

LE CERF, 1779-1780

Scale: 1/72
Length: 685mm
Width: 255mm
Height: 520mm

HISTORY:

The cutter LE CERF was build after the plans of well known French ship designer Denys. The CERF was launched in March 2, 1779 in Saint-Malo dock-yard. Command of the ship was confided to ensign Varages. The ship was equipped with eighteen 6pdr guns. Total number of ship crew was from 155 to 194 persons (this numbers involve officers, seamen, gunners and mariners).

The CERF participates in several fighter actions with British during the American War of Independence. First battle between the CERF and British ships (two cutters of fourteen and sixteen guns) occurred in the night of June 21-22, 1779 at southwest of the island of Yeu. During this battle a stem of the Cerf was quite badly damaged and total seventeen men were put out of action.

Later after necessary reparation the CERF was made part in the fleet of J. P. Jones, a Captain of the United States (well known Commander of the U.S. ship BONHOMME RICHARD). The CERF participated on a combat operation near the Irish coast.

The last battle where the CERF took a part went ahead on February 9, 1780, near the Azores Islands. The CERF fought with British 24 guns privateer. The CERF was badly damaged during this battle and in consequence of these damages was in a short time inactivated from service.

(more information about the CERF you can read in monograph: Jean Boudriot and Hubert Berti, *CUTTER LE CERF 1779-1780*, publisher ANCRE, 75 Avenue George V, Nice, France, ISBN 2-903-179-03-4)

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

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.

Colouring:

Hull: clinker planked, stem and stern up to the wales only - white
Hull: All upper carvel planked - black
Inboard bulwark and inside ports of gun ports - red ochre
Deck - natural wood
Mast and yards - black
Gun carriages – red ochre
Gun barrels and other metal parts- black
Oars - white

Bending of wooden strips:

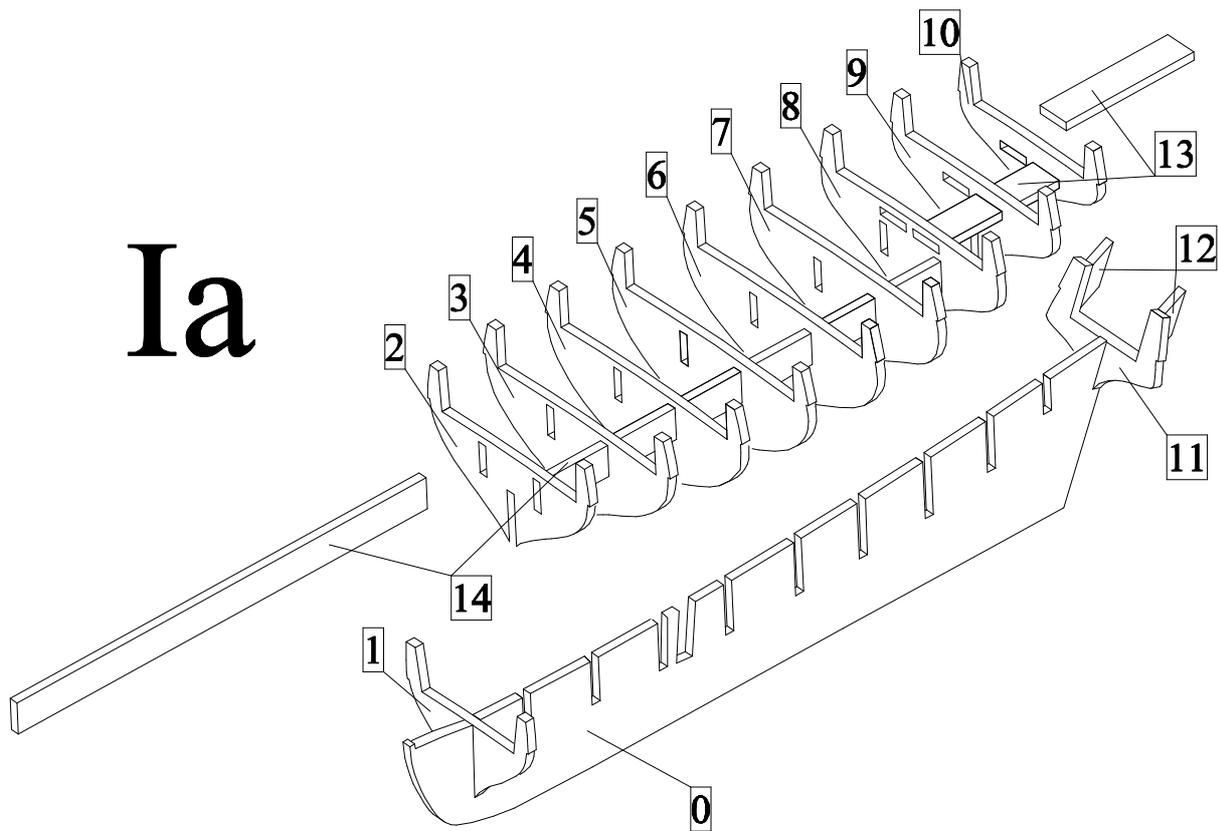
The Wooden strips will be more flexible if you will boil it in hot water about 10-15 minutes. You can bend the strips along any cylindrical area but ideal is using of special plank bender (it would be best to use electric plank bender). If you need to do very small radius so you must bend it in more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

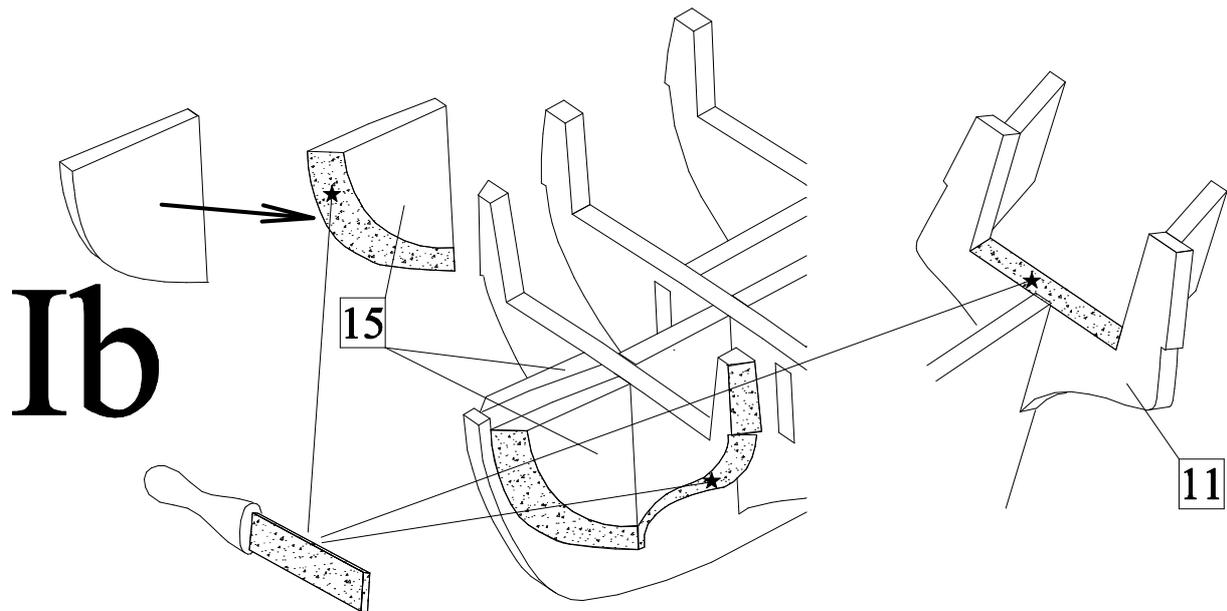
Model building process:

I) Framing of a hull:

a) First glue frame 1 to the keel 0. Then run reinforcements 13 and 14 through frames 2-10. Then glue the frames 2-10 also to the keel 0. Then glue frames 11 and 12 to the stern. The all frames and keel must make a right angle.

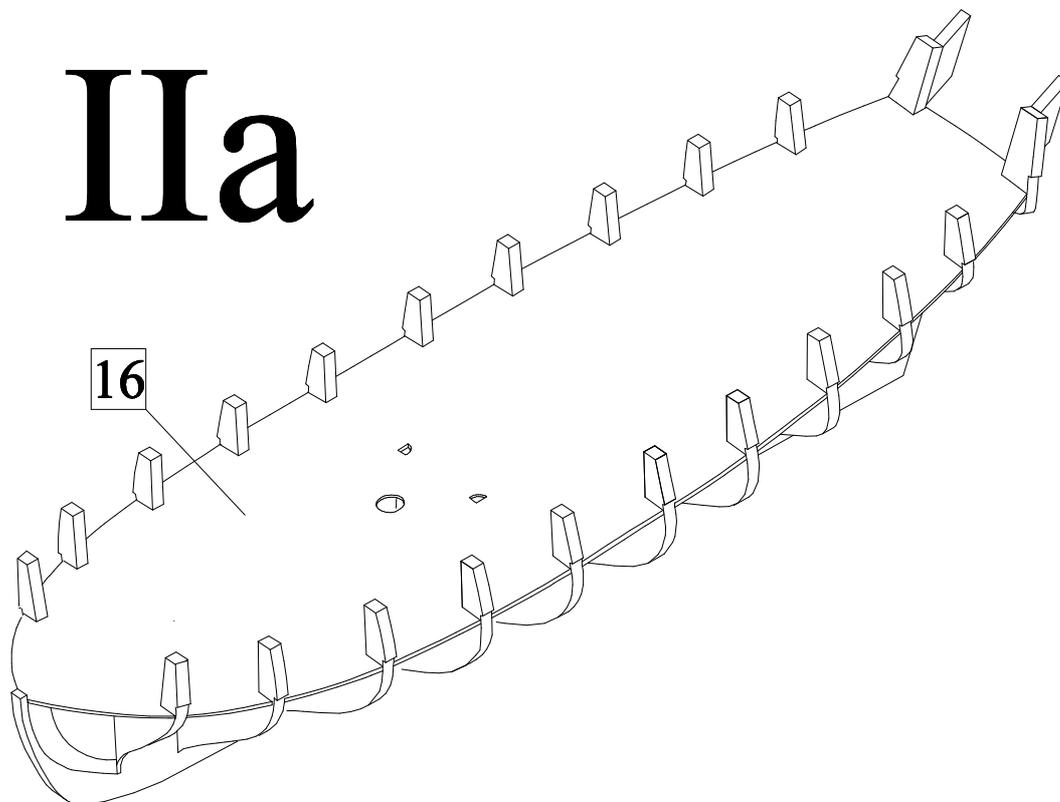
b) Sharpen reinforcements 15 and frames 1 and 11 by file or sand paper to required shape.





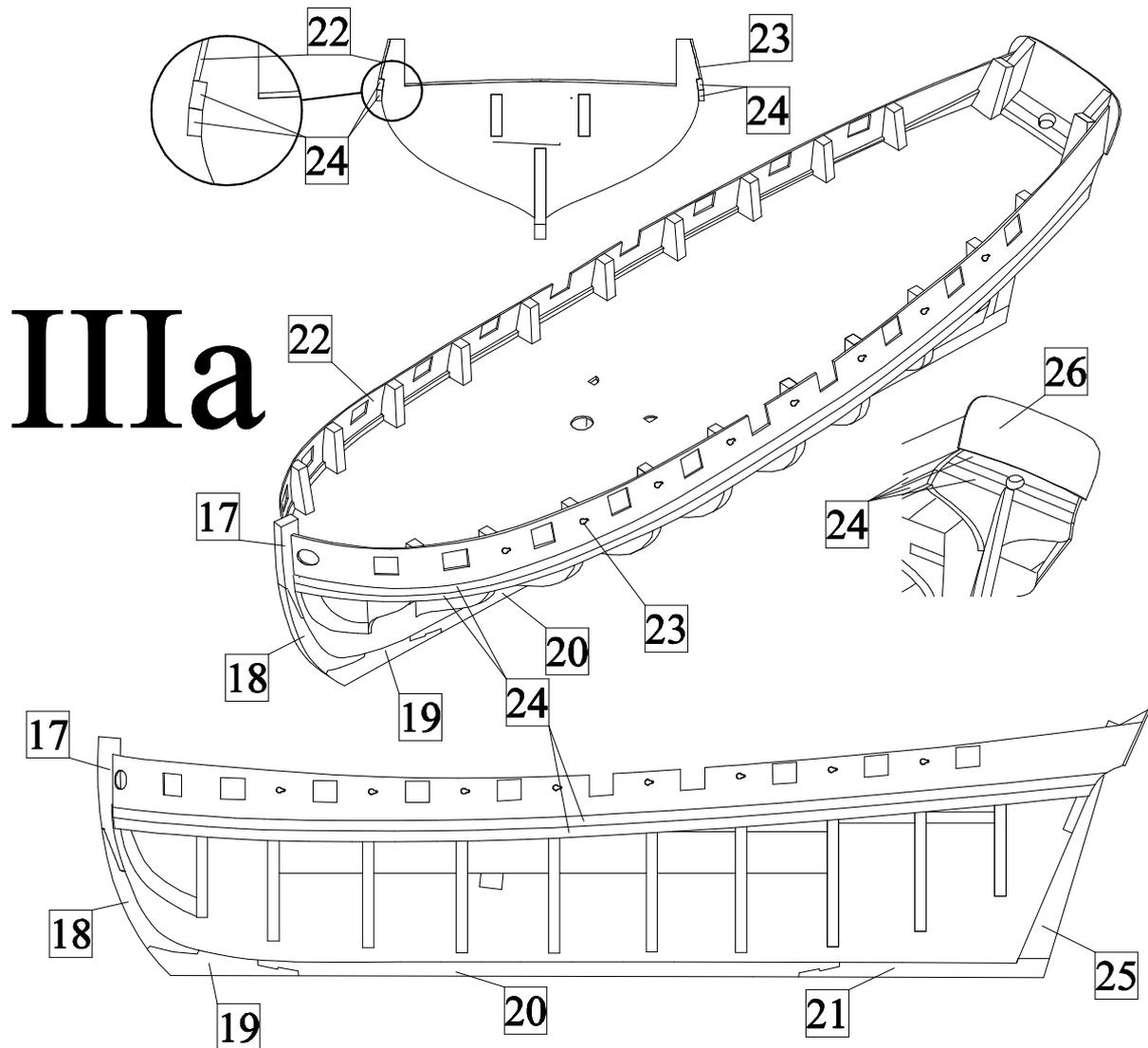
II) Deck:

a) Glue deck 14 to the frames 1-11 and to the keel 0



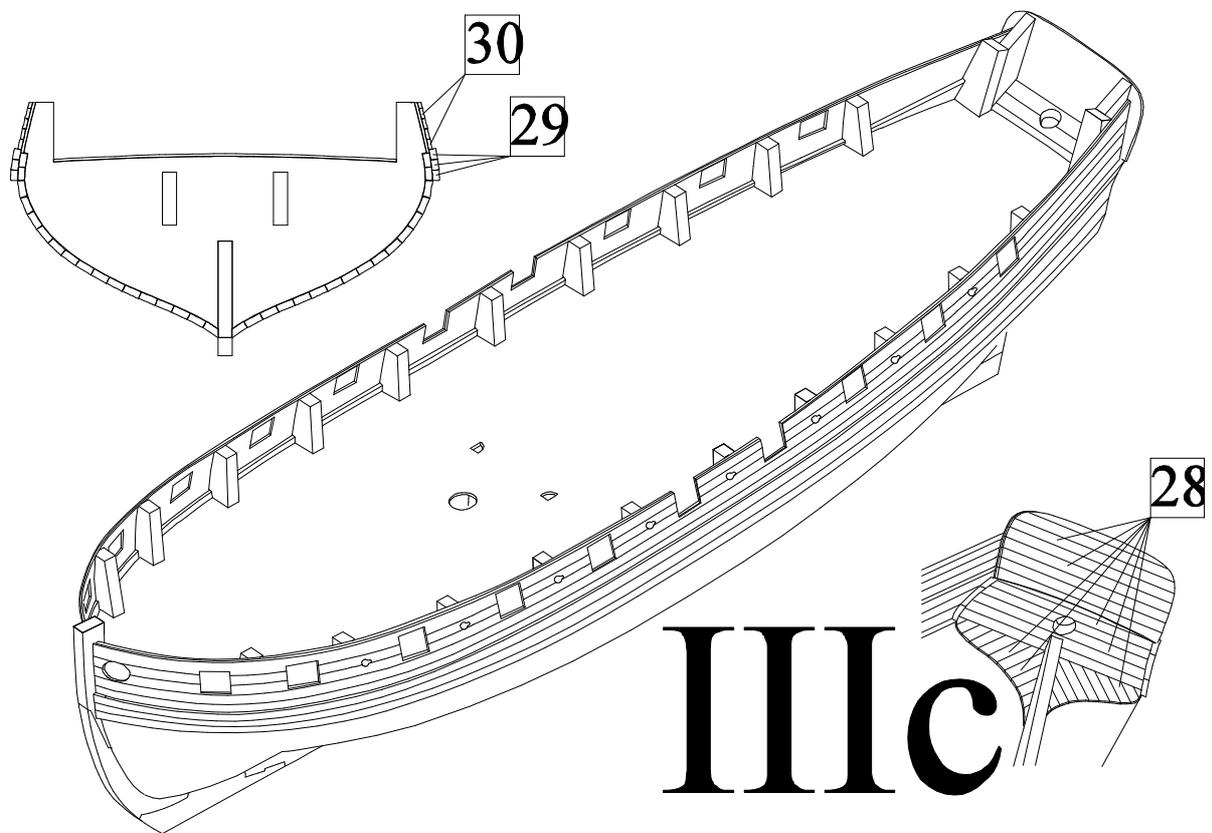
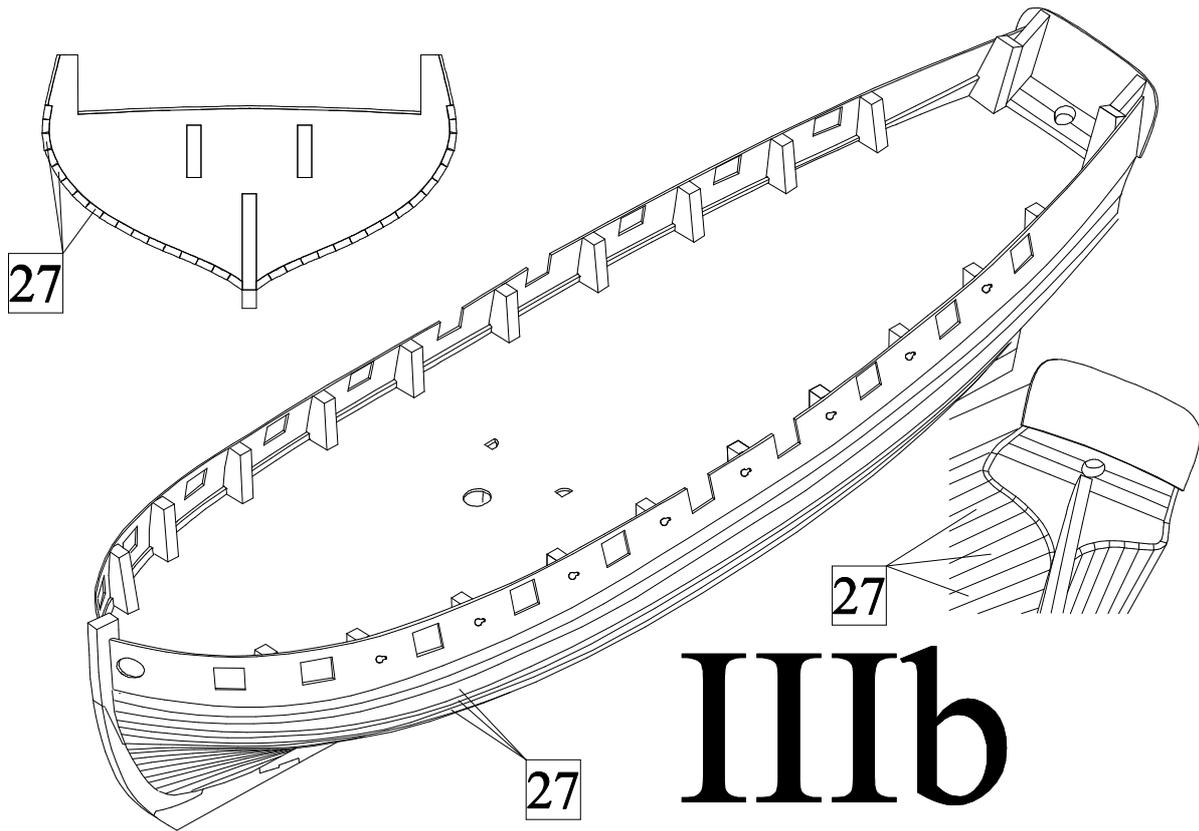
III) Planking of the hull I:

a) First glue parts 17-21 to the keel 0. Then glue planks 24 and parts 22 and 23 to the both sides of the hull. The position of the planks 24 is determined by mortise in the frames. Then glue a counter 26 and planks 24 to the stern. Finally glue stern post 25 to the keel 0.



b) Make a first Planking of the hull by planks 27. First bend the planks to the required shape before gluing (Bending process is described in the page 2). Then glue the planks to the skeleton first to the stem and then continue to the stern.

c) Make a second planking of the hull by planks 28-30. First make the second planking of the stern by planks 28. Then glue wales 29 to the sides of the hull. Finally glue planks 30 to the outboard of bulwark.

