

Main deck of USS HARTFORD, circa 1864. 11 IX-inch Dahlgren broadside guns each side.



Key fact for understanding gun service, OLD definition of the word “overhaul”, per direct quote from American Oxford Dictionary:

“<ORIGIN> early 17th cent. (originally in nautical use in the sense of ‘release (rope tackle) by slackening’: from OVER + HAUL.”

I. "SILENCE! MAN THE STARBOARD (OR PORT) GUNS!"

205. At this preparatory order the strictest silence is to be observed. The Captain faces the port, the men, on the right and left, stand facing the gun; all fix their eyes on the Captain and attentively wait for orders.

II. "CAST LOOSE AND PROVIDE!"

206. The GUN CAPTAIN commands, sees his gun cleared and cast loose, portlid unbarred ready for tricing up, or half ports taken out; side and train tackles hooked, the side-tackle to the side training-bolt, and the train-tackle to the eye-bolt in the deck in the rear of the gun; casts loose and middles breeching and places selvagee straps and toggles amidships; takes off lock-cover, and hands it to the train-tackleman, who places it amidships; buckles on his waist-belt (furnished as directed in Article 150); provides himself with a priming-wire; puts on and secures his thumbstall; and sees that the gear and implements for the service of the gun are all in place and ready for use, and that the men are properly equipped.

When the gun is ready for action he sees that the men take their proper positions, and reports to the Officer of the subdivision to which he belongs.

It is important that the battery shall be completely provided at every exercise, otherwise something is sure to be omitted in preparing for action.

207. 2D CAPTAIN assists in casting loose and middling breeching; takes off and places amidships sight-covers, selvagee straps, and toggles; handles quoin; provides thumbstalls, priming-wires, and boring-bit, and equips himself with the first two; clears lock-string and lays it in a loose coil round the lock, convenient for use, and buckles on his waist-belt furnished as 1st Captain's. If the gun is furnished with an elevating screw, elevates the gun, that the lower half port may be let down.

208. 1ST LOADER, aided by 1st Sponger, casts loose port-lanyards, removes upper half port, and passes it to the men on the left side of the gun, who lay it amidships; lets down the lower half port. On lower deck casts off port-lanyards and muzzle-lashing; removes port-bar and passes it to the men at the left side of the gun, who lay it amidships; bears out port. On all decks places hand-swab and chocking-quoin near the ship's side on the left side of the gun; aids 1st Sponger in taking out tompion.

209. 2D LOADER assists in casting loose; sees the wads in place, and for rifle cannon a pot of grease at hand; hooks outer block of side-tackle to side training-bolt, on the left side of the gun.

210. 1ST SPONGER casts loose port-lanyards and aids 1st Loader in removing upper half ports and letting down lower ones, and on lower decks in removing the port-bar, bearing out the port and taking off the muzzle-lashings; takes out tompion, and passes it to 2d Sponger, who hangs it amidships; places chocking-quoin on the right side of the gun, near the ship's side.

211. 2D SPONGER assists in casting loose; hooks outer block of side-tackle to the side training-bolt, on the right side of the gun.

The Spongers take down the sponges and rammers; take off the sponge-cap and hang it up out of the way; place sponges and rammers together. on the right side of the gun, heads toward the breech, in the brackets overhead on covered decks, otherwise on deck.

The SIDE-TACKLEMEN assist in casting loose; on lower decks, aid Port-tacklemen; moisten the sponge, being certain that the end of the sponge which touches the bottom of the bore is thoroughly wet.

212. SHELLMEN assist in casting loose, provide shot and wads, and proceed to hatchway, ready to pass loaded shell, if ordered.

213. TRAIN-TACKLEMEN lead out and hook train-tackle.

214. HANDSPIKEMEN take out the handspikes on their respective sides, and with carriages using a quoin, each standing between his handspike and the side of the ship, place the heels of their handspikes on the steps of the carriage and under the breech of the gun, and raise it so that the quoin may be eased and the lower half port let down, or, when housed, the bed and quoin adjusted. Then each Handspikeman will lay his handspike on deck, on his own side of the gun, parallel with its axis, clear of the trucks and butt to the rear.

215. POWDER-BOY repairs to his proper scuttle for his passing-box, which having received he returns and stands a little to the left and in rear of the gun, keeping the passing-box under his left arm and the cover closely pressed down with his right hand.

