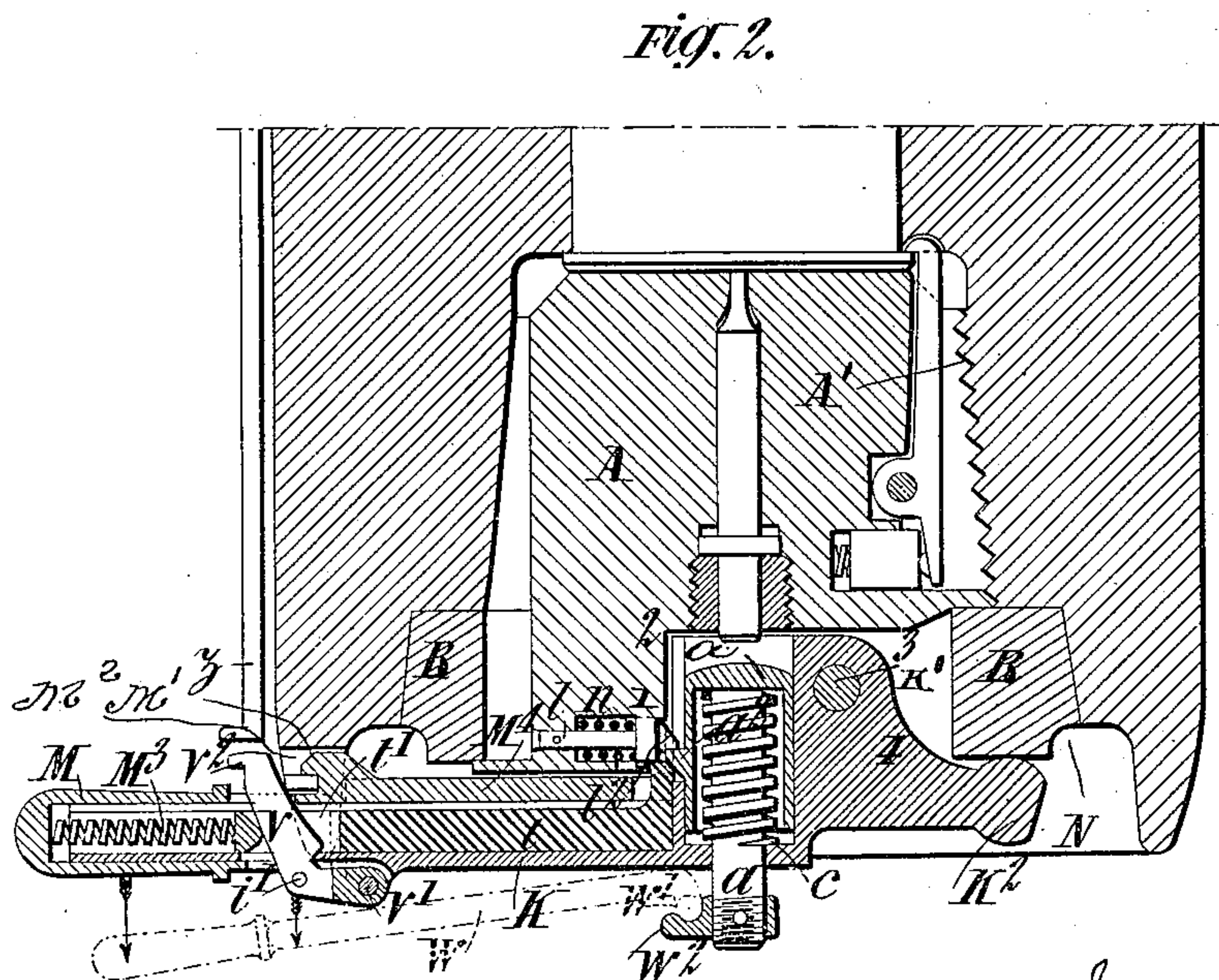
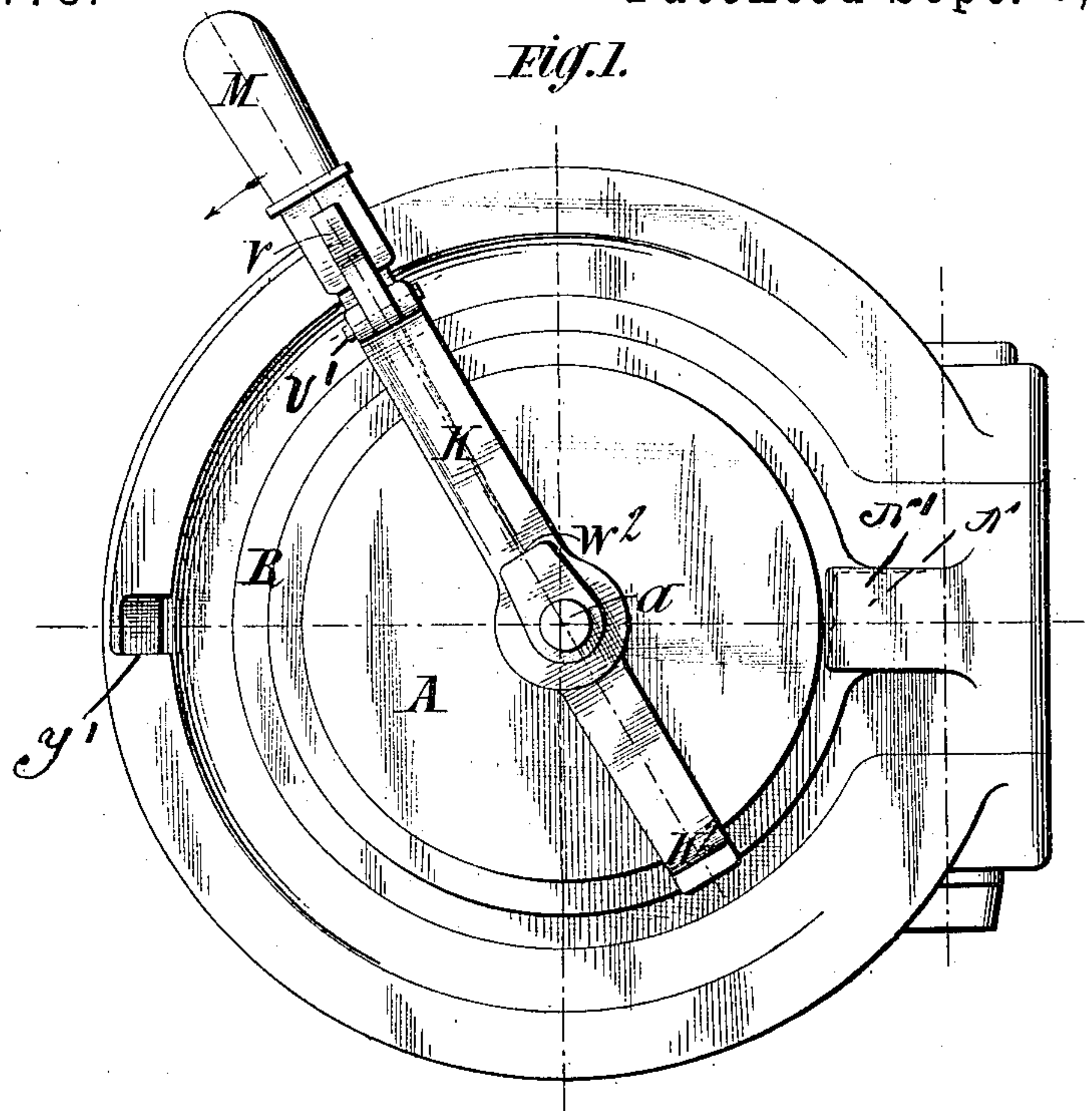