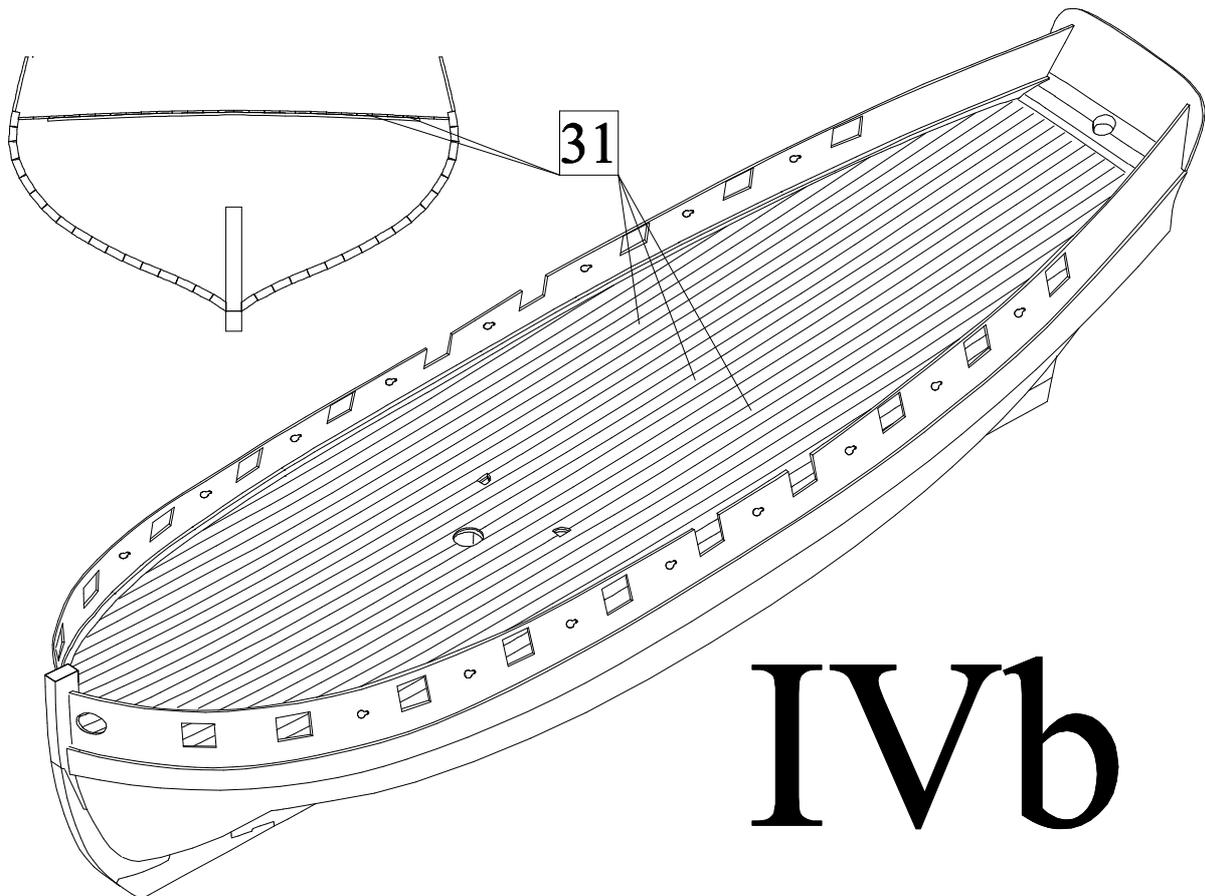
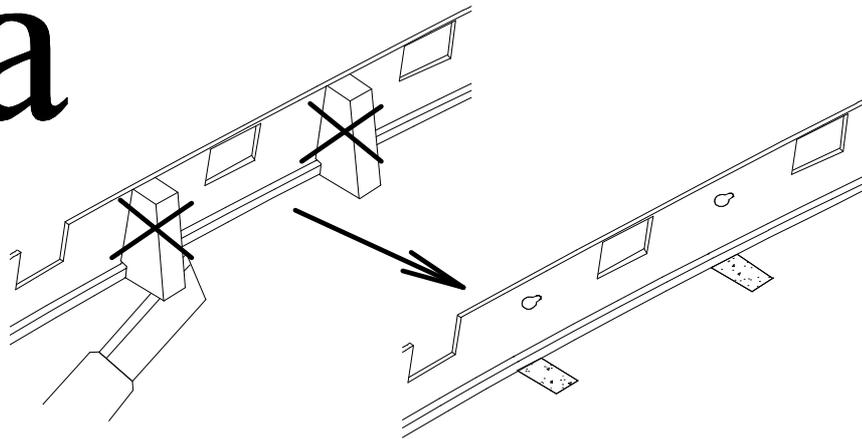


IV) Deck planking:

a) Cut out parts of frames which overlap the deck and then sanded the places of removed parts by sand paper.

b) Planking the deck by strips 30.

IVa

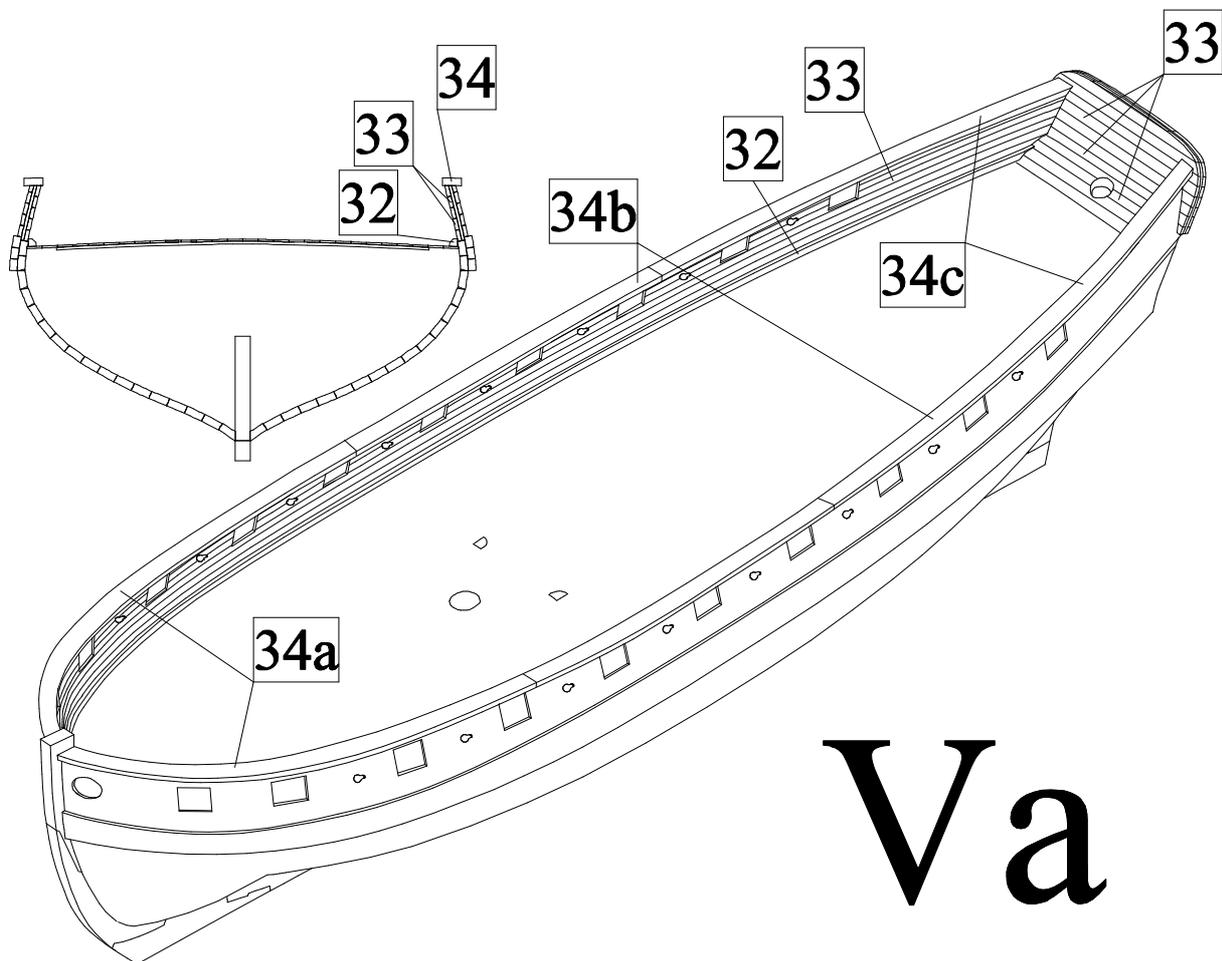


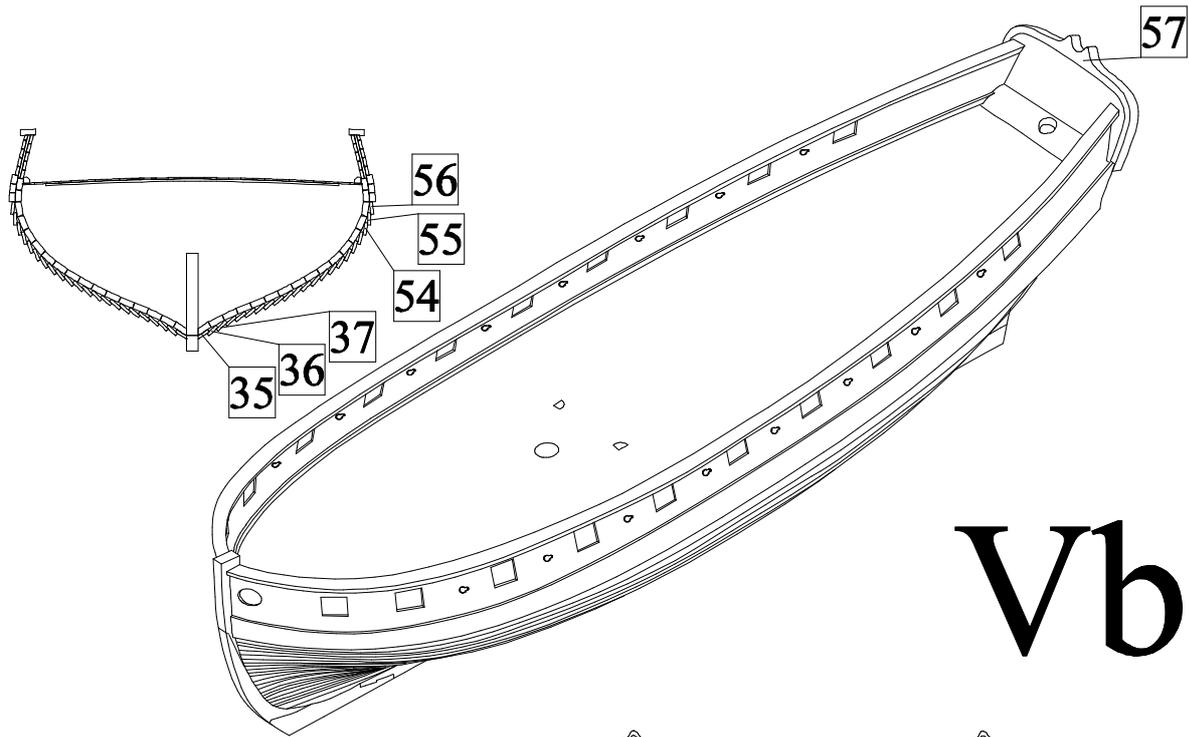
IVb

V) Planking of the hull II:

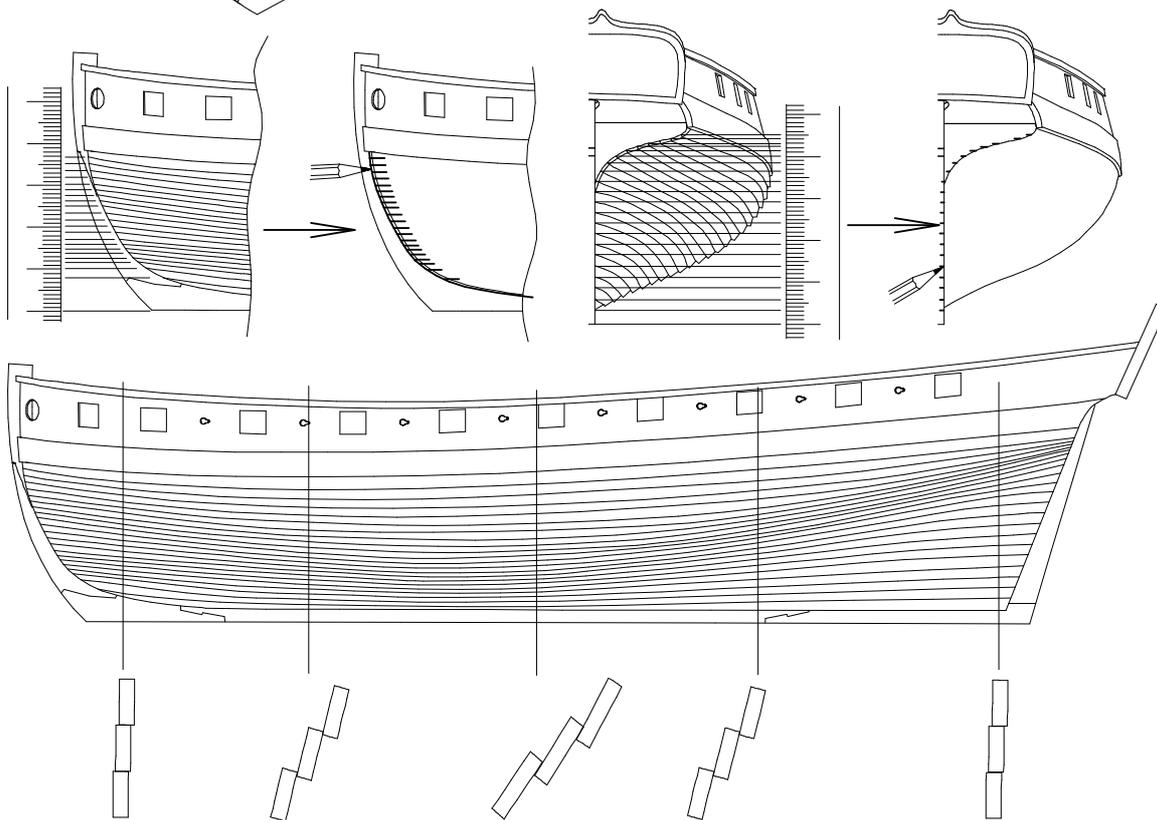
a) First glue waterways 32 to the deck and bulwark. Then plank an inboard bulwark by strips 33 and inboard side of counter by strips 34. Finally glue plank sheer 34 to the bulwark.

b) Plank the hull by clinker planking. The clinker planking is a method where neighbor planks are overlapped. For this reason it is important to keep exact sequence of gluing of the planks. Start with planks 35 and then glue to the hull also other planks in sequence from 36 to 56. First draw by pencil position of the planks to the stem and stern post position. Then glue the planks subsequently from bow to stern. Finally glue to the counter also moulding 57.



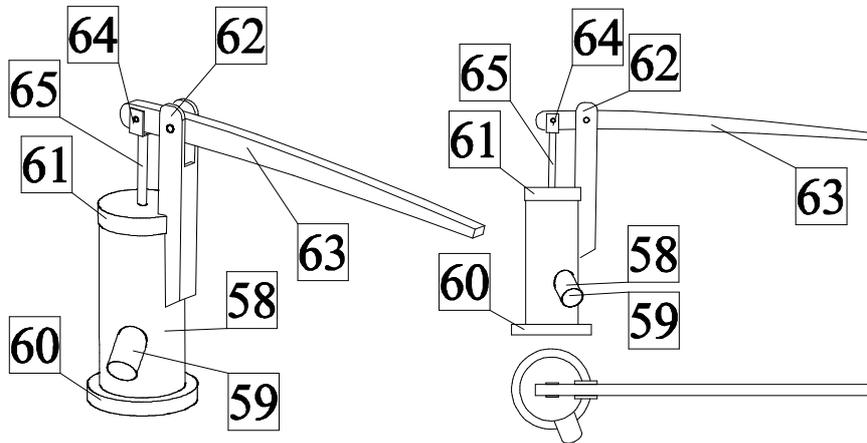


Vb



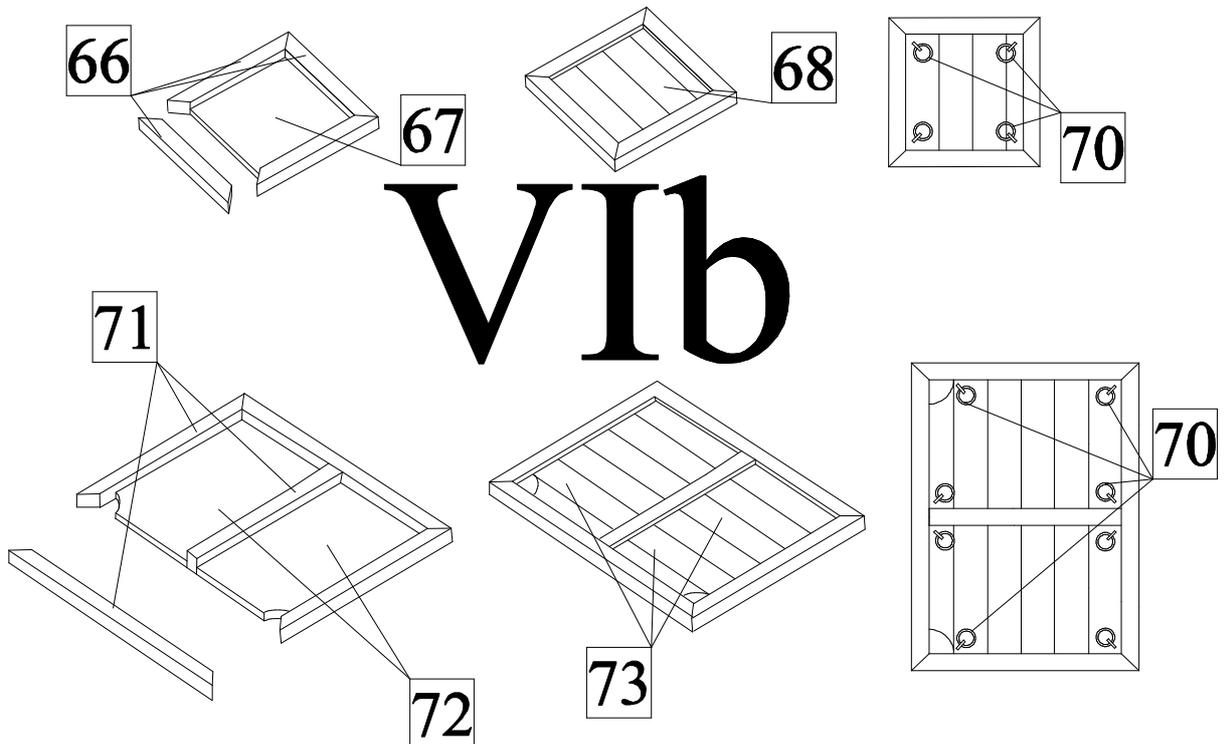
VI) Details:

a) Make pumps from parts 58-65. First glue parts 59 to the cylinders 58. Then glue parts 60 and 61 to the cylinders 58. Finally glue photoetched parts 62 and 64 together with handles 63 and wires 65 also to the cylinders 58



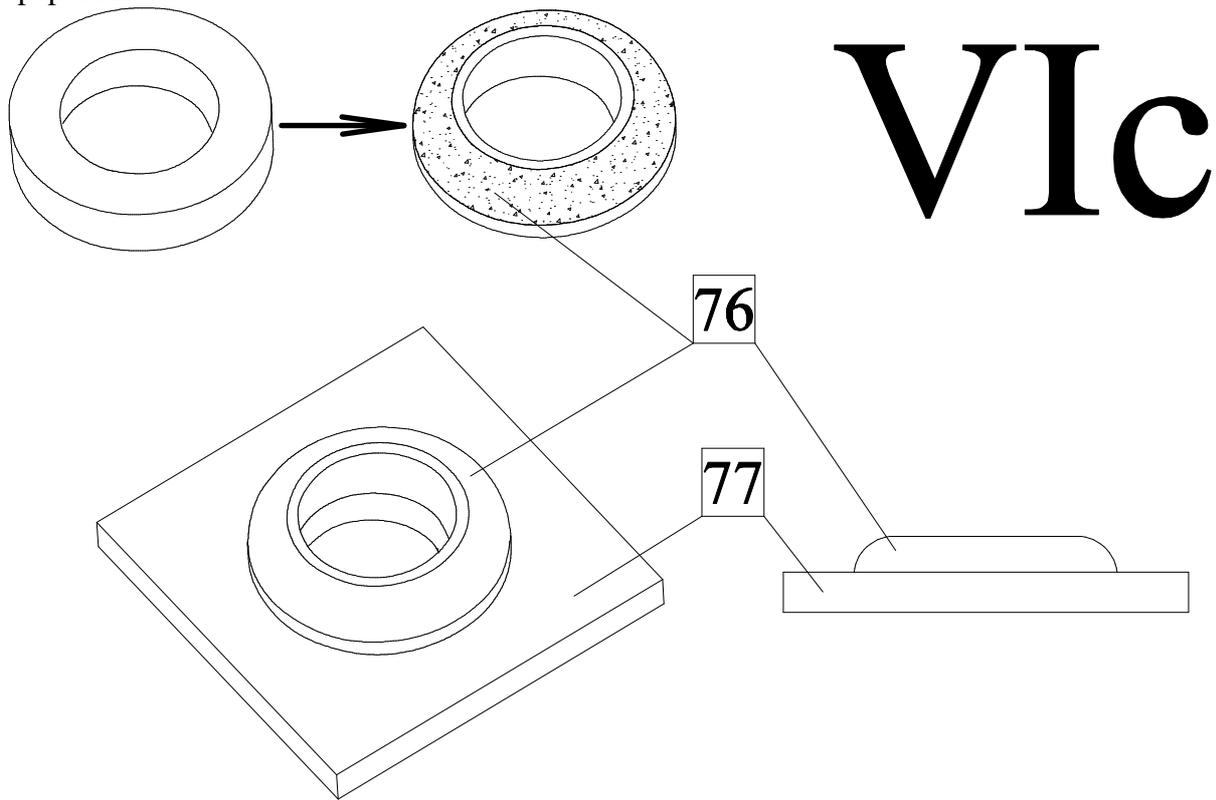
VIa

b) Make hatches. First border parts 67 and 72 by strips 66 and 71. Then glue to the hatches planks 68 and 73. Finally glue to the hatches eyebolts 69 with rings 70.

