R. FAY.

Breech-Loading Fire-Arm.

No. 209,613. Patented Nov. 5, 1878.

Fig. 1.

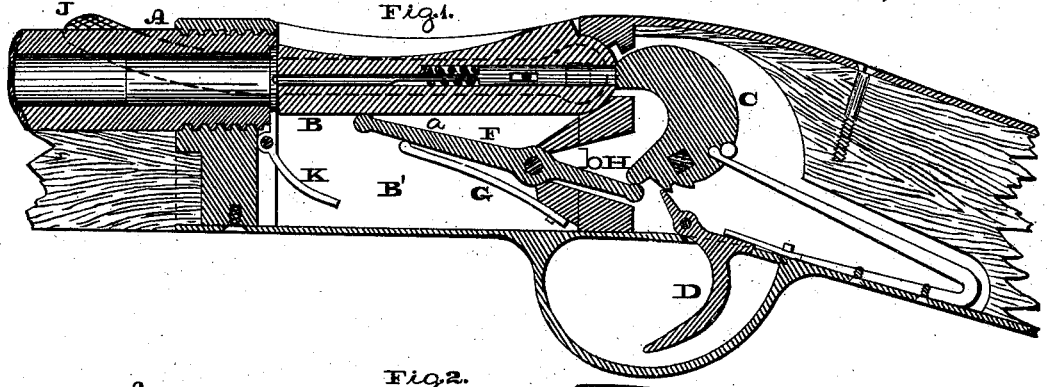


Fig. 2.

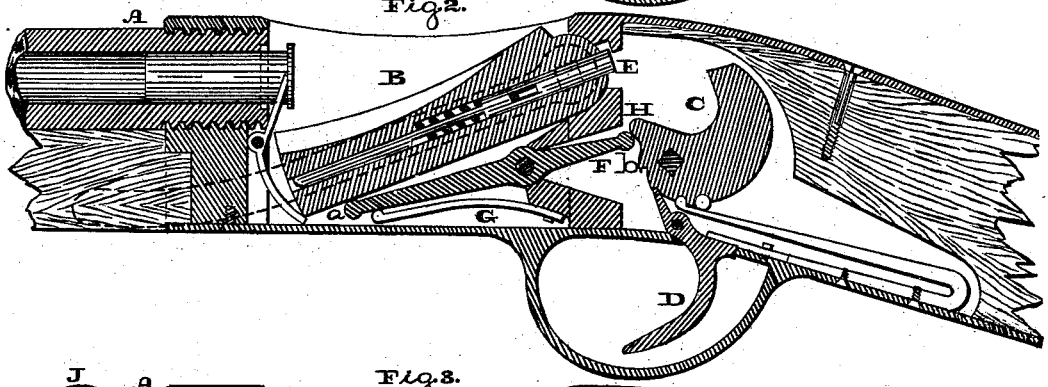


Fig. 3.

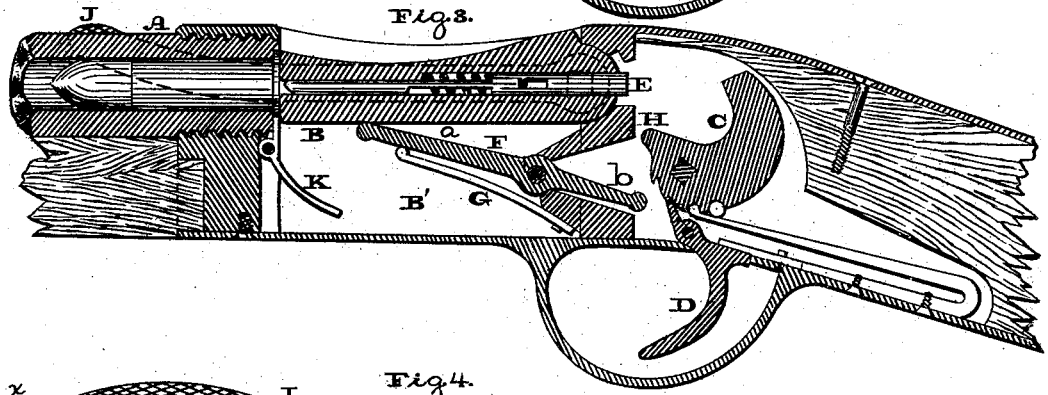
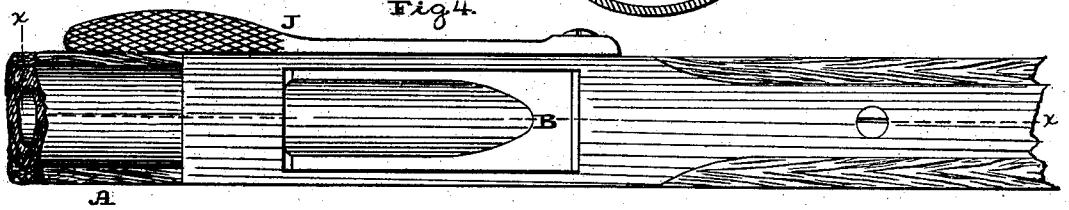


Fig. 4.