(No Model.)

J. B. G. A. CANET.
BREECH LOADING ORDNANCE.

No. 545,773.

Patented Sept. 3, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

JEAN BAPTISTE GUSTAVE ADOLPHE CANET, OF PARIS, FRANCE.

BREECH-LOADING ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 545,773, dated September 3, 1895.

Application filed April 11, 1894. Serial No. 507,117. (No model.) Patented in France March 17, 1892, No. 220,209, and January 16, 1894.

To all whom it may concern:

Be it known that I, JEAN BAPTISTE GUSTAVE ADOLPHE CANET, engineer, a citizen of the Republic of France, and a resident of Paris, in the Republic of France, have invented certain new and useful Improvements in Breech-Loading Ordnance, (for which I have obtained a patent in France, No. 220,209, bearing date March 17, 1892, and certificate of addition thereto, dated January 16, 1894,) of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to breech-loading ordnance, and comprises the improvements in the mechanism thereof hereinafter described.

An important feature of my invention is that a part of the firing device is contained in the operating-lever.

Referring to the accompanying drawings, Figure 1 is a rear view of a gun provided with breech mechanism in accordance with my invention. Fig. 2 is a central longitudinal-section of the same.

The breech-screw consists of a cylinder A, furnished on its periphery with interrupted screw-threaded conical segments A'. In some instances, however, I employ, in combination with the improvements hereinafter described, an ordinary cylindrical breech-block.

B is the carrier-ring.

The movements for opening and closing the breech are performed by means of an operating-lever K, pivoted at K' to the rear face of the breech-block and furnished at its inner end with a rounded enlargement K². A portion of the end of the breech is cut away to form a recess, which receives the operating-lever when the breech-block is in the breech.

M is a handle capable of sliding axially on the lever proper K and having a hook M', which, when the breech is properly closed, enters a hole M² in the end of the breech, being forced therein by means of a spring M³.

N is a suitable recess provided in the carrier-bracket in such a position that it receives the enlarged end of the lever K when the latter is turned to unlock the breech-screw, and constitutes a fulcrum for the said lever when the same is pulled rearwardly to withdraw the

block from the breech. Said recess is formed by a hook-shaped projection N'.