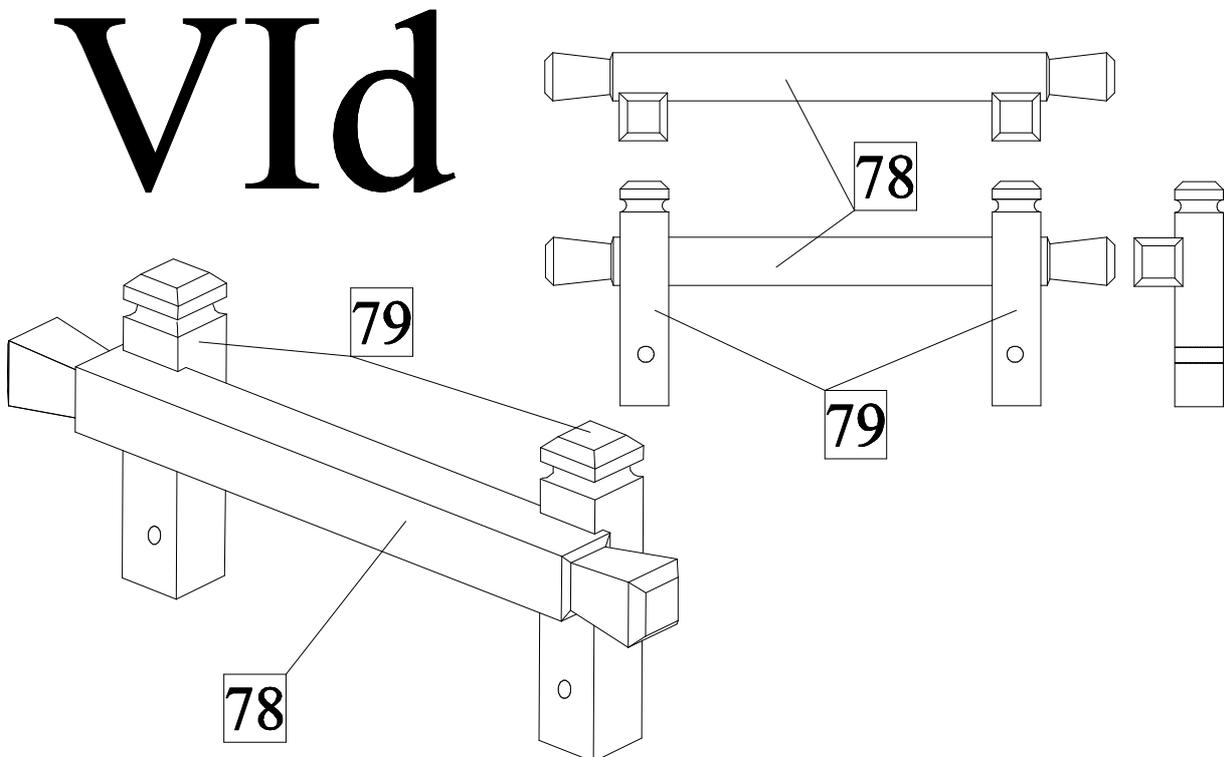


VIb

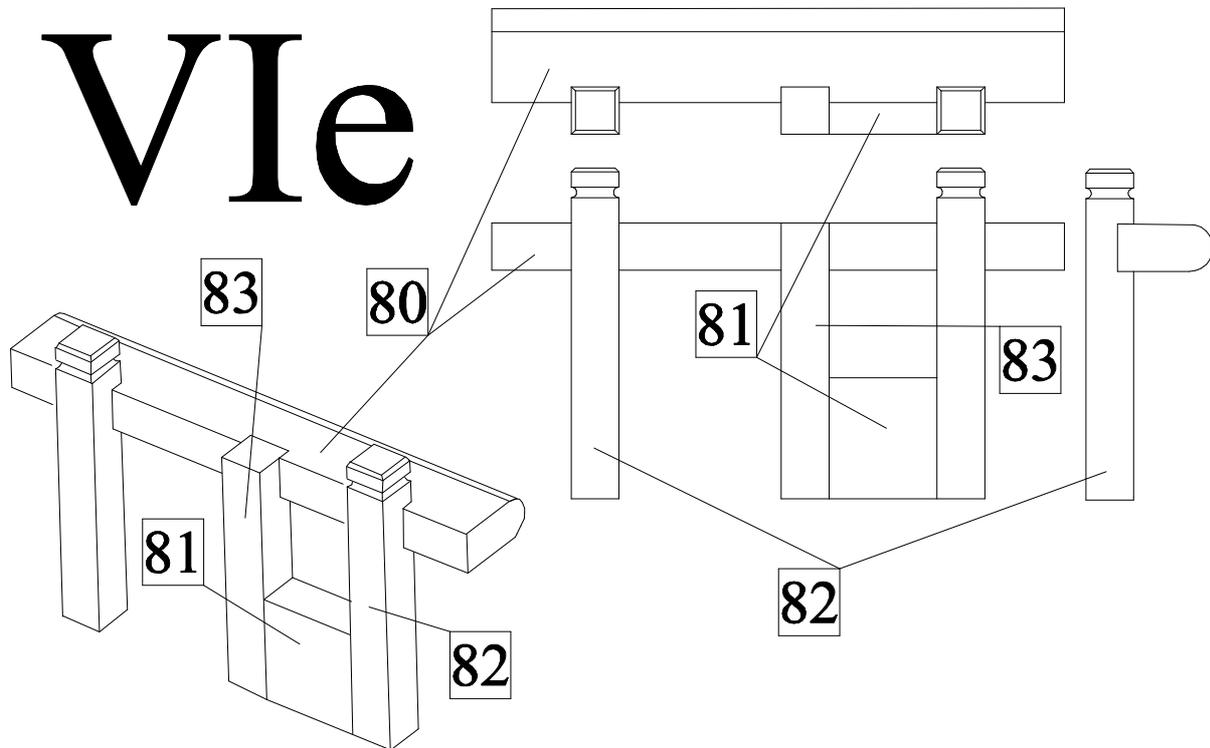
c) Make a mast foot from parts 76 and 77. The part 76 sharpen into rounded shape by a sand paper first.



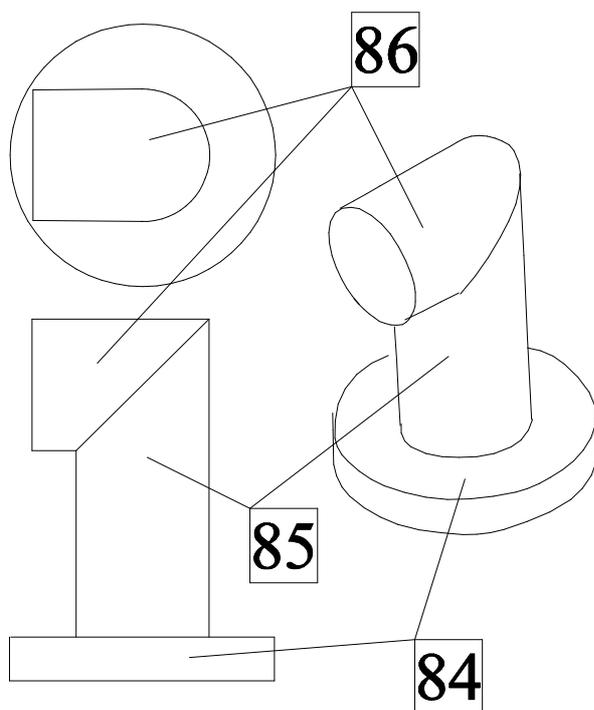
d) Glue topmast bitts from parts 78 and 79. Then drill into the parts 79 1mm holes.



e) Make riding bits for bowsprit from parts 80-83. First sharpen the part 80 into required shape and then glue all parts together.

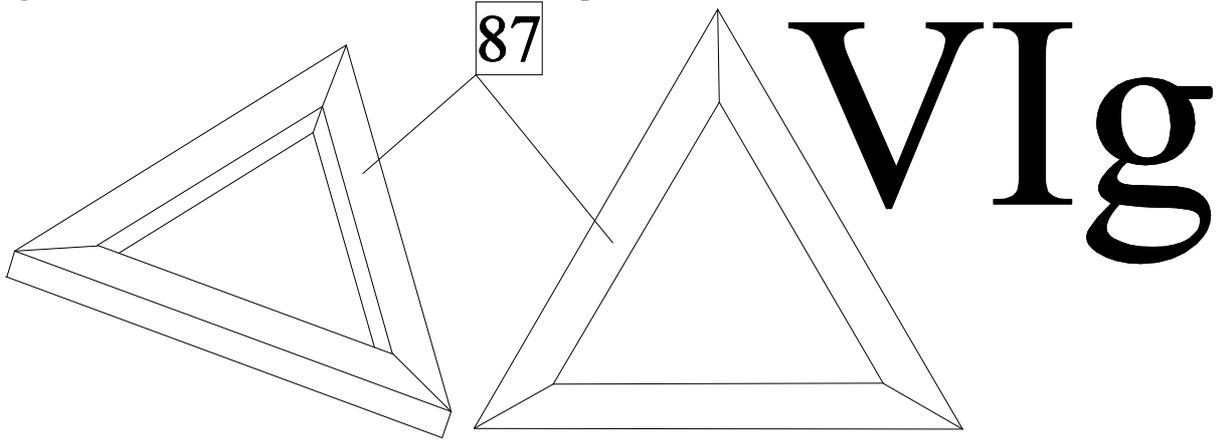


f) Make a galley funnel. First shape the parts 85 and 86 into the tube shape and then glue them together.

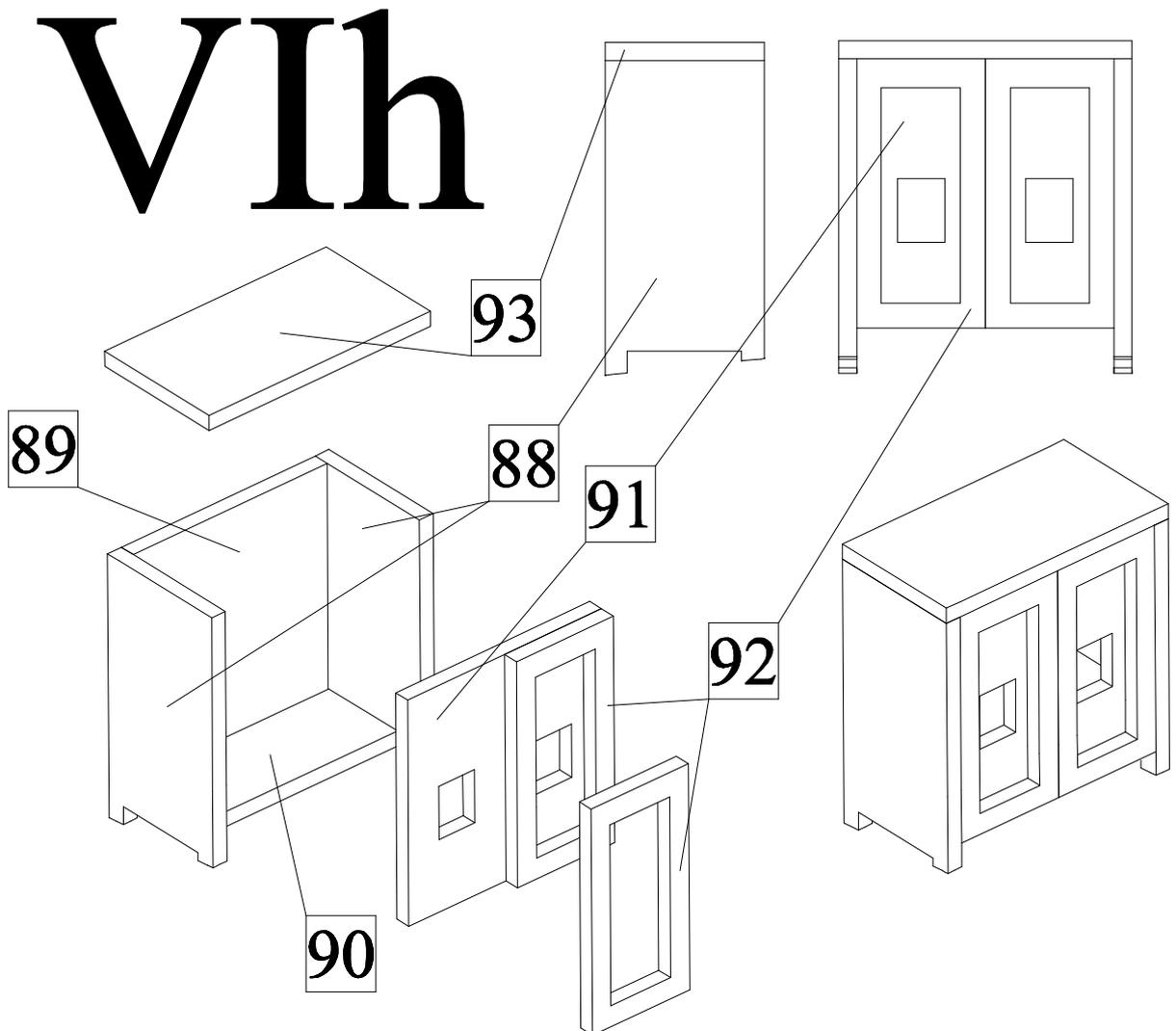


V1f

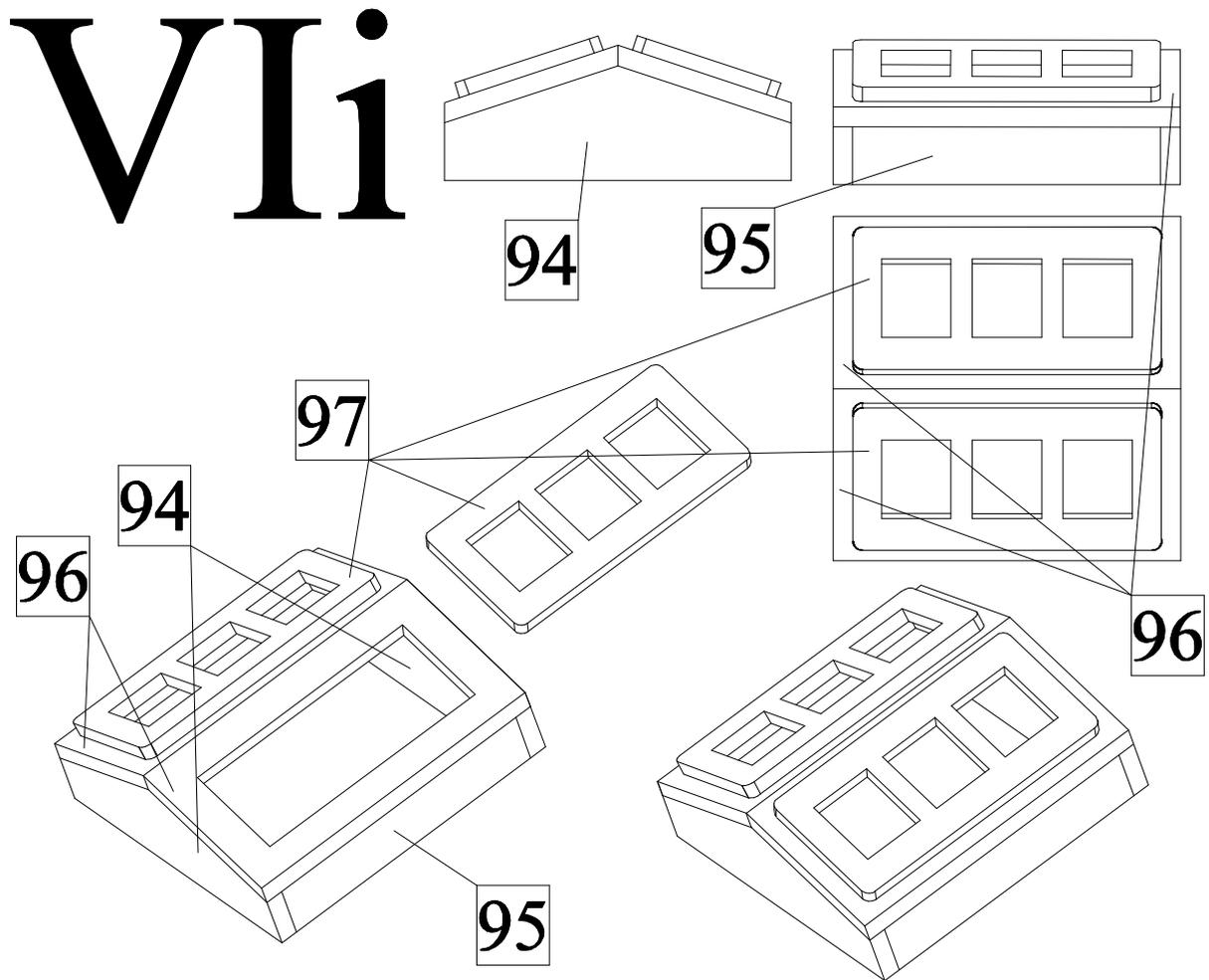
g) Glue sixteen ammunition boxes from strips 87.



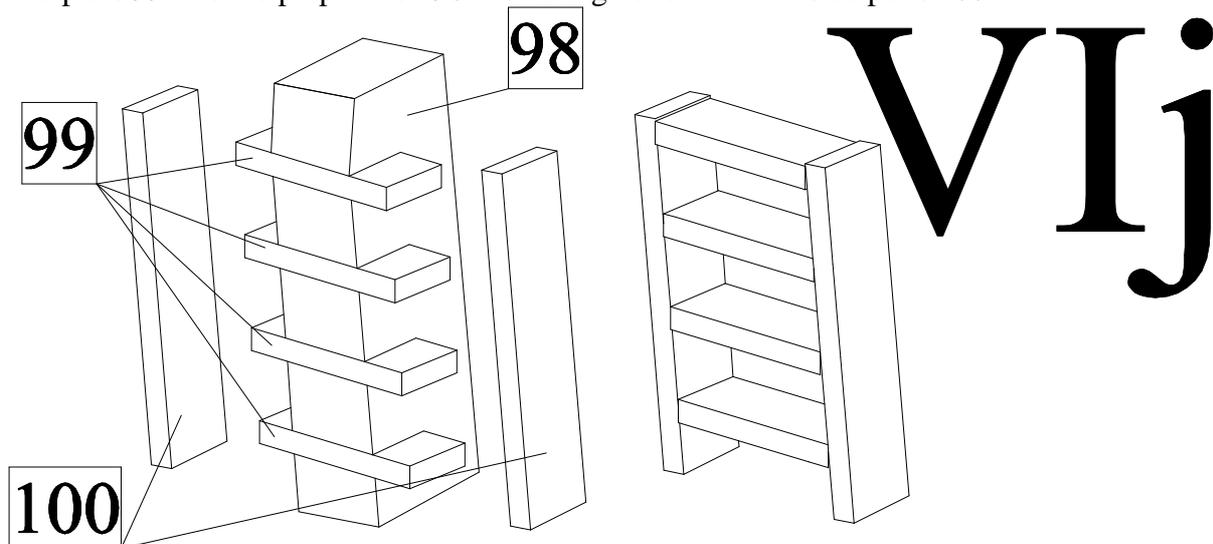
h) Glue a binnacle from parts 88-93.



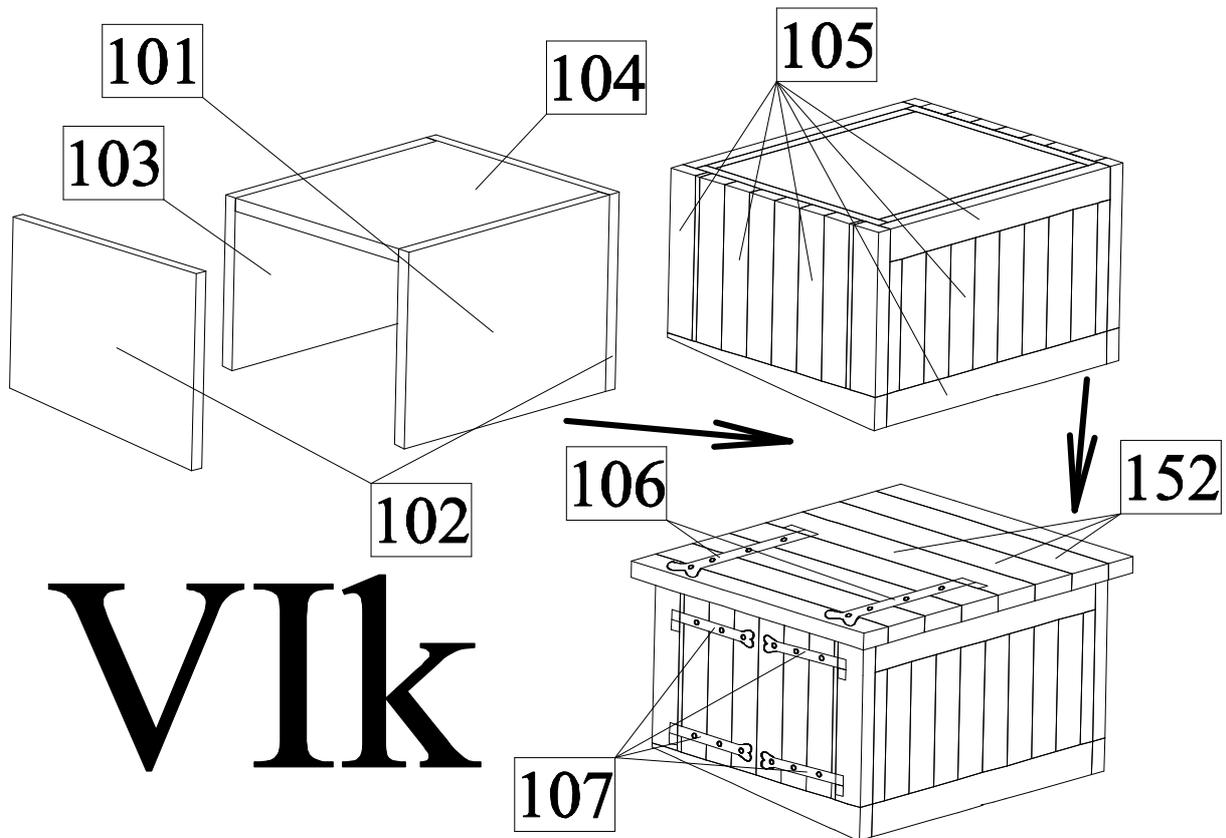
i) Glue a skylight from parts 94-97.