216. When there are fourteen or more men at a gun, the PORT-TACKLEMEN and SIDE-TACKLEMEN, on lower decks, lead out port-tackle falls and assist in tricing up the port, and, when high enough, belay the fall.

217. In the temporary absence of the first Captains, Loaders, or Spongers, when at quarters on one side, their Seconds will take their places and perform their respective duties.

When exercising by divisions, or single gun's crews, every station should be filled; if necessary, taking men from the Master's or Powder division to fill vacancies. The guns will be sufficiently exercised in working with reduced crews at general quarters.

218. With a gun's crew of ten or more men, No. 7 will take the place of No. 5, and No. 8 of No. 6, when Nos. 5 or 6 are absent temporarily.

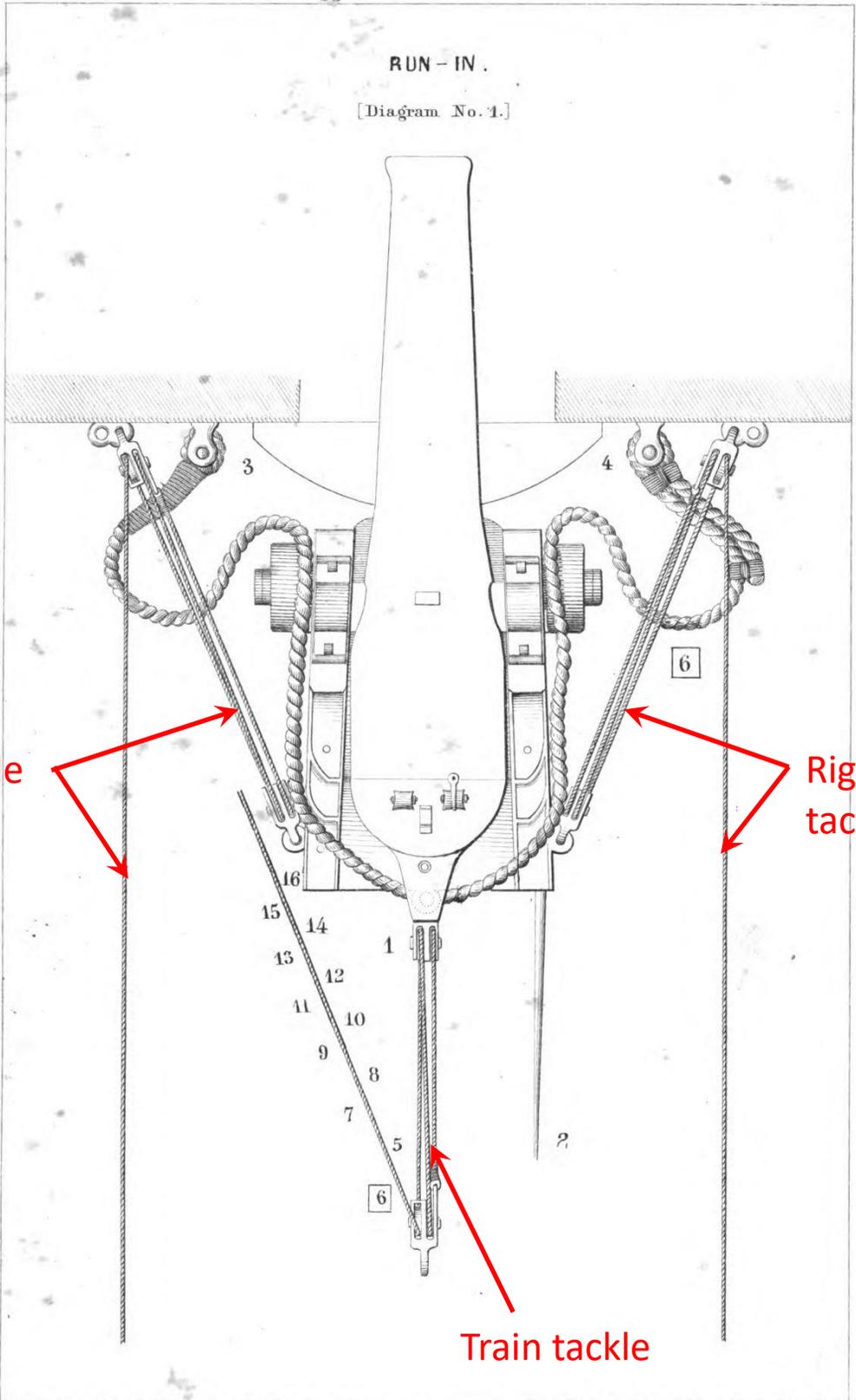
RUN - IN .

