UNITED STATES PATENT OFFICE.

H. O. PEABODY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 35,947, dated July 22, 1862.

To all whom it may concern:

Be it known that I, H. O. PEABODY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which-

Figures 1 and 2 are central longitudinal vertical sections of the breech part of a fire-arm constructed according to my invention, show-ing the breech in different positions. Fig. 3 is a transverse section of the same.

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

To enable others to make and use my invention, I will proceed to describe its construction and operation.

A is the metal breech-frame, which unites the barrel B with the stock C, and which has provided within it a parallel sided opening, bb, for the reception of the swinging breechblock D, which is secured therein by a pin, a, the said pin passing through the upper part of the rear end of the said block and through the sides of the frame A. The rear end of the bore of the barrel, which presents itself within the frame A, is countersunk for the reception of the flanges that are provided around the rear ends of the metallic cartridges.

E is the trigger-guard lever, working on a fulcrum-pin, c, inserted through the lower part of the frame A. This lever is forked above the fulcrum-pin to embrace the breechblock in the manner shown at n in Fig. 3, the said block being recessed on each side for the reception of the forked portion of the lever, as shown in Fig. 3. The forked portion of the lever is connected with the breechblock by means of a pin, d, which passes through both, the holes in the lever for the said pin being just large enough for its reception, but a long slot, e, being provided in the breech-block for its reception, the said slot being either curved or straight. By pulling down the back part of the trigger-guard lever the pin d is caused to move backward along the slot e, and to depress the front end of the breech-blocks below the barrel to permit the introduction of cartridges, and by raising the back end of the lever the said pin is caused to the block in that position; but the block must

move forward along the slot and raise the breech-block to the position to close the rear end of the barrel, in which position it is stopped by coming in contact with the front of the opening b in the breech-frame. The slot-andpin connection between the trigger-guard lever and breech-piece constitutes a very simple and effective means of operating the breech-piece.

F is the device for withdrawing the discharged cartridge-cases from the barrel. This device consists of an elbow-lever of thin steelplate arranged to work in a mortise provided for it in the breech-frame below the barrel on a fulcrum-pin, f, inserted across the said mor-tise and through the said lever. One arm of this lever, which is much longer than the other, has an upward direction, and its upper end enters a notch cut deep enough into the rear end of the barrel to allow the point of the said arm to get behind the flange of the cartridge. The other arm, which is much shorter, is directed toward the stock. When the breechblock D is depressed by the trigger-guard lever to open the rear end of the barrel for reloading, the front end of the said block strikes on the short arm of the lever and depresses it. and so causes the upper arm to be thrown backward; and owing to the much greater length of the upper arm, the movement of its point, which has been behind the flange of the discharged cartridge, is so rapid that it does not merely draw out the cartridge-case, but throws it out with such force as to throw it over the breech-frame and entirely clear of the gun, thereby obviating the necessity of using the fingers in any way for its removal.

G is the spring applied to the breech-block, attached at its rear end to the rear part of the breech-frame A, and having at its front end an anti-friction roller, i, which presses against the under part of the breech-block. When the breech-block is in position to close the rear end of the barrel, as shown in Fig. 1, the roller i is in a notch, j, provided for it in the said block, and the spring tends to hold the said block in that position. When the breechblock is moved downward to the position for loading, (shown in Fig. 2 in black outline,) which position should be such that the cartridges may slide along the groove k in its upper side into the barrel, the said roller is in the deepest part of a deeper notch, l, and holds

come below that position, as shown in red outline in Fig. 2, to effect the movement of the device F for withdrawing the cartridgecases, as the withdrawing movement cannot commence till it is at that position, and the continued movement below that position, produced by the trigger-guard lever to effect the withdrawal, brings against the roller *i* the front side of the notch *l*, which is so formed as to produce a positive stoppage of the further descent of the breech. When the cartridge-case has been thrown out, the liberation of the trigger-guard lever allows the spring to press up the breech-block to the position for loading, (shown in Fig. 2 in black outline,) so that after having fired and discharged the cartridge-case, the breech-block, as it were, assumes the proper position for reloading. This last result is the principal object of the spring.

I do not claim the construction and arrangement of the breech-block to swing in the manner described; neither do I claim the use of a lever or dog operating under the rear end of the barrel to throw out the discharged cartridge-cases; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Having the under part of the breechblock slotted, as shown at e, in combination with the pin d and lever E, as and for the purpose herein shown and described.

2. The employment of the roller i and its spring G, in combination with the notches j l and block D, as herein shown and described.

3. The combination of the lever F with the breech-block D and frame A, as herein shown and described.

H. O. PEABODY.

Witnesses: ALFRED PEABODY,

DANIEL SHARP.

H. O. PEABODY. Breech Loading Fire-Arm.

No. 35,947.

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