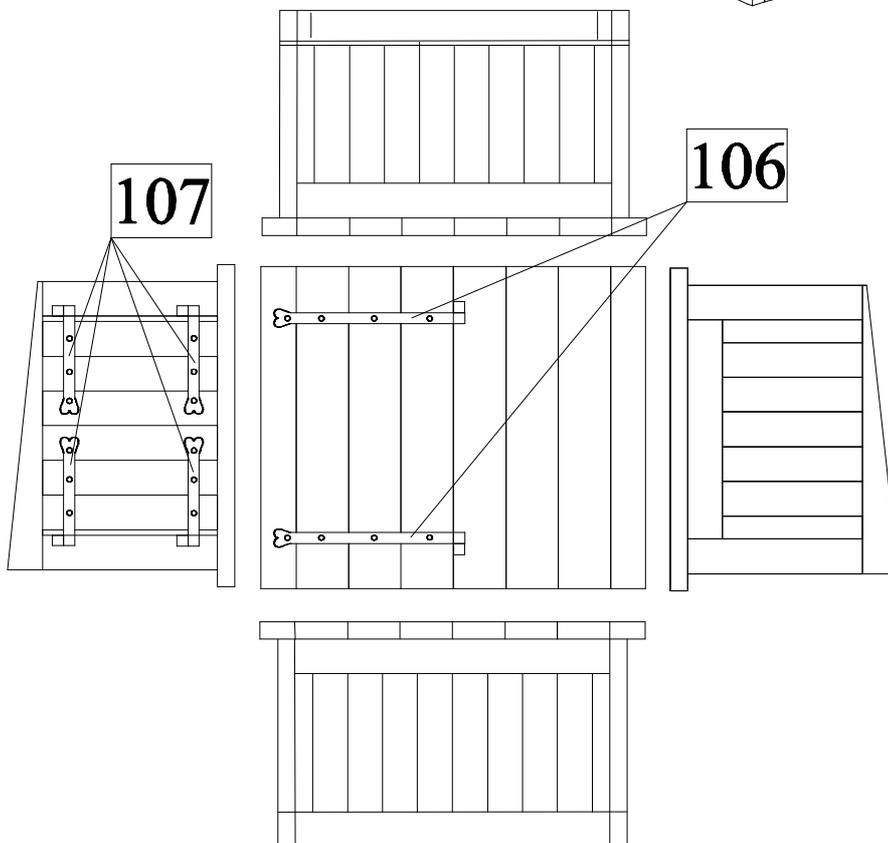
j) Make stairs from parts 99 and 100. For making of the stairs use a preparation 98. First push the parts 99 into the preparation 98 and then glue to them the side parts 100.



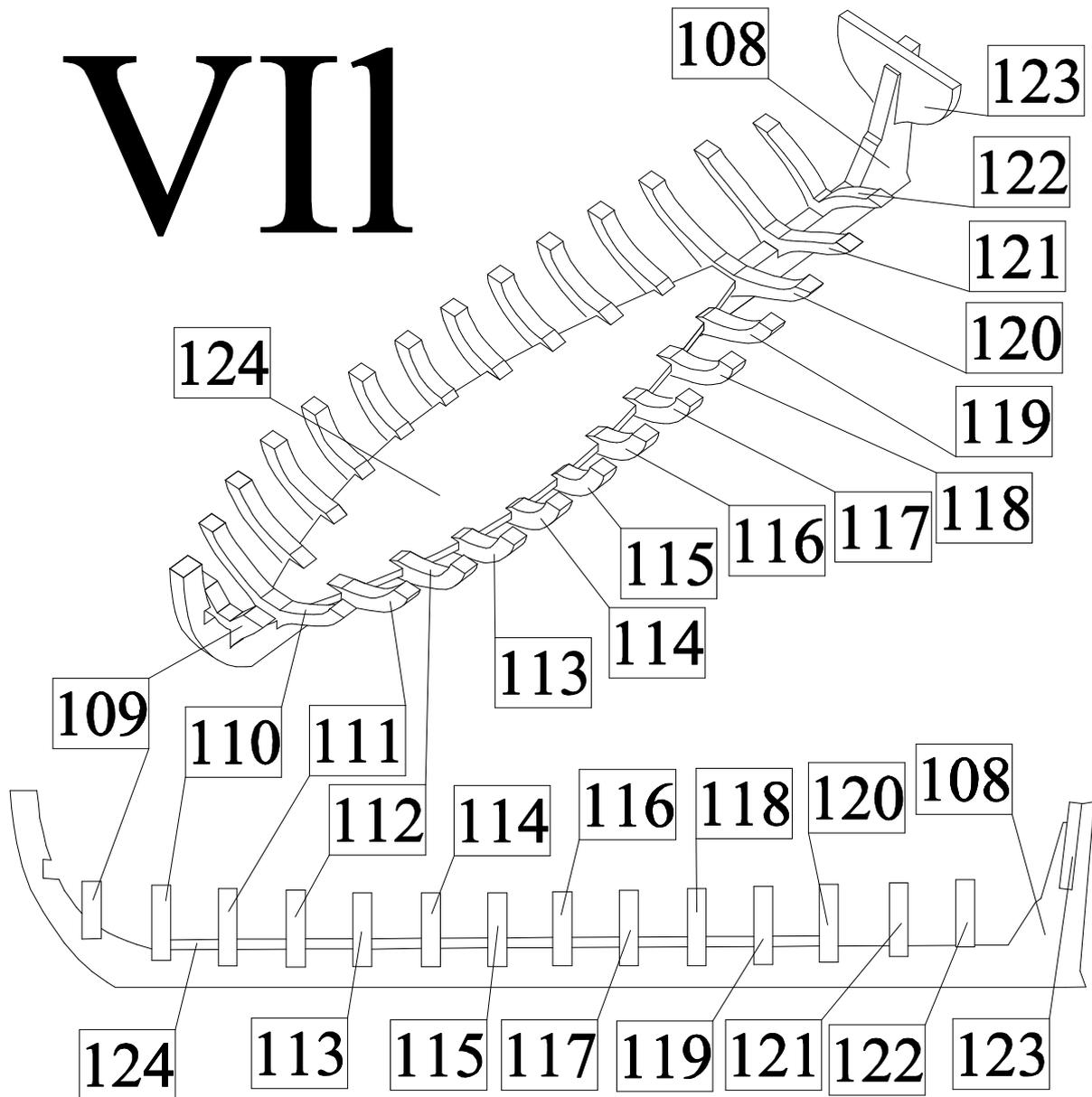
k) Make a hatch from parts 101-107. First glue a framing from parts 101-104 and then planking it by strips 105 and 152. Finally glue photoetched parts 106 and 107 to the hatch.



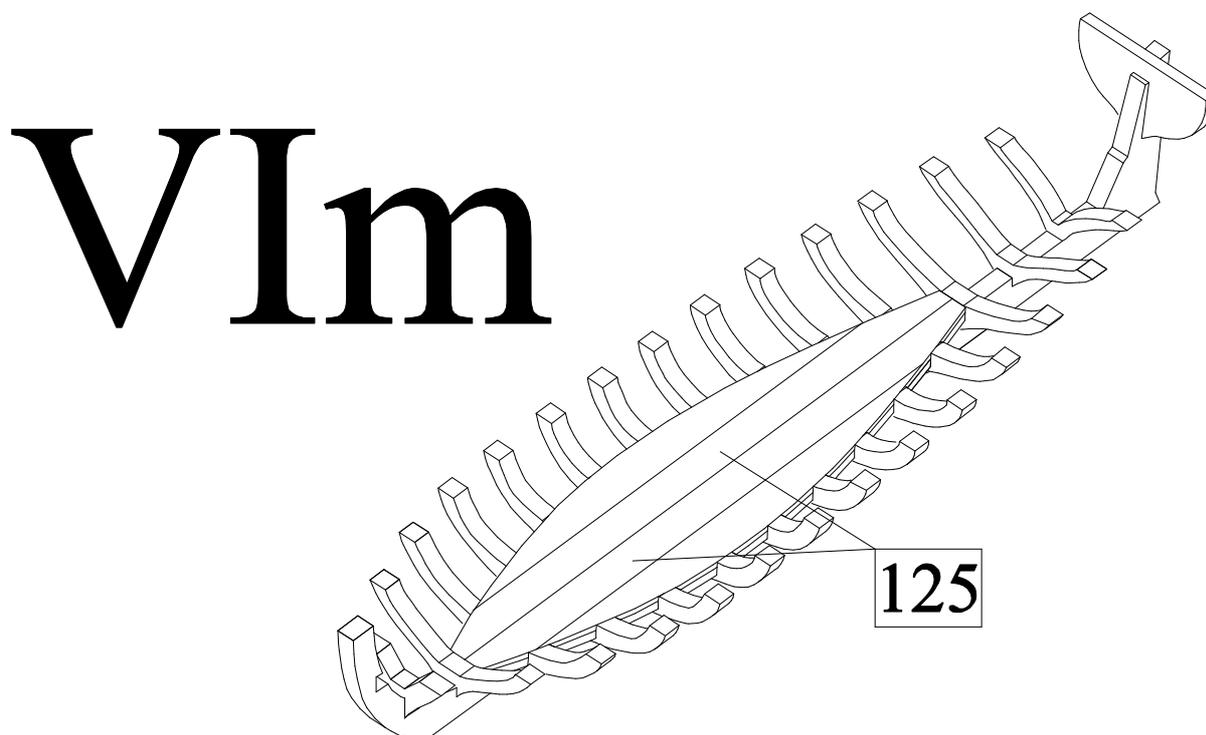
VIK



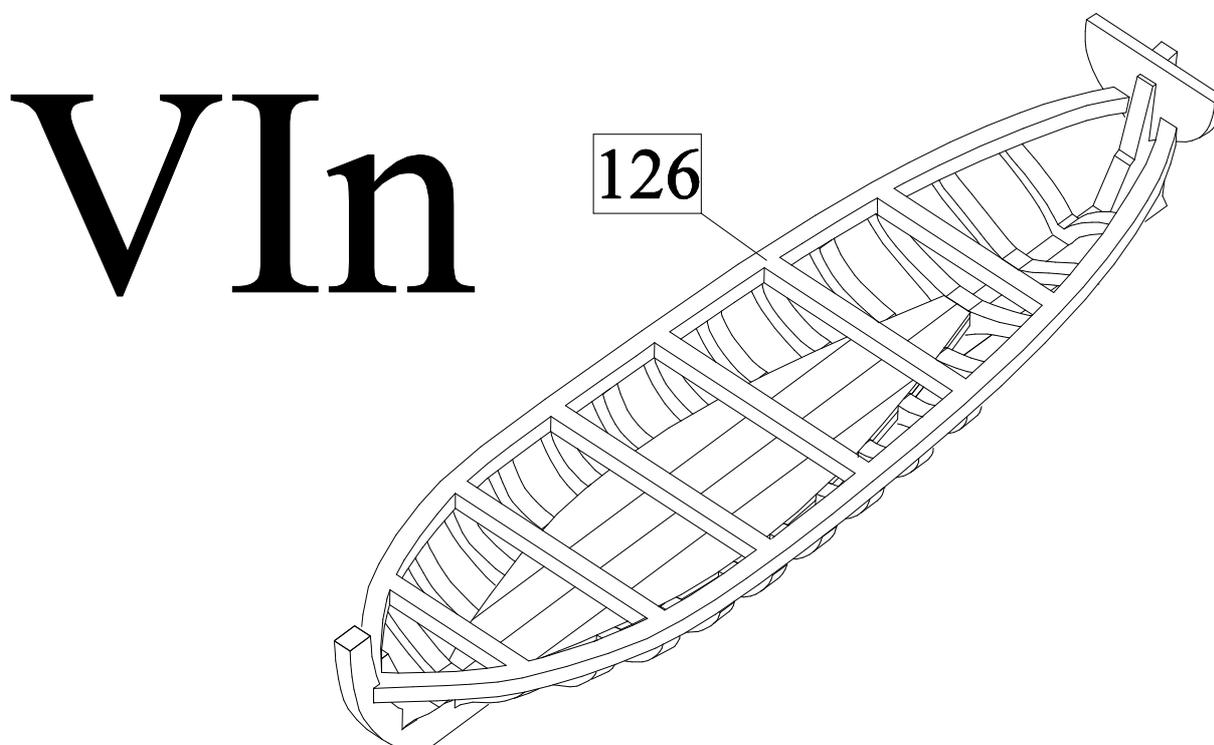
1) Glue a framing of the boat, first glue frames 109-123 to the keel 108 and then glue deck 124 to the frames.



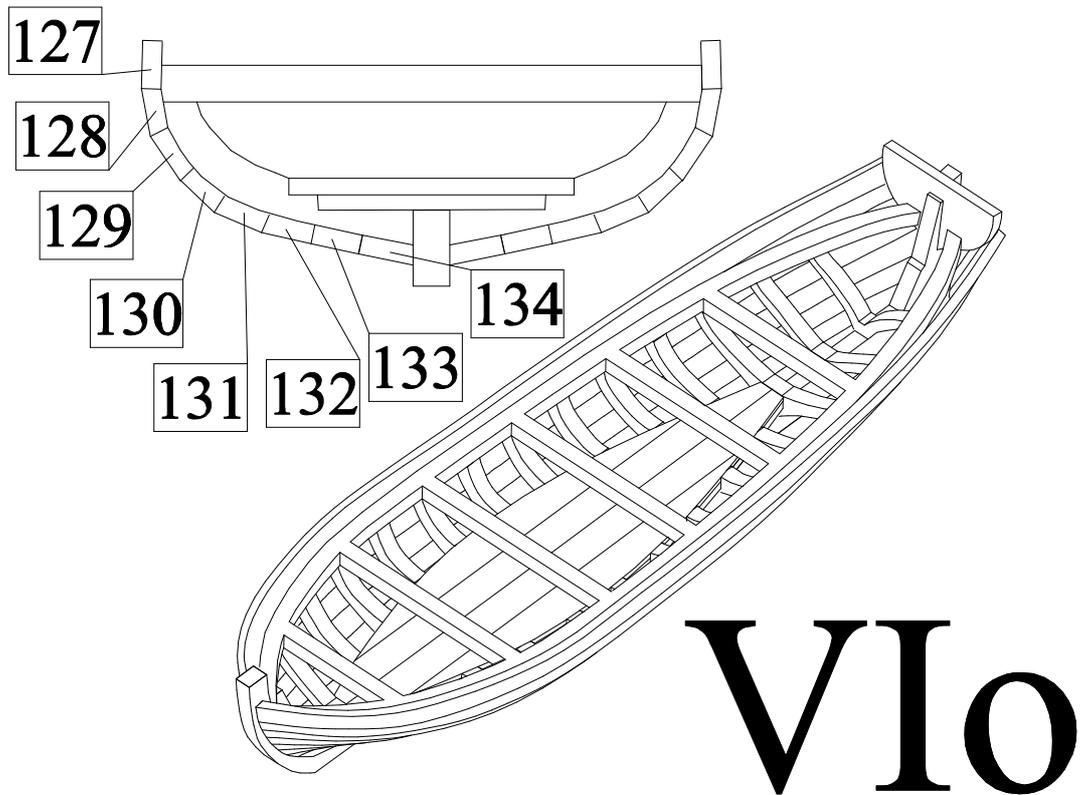
m) Plank the deck of boat by strips 125.



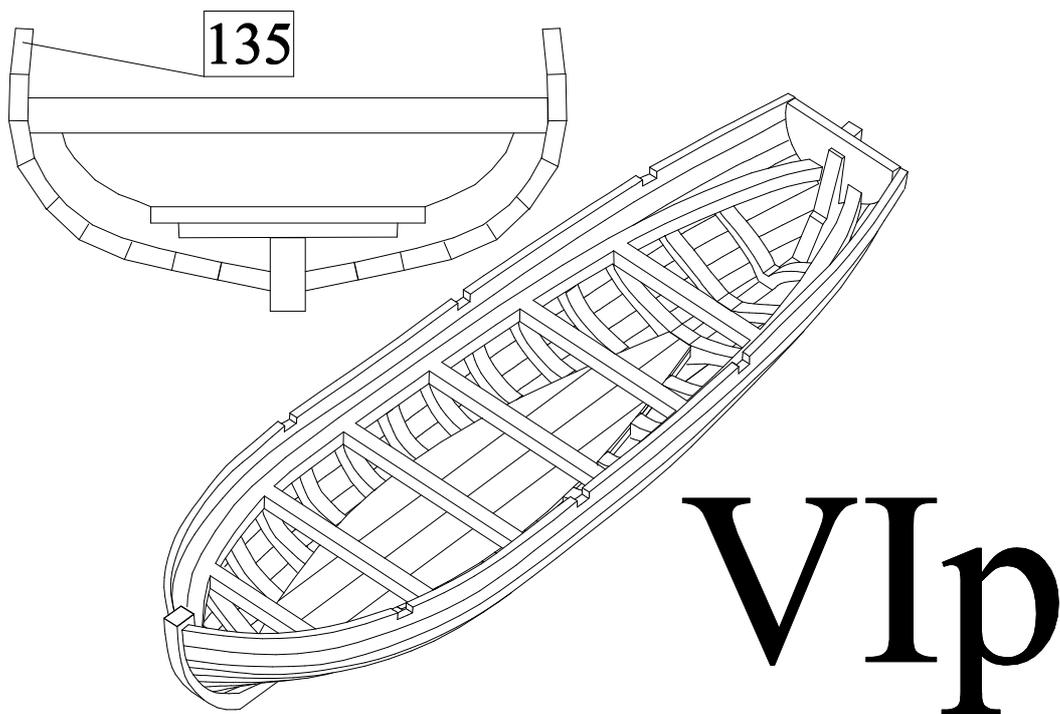
n) Glue a frame 126 to the framing of hull.



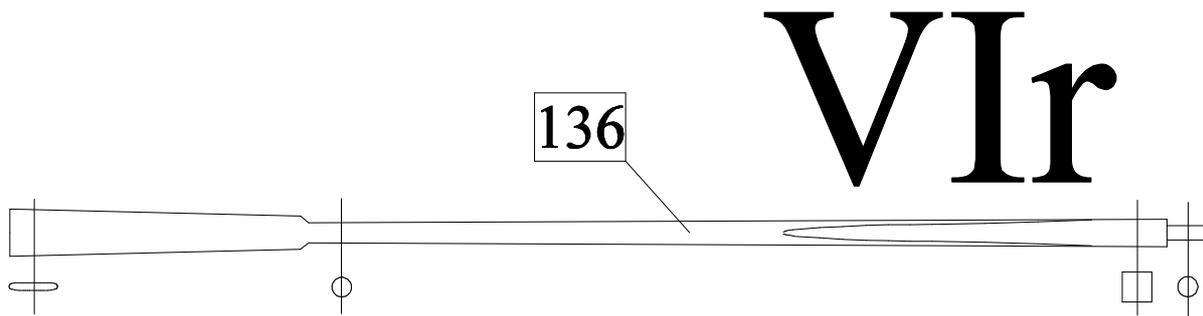
o) Make a planking of the boat. Start the planking with planks 127 and then subsequently glue also other planks 128-134.



