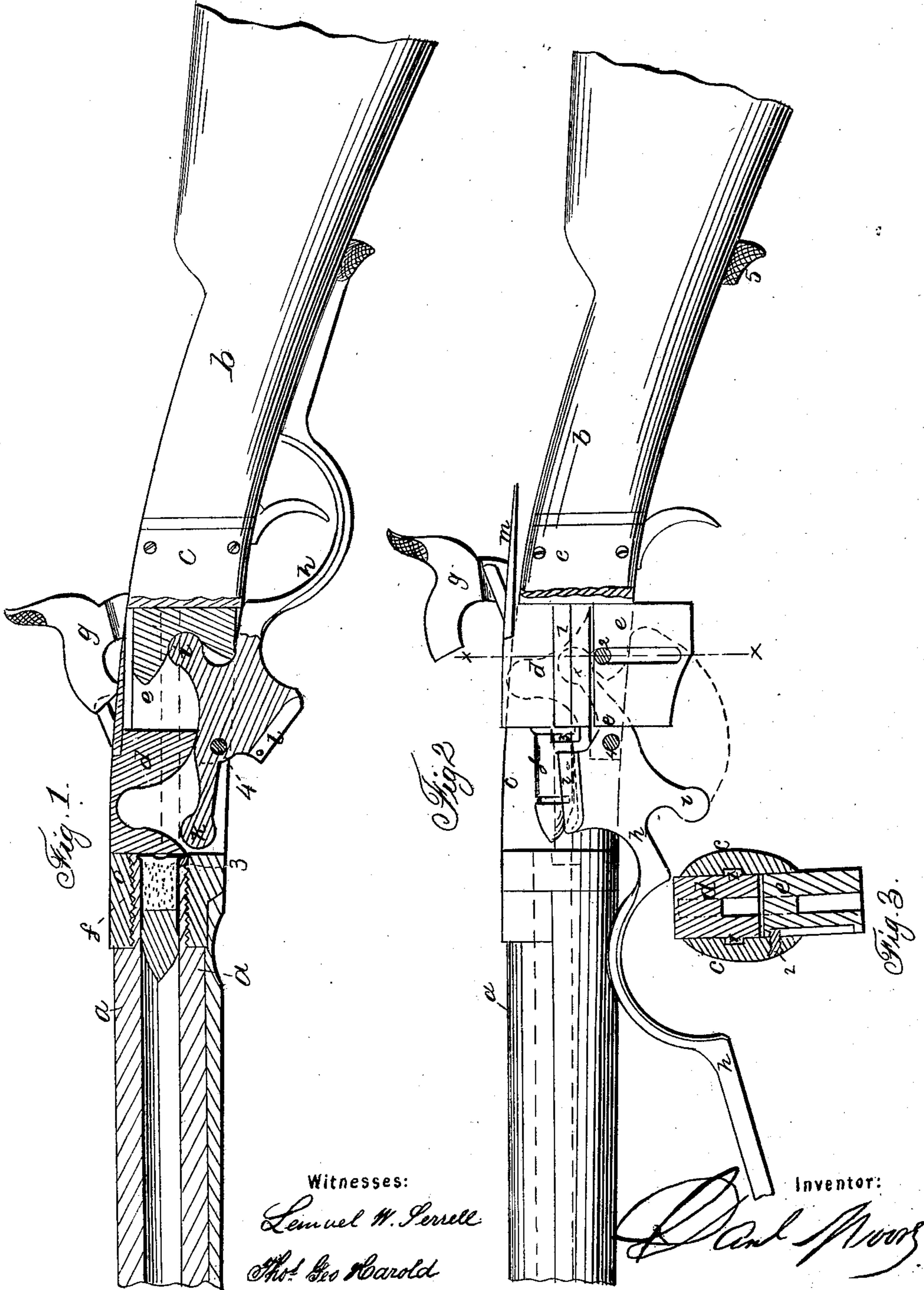


D. MOORE.

Breech-Loading Fire-Arm.

No. { 2,843, }
 { 33,847. }

Patented Dec 3, 1861.



Witnesses:
Samuel W. Jewell
Thos. Geo. Harold

Inventor:
D. Moore

UNITED STATES PATENT OFFICE.

DANIEL MOORE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 33,847, dated December 3, 1861.

To all whom it may concern:

Be it known that I, DANIEL MOORE, of Brooklyn, (E. D.,) in the county of Kings and State of New York, have invented, made, and applied to use 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 my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of my gun ready for firing. Fig. 2 is a similar view with the parts receiving the cartridge, and Fig. 3 is a cross-section at the line *x x* of Fig. 2.

Similar marks of reference denote the same parts.

The nature of my said invention consists in double breech-blocks, one sliding on the line of the barrel and the other at right angles thereto in such a manner that the transverse moving block draws away from behind the longitudinally-moving block, and that draws away from the barrel for introducing the cartridge, and is forced up again to the rear end of the barrel, and the laterally-moving block comes up behind it to sustain the explosion. To effect this operation, I make use of a peculiar lever acting upon these blocks in such a manner that by a simple movement forward or back, the two blocks are slid and the breech opened or closed by the one motion of the lever. Said lever is not connected to either block; hence one can stand still while the other block is moved, and vice versa.

In the drawings, *a* is the barrel, either rifled or plain, and *b* is the stock. These parts are to be of any desired construction.

c c are the metallic straps or connections between the barrel and stock, leaving a mortise containing the breech-blocks *d* and *e*. The block *d* is fitted on or in slides in the inner faces of the straps *c c*, so as to slide longitudinally and in line with the barrel. 1 1 are the ribs for the said block to slide on. The block *e* slides transversely, and is guided by blocks taking grooves in said block *e*, and a screw or pin entering a groove, as at 2, prevents the said piece *e* from falling out. When the block *d* is drawn back the cartridge is to be entered in a semicircular groove, 3, on the front end of the block *d*, said groove being adapted to

receive the flange of the copper case containing the powder and the