N. E. JOHNSEN.

Gun-Carriage.

No. 160,100. Patented Feb. 23, 1875.

Fig: 1.

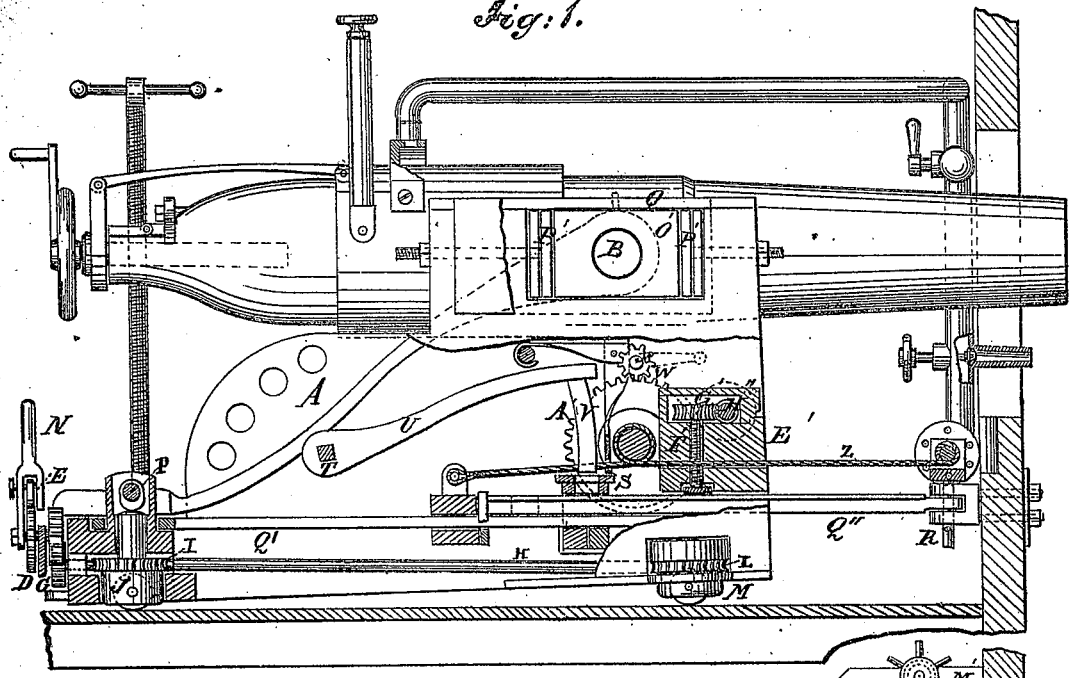


Fig: 2.

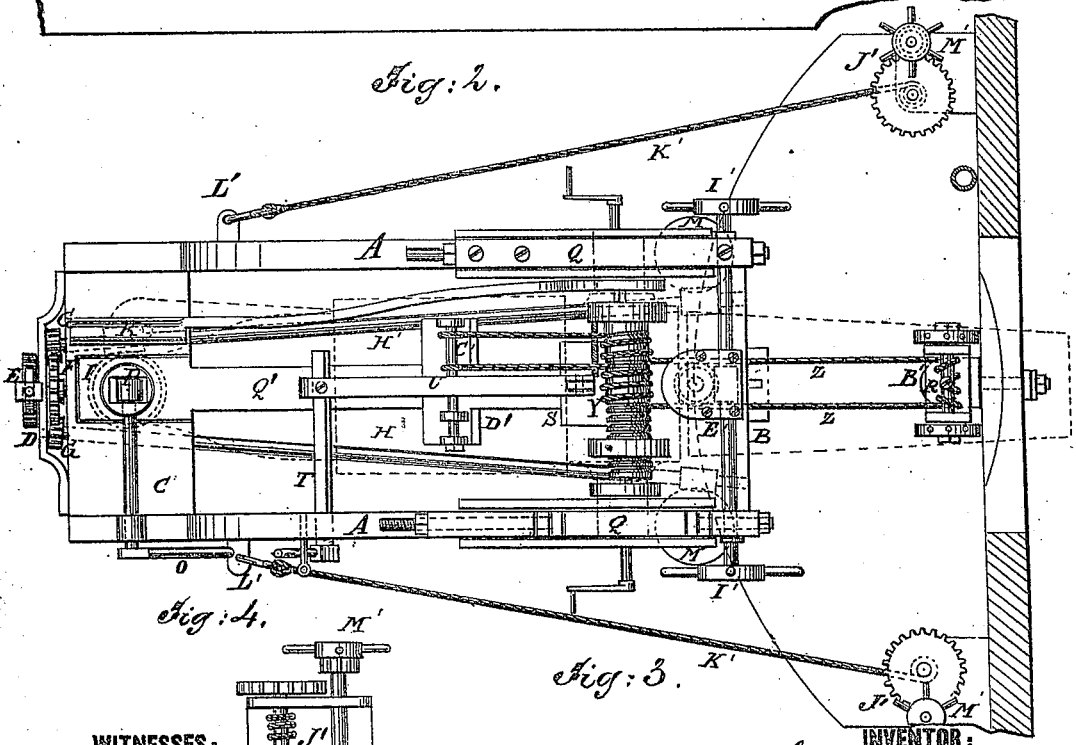


Fig: 4.

