L. A. MERRIAM.

Breech-Loading Fire-Arm.

No. 217,134. Patented July 1, 1879.

Fig. 1.

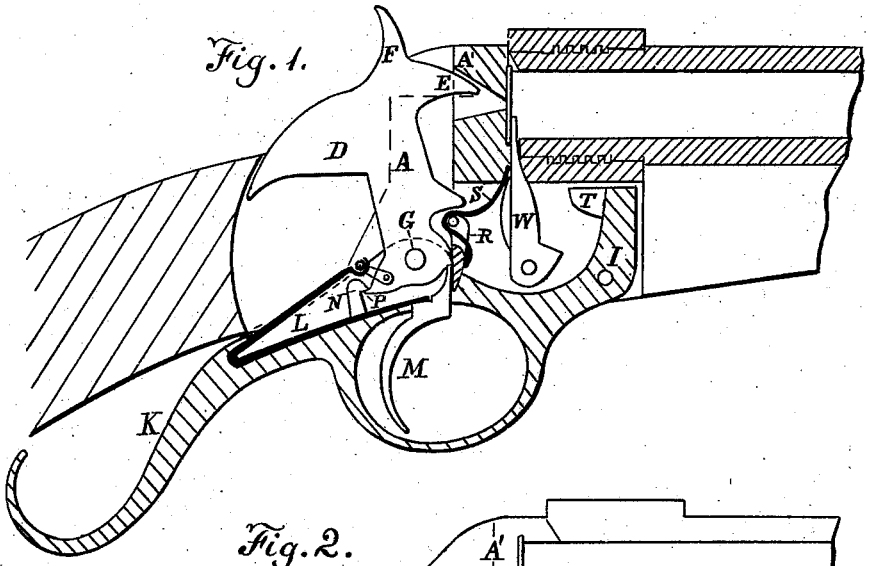


Fig. 2.

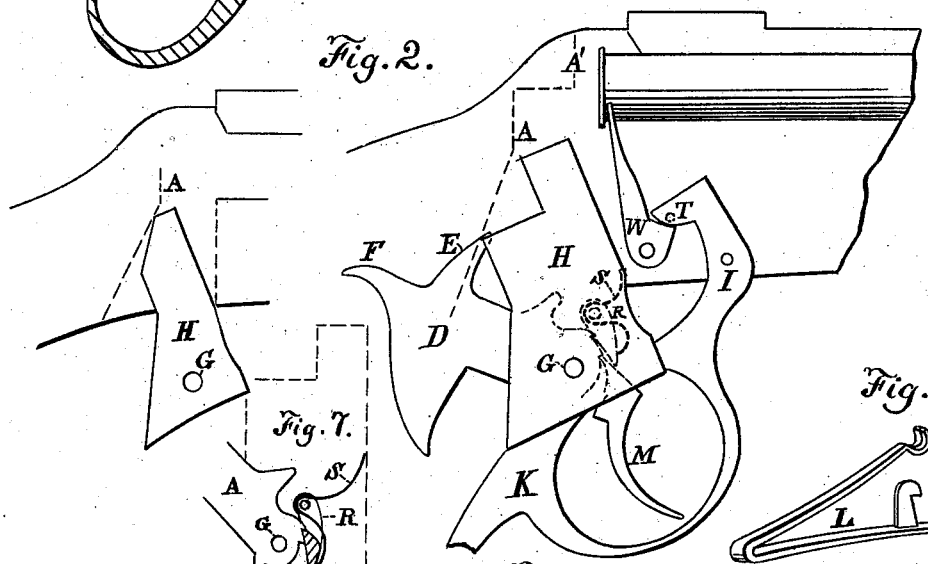
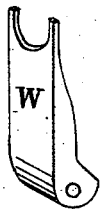


Fig. 7.

Fig. 4.

Fig. 3.

Fig. 5.



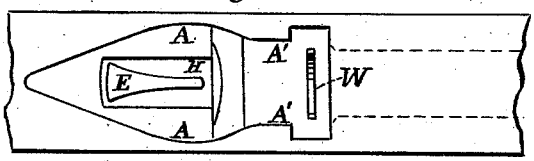
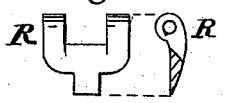


Fig. 6.



Witnesses:

H. A. Daniels.

C. B. Fowler

Inventor:

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UNITED STATES PATENT OFFICE.

LINCOLN A. MERRIAM, OF NEW YORK, N. Y.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **217,134**, dated July 1, 1879; application filed October 14, 1878.

