

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 195,196, dated September 25, 1877; application filed January 2, 1877.

To all whom it may concern:

Be it known that I, BERNARD O. FASOLDT, of the city and county of Albany and State of New York, have invented certain new and useful Improvements on Breech-Loading Fire-Arms, of which the following is a full and exact description, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a side view of the lock-work and breech of the gun, having portions thereof removed for the purpose of showing the various parts in their positions before the cartridge-shell is displaced from the barrel; and Fig. 2 is a like view, showing the hammer thrown forward so as to raise the breech-piece.

My invention relates to breech-loading fire-arms in which fixed cartridges in metallic or other shells are used; and it consists of the automatic retractor herein shown and described for removing the cartridge-shell after the discharge of its charge.

It also consists of the device shown and described for retaining the cartridge in the open breech of the gun.

As shown in the drawing, A is the breech of the gun; B, the frame-work for containing the lock-work and for connecting the barrel to the stock, (as shown, one of its side plates is removed for the purpose of exhibiting more clearly the construction of the inclosed parts.) C is the breech-piece, hinged to the frame-work B by the pin c^1 , and provided with a mortise in which the hammer works; D, the hammer of the lock, working in the mortise of the breech-piece C, and pivoted to the frame-work B by the pin d^1 . On one of its sides there is a catch-piece, d^2 , having a sharp edge projecting below the lower edge of the hammer, for the purpose hereinafter described. It is also provided with a pin, d^3 , which engages in the slot c^2 of the breech-piece, and raises and depresses the breech-piece by the movement of the hammer. E, a sliding bar, provided with a pin, e^1 , which passes through the ear b^1 of the frame-work, and guides the forward end of the sliding bar. A mortised head, e^2 , is formed at the forward end of the sliding bar, in which a spring-latch, e^3 , slides. The spring-latch is attached to the cam-piece e^4 , which is secured to the sliding bar by the spring e^5 .

Near its posterior end the sliding bar has a shoulder, e^6 , against which the catch-piece d^2 of the hammer engages, as hereinafter described. A strong coiled spring, e^7 , which passes over the pin e^1 , is interposed between the ear b^1 of the frame-work and a lug attached to the sliding bar, for the purpose of forcing the sliding bar backward. F is the retractor-bar, which passes through an opening formed between the barrel of the gun and the frame-work B. It is provided with a hooked end, f , which is finished to conform to the shape of the open breech of the gun, and which engages with the projecting rim of the cartridge-shell. G is a coiled spring, one end of which is secured to the barrel of the gun, the other end being attached to the retractor-bar F for the purpose of returning it to its normal position. H is the trigger, upon which the spring I bears; J, the mainspring of the lock, which bears against a projecting shoulder, d^4 , of the hammer, and causes it (the hammer) to be thrown forward when released from the control of the trigger.

The operation of the above-described part of my invention is as follows: After the firing of the charge, the hammer D is drawn backward. Its catch-piece d^2 , engaging against the shoulder e^6 , as shown in Fig. 2, forces the sliding bar E forward until it is in the position shown in Fig. 1, when the spring-latch e^3 is forced up by the spring e^5 , and engages with the forward end of the retractor-bar F. By the continued backward movement of the hammer the point c^3 of the breech-piece, by pressing against the sliding bar E, forces the shoulder e^6 below the point of the catch-piece d^2 , releasing the sliding bar from the control of the catch-piece and permitting the spring e^7 to force the sliding bar E backward, which movement carries back the retractor-bar F with such force as to expel the cartridge-shell clear from the breech of the gun. As the sliding bar moves back the cam-piece e^4 comes in contact with the stud b^2 inserted in the frame-work B, thereby depressing the spring-latch e^3 , as shown in Fig. 2; so as to release the retractor-bar F, which is then moved back to its place by the spring G, leaving the breech in condition for the insertion of another cartridge.

In order to remedy the difficulty, commonly

encountered in breech-loading guns, of retaining the cartridge in the open breech, I attach to the breech of the gun a retaining-spring, K, which is provided with a hooked end, which, by pressing against the rim of the cartridge, prevents it from slipping from its place.

It is manifest that this automatic retractor, the retaining-spring, or both of them, may be readily adapted to breech-loading fire-arms of any construction differing from the one herein shown and described, and I therefore reserve this right of adaptation.

I claim as my invention—

1. The combination, with a breech-loading fire-arm, of the automatic retractor herein described, consisting of the sliding bar E, spring-

latch e^2 , spring e^1 , retractor-bar F, and spring G, as and for the purpose herein specified.

2. The hammer D, provided with a catch-piece, d^2 , in combination with the sliding bar E, substantially as and for the purpose herein specified.

3. The hammer D and breech-piece C, in combination with the sliding bar E, substantially as and for the purpose herein specified.

4. The combination of the sliding bar E, having a spring-latch, e^3 , with the retractor-bar F, as and for the purpose herein specified.

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Witnesses:

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