[Diagram No. 1.]

Left side
tackle

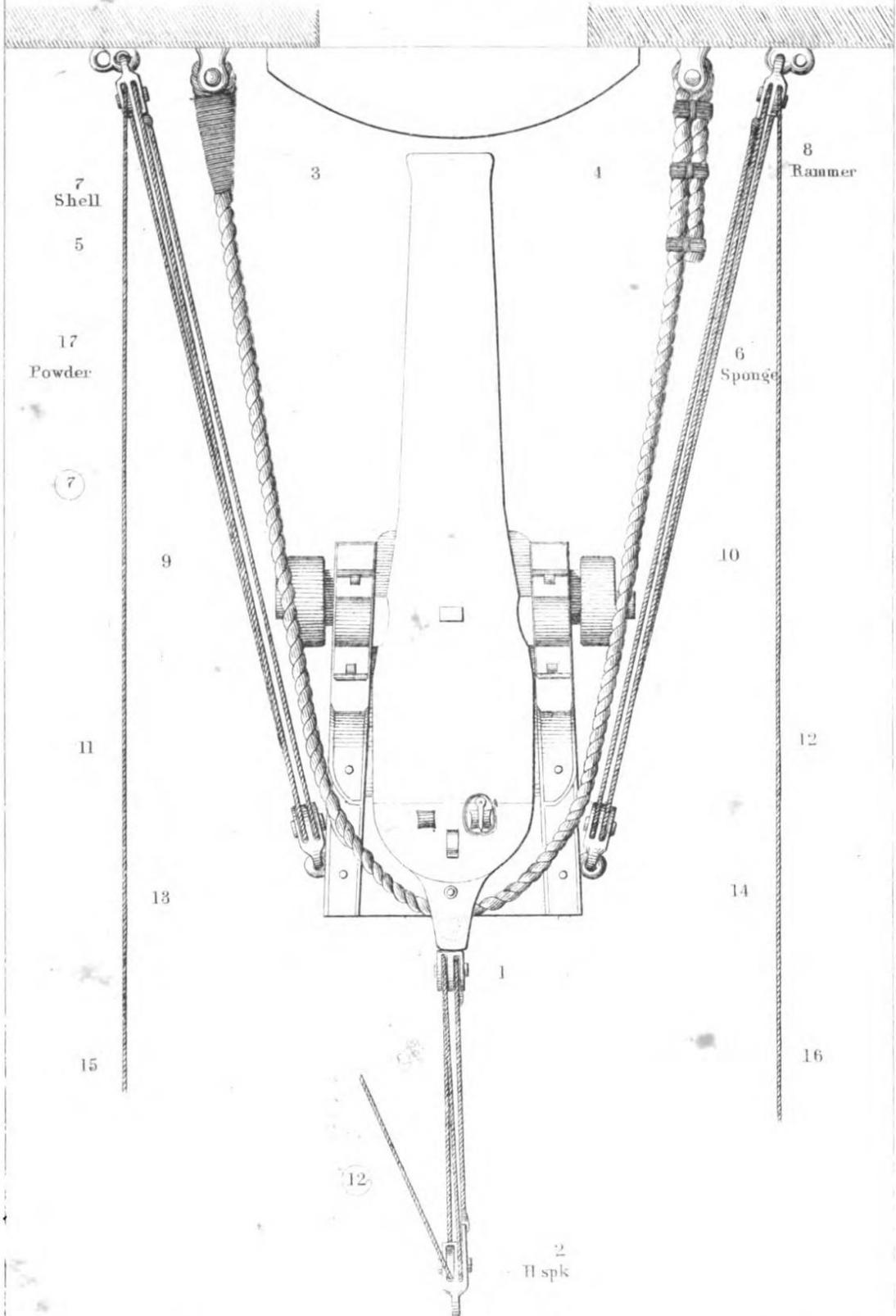
Right side
tackle

Train tackle



SPONGE-LOAD

[Diagram No. 2.]



III. "RUN IN!" (*preparatory*).

(Diagram No. 1.)

219. Nos. 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 (and, if necessary, 5, 6), man the Train-tackle.

2d Captain ships and works Roller Handspike. Nos. 3, 4, overhaul or tend the Side-tackles.

The gun having been run in, No. 12 chokes luff of Train-tackle, assisted, if there is much motion, by No. 11.

