O. M. ROBINSON.

Breech-Loading Fire-Arms.

No. 163,810. Patented May 25, 1875.

Fig 1

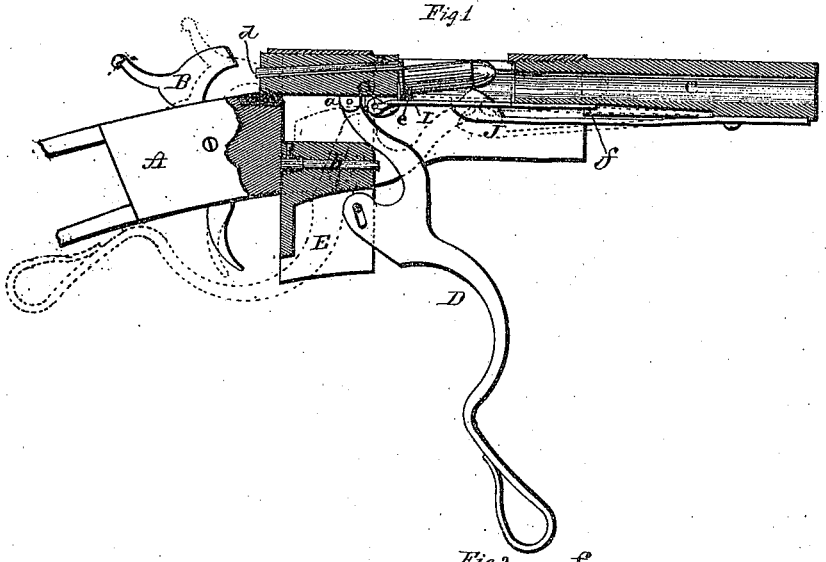

Fig 2

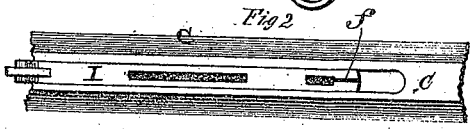

Fig 3.

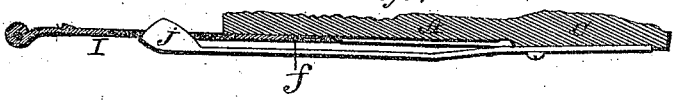

Fig 4.

WITNESSES.

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UNITED STATES PATENT OFFICE

ORVIL M. ROBINSON, OF UPPER JAY, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 163,810, dated May 25, 1875; application filed April 17, 1875.

To all whom it may concern:

Be it known that I, ORVIL M. ROBINSON, of Upper Jay, in the county of Essex and State of New York, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to that class of breech-loading fire-arms in which the breech is opened and closed by means of a pivoted guard-lever; and the nature of my invention consists principally in an improved construction of extractor-bar adapted to be raised and lowered so as to catch behind the rim of the cartridge. Also, in the arrangement therewith of a spring for throwing out the cartridge; and in the construction of the breech-block when combined with the guard-lever and extractor, as hereinafter more fully set forth and claimed.

The accompanying drawing fully illustrates my invention, and in which A represents the frame, B the hammer, C the barrel, D the guard-lever, E the perpendicular sliding breech-block, G the horizontal sliding breech-block, I the extractor-bar, and J the spring for throwing out the old shell.

The gun is operated by the guard-lever. To open the breech this lever is thrown forward as far as possible, the cartridge placed in the top of the frame, and then the guard-lever closed back to its former position, and the gun is ready to fire. After the gun is fired the guard is thrown forward again, and the old shell is thrown out by the spring J, and the gun is half-cocked at the same time.

The guard-lever D is at its forward end pivoted to a projection, *a*, on the under side near the forward end of the horizontally sliding breech-block G, and a suitable distance in rear of said forward end it is formed with an arm or projection, which is pivoted in a deep groove or slot in the perpendicularly-sliding breech-block E, thus being directly attached to both breech-blocks without any intermediate links or connections, and operates both blocks simultaneously; or, in other words, one breech-block forms the fulcrum while the other is being moved, and vice versa, and both operated by the same lever. When the breech is closed, the block E forms a perfect brace behind the block G.

The two breech-blocks E and G are provided respectively with the firing-pins *b* and *d*, which are so arranged that the gun can not be fired until the breech is perfectly closed, as only then the two firing-pins are in line with each other.

The extractor is a sliding bar, I, formed with a catch, *e*, to take hold on the flange of the cartridge, said sliding bar working through the frame A in a slot or groove under the barrel. The front end of the extractor-bar I is split and spread, forming a spring, *f*, on that end, to hold the bar sufficiently firm at that end, so that the rear end of the extractor-bar can be raised to catch on the rim or flange of the shell. The rear end of the extractor is raised and lowered by means of an incline in the projection *a'* of the breech-block G, working through a slot in the rear end of the extractor-bar, so that both in opening and closing the breech, said block will move a short distance before moving the extractor-bar backward or forward, and during that first movement of the breech-block the extractor-bar is raised or lowered by said incline. It makes no difference whether the cartridge is pushed into the barrel ahead or behind the extractor *e*, as the extractor is thrown down out of the way when the breech is closed, and thrown upward into position to catch the rim of the shell when the breech is opened. The shell is thrown out by the spring J, which is attached either to the frame or barrel, as deemed most convenient. When the guard is thrown forward the spring snaps up through a slot in the extractor-bar I, throwing the shell out, and the spring is so formed that as soon as the guard is started back the spring is thrown down by the extracting-bar.

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

1. The extractor-bar I, connected and combined with the breech-block by an inclined slot,

so that its working end is raised up behind the rim of the cartridge, substantially as specified.

2. In combination with the extractor-bar I, constructed and arranged to operate by means of the inclined slot, as specified, the spring J attached to the under side of the barrel, and provided with a projection upon its end adapted to enter a slot in the bar I for the purpose of throwing out the cartridge, substantially as specified.

3. The sliding block G, constructed with projections *a a'*, whereby connection is made with the extractor-bar I and with the guard-lever D, operating said block, together with the sliding block E, all constructed and combined, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of April, 1875.

ORVIL M. ROBINSON.

Witnesses:
HENRY PRIME,
JOHN T. HEALD.