N. E. JOHNSEN.

Breech-Loading Ordnance.

No. 160,101. Patented Feb. 23, 1875.

Fig: 1.

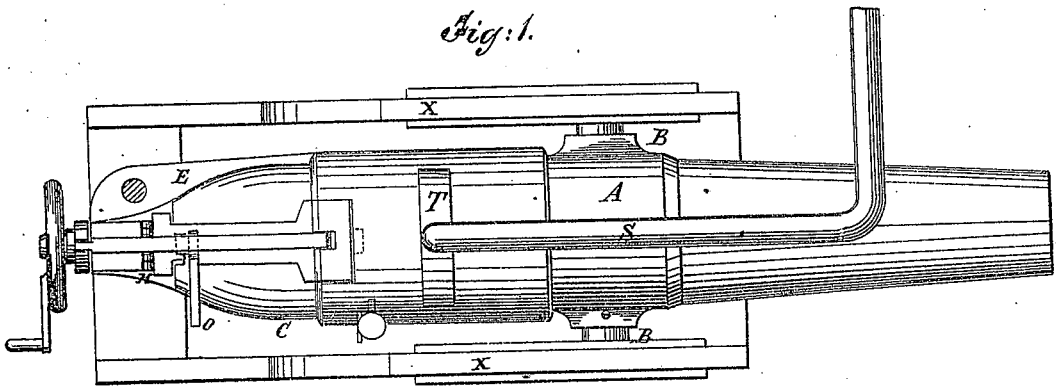


Fig: 2.