To all whom it may concern:

Be it known that I, LINCOLN A. MERRIAM, of the city, county, and State of New York, have invented new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a specification.

Hitherto, in breech-loading guns, where the block closes the chamber by a transverse movement, with bearings upon shoulders at right angles to the bore of the barrel, the block has only a lineal motion through the line of the fire, and is connected with the lever by links, as is the Sharp, and none of this class of guns have a self-cocking rebounding striker with a comb available for independent use.

My invention combines a breech-closing device with the firing apparatus, so constructed that the trigger-plate and guard are on one piece, the case of the striker and trigger-spring and the lever hinged directly to the frame and breech-block, to which it gives a lineal motion behind shoulders at right angles to the bore of the barrel and a rocking motion that forces the cartridge home into its chamber, thus avoiding the danger of being blocked by a projecting head. It has also a self-cocking rebounding striker with a comb available for independent use.

In the accompanying drawings, in which similar letters indicate like parts, Figure 1 is a sectional view of the breech apparatus closed. Fig. 2 is a side view of the breech apparatus open. Fig. 3 is a top view of the breech apparatus open; Fig. 4, the extractor in perspective; Fig. 5, the sear, and Fig. 6 the mainspring with the hook N.

I attach the barrel to the frame by a screw or other suitable device. Through the frame a mortise is cut with shoulders A, Fig. 3, running downward from above or near the center, and at right angles to the bore of the barrel. If little resistance is required the shoulders A may be short, or they may extend to or a little below the line of the bore of the barrel, whence they recede at a proper angle to allow the block H space to rock back from the chamber C. If greater security is required additional shoulders A′ may be constructed opposite the upper half of the chamber C, and nearer to it than the shoulders A. The breech-block H is fitted to the mortise, and also bears against the shoulders A′, if used, otherwise tapered above the shoulders A, so that, after being drawn downward, the block may rock back under them. A firing-pin may be used, or the point E of the striker D may reach through the block to explode the cartridge.

In the rear part of the block H, or in the frame behind the block, or partly on both block and frame, a slot is cut to receive the striker D. I prefer to make the slot in the lower part of the frame and block narrower than the mortise in which the block H moves, and in it place the lever K, hinged to the frame at I, and to the block at G. This lever is slotted and mortised to receive the trigger M, the spring L, and the striker D.

The lower leaf of the spring L rests on the trigger M, and is lifted by it when the sear R is released from its notch. This lifting raises the hook N, extending over an arm, P, of the striker, and when the trigger is released takes hold of P and brings the striker back to the safety-notch. This movement of the striker is the rebound. To make the piece self-cocking the sear R and spring S are added.

The breech-block H and striker D are attached to the guard-lever K by the pivot G, common to both, and the sear R, with its spring S, is attached to the breech-block, and the trigger and mainspring are inserted in the lever. The downward movement of the lever in opening the chamber carries the breech-block vertically, and causes it to move around the pivot until the sear R engages the firing-notch of the striker, which, by the action of the rebound, has maintained its position relative to the lever, and the sear R, held by the spring S, maintains this new relative position of the breech-block and striker until forced from the notch by the trigger acting as a lever. The striker may also be cocked by the contact of properly-adjusted shoulders on the striker and lever in the lineal movement of the breech-block downward. The striker D is also provided with a comb, F, by which it may be manipulated independent of the breech action. The shell is thrown out by the extractor W, hinged at the end, on receiving the pressure near the center from the arm T of the lever. At this point of contact is the perma-

nent or adjustable check that regulates the fall of the block D.

What I claim is—

1. The spring L, with the hook N, in combination with the trigger and the striker having the rear extension, constructed and arranged in the manner and for the uses set forth.

2. In self-cocking gun-locks, the sear R and spring S, in combination with the breech-block and striker, arranged and operating in the manner and for the purposes described.

3. In breech-loading arms, a slotted breech-block pivoted with the striker to the lever, and having an irregular bearing at the rear conforming to its mortise, from which it takes a lineal motion through the upper portion of the line of explosion, and a rocking motion through the lower portion of the line of explosion, in the manner and for the uses described.

4. The striker D, having the comb F, pivoted, with the breech-block H, to the lever K at G, in combination with the spring L and the trigger M, constructed and operated in the manner and for the uses set forth.

5. A trigger-guard lever constructed to receive and contain the operating mechanism of the lock, in combination with a vertically-moving breech-block, said lever and breech-block and the hammer being pivoted together by a single pivot, and operating in the manner shown and described.

LINCOLN A. MERRIAM.

Witnesses:

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