Nos. 3, 4 place Truck-quoins in front of Trucks.

No. 6, with back square to gun, and facing over left shoulder to Sponger, takes up the Sponge, head in-board, and stands ready to hand it to 4.

No. 8, facing to the gun, and outside of 6, does the same with the Rammer. The rest of the men go to their stations.

IV. "SERVE VENT AND SPONGE!"¹

(Diagram No. 2.)

220. Gun Captain serves and then stops the Vent. No. 4 receives the moist Sponge from 6, right hand over, left under, sends it home, and, assisted by 3, presses it to bottom of bore; then, turning it round two or three times, from left to right, in the direction which is needed to have the worm take, withdraws it, and, when out, strikes the staff several smart taps under the muzzle, then hands it back to 6, who lays it on the deck or lodges it overhead on the hooks, if they are provided. No. 10 examines and clears sponge-head and worm.

After the Sponge is withdrawn, Gun Captain serves the vent with his priming-wire and again closes it.

No. 8 hands Rammer to 4 as soon as the Sponge is taken from him by 6. Should 4 observe that the Gun Captain neglected to serve the vent, he is to call his attention to it.

No. 3 stands ready with Charge he has taken from Powderman.

No. 5, assisted by Shellman, opens Shell-box, disengages the Shell, and has it in readiness to pass to No. 3.

V. "LOAD!"

(Diagram No. 2.)

221. No. 3 places Charge in muzzle, seam from the Vent, small end in, and pushes it well into the Bore.

No. 4 stands ready with the Rammer, enters it into the muzzle, and pushes the Charge steadily to the bottom of the Bore, which will be shown

¹ See notes on this command and the succeeding one, "LOAD," for further important details.

by the mark on the rammer handle; 3 assists with one hand, and the charge is on no account to be struck.

While 4 withdraws the Rammer, 3 is to receive the Shell from 5, lift and enter it, sabot first, into muzzle, fuze out, as soon as the rammer is clear thereof.

As the shell lies just fair with muzzle, 3 removes cap from Fuze, which is to be passed along to the Gun Captain, and pushes the Shell into the Bore.

No. 4 enters Rammer, and, assisted by 3, pushes in the Shell until the mark on handle shows it to be in place. It is most strictly forbidden to strike the Shell with the Rammer.

No. 6 takes Rammer from 4 and lays it down.

Whilst this has been doing, the preparation for the next order has been proceeding, thus:

2d Captain ships Roller Handspike. Nos. 7, 9, 11, 13, 15,—8, 10, 12, 14, 16 take hold of Side-tackles; Gun Captain feels if Vent is clear, and Charge home.

Action.

(This is equivalent to the order "Together.")

Nos. 5, 6 assist at Side-tackles.

Nos. 3, 4 attend Truck-quoins and keep the Breeching clear of Front-trucks.

No. 12, assisted in heavy rolling of lee guns by 11, prepares to tend Train-tackle. If necessary with a round turn round all parts of the fall.

VI. "RUN OUT!"

(Diagram No. 3.)

222. The execution of this order is to be controlled by the gun being to windward or to leeward, and also by the nature of the Roll.

To *leeward*, and with much motion, the cannon will rush out violently unless prevented; therefore 11 assists 12 at the Train-tackle; 7, 9, 11, 13, 15, and 8, 10, 12, 14, 16 start the gun cautiously.

2d Captain heaves up on Roller Handspike, but is careful to let down the Carriage if it begins to start out rapidly; it may even be advisable not to use the Roller Handspike at all.

Nos. 3, 4 remove Truck-quoins and tend breeching.

Action.

If to *windward*, 2d Captain heaves up Carriage fully on Roller Handspike.