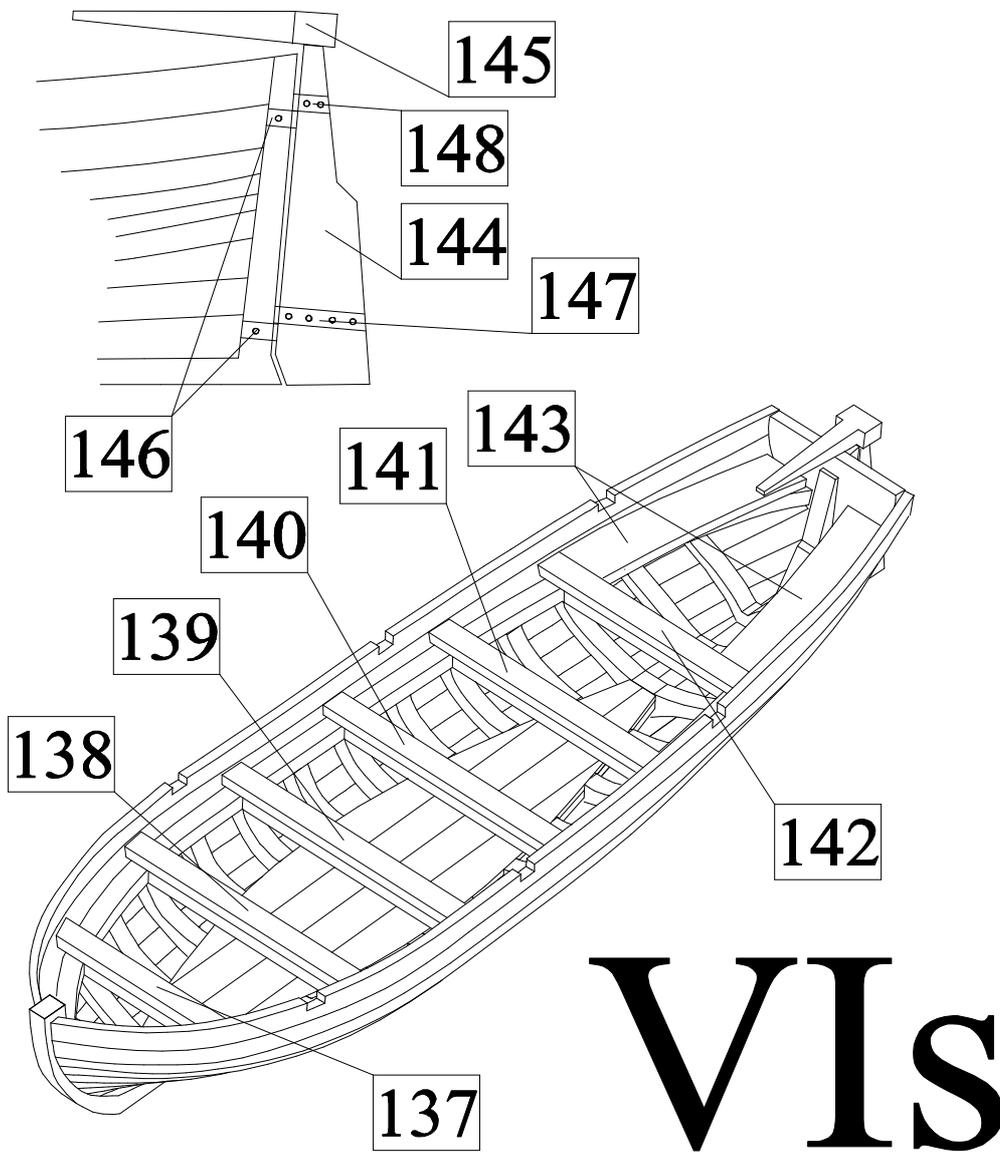
p) Glue to the hull planks 135. Finally make slots for oars by a needle file.



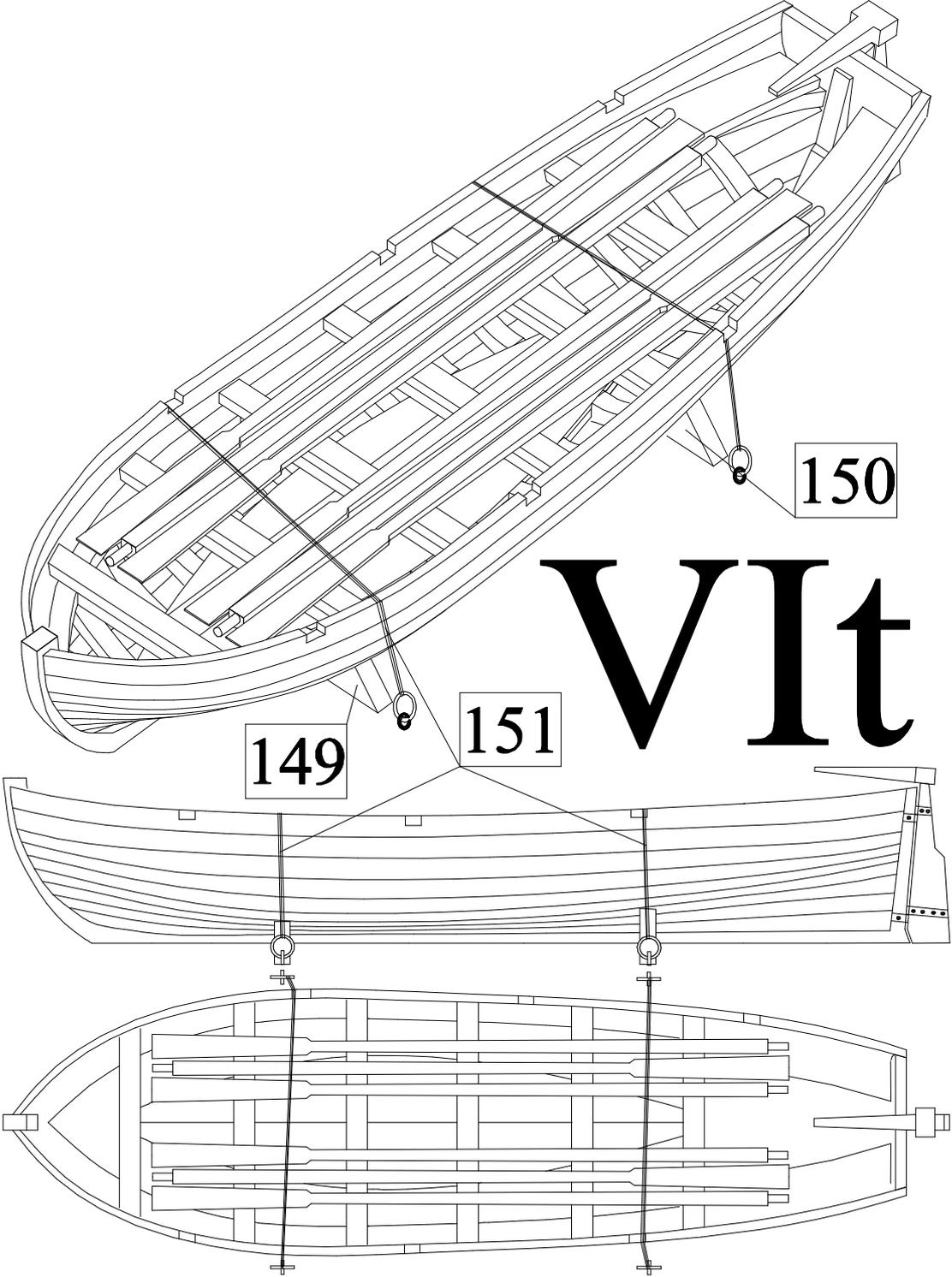
r) Sharpen boat's oars 136 .



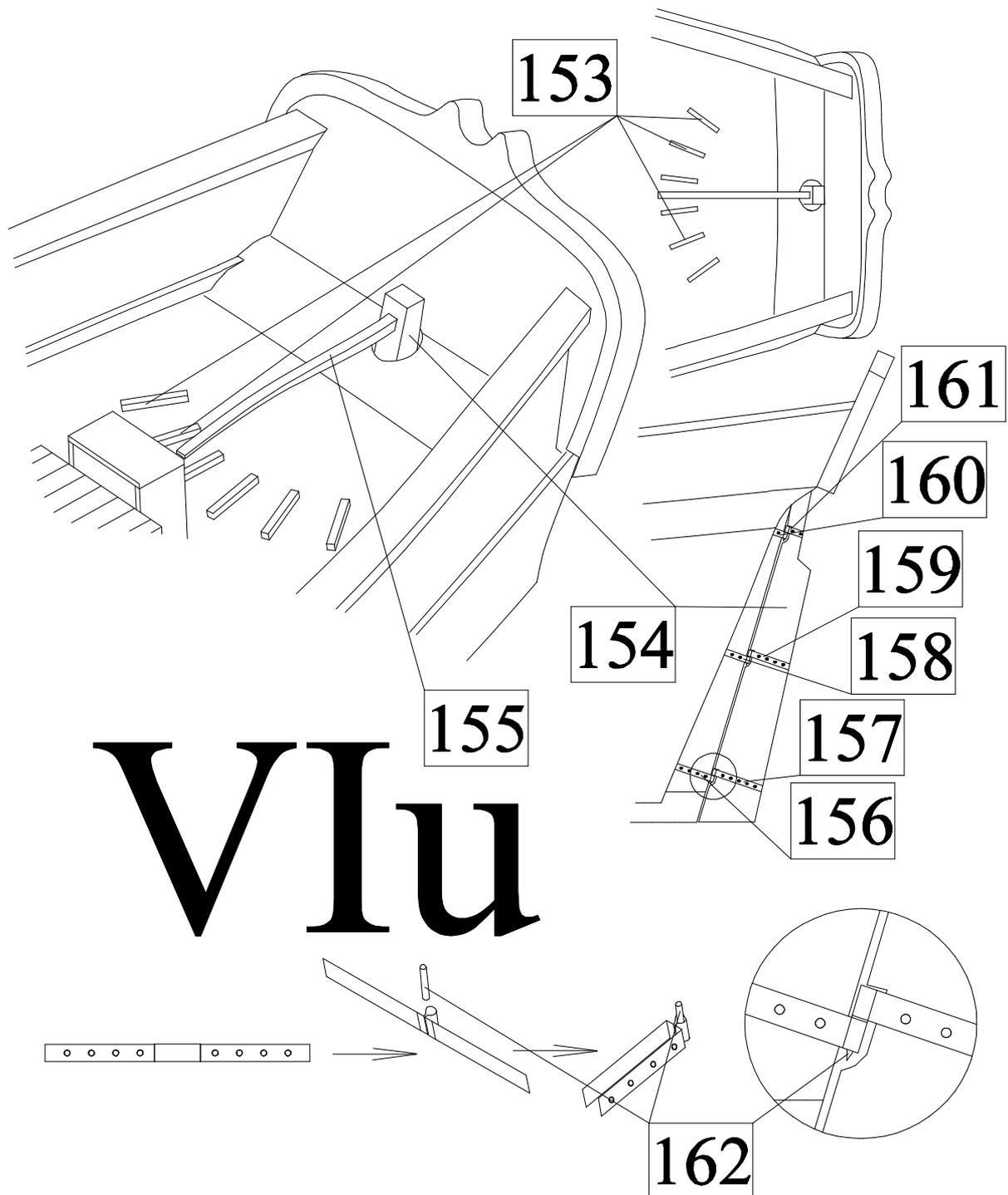
s) Glue banks 137-143 and rudder 144-148 to the hull



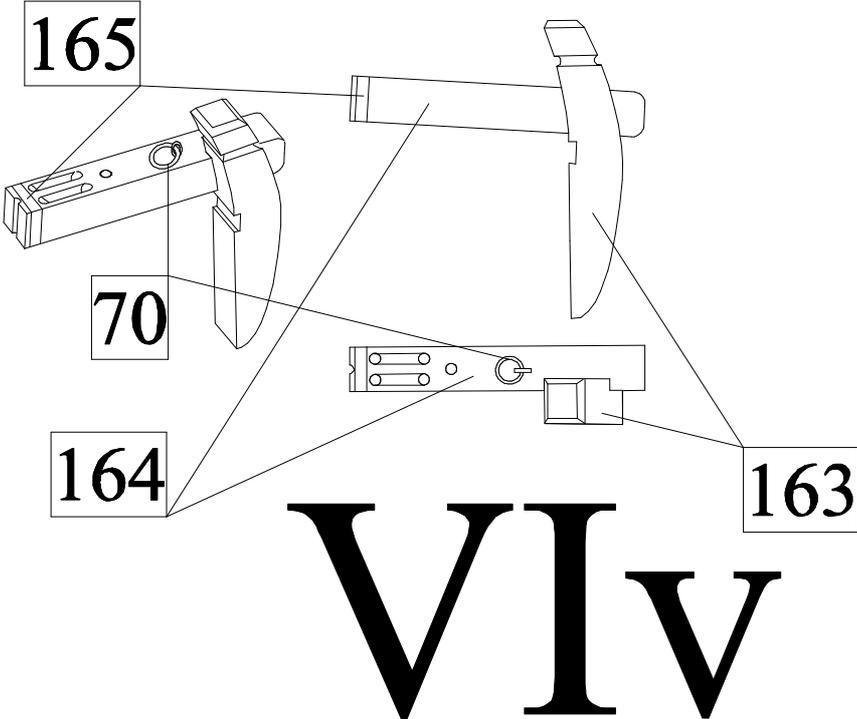
t) First glue frames 149 and 150 to the deck of ship and then install the boat to the deck.



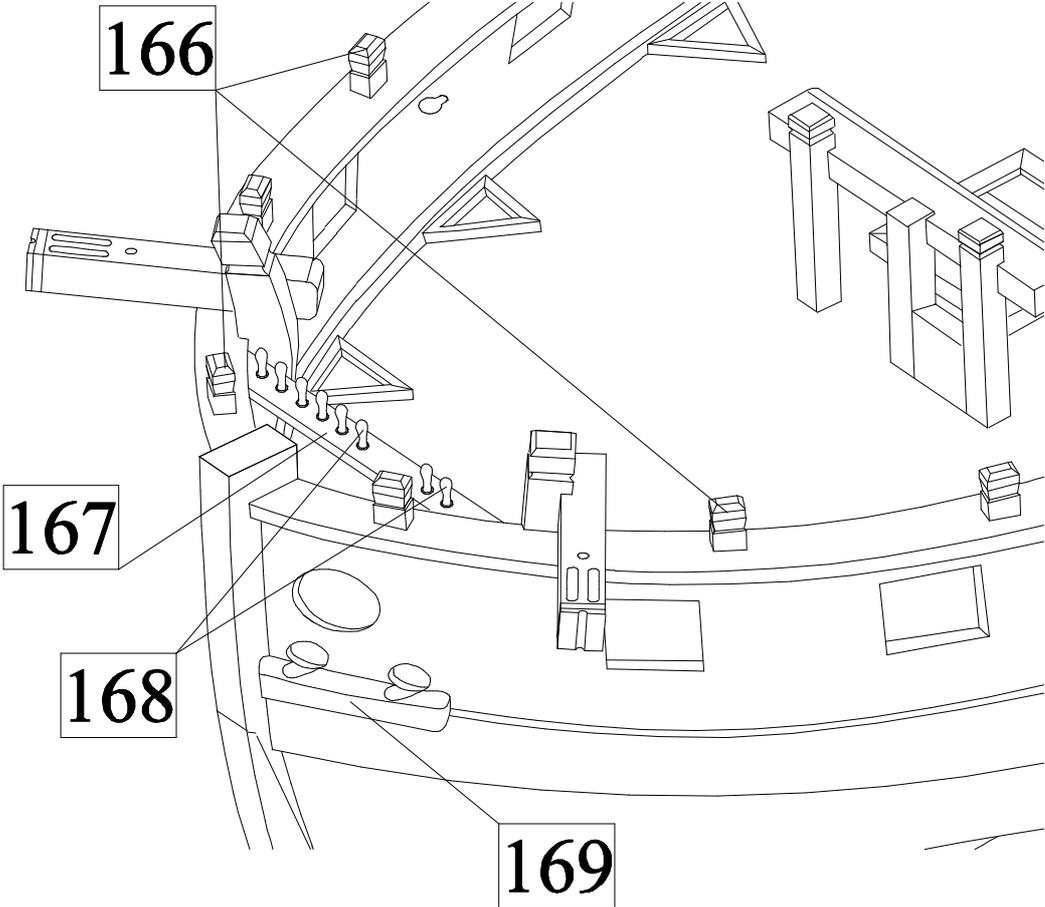
u) First glue strips 153 to the deck. Then install to the sternpost rudder 154 together with hinges 156-162. Finally glue a handle 155 to the rudder.



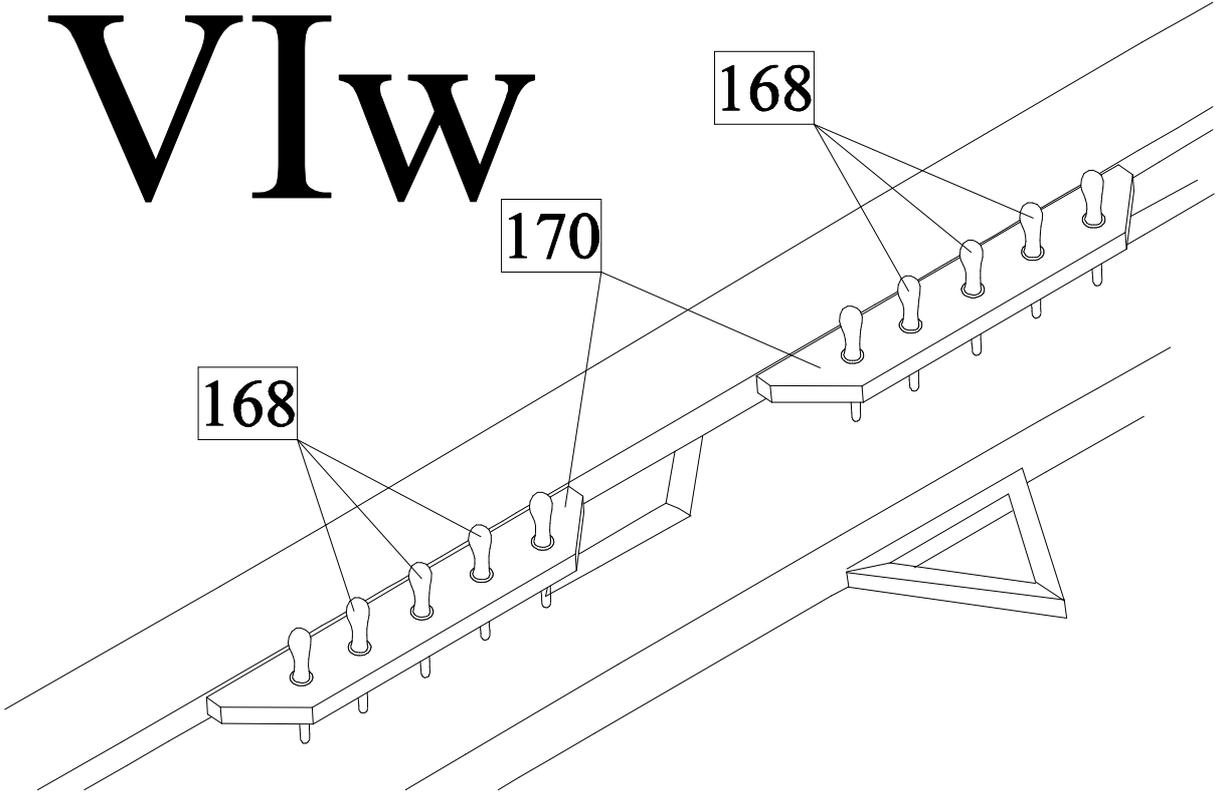
v) Make catheads from parts 163-165 and then glue them to the hull. Then glue to the bow pin rail 167 with belaying pins 168 and timberheads 168. Finally glue bolsters of hawse holes 169 and drill the hawse holes to the bow.



VIV

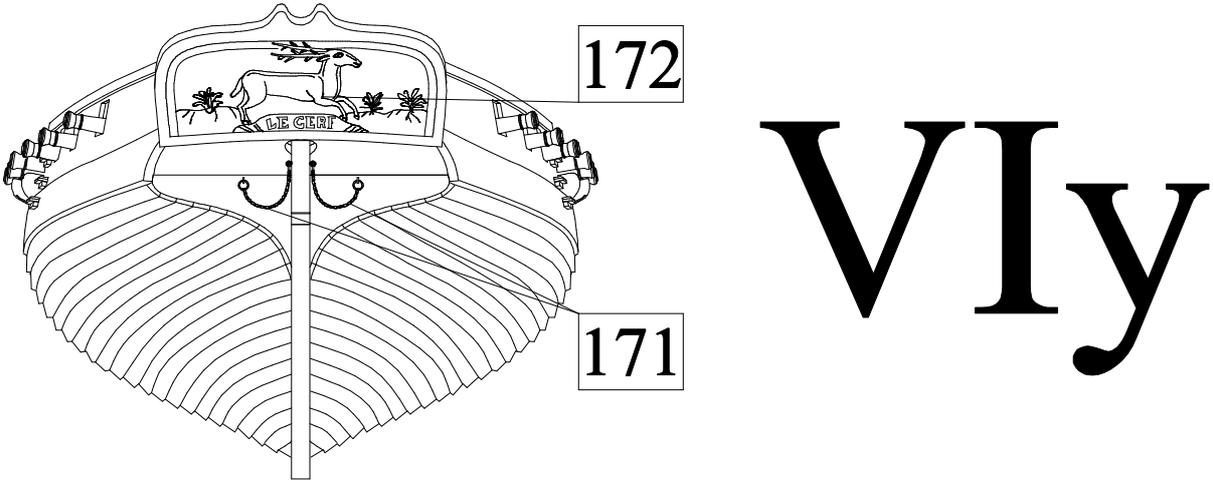


w) Glue pin rails 170 and belaying pins 168 to the hull.



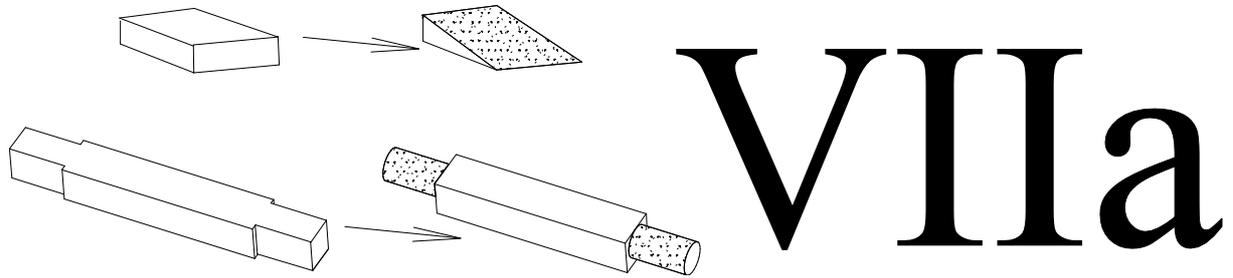
x) Glue eyebolts 69, rings 70 and cleats 74 and 75 to the hull. The positions of these parts are shown in the plan 2.

y) Install chains 171 and escutcheon 172 to the stern.

