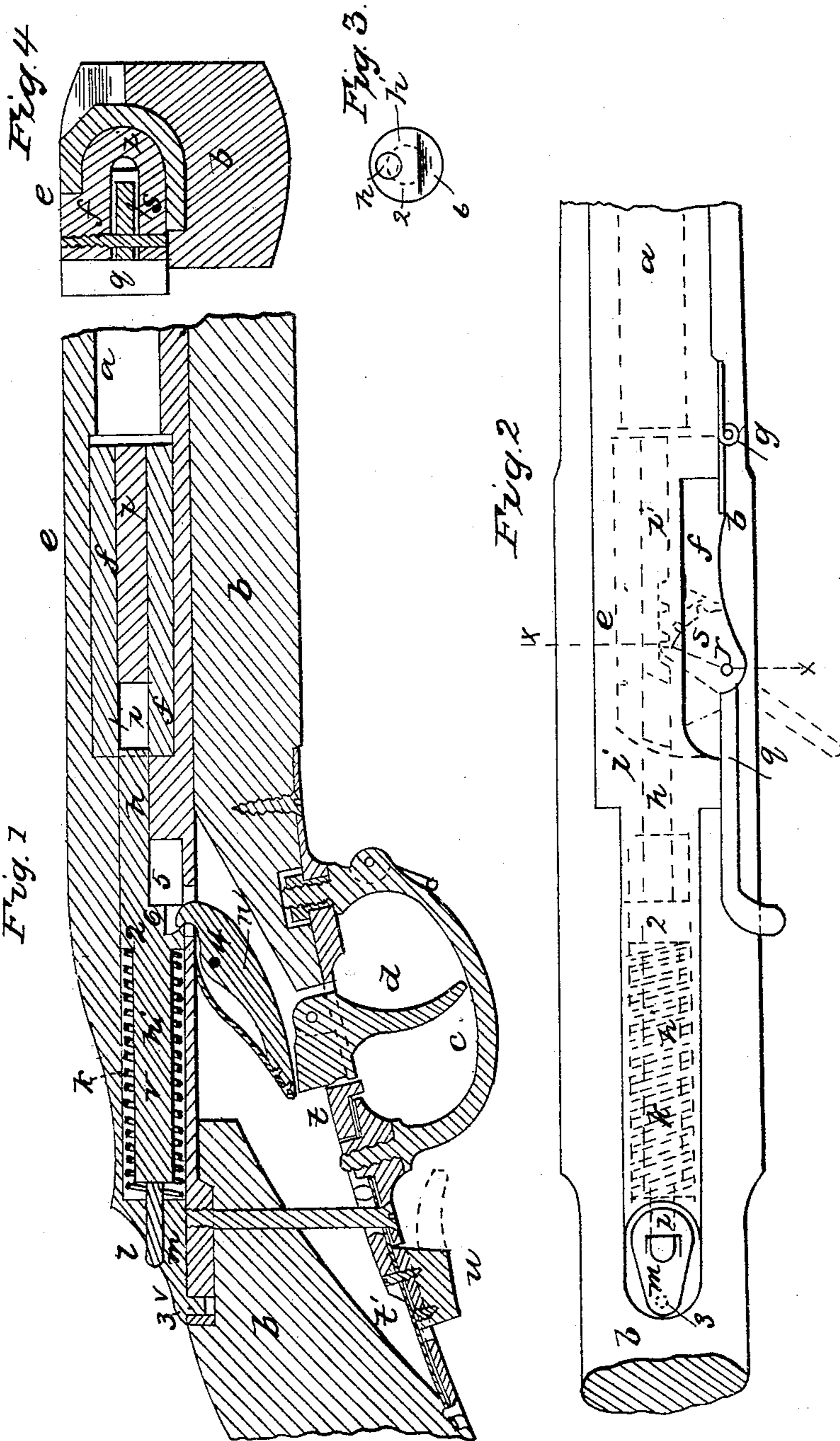


I. M. MILBANK.  
Breech Loader.

No. 84,566.

Patented Dec. 1, 1868.



Witnesses  
Geo. Swaen  
Chas. Smith

Inventor  
I. M. Milbank



# United States Patent Office.

ISAAC M. MILBANK, OF GREENFIELD HILL, CONNECTICUT.

Letters Patent No. 84,566, dated December 1, 1868.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

The Schedule referred to in these Letters Patent and making part of the same.

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 and made a certain new and useful Improvement in Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a vertical longitudinal section of my improved fire-arm, at the breech portion thereof;

Figure 2 is a plan of said fire-arm;

Figure 3 is an end view of the hammer and its slide-bolt; and

Figure 4 is a cross-section at the line *x x*.

Similar marks of reference denote the same parts.