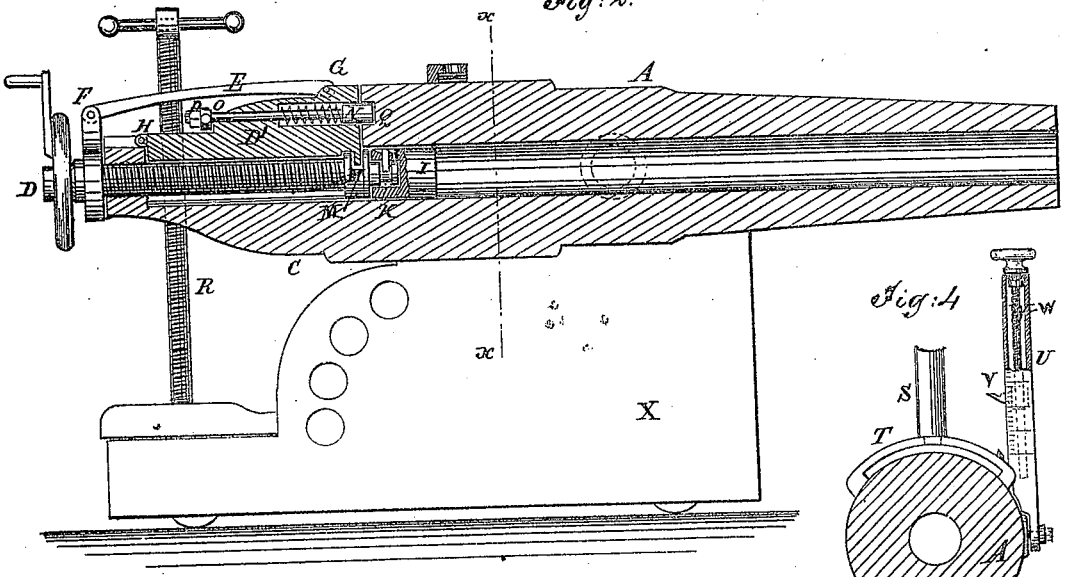


Fig: 4

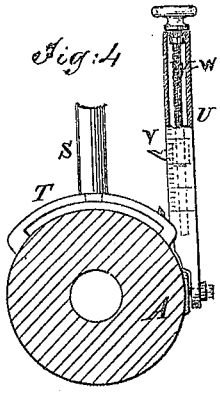


Fig: 3

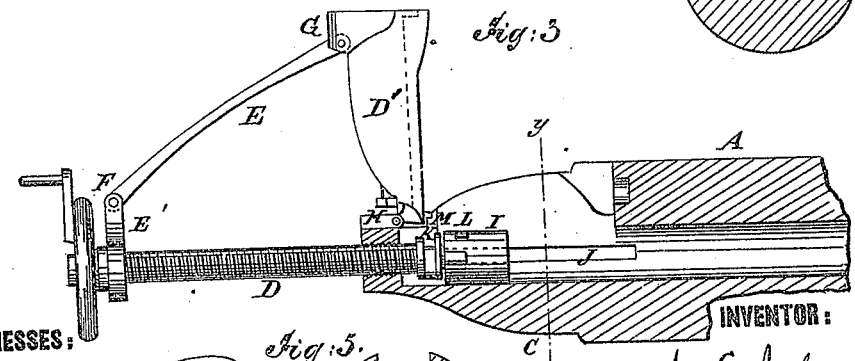
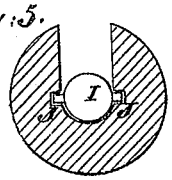


Fig: 5.



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

IMPROVEMENT IN BREECH-LOADING ORDNANCE.

Specification forming part of Letters Patent No. **160,101**, 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 Breech-Loading Ordnance, of which the following is a specification:

The invention consists in certain improvements in breech-loading ordnance, which will be hereinafter fully described and claimed.

In the accompanying drawing, Figure 1 is a side view, showing the gun mounted on its carriage with the breech closed. Fig. 2 is a vertical longitudinal section of the gun, showing the construction of the breech. Fig. 3 represents the breech part of the gun in longitudinal section, showing the breech-block raised ready for receiving the charge. Fig. 4 is a cross-section of Fig. 2, taken on the line *x x*. Fig. 5 is a cross-section of Fig. 3, taken on the line *y y*.

Similar letters of reference indicate corresponding parts.

A is the gun; B B, the trunnions. C is the breech. D is the screw. D′ is the breech-block, which is raised and closed down by operating the screw D. E is a joint-bar, which is hinged to a piece near the outer end of the screw, as seen at F, and to the breech-block, as seen at G. The breech-block is hinged to the breech of the gun, as seen at H. The screw works through the extreme of breech as through a nut, and when it is turned back the breech-block is raised by virtue of the joint-bar E. The piece E′, to which the joint-bar is hinged, and through which the screw works, is fastened by a small sleeve, and is carried back and forth with the screw. I is the breech-piece, which is carried back and forth by the screw on guides or ways J, as seen in Fig. 5. K is a piece on the end of the screw, which is connected with the breech-piece by a fork, L, which allows the screw to turn and move the breech-piece back and forth on its ways. M is a lip on the end of the breech-block, which closes down into the groove in the piece K. (See Fig. 2.) N is a spring-plunger in the breech-block, which is made adjustable by means of the lever O and nut *p*. This plunger is drawn back by the lever when the breech-block is closing, and engages with the hole Q, which prevents the block from being blown upward when the piece is discharged. R is the elevating-screw. S is an elastic tube connected with a force-pump or elevated reservoir, which discharges a stream of water into the chamber T. This chamber is open in front, and the water spreads itself over the gun in front of the chamber, and carries off the heat evolved and keeps the gun cool. U is an adjustable sight attached to the rear part of the gun. V is the sight proper, which is moved up and down by turning the screw W with one hand, while with the other hand the gunner handles the lanyard. Ordinarily it requires both hands to adjust the sight. X represents the gun-carriage.

This gun may be loaded at the nozzle, if preferred; but ordinarily the breech-block will be elevated to a perpendicular position, and the charge inserted, the screw being drawn back, as seen in Fig. 3.

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

1. The joint-bar E, breech-block D′, and screw D, combined substantially as described, for the purpose set forth.

2. The combination of the sliding breech-plug I, screw D, swiveled therein, the hinged breech-block D′, and the jointed bar E, connected with the block and screw, as herein shown and described.

NELS E. JOHNSEN.

Witnesses:

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