Witnesses,

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UNITED STATES PATENT OFFICE.

RICHARD FAY, OF PHILADELPHIA, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO GEORGE R. HARRISON, OF POTTSTOWN, PENNSYLVANIA.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **209,613,** dated November 5, 1878; application filed September 30, 1878.

To all whom it may concern:

Be it known that I, RICHARD FAY, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Breech-Loading Fire-Arms, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1, 2, and 3 are longitudinal sections in line *x x*, Fig. 4, of the breech-block and adjacent portions of a fire-arm embodying my invention. Fig. 4 is a plan view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to a fire-arm having a lever which cocks the hammer by the opening motions of the breech-block.

The invention consists of a lever in contact with the breech-block, and having an elevating-spring in front, in combination with the hammer, having a projecting heel, with which the rear limb of the lever engages, whereby, when the breech-block is lowered and opened, the hammer is cocked, and after the cartridge is inserted the elevating-spring restores the breech-block to its closed position.

It also consists in forming the hammer with a downwardly-projecting heel, with which the lever is directly in contact, so as to dispense with a dog or cam on the axis of the hammer, the breech-block being pivoted at rear and the lever bearing against the forward portion of said block, so that a long lever may be employed, and the breech-block is not weakened by connection with the lever.

Referring to the drawings, A represents the breech portion of the barrel of a fire-arm; B, the breech-block, which is pivoted at rear to the rear wall of the chamber B′; C, the hammer; D, the trigger, and E the firing-pin of the block B.

Beneath the breech-block there is pivoted a longitudinally-extending lever, F, the axial pin whereof extends transversely and horizontally. The forward limb, *a*, of the lever is held in contact with the under side of the breech-block by means of a spring, G, suitably applied, and the rear limb, *b*, projects toward the hammer C, and is adapted to engage with the under face of a heel, H, which is formed on the lower end of said hammer and projects toward the breech of the fire-arm.

To the axial pin of the breech-block there is firmly connected a lever, J, which extends along the exterior of the barrel at the side thereof, and is so disposed that it may be conveniently raised and lowered by the fingers of the left hand, which passes under and supports the weapon, while the fingers reach the upper face of said lever J on the right side.

The operation is as follows: The lever J is depressed by hand and the breech-block is accordingly lowered. This forces down the lever F and causes its rear limb to throw back the hammer, which, being caught by the trigger, is properly cocked. (See Fig. 2.) The cartridge is now inserted, and the spring, pressing on the lever F, restores the breech-block to its closed position, (see Fig. 3,) and the weapon may be discharged. As soon as the trigger leaves the notch of the hammer and the latter strikes the firing-pin the heel H of the hammer engages with the rear limb of the lever F (see Fig. 1) and prevents the rising thereof, whereby the forward limb of said lever, being rendered immovable, serves to lock the breech-block and prevent its displacement or shifting during the discharge.

Just prior to the discharge the fingers of the left hand, when the weapon is sighted, are under the lever A, and thus serves, in addition to the spring G, primarily to hold the breech-block secure in its closed position.

The extractor for the cartridge-case is formed of a head, as usual, and from the same projects downwardly an arm, K, which extends rearward in a curved or angular direction.

When a cartridge is inserted its flange first rests against the head of the extractor. The breech-block, in its return motion, presses against the head and forces it toward its seat, whereby the cartridge is fully introduced.

When the breech-block is lowered the under side of its forward end strikes the arm K, thus automatically operating the head of the extractor and removing the cartridge-case.

I am aware that it is not new to secure to the axis of the hammer an upwardly-project-

ing dog, with which engages one end of a lever, whose other end is operated by the breech-block so as to automatically cock the hammer; wherefore I disclaim such features.

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

1. The lever F and breech-block, in combination with the elevating-spring G, substantially as and for the purpose set forth.

2. The breech-block having its pivot at rear, in combination with the lever F, bearing against the front portion of said block, and the hammer C, having a downwardly-projecting heel, H, at its lower end, substantially as and for the purpose set forth.

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