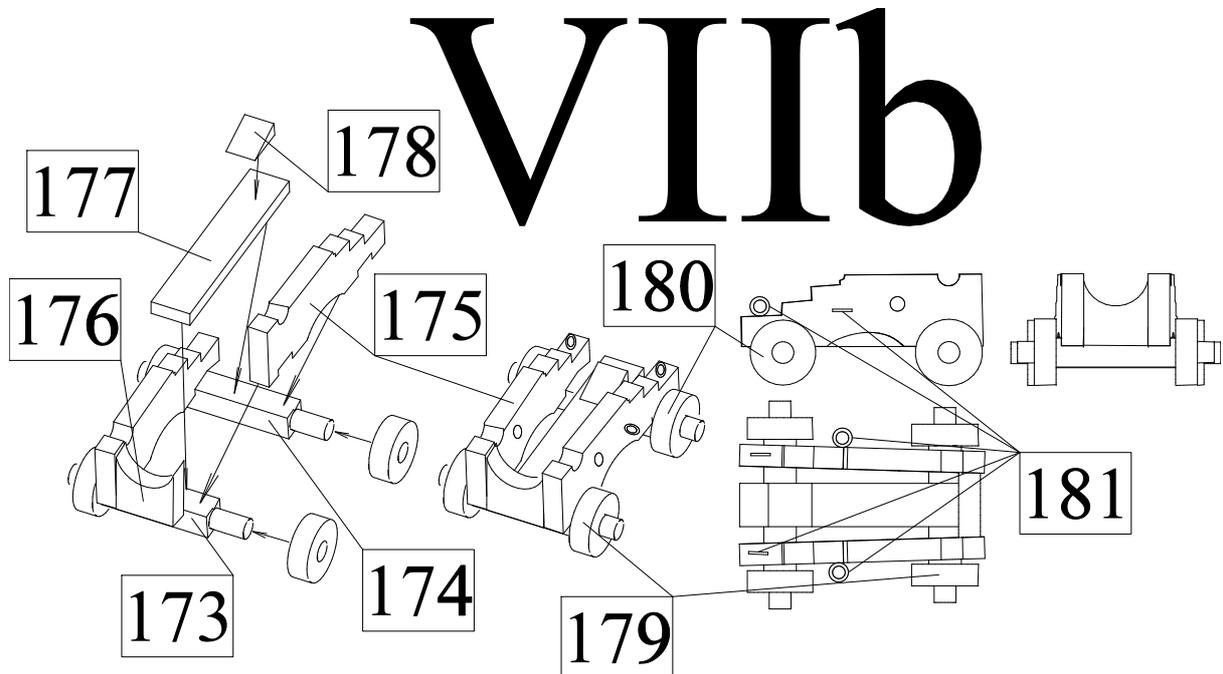


VII) Guns:

a) First sharpen axes of the gun carriages 173 and 174 and wedges 178 by needle files.

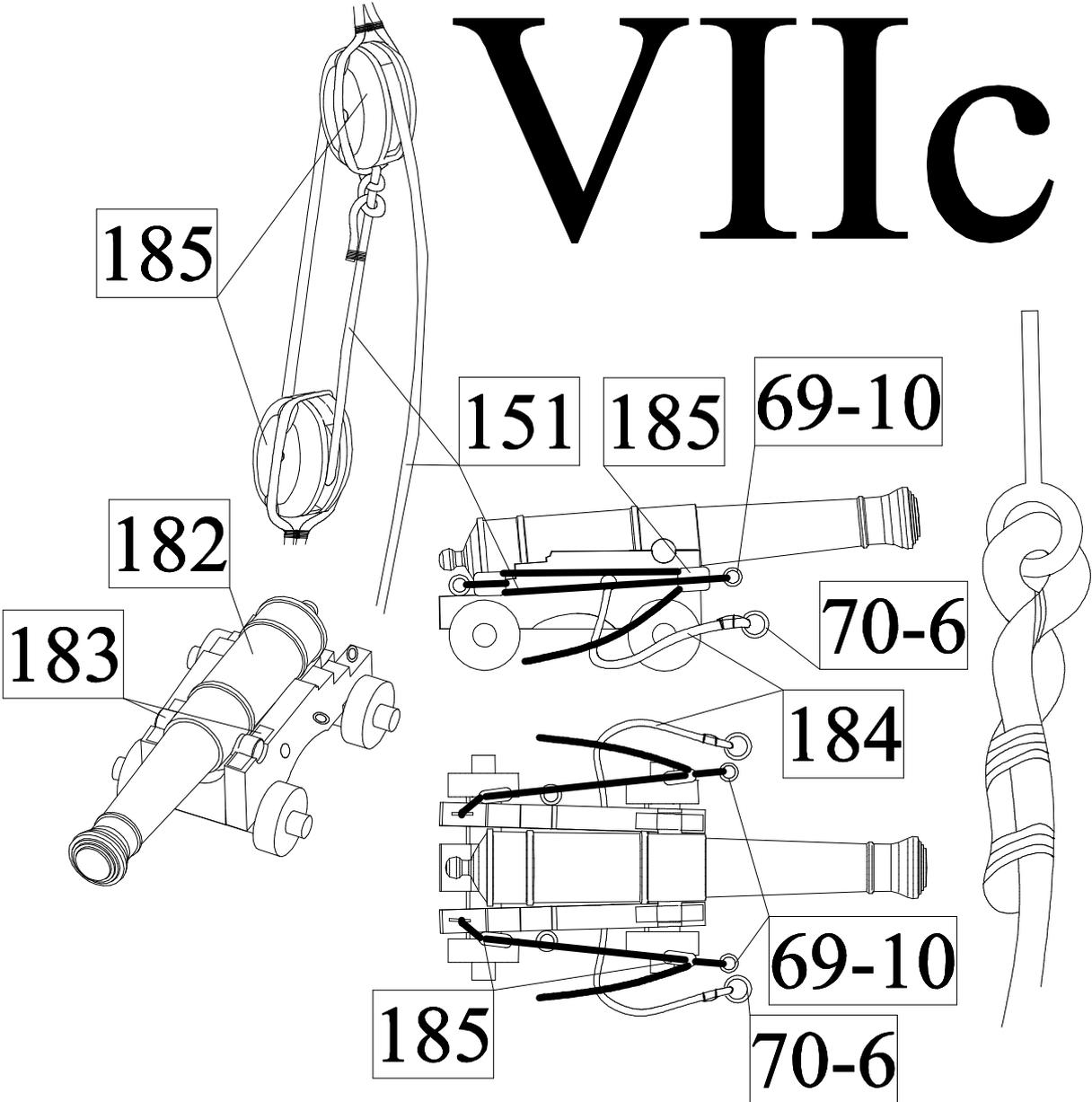


b) Glue the gun carriages. First glue front part 176 and side parts 175 to the axes 173 and 174. Then glue boards 177 and wedges 178 to the carriages. Then glue wheels 179 and 180 to the carriages. Finally glue eyebolts 181 to the carriages.



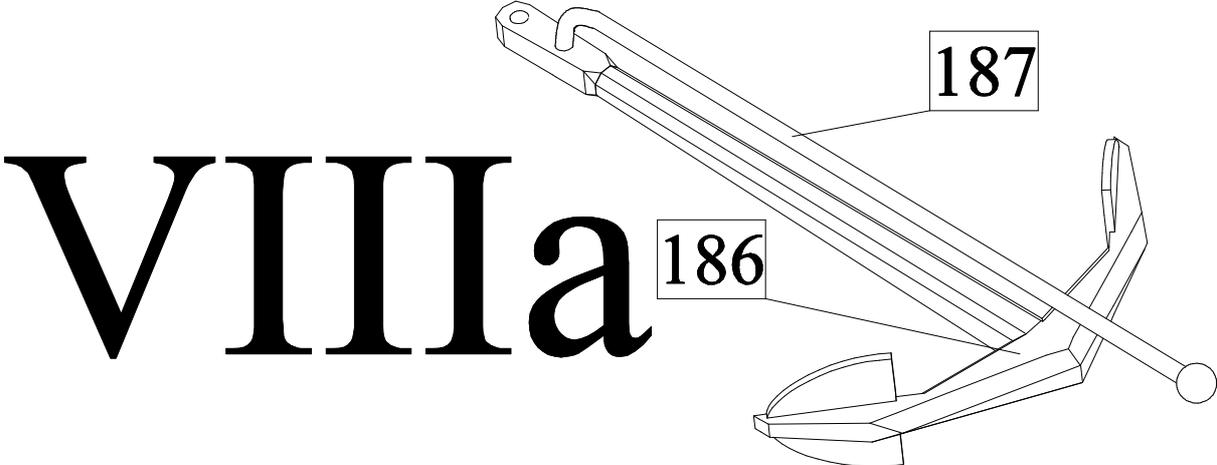
c) First glue cannon barrels 182 and caps 183 to the carriages. Then install the cannons on board. Every carriage is tie by a rope 184 to the rings 70-6 and through blocks 185 and rope 151 to the eyebolts 69-10.

VIIc

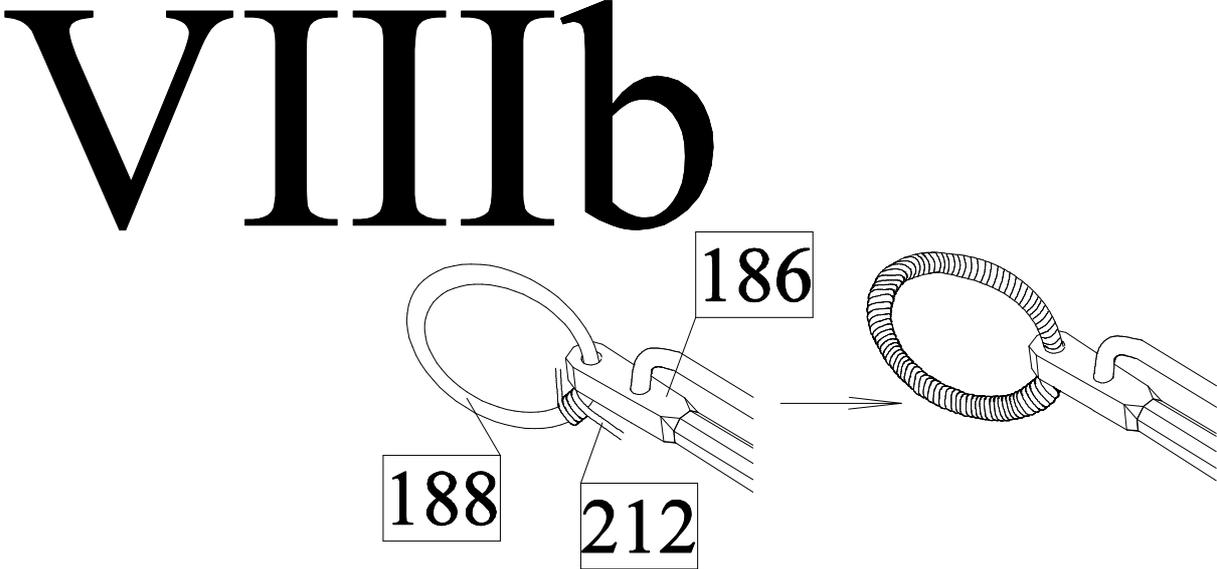


VIII) Anchors:

a) Glue anchors from parts 186 and 187.

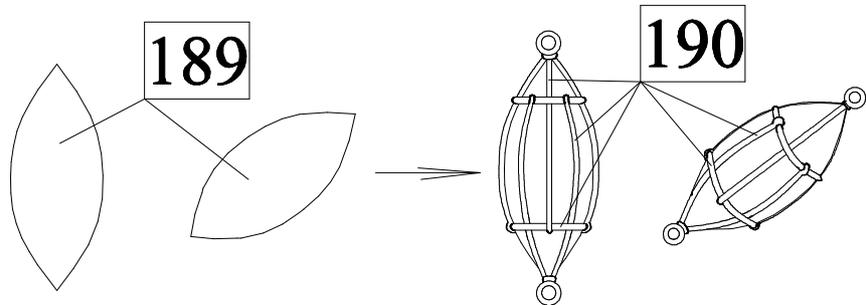


b) Glue rings 188 to the anchors and then bandage them by rope 212.



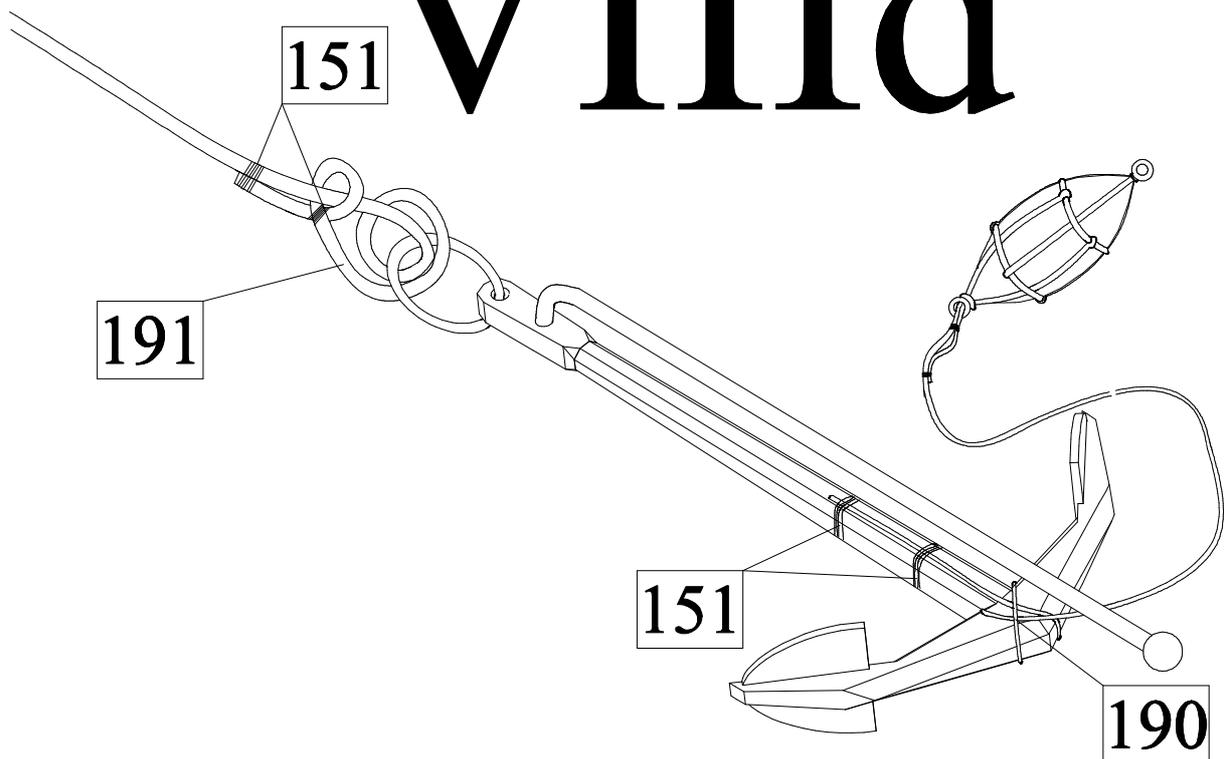
c) First sharpen buoys 189 from 10mm dowel. Then tie rope 190 to the buoys.

VIIIc



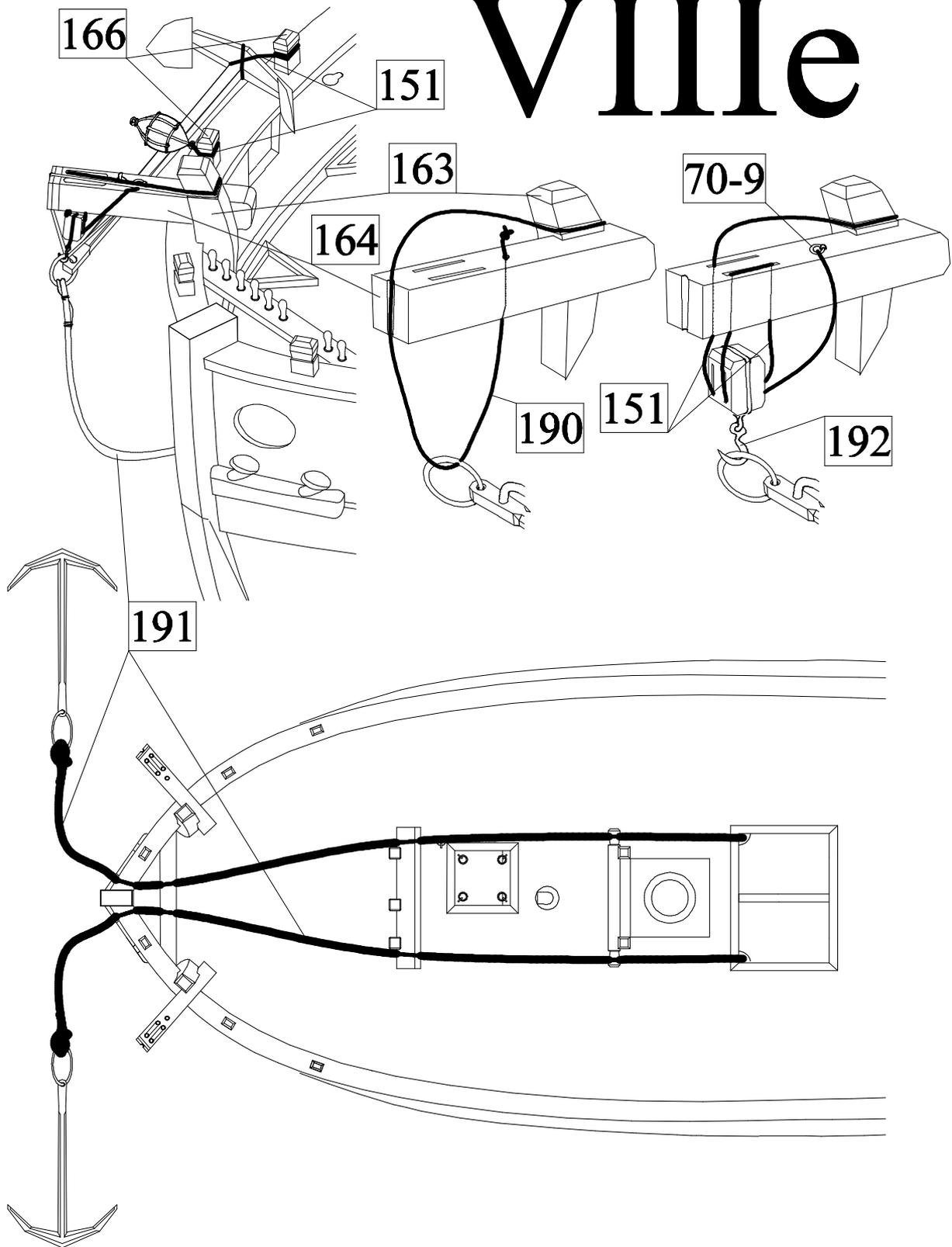
d) Tie a hawse rope 191 and buoys to the anchors.

VIIIId



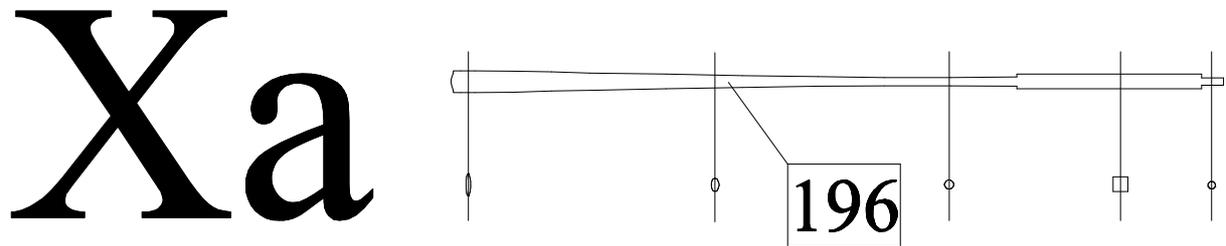
e) Install the anchors and buoys to the hull.

VIIIe



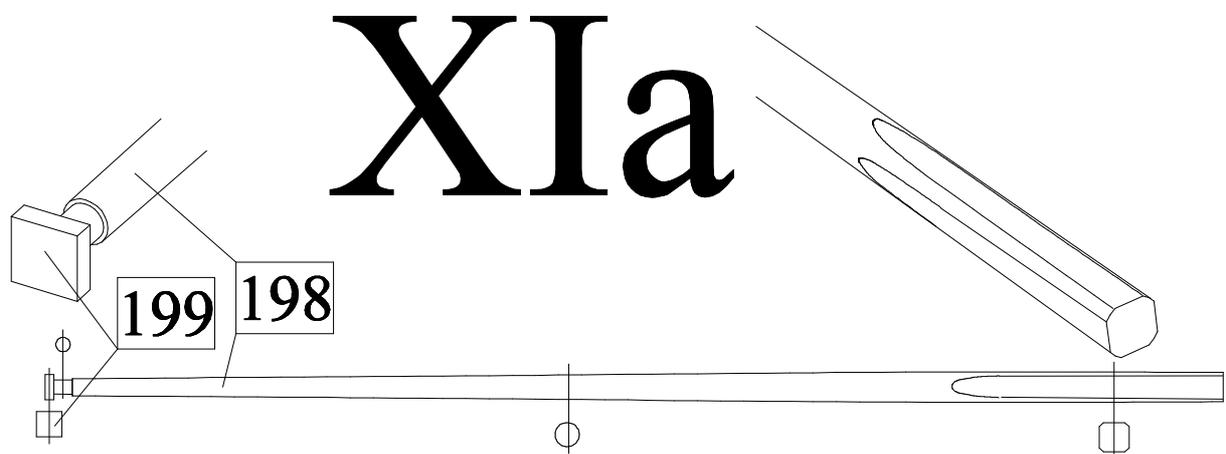
X) Oars:

a) Sharpen oars 196 from wooden parts by a sand paper.