The object of this invention is to cock the hammer, as the preliminary operation in opening the breech, and to effect the opening of the breech by a continuation of the motion that cocked the hammer. Also, to lock the trigger in such a manner that the piece cannot be accidentally discharged by the trigger being touched. I also make use of the hammer as a means for locking the breech-block into place.

In the drawing—

*a* is the rear end of the barrel;

*b* is a portion of the wooden stock;

*c* is the trigger-guard; and

*d*, the trigger.

These parts may be of any usual size or character.

At the rear of the barrel, or formed with it, is the metallic breech-tube *e*, having a mortise in one side, or in the top, for the swinging breech-block. I have shown said mortise as in the side, to allow the breech-block *f* to swing in and out upon the hinge *g*, at the right side of the piece.

The breech-tube *e* is formed with an abutment at *i*, for the rear end of the block *f* to set against when closed, and, through this, the hammer *h* slides.

This hammer is at the end of a sliding bolt, *k*, that is formed with a head, 2, against which the spring *k* acts, and with a guiding tail-piece, *l*, that slides in the movable block *m*.

This block *m* fits at the forward end of the rear portion of the breech-tube *e*, and is provided with a hook or spur, 3, entering a hole in the under portion of *e*, so that, on lifting this block *m* until the spur 3 is disengaged, the block *m*, spring *k*, bolt *k*, and its hammer *h*, can all be removed with facility, or replaced; and, in consequence of the hammer *h* not being upon the axial line of the bolt *k*, but eccentric thereto, the parts cannot become misplaced or improperly entered.

*n* is a sere on a fulcrum, 4, with a hook-end, 5, taking a notch, 6, in the head 2 of the bolt *k*, and the position of the parts is such, as seen in fig. 1, that the pressure of the spring *k* tends to retain the hook of the sere within said notch; but the sere can be easily withdrawn by the heel of the trigger *d* acting on the longer arm of said sere, *n*.

In the swinging breech-block *f* is a hole, running through the same, and on line, or nearly so, with the hammer *h*, when the breech is closed, and in this hole is a punch, *v*. This hole is located so that the forward end of the punch comes on the line of the centre of the barrel for a central-fire cartridge, or near the edge of the same for a cartridge with the fulminate in the rim.

A lever, *q*, is jointed to the breech-block *f* by a hinge at *r*, and is provided with a toothed segment, *s*, taking teeth in the firing-pin or punch *v*.

After the piece has been discharged, the lever *q* is turned out, as shown by red lines in fig. 2. In doing this, the firing-pin *i* is driven back sufficiently to press the hammer *h* into the abutment *i*, so that its forward end is clear of the swinging breech-block *f*, and hence a continuation of the movement, by pressure on the end of the lever *q*, swings the breech open for the removal of the empty cartridge-shell by any suitable mechanism, and for the introduction of another cartridge.

The hammer *h* being pressed back sufficiently for the sere *n* to take the notch 6 in 2, the hammer is retained fully cocked, and ready for being discharged. The position of the parts, however, is such that the front end of the hammer projects sufficiently to enter the hole in the breech-block, and hold the same in place when closed, the inclined end of the breech-block *f* having forced said hammer slightly back in the act of closing.

If desired, the firing-pin might be drawn back, the hammer discharged, and the hammer allowed to move gradually forward, as the lever *q* is swung back to its normal position when it is desired to carry the gun loaded, and avoid the risk of accidental discharge. I, however, provide a trigger-lock, to prevent the piece being discharged by the trigger accidentally.

I construct the trigger-lock of a block, *t*, that is set upon the spring *t*, so that it usually stands in behind the trigger, and prevents it being drawn back; and in order to raise this block *t*, so that the trigger *d* can be pulled when the piece is to be fired, I make use of a projection, *u*, coming from the spring *t* through the strap of the trigger-guard, so that, when the small of the stock is grasped in firing, the trigger-lock will be raised out of the way.

If desired, a hole might be made in the back end of the hammer-tail, to receive a pin for preventing accidental discharge, and a spring might be employed to keep the lever *q* from moving in handling the piece.

The projection *u* might be shaped, as shown by dotted lines in fig. 1, for convenience in operating the trigger.

I do not claim a sliding bolt, acting as a trigger-lock, as that has before been employed.

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

1. The lever *q*, actuating the firing-pin as the breech is opened, in combination with the sliding hammer and bolt, substantially as and for the purposes set forth.

2. The movable block *m*, in combination with the hammer *h*, bolt *h'*, and spring *k*; as and for the purposes set forth.

3. The trigger-lock, formed of the spring *t*, swinging block *t*, and projection *u*, in combination with the trigger *d*, for the purposes and as set forth.

In witness whereof, I have hereunto set my signature, this 17th day of June, A. D. 1868.

I. M. MILBANK.

Witnesses:

CHAS. H. SMITH,  
GEO. D. WALKER.