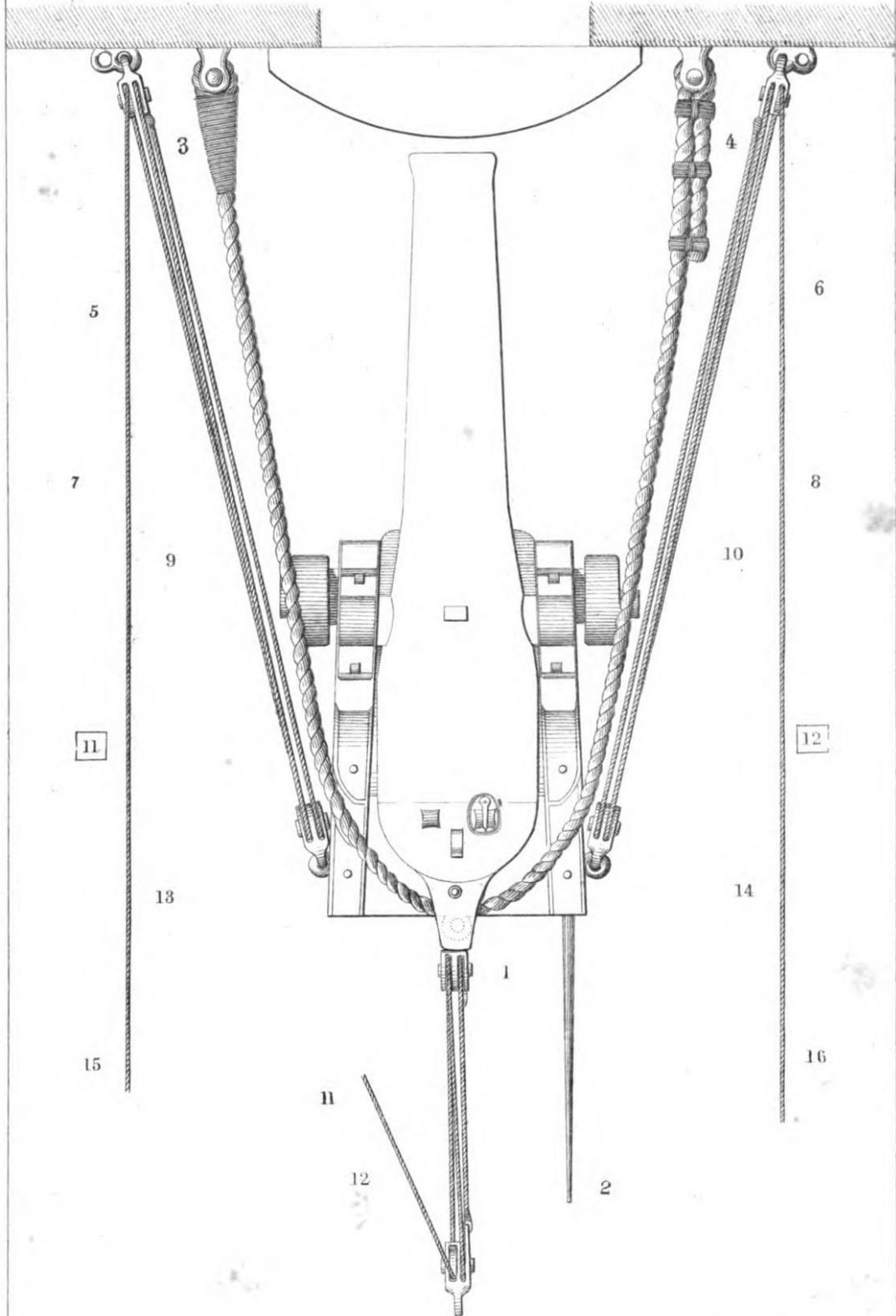
Nos. 5 and 6 assist at Side-tackles.

No. 12 only tends Train-tackle if the Roll should need it; otherwise he overhauls it and assists at Side-tackles.