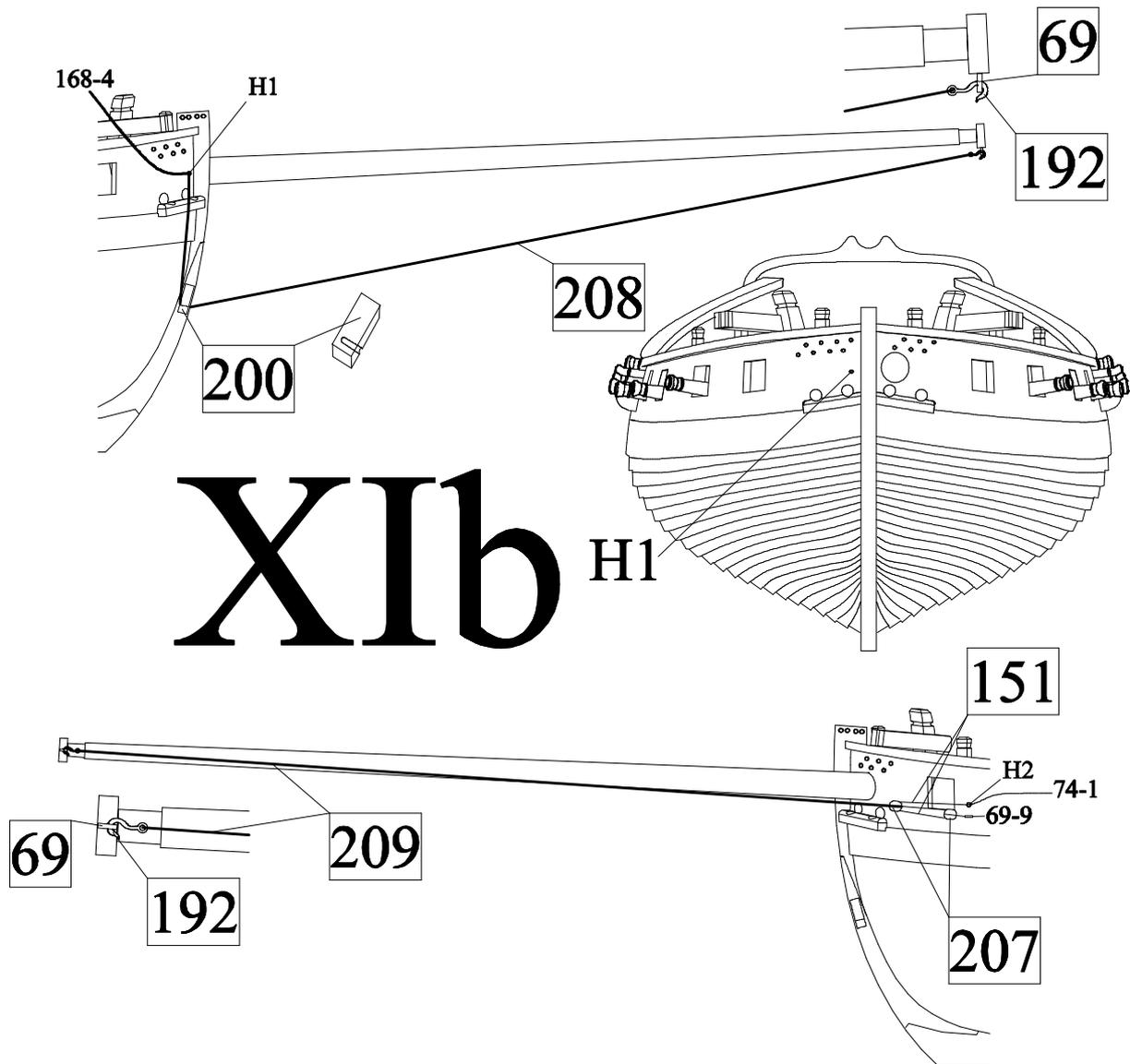


XI) Mast and yards:

a) Sharpen bowsprit 198 into conical shape from 8mm dowel by a sand paper. Then glue a cap 199 to the bowsprit.



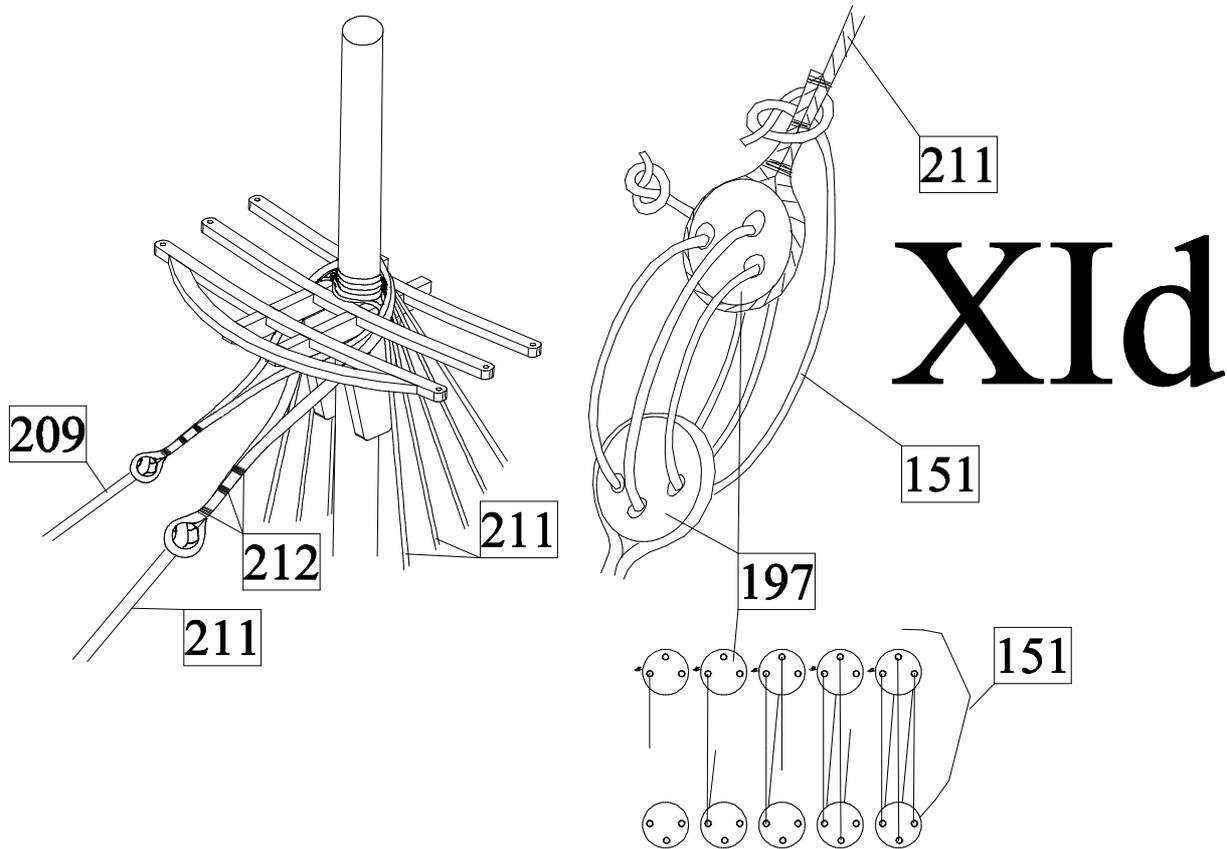
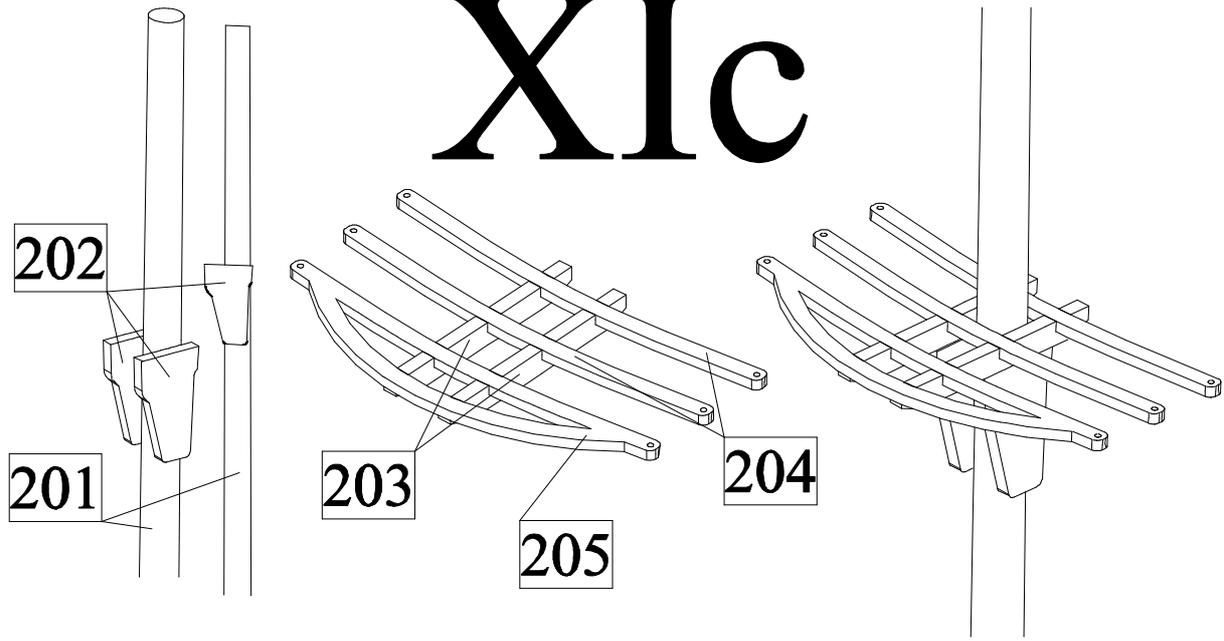
b) First glue the bowsprit to the hull. Then glue to the bow a block 200 (the block make from strip 2x3mm). Tie to the bowsprit a rope 184 (one end of the rope is tie by hook 192 to eyebolt 69 and second end of the rope is tie through block 200 and hole H1 to belaying pin 168-4. Then tie also ropes 208 through block 270 to cleats 74-1. The scheme is shown in the plan 3A.



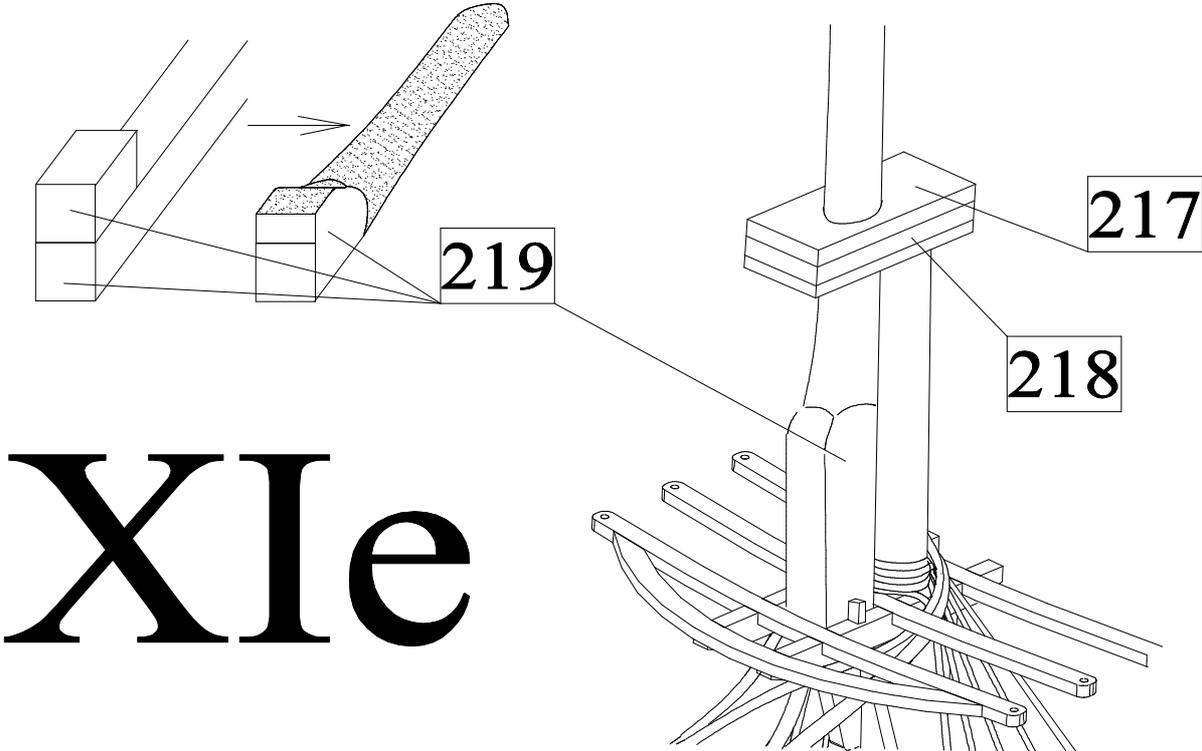
c) First sharpen into conical shape a lower mast 201 from 8mm dowel by a sand paper. Then glue mast cheeks 202 to the lower mast. Then glue lower mast crosstrees from parts 203-205 and glue them to the mast cheeks 202. Finally glue the lower mast to the hull.

d) Tie shrouds 211 to the lower mast. The scheme is shown in the plan 3A.

XIc

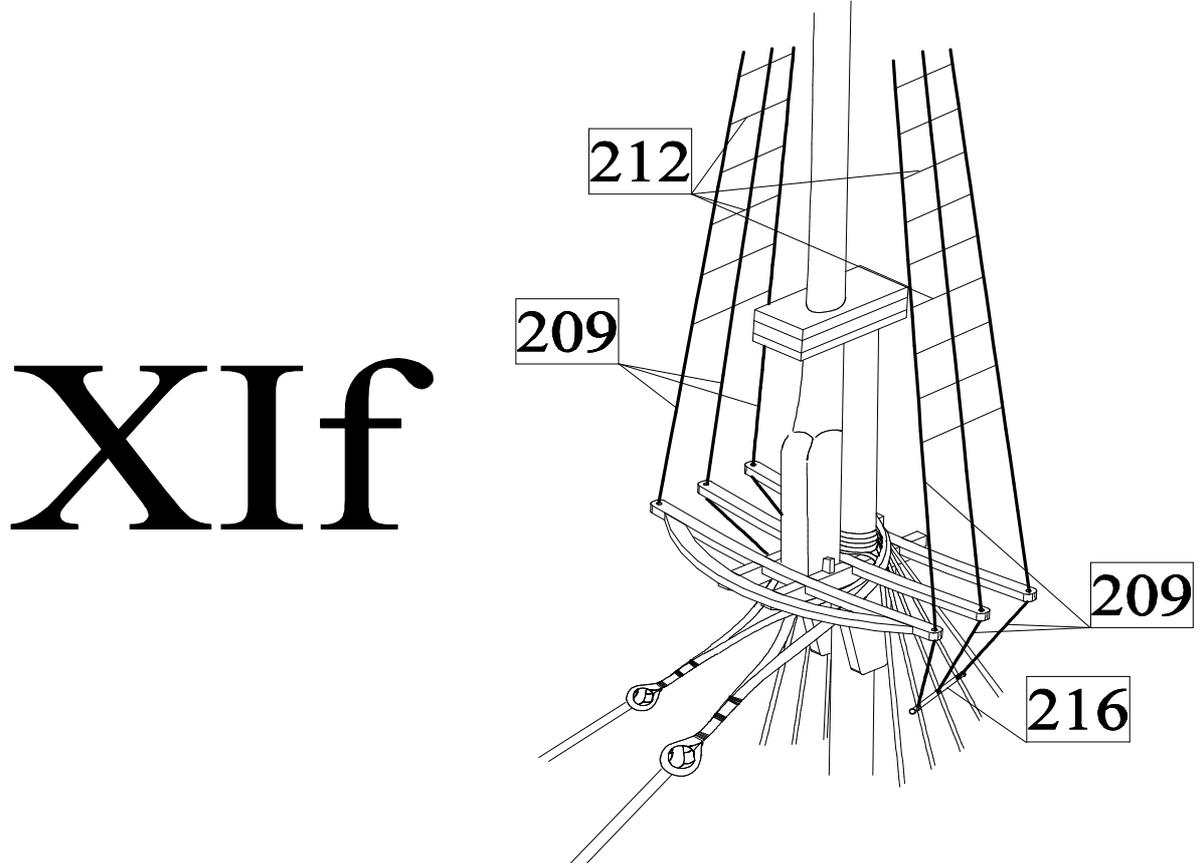


e) Make a topmast 219 from 5x5mm strips. Then glue the topmast together with cap 217 to the lower mast. Finally glue a photoetched part 218 to the cap 217.



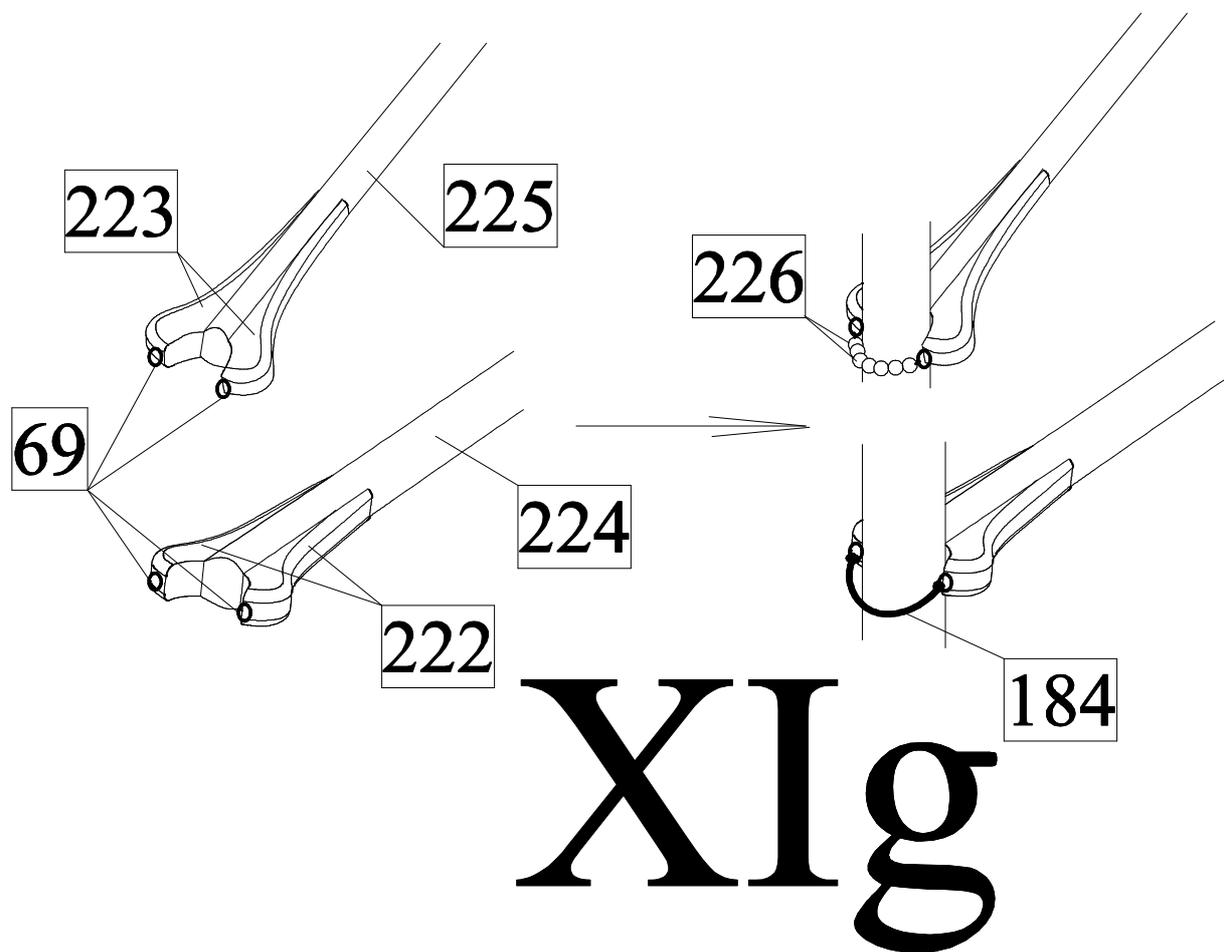
XIe

f) Tie shrouds 209 to the topmast. The scheme is shown in the plan 3B.



XIf

g) First sharpen boom 224 and gaff 225 into needed shape. Then sharpen also gaff 223 and boom 222 jaws and into needed shape and glue them to the gaff and boom. Finally tie the gaff and boom to the mast.



h) Tie rigging ropes for control of gaff and boom. The scheme is shown in the plan 3C.

i) First sharpen a main yard 228 into needed shape. Then tie the main yard to the mast like it is shown below.

j) Tie rigging ropes for control of main yard. The scheme is shown in the plan 3D.

k) First sharpen a topsail yard 229 into needed shape. Then tie the topsail yard to the mast similar like the main yard (use ribs 232 for topsail instead 231 for main mast).