The movements required in opening the breech are as follows, viz: First, the operating-lever is disengaged from the breech; second, a turning movement is imparted to the breech-block by the aid of the said lever K, such movement being limited by the end y' of the recess y in the breech. At the end of this turning movement the shoulder or enlargement K² of the lever K enters the recess N, formed in the carrier-bracket. Third, the lever K is then pulled to the rear, thereby withdrawing the block. During this latter movement the shoulder K² takes the part of an axis or fulcrum, and the cylindrical core of the breech-block slides in a corresponding part of the carrier or carrier-bracket. By reason of the conical form of the screw-threaded segments, the block is very quickly withdrawn from the breech, its endwise movement being followed by the turning of the carrier-bracket about its hinge, which completes the opening of the breech. When the screw is cylindrical in form, the rearward movement thereof required to clear the breech is a little longer than when the screw is conical.

To close the breech similar movements in the reverse order and direction are required—that is to say, the operating-lever is moved to turn the carrier-bracket forward and press the breech-block into the bore of the gun. The block is then turned to cause the threads of the screw to engage with those of the gun. At the end of this period of rotation the handle M of the lever K is pressed by the spring M³ into engagement with the hole M², provided for it in the end of the breech.

The handle M is provided with an extension M⁴, for a purpose hereinafter specified.

The hammer, the spring, and the trigger are entirely inclosed in the operating-lever, which is enlarged for this purpose at 1 2 3 4. It follows from this construction that upon the opening of the breech the firing-pin, which remains in the screw, is separated from the remainder of the firing mechanism.

The firing mechanism can be actuated at will either by means of a lanyard or by a

side rod z , which is controlled by a disengaging device, as described in the specification of my application for United States patent, Serial No. 472,076. This mechanism consists of a hollow hammer a , containing a spiral spring c and placed in a cavity in the operating-lever, the said spring being compressed between the end of the cavity in the hammer and that in the operating-lever. The hammer a carries a projection a^2 , which engages with a sear l , controlled by a spring n . The sear l has a projection l^2 opposite the toe of a rod t , which slides in the axis of the operating-lever K . This rod t is bifurcated at its outer extremity t' to receive a lever v of special form, which lever turns about an axis v' , and has at i' the eye for receiving the lanyard and at v^2 an abutment-plate for the rod z of the automatic firing mechanism. The rod t is controlled by the spring M^3 .

The operation of the mechanism is as follows: The breech being closed, it is sufficient for igniting the tube to move, either by means of the lanyard or through the medium of the rod z , the lever v in the direction of the arrow. By these means the rod t is moved in the operating-lever and carries with it the sear l , which consequently releases the projection a^2 and liberates the hammer a , which is then violently projected against the firing-pin and ignites the tube. In case of a misfire the mechanism may be cocked again by means of a lever w , which bears against the operating-lever K , and the small arm w' of which engages with a part w^2 , of suitable form, provided in the tailpiece of the hammer a , as indicated. The lever w may be replaced by a ring secured to the extremity of the hammer and which may be pulled by hand, in case of a misfire, to cock the hammer. At ordinary times the cocking of the hammer is effected during the closing of the breech by the sear l , which engages the projection a^2 of the hammer.

When the handle M is pushed inward and during the whole time of the turning movement to release the breech-block or screw, the extension M' of said handle is forced against the toe of the rod t , holding said rod in its normal position, (illustrated in Fig. 2,) in which position the sear l , under pressure of the spring n , is in engagement with the projection a^2 of the hammer a , and thus the hammer is secured in cocked position, thus preventing the gun from firing until the lanyard is operated. Firing is also impossible after the

commencement of the movement for extracting the screw by reason of the separation of the hammer from the firing-pin. Consequently accidental firing is impossible.

What I claim is—

1. The operating lever pivoted on the rear face of the breech-block, and furnished at one of its extremities with a shoulder which at the termination of the rotation of the breech screw engages in a recess in the bracket and serves as the fulcrum during the extraction of the breech-block, substantially as described.

2. The combination with the breech-block, of the safety device consisting of a handle movable on the operating lever and furnished with a hook which engages in a notch in the end of the breech, substantially as described, and for the purpose specified.

3. The combination with the operating lever, of a hammer, spring and trigger inclosed within said lever, substantially as described.

4. The combination with a breech block or screw, containing a firing pin, of an operating lever containing a hammer, and a sear for holding the firing mechanism in cocked position, substantially as described.

5. The combination with firing mechanism, of a sear engaging the firing mechanism, a movable rod t engaging said sear, a pivoted lever v , adapted to engage and operate said rod and provided with a perforation for attachment of a lanyard, and a rod z adapted to engage the lever v whereby the firing mechanism may be operated by the lanyard or rod z , substantially as described.

6. The combination of an operating lever containing a hammer provided with a projection, of a sear which engages said projection and cocks the hammer during the closing movement of the operating lever, substantially as described.

7. The combination with an operating lever, a hammer and a rod arranged therein, and a sear engaging said hammer and engaged by said rod, of a bent lever adapted to engage said rod and provided with means for attachment of a lanyard, and a lateral rod z adapted to engage said lever, substantially as described.

In testimony whereof I have hereunto set my hand this 16th day of March, 1894.

JEAN BAPTISTE GUSTAVE ADOLPHE CANET.

Witnesses:

CLYDE SHROPSHIRE,
J. FRIGOUT.