

I. M. MILBANK.
Breech-Loading Fire-Arm.

No. 52,734.

Patented Feb. 20, 1866.

Fig. 1.

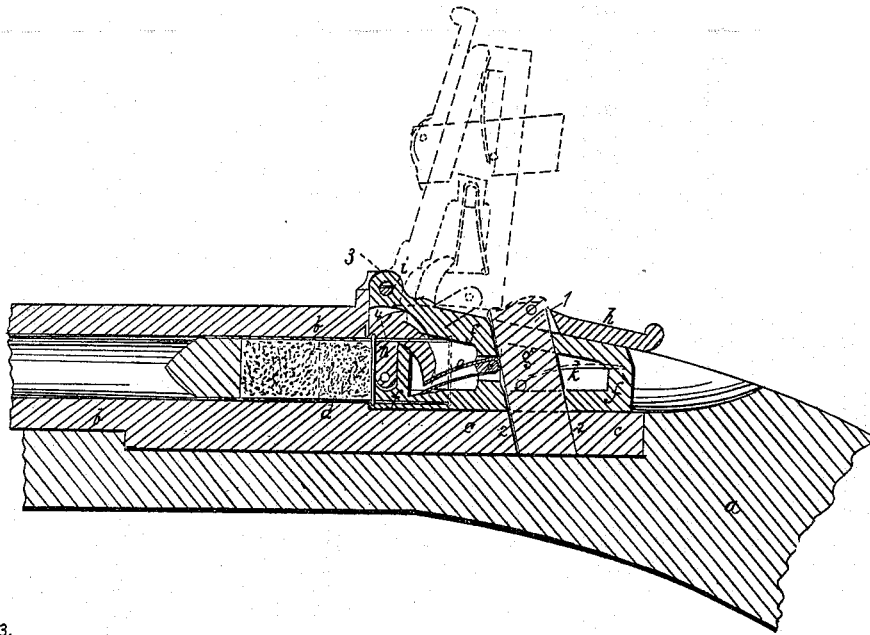
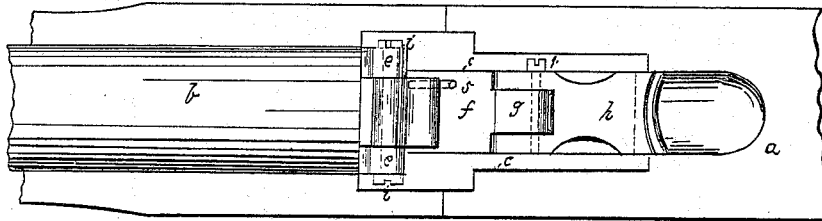


Fig. 3.



Fig. 2.



Witnesses:

Samuel W. Serrell
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UNITED STATES PATENT OFFICE.

ISAAC M. MILBANK, OF GREENFIELD HILL, CONNECTICUT.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 52,734, dated February 20, 1866.

To all whom it may concern:

Be it known that I, ISAAC M. MILBANK, of Greenfield Hill, in the county of Fairfield and State of Connecticut, have invented, made, and applied to use a certain new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a longitudinal section of my improved breech, and Fig. 2 is a plan of the same.

Similar marks of reference denote the same parts.

Breech-loading fire-arms have heretofore been constructed with a swinging breech-pin to close the rear end of the barrel, and various devices, such as spring-catches and forked levers, have been used to draw the cartridge-case out from the barrel.

My invention relates to this class of breech-loading fire-arms; and it consists in a swinging breech-block hinged near the rear end of the barrel, combined with a lever and transverse sliding bolt that receives the recoil when the piece is discharged. I also make use of a swinging spring-claw, that seizes and draws out the cartridge-case as the breech is opened.

In the drawings, *a* is a portion of the stock and *b* of the barrel, both of any desired size or character. *c* is a metallic extension or strap, formed with or attached to the rear end of the barrel, the upper portion of which is open, forming a cartridge-receptacle at the rear of and on line with the barrel, so as to guide the metallic cartridge-case with its powder and ball or shot into the rear end of the barrel *a*. This metallic cartridge-case *d* is formed with a hollow flange to receive the fulminate, as usual.

e e are ears formed on the upper portion of *c* or near the rear end of the barrel *a*, through which the hinge-pin *i* for the breech-block *f* passes, and said breech-block is formed at the hinge, so as to set beneath these ears *e e* when the breech is closed. The breech-block *f* carries all the parts that are required for locking itself when closed and for withdrawing the cartridge-case as the breech is opened, thereby the construction of the piece is greatly facilitated, and in case of damage the breech-

block and operative parts are easily removed for repair or for cleaning.

I prefer that the breech-block *f* be made in the form of an open frame, as shown, and across the same, at a slight forward inclination, I introduce the locking-bolt *g* within a mortise formed for its reception. The upper end of the said bolt is fitted with a thumb-lever, *h*, jointed to the bolt *g* by the pin or screw *l*, and I prefer to employ a spring, *k*, to press the bolt downward.

When the breech is turned down the end of the bolt *g* takes against the bottom of the recess in *c* and slides up in the breech-block *f* as said block is pressed to its place. This movement brings the end of the bolt over a mortise, *2*, in the part *c*, and the bolt immediately slides down thereinto. In this position the breech cannot swing open or be driven back, because the bolt takes the recoil, and the forward end of the breech cannot rise in consequence of the end passing under the ears *e*, which afford additional strength to the hinge pin and joint.

When the breech is to be opened the thumb or fingers are first pressed under the lever *h*, which by its leverage easily draws up the bolt *g*, and when the same is clear of the mortise *2* in *c* the breech can be swung up, giving free access to the rear end of the barrel.

In order to afford sufficient friction to keep the breech from falling when open I employ a spring, *3*, attached upon a flattened portion of the hinge-pin *i*, (see the detached Fig. 3,) said spring acting in the inside the hole for the said joint-pin in *f*.

In the front end of the breech-block *f* is a recess receiving the swinging claw *n*, that has a projection at the back portion, acted upon by the spring *o*, and a hooked end at *4*. When the breech is closed said claw occupies the recess in the front end of the breech-block *f*; but as soon as said breech-block is lifted the hooked end *4* catches the flange of the metallic cartridge-case, pulling the same out from the rear end of the barrel, and this claw, swinging out of its recess by the action of the spring *o*, maintains its hold upon the cartridge-case, drawing it back as the breech-block is turned up, as seen by red lines in Fig. 1. When the cartridge is placed in the rear of the barrel the said claw *n* yields as the breech is closed and the cartridge forced into the barrel.

The cartridge is to be exploded by a blow from any ordinary cock or hammer acting upon a punch fitted in the breech-block *f*, as at 5.

The head of the pin 1 might be extended so that it will come under an overhanging portion of the hammer and prevent the breech being opened until the hammer is half-cocked, and also prevent the hammer striking until the breech is fully closed.

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

1. In combination with the swinging breech-

pin *f* and bolt *g*, fitted as specified, the lever *h*, jointed to the upper end of the bolt *g*, and acting to withdraw the same, as specified.

2. The swinging spring-claw *n*, in combination with the swinging breech-block *f*, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my signature this 19th day of December, A. D. 1865.

ISAAC M. MILBANK.

Witnesses:

LEMUEL W. SERRELL,

GEO. D. WALKER.