0,2m
134	Rope dark 0,25mm	rigging dark 0,25mm	20m
135	Rope hell 0,25mm	rigging hell 0,25mm	40m
136	Eyebolts	eyebolt	18pcs.
137	Rope hell 0,5mm	rigging hell 0,5mm	10m
138	Block 3mm-2holes	block 3mm-2holes	3pcs.
139	Hook	photo etched part	2pcs.
140, 141	-----	-----	-----
142	Main mast	dowel 8mm	1pc.
143	Fore mast	dowel 6mm	1pc.
144	Mizzen mast	dowel 4mm	2pcs.
145	Main topmast	dowel 4mm	2pcs.
146	Fore topmast	dowel 4mm	2pcs.
147	Fid	strip 1x1mm	4pcs.
148-150	Flagpoles	dowel 2mm	1pc.
151	Trucks	dowel 3mm	2pcs.
152	Fid	wire 0,5mm	0,1m

153	Trestle trees	wood 2mm	4pcs.
154	Cross trees	strip 1x2mm	15pcs.
155	Trestle trees	strip 1x2mm	15pcs.
156	Cross trees	strip 1x2mm	15pcs.
157	Rope hell 0,75mm	rigging hell 0,75mm	5m
158	Tops	plywood 0,8mm	2pcs.
159	Tops	plywood 0,8mm	36pcs.
160, 161	Tops	plywood 0,8mm	2pcs.
162	Cleats	plywood 0,8mm	4pcs.
163	Outrigger	dowel 3mm	2pcs.
164	Rope dark 0,5mm	rigging dark 0,5mm	10m
165	Block 3mm-1hole	block 3mm-1hole	100pcs.
166	Block 5mm-3holes	block 5mm-3holes	6pcs.
167	Parral	roller 2mm	120pcs.
168	Parral	veneer 0,6mm	22pcs.
169	Parral	veneer 0,6mm	28pcs.
170	Main yard	dowel 5mm	1pc.
171	Fore yard	dowel 4mm	2pcs.
172	Main topsail yard	dowel 3mm	2pcs.
173	Fore topsail yard	dowel 3mm	2pcs.
174	Mizzen yard	dowel 3mm	2pcs.
175	Spritsail yard	dowel 3mm	2pcs.
176-181	Sails	cloth	1pc.
182-184	Flags	flags	1pc.
185-187	Caps	wood 2mm	1pc.