Nos. 3, 4 remove Truck-quoins, and keep Breeching from fouling the

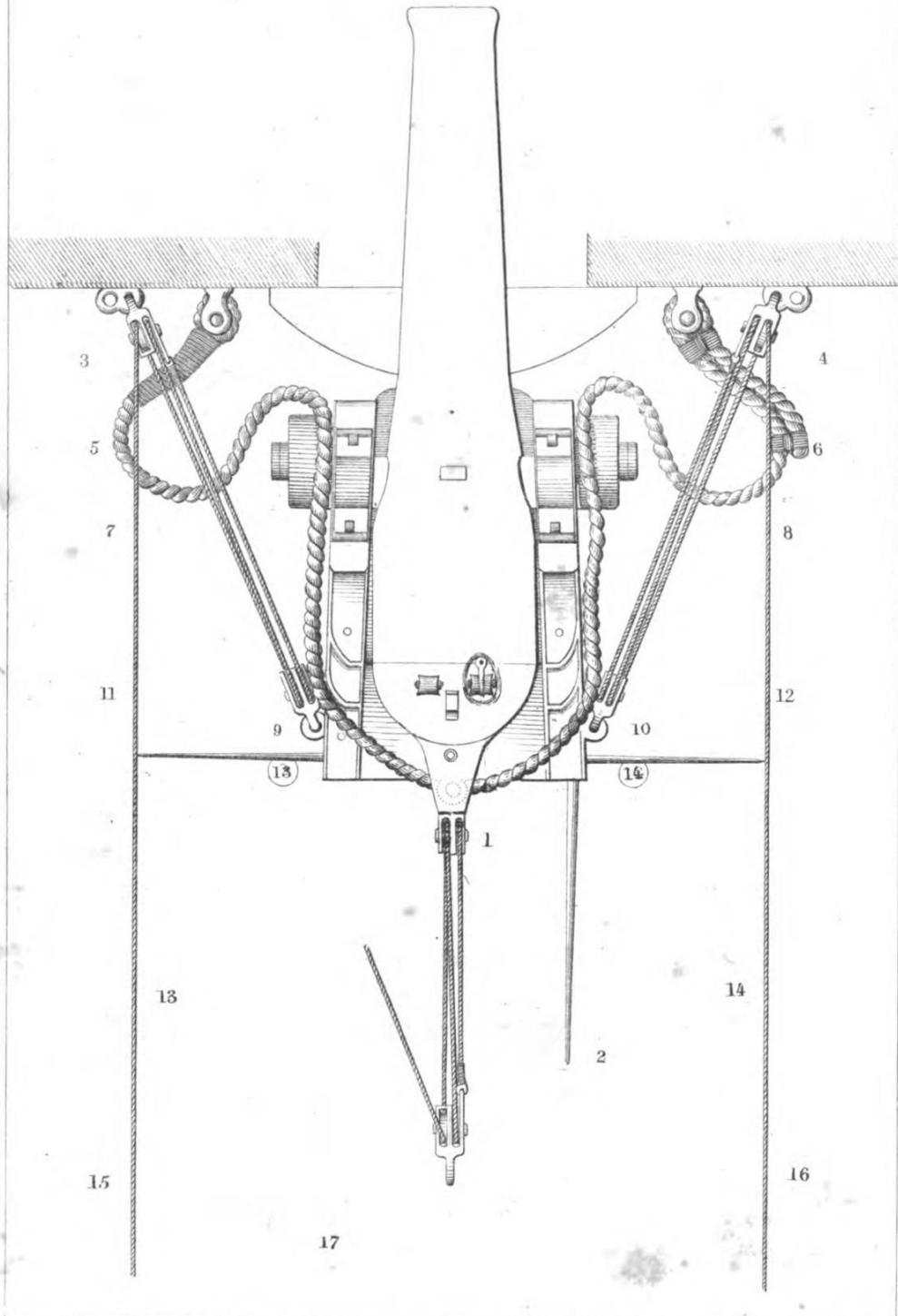
RUN OUT
(TO LEEWARD)

[Diagram No.3.]



PRIME-POINT

[Diagram No. 4.]



Front-trucks; 7, 9, 11, 13, 15, and 8, 10, 12, 14, 16 set taut the Side-tackles.

When the gun is out the 2d Captain swivels the Roller Handspike for training, or removes it altogether if the Handspike alone be preferred for this operation.

Nos. 5, 6 choke and retain hold of luffs of Side-tackles, while 3, 4 place Truck-quoins in rear of trucks, if the movement of the ship requires it. Crew close up; rear man coils end of fall, clear for running.

If the training is to be sharp, the proper Side-tackle will be hooked to the further eye-bolt inside; 12 unhooks the Train-tackle, and hooks it also to the proper eye-bolt in deck.

VII. "PRIME!"

(Diagram No. 4.)

223. Gun Captain again makes sure that the Vent is clear, and, in so doing, lets down his wire quickly into the charge.

He inserts a Primer, and turns down the Hammer upon it.

Meanwhile 9, 10 take up handspikes, and place themselves at rear of bracket conveniently to heave forward or aft.

In sharp training Nos. 13, 14 assist them.

Nos. 3, 5, 7, 11, 13, 15, and 4, 6, 8, 12, 14, 16 man Side-tackles.

VIII. "POINT!"

(Diagram No. 4.)

224. Gun Captain adjusts or verifies Sliding-Bar of Rear Sight to proper distance given by the Officer of Division, and falls back so as to be clear of the recoil, lanyard in hand, face to the Port, standing *directly in the rear of the gun*, with his eye ranging over the sights, and keeping in view the water-line of the opposing ship, trains the gun by voice or sign.