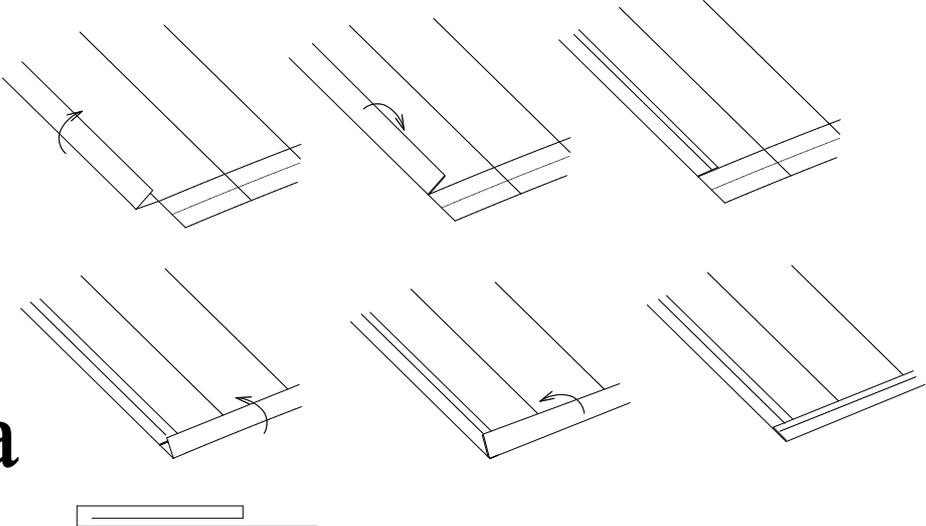
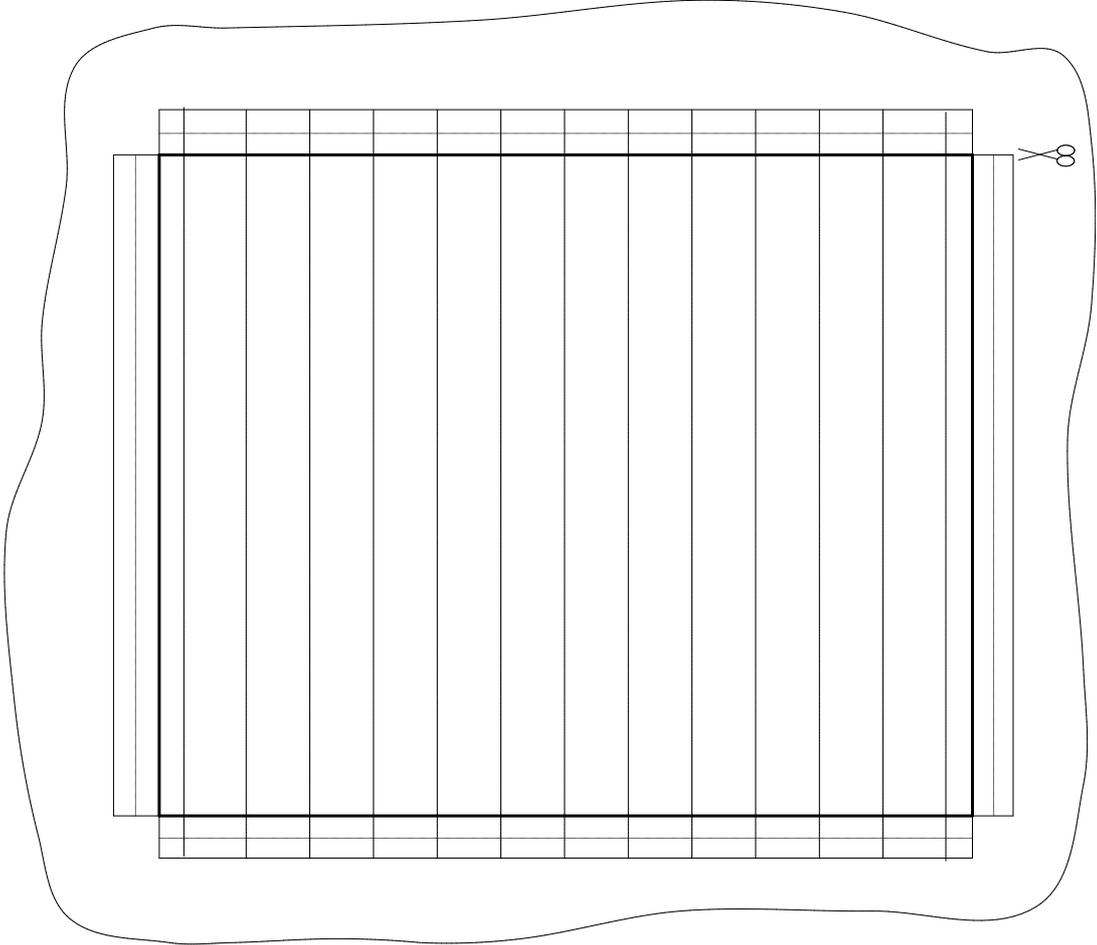
l) Tie rigging ropes for control of topsail yard. The scheme is shown in the plan 3E.

m) First sharpen a topgallant yard 230 into needed shape. Then tie the topgallant yard to the mast similar like the topsail yard.

n) Tie rigging ropes for control of topgallant yard. The scheme is shown in the plan 3F.

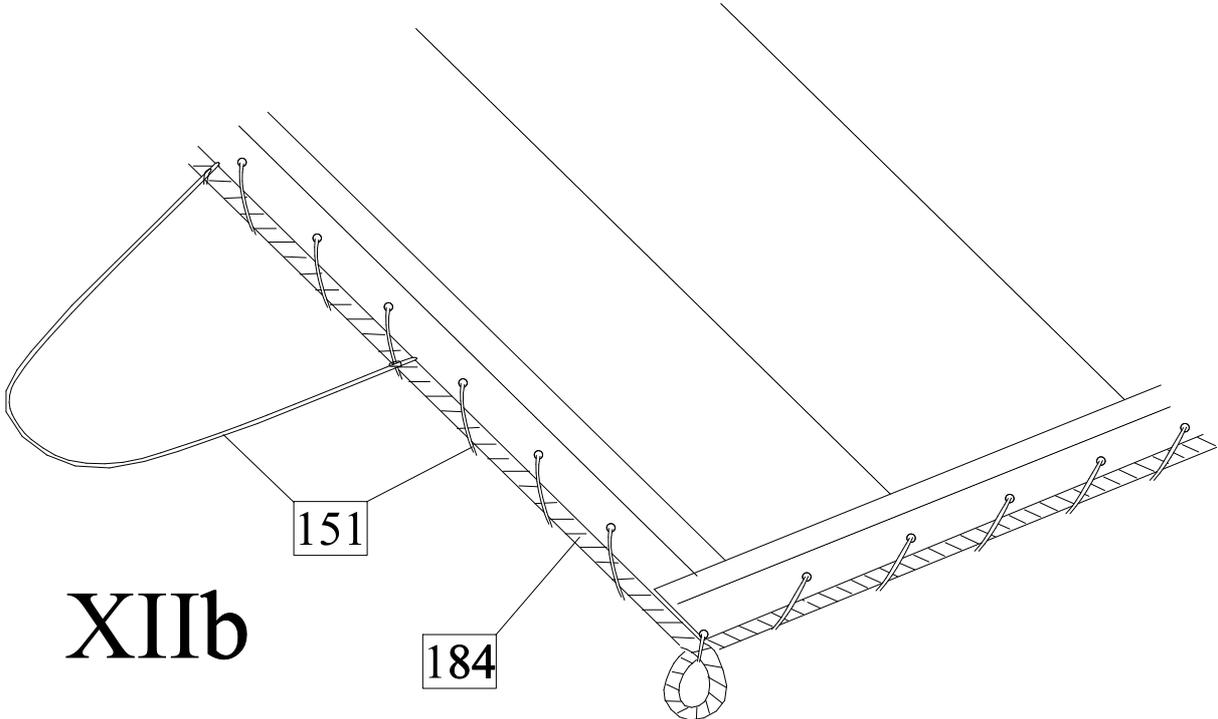
XII) Sails

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.

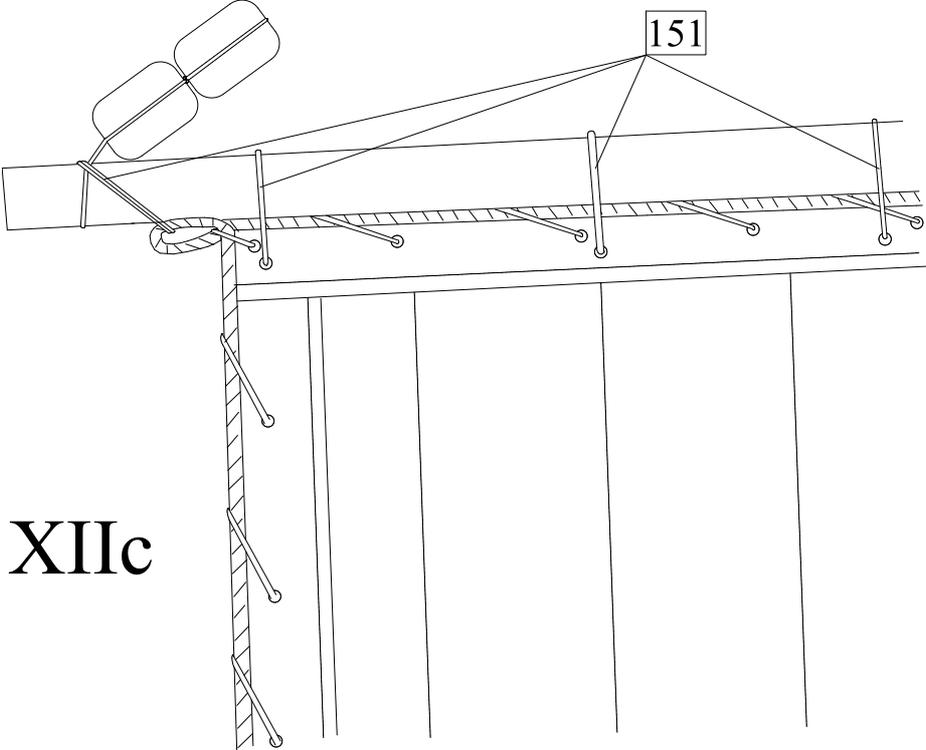


XIIa

b) To the circumference of the sails sew on ropes 184 so that in the corner of the sail will eyes with diameters about 3mm. Then tie ropes 151 to the sides of the sails.

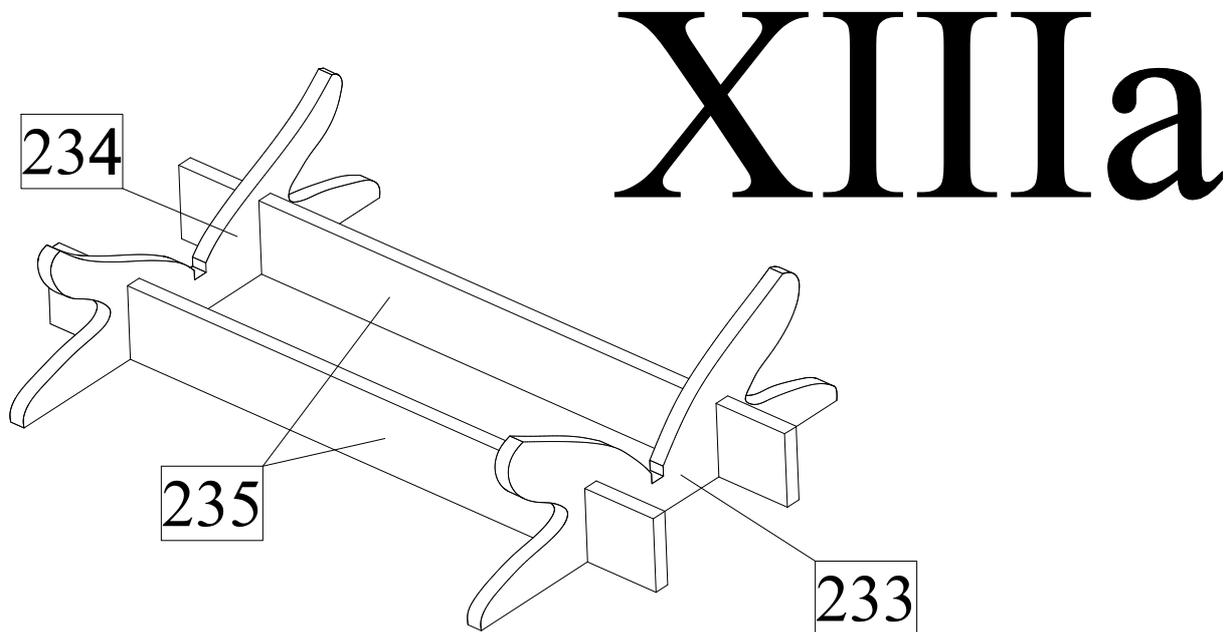


c) Tie the sails to the yards by rope 151.



XIII) Stand

a) Glue a stand from parts 233-235.



Part list:

Number	description	material	quantity
0	Keel	plywood 4mm	1 pc.
1-11	Frames	plywood 4mm	1 pc.
12-15	Reinforcement	plywood 4mm	2 pcs.
16	Deck	plywood 0.8mm	1 pc.
17-21	Keel and stem	wood 4mm	1 pc.
22-23	Planking	plywood 0.8mm	1 pc.
24	Planking	strip 2x4mm	6 pcs.
25	Stern post	wood 4mm	1 pc.
26	Counter	plywood 0.8mm	1 pc.
27	Planking	strip 2x5mm	40 pcs.
28	Planking	strip 1x3mm	30 pcs.
29	Wales	strip 2x3mm	8 pcs.
30	Planking	strip 1x3mm	30 pcs.
31	Deck	veneer 0,6mm	1 pc.
32	Waterways	strip 2x2mm	4 pcs.
33	Planking	strip 1x3mm	30 pcs.
34a,b,c	Plank sheer	wood 2mm	2 pcs.
35-56	Planking	plywood 0.8mm	2 pcs.
57	Moulding	wood 4mm	1 pc.
58	Pumps	dowel 4mm	2 pcs.
59	Pumps	dowel 2mm	1 pc.
60	Pumps	plywood 0.8mm	2 pcs.
61	Pumps	photoetched part	2 pcs.

62	Pumps	photoetched part	2 pcs.
63	Pumps	plywood 0,8mm	2 pcs.
64	Pumps	photoetched part	2 pcs.
65	Pumps	wire 0.5mm	0.1m
66	Hatch	strip 2x2mm	4 pcs.
67	Hatch	plywood 0.8mm	1 pc.
68	Hatch	strip 1x3mm	40 pcs.
69	Eyebolts 2mm	eyebolt 2mm	300 pcs.
70	Rings	ring 2mm	100 pcs.
71	Hatch	strip 2x2mm	4 pcs.
72	Hatch	plywood 0.8mm	1 pc.
73	Hatch	strip 1x3mm	40 pcs.
74	Cleats 6mm	plywood 1.5mm	16 pcs.
75	Cleats 10mm	plywood 1.5mm	8 pcs.
76	Mast foot	wood 2mm	1 pc.
77	Mast foot	wood 2mm	1 pc.
78	Topmast bitts	wood 3mm	1 pc.
79	Topmast bitts	wood 3mm	2 pcs.
80	Riding bitts	wood 3mm	1 pc.
81	Riding bitts	wood 3mm	1 pc.
82	Riding bitts	wood 3mm	2 pcs.
83	Riding bitts	wood 3mm	1 pc.
84	Galley funnel	plywood 0,8mm	1 pc.
85	Galley funnel	photoetched part	1 pc.
86	Galley funnel	photoetched part	1 pc.
87	Ammunition boxes	strip 1x1mm	2 pcs.
88	Binnacle	plywood 0,8mm	2 pcs.
89-91	Binnacle	plywood 0,8mm	1 pc.
92	Binnacle	plywood 0,8mm	2 pcs.
93	Binnacle	plywood 0,8mm	1 pc.
94-97	Skylight	plywood 0,8mm	2 pcs.
98	Preparation for stairs	plywood 4mm	1 pc.
99	Stairs	plywood 0,8mm	8 pcs.
100	Stairs	plywood 0,8mm	4 pcs.
101	Hatch	plywood 0.8mm	1 pc.
102	Hatch	plywood 0.8mm	2 pcs.
103	Hatch	plywood 0.8mm	1 pc.
104	Hatch	plywood 0.8mm	1 pc.
105	Hatch	strip 1x2mm	2 pcs.
106	Hatch	photoetched part	2 pcs.
107	Hatch	photoetched part	4 pcs.
108	Keel of boat	plywood 1.5mm	1 pc.
109-123	Frames of boat	plywood 0,8mm	1 pc.
124	Deck of boat	plywood 0.8mm	1 pc.
125	Deck of boat	strip 1x3mm	40 pcs.
126	Frame of boat	plywood 0,8mm	1 pc.
127-135	Planking of boat	plywood 0.8mm	2 pcs.
136	Oars of boats	plywood 1.5mm	6 pcs.
137-142	Banks of boat	plywood 0,8mm	1 pc.
143	Banks of boat	plywood 0,8mm	1 pc.

144-145	Rudder of boats	plywood 1.5mm	1 pc.
146	Rudder of boats	plywood 1.5mm	2 pcs.
147-148	Rudder of boats	plywood 1.5mm	1 pc.
149-150	Stand of boats	wood 2mm	1 pc.
151	Rigging	rope 0.25mm, hell	40m
152	Hatch	strip 1x3mm	30 pcs.
153	Strips	strip 1x1mm	2 pcs.
154	Rudder	wood 4m	1 pc.
155	Rudder handle	plywood 1.5mm	1 pc.
156-161	Rudder hinges	photoetched part	1 pc.
162	Rudder hinges	wire 0.5mm	0.1m
163-164	Cathead	wood 4mm	2 pcs.
165	Cathead	photoetched part	2 pcs.
166	Timber heads	wood 2mm	6 pcs.
167	Pin rail	plywood 0,8mm	1 pc.
168	Belaying pins	belaying pin 6mm	30 pcs.
169	Bolsters of hawse holes	strip 2x3mm	8 pcs.
170	Pin rails	plywood 0,8mm	4 pcs.
171	Chain	chain	0.1m
172	Escutcheon	resin part	1 pc.
173, 174	Cannon carriages	plywood 1.5mm	18 pcs.
175	Cannon carriages	plywood 1.5mm	36 pcs.
176-178	Cannon carriages	plywood 1.5mm	18 pcs.
179, 180	Cannon carriages	plywood 1.5mm	36 pcs.
181	Eyebolts	eyebolt 2mm	300 pcs.
182	Cannon barrels	resin part	18 pcs.
183	Cannon caps	photoetched part	36 pcs.
184	Rigging	rope 0.75mm, hell	10m
185	Blocks	block 2mm-1hole	100 pcs.
186,187	Anchors	resin part	2 pcs.
188	Anchors	ring 8mm	2 pcs.
189	Buoys	dowel 8mm	2 pcs.
190	Rigging	rope 0.5mm, hell	20m
191	Rigging	rope 1.75mm, hell	0.5m
192	Hooks	photoetched part	2 pcs.
193	Upper links	photoetched part	10 pcs.
194	Upper links	photoetched part	10 pcs.
195	Channels	wood 4mm	2 pcs.
196	Oars	wood 2mm	16 pcs.
197	Deadeye	deadeye 3.5mm	22 pcs.
198	Bowsprit	dowel 8mm	2 pcs.
199	Cap	wood 2mm	1 pc.
200	Block	strip 2x3mm	8 pcs.
201	Main mast	dowel 8mm	2 pcs.
202	Cheeks	wood 2mm	2 pcs.
203	Lower mast crosstrees	wood 2mm	2 pcs.
204	Lower mast crosstrees	plywood 1.5mm	2 pcs.
205	Lower mast crosstrees	plywood 1.5mm	1 pc.
206	Mast band	wood 2mm	1 pc.
207	Block	block 3mm, 1 hole	40 pcs.

208	Rigging	rope 0.75mm, dark	1m
209	Rigging	rope 0.5mm, dark	20m
210	Block	block 3mm, 2 holes	30 pcs.
211	Rigging	rope 1mm, dark	5m
212	Rigging	rope 0.25mm, dark	20m
213	Block	block 5mm, 1 hole	3 pcs.
214	Block	wood 2mm	1 pc.
215	Block	block 5mm, 3 holes	2 pcs.
216	Futtock stave	strip 1x1mm	2 pcs.
217	Cap	wood 4mm	1 pc.
218	Cap mounting	photoetched part	1 pc.
219	Topmast	strip 5x5mm	1 pc.
220	Topmast	strip 1x2mm	2 pcs.
221	Truck	dowel 5mm	1 pc.
222	Boom jaws	wood 4mm	2 pcs.
223	Gaff jaws	wood 2mm	2 pcs.
224	Boom	dowel 6mm	1 pc.
225	Gaff	dowel 4mm	2 pcs.
226	Parrals	truck 2mm	100 pcs.
227	Block	block 5mm, 2 holes	3 pcs.
228	Main yard	dowel 5mm	1 pc.
229	Topsail yard	dowel 4mm	2 pcs.
230	Topgallant yard	dowel 3mm	1 pc.
231	Ribs	plywood 0.8mm	12 pcs.
232	Ribs	plywood 0.8mm	12 pcs.
233, 234	Stand	plywood 4mm	1 pc.
235	Stand	plywood 4mm	2 pcs.
236	Flag	flag	1pc.
237-243	Sails	cloth	1pc.
244	Hoops	photoetched parts	10pcs.