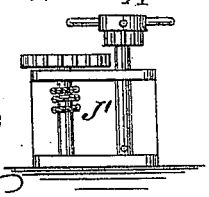
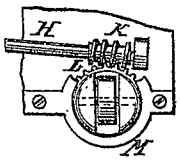


Fig: 3.



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UNITED STATES PATENT OFFICE.

NELS E. JOHNSEN, OF CHELSEA NAVAL HOSPITAL, NEAR BOSTON, MASS.

IMPROVEMENT IN GUN-CARRIAGES.

Specification forming part of Letters Patent No 160,100, dated February 23, 1875; application filed November 30, 1874.

To all whom it may concern:

Be it known that I, NELS E. JOHNSEN, of Chelsea Naval Hospital, (near Boston,) in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Gun-Carriages, of which the following is a specification:

The invention relates to new and useful improvements in gun-carriages; and it consists in the peculiar construction of a compressor or friction-bar and compressing device for holding the carriage in position, and for lessening the recoil of the same when the gun is fired; also, in a novel device for locking the carriage to the compressor-bar, and in a windlass and rope mechanism for bringing the gun to and from port.

In the accompanying drawing, Figure 1 is a side elevation, partly in section, to show more clearly the construction, having the gun mounted. Fig. 2 is a top view of the carriage, the gun being seen in dotted lines. Fig. 3 is a detail, showing the construction of the mechanism for varying the trucks. Fig. 4 is a detail, showing the construction of one of the side windlasses for training and holding the gun.

Similar letters of reference indicate corresponding parts.

The sides A of the carriage are connected at each end by cross-pieces, the forward one of which stands on edge, the front of which is represented by B. The rear cross-piece C is horizontal, at the back of which is placed the mechanism for varying the trucks. This mechanism consists of a ratchet-wheel, D, and a lever spring-pawl, E, with the gear-wheel F, which wheel meshes into wheels G G on the ends of the shafts H H′. I is a worm-wheel on the spindle-block of the rear truck J. On the shaft H′ is a worm-screw, K, which engages with the worm-wheel. On the forward ends of each of these shafts H H′ are worm-screws K′, which engage with worm-wheels L on the spindle-blocks of the two forward trucks M M.

By working the ratchet-bar N the shafts are revolved and the truck-wheels are turned to move the carriage to the right or left, as may be desired. The ratchet-pawl is double, and held by a spring to work in either direction. The rear truck is given an up-and-down motion, to allow the rear of the carriage to rest upon the deck when desired. The spindle-block of this truck slips upward by the weight of the carriage, and the carriage is raised by means of the eccentric lever O, the eccentric P of which bears upon the top of the spindle-block, as seen in Fig. 1. Q″ is a stationary bar, attached to the rear portion of the carriage on the cross-piece C. Upon this bar slides a compression or friction-bar, Q, which is attached to the inside of the port by means of a pin, R. (See Fig. 1.) S is a block, through which the compressor-bar passes. T is a lever-shaft, on which is the arm U, carrying a tongue or bolt, V, which enters the compressor-bar through a mortise in the block S, in order to hold the carriage in a stationary position previous to firing. W are pinions on the crank-shafts X X for revolving the windlass Y, around which the ropes Z Z are wound for moving the gun back and forth. The pinions W W engage with the gear-wheels A′, which are on the windlass-shaft.

The ropes Z Z are attached to the rear of the port, as seen at B′, and after passing around the windlass, continue rearward, and are attached to the cross-bar C′, which is attached to the block D′, which slides on the compression-bar Q. E′ is the compressing or clamping device, consisting of a screw, F′, having a worm-wheel, G′, and a worm on shaft H″. I′ I′ are lever-heads on the ends of this shaft, by means of which the screw is turned down onto the bar, for holding the carriage stationary, or in position. J′ J′ are geared windlasses, which operate the ropes K′ K′. These ropes are attached to the lugs L′ L′ on the sides of the carriage. These ropes are for training the gun right and left. When the gun is discharged the shafts of the windlasses J′ J′ are slipped along and thrown out of gear, as seen in Fig. 4. These windlasses are revolved by means of the lever-wheels M′. The trunnions of the gun B are hung in blocks or plates O′, which have a sliding motion on the sides of the carriage, at the ends of which plates are placed cushion-pieces of rubber P′, which prevent the contact of metal with metal when the gun is discharged. Q′ are cap-plates, which confine the rubbers. The windlass R is confined to the port by the same pin which

confines the compression-bar, and is designed for taking up the slack in ropes K′.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a sliding gun-carriage, of a fixed compressor or friction bar Q, guide-bar Q″, the pressure-screw F′, worm-wheel G′, and worm-shaft H″, all constructed and relatively arranged as herein set forth.

2. The combination of the locking-bolt V, arm U, and rock-shaft T, with the compressor-bar Q and gun-carriage A, as and for the purpose set forth.

3. The combination of the windlass Y and rope Z with the gun-carriage and compressor-bar, for bringing the gun to and from port, as and for the purpose specified.

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