No. 6 throws back the Hammer, and takes hold of lever of Elevating Screw. (If Roller Handspike is not used in training, 2d Captain performs this.)

At word "Right" or "Left," 3, 5, 7, 11, 13, 15, or 4, 6, 8, 12, 14, 16 haul on the proper Side-tackle, and 9, 10 heave correspondingly on handspikes. Nos. 3 and 4 keep their eyes on handspikemen opposite to them, to give the time to the other Nos. for hauling on the fall.

No. 6 (or 2d Captain) Elevates or Depresses as directed.

Action.

2d Captain unships the Roller Handspike if it has been used in training. Nos. 9, 10 withdraw handspikes, and step back clear of recoil.

Nos. 3, 4 overhaul Side-tackles to mark, unless the motion does not admit of it.

No. 12 overhauls or holds up Train-tackle.

Nos. 7, 8 remove quoins from Trucks.

Men to their stations.

IX. "READY—FIRE!"

(Diagram No. 5.)

225. The Gun Captain, standing as already placed, waits patiently, but sharply, for the coincidence of the sights upon the object, which, if a ship, is always the water-line. When a correction of elevation or of direction is required, he repeats such of the previous orders as may be necessary; and these are to be re-executed accordingly.

If the gun is to leeward, the men stand ready to take hold of the Train-tackle and jerk the cannon into a taut breeching.

When sure of his aim the Gun Captain, who has held the lock-lanyard just taut, draws it promptly and firmly, bearing in mind that in no case is he to attempt moving from his post.

The 2d Captain stands ready with a primer, and, in the case of failure, throws back the hammer and inserts another. If necessary, serves the Vent. If a second failure occurs, it is a certain indication that the charge is not home.

Action.

Instantly with the explosion, 11, 12 jerk away the parts of the train-tackle, or hook it if it has been unhooked.

Nos. 3, 4 place quoins in front of trucks. 9, 10 lay down handspikes.

When the gun is not in to a taut breeching, the 2d Captain ships the Roller Handspike.

Nos. 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, take hold quickly of Train-tackle, and run in to a taut breeching.

When in, 3, 4 move up the Truck-quoins, 12 chokes luff of Train-tackle.

Gun Captain puts back the hammer and coils up lanyard.

No. 6 takes up Sponge, and the exercise proceeds as already directed.

If necessary, No. 2 levels the gun for loading, and lays it fair for running out.

226. If the exercise is to be continued, it is resumed at the fourth command:

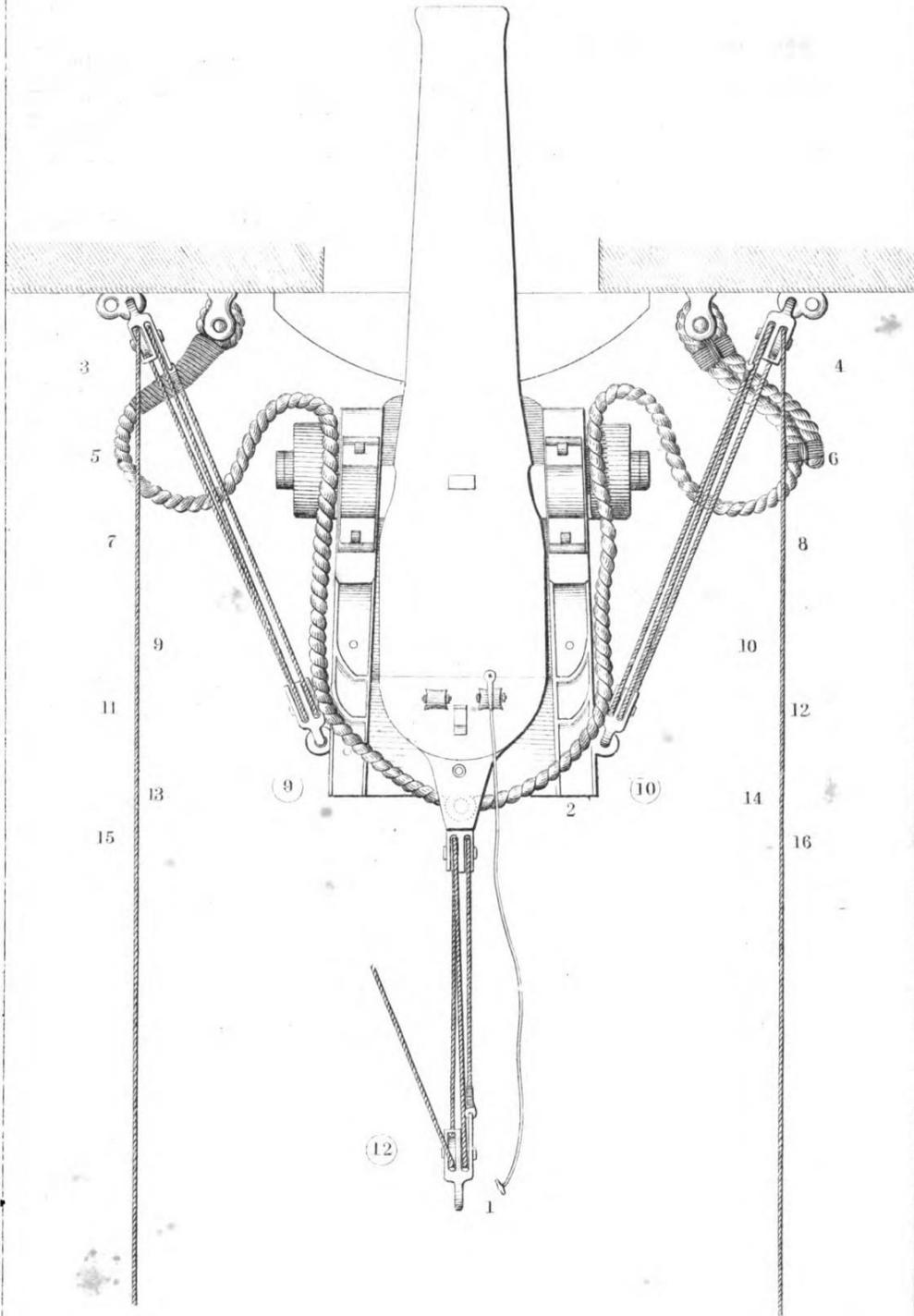
"SERVE VENT AND SPONGE!"

"CEASE FIRING!"

227. Whenever this order is given, either by the roll of the drum, or by passing the word, if the gun is primed, the Gun Captain immediately removes the primer, and with the crew stands at "Attention."

READY-FIRE.

[Diagram No. 5.]



228. NOTE.—The breechings of IX-in. guns are to be so fitted that the face of muzzle when in shall be 18 inches from inner face of side, for two reasons :

To prevent the gun from returning to the port, and to give room for the handling of such large shells.

Seventeen men are a proper number for working a IX-in. gun under any circumstances.

Rammer handles are to be marked for place of charge and of shell.

Side and train tackles are also to be marked to the proper overhaul, so as to avoid slack rope.

Breast-sweeps are useful at lower sill of port, for training more than a point.

X. "SECURE!"

229. The Powder-boy returns the spare powder and the passing-boxes to the magazine. The Shellmen return the shells and empty shell-boxes, if any remain on deck, to the shell-room.

The Gun Captain directs the gun to be laid square in the middle of the port.

When the guns are to be secured without being housed the Loader and Sponger place the chocking-quoins square up against the rear part of the front trucks and put in the tompion. The Handspikemen, if there is a quoin, free the quoin and lower the breech, the 2d Captain handling the quoin. When the gun is fitted with an elevating screw this operation is performed by the 2d Captain alone, who handles the screw.

The Gun Captain, assisted by the 2d Captain, hauls the breeching through the jaws of the cascabel to the left side of the gun, forming with the bight a turn over the breech and cylinder, taking care to keep the breeching well clear of the elevating screw to prevent chafe, and securing the parts on each side with selvagees and heavers; or, if this should interfere with the breech-sight, by crossing the breeching at the side and securing it with selvagee straps and toggles. In this case the breeching should be secured after alternate exercises right and left.

The Loader and Sponger haul up and secure the lower half-ports, put in tompion, and secure muzzle-bag. The Gun Captain puts in the vent-plug, lays the hammer of the lock in its place, and the lock-string in a coil around it. The 2d Captain takes the lock-cover from the Train-tacklemans and secures it over the lock, and in like manner covers the breech and reinforce sights.

The men at the side-tackles unhook the outer blocks from the training-bolts and hand them to the Loader and Sponger, who hook them to the securing-bolts at the sides of the port. The men on both sides haul them taut and stop the parts of the tackles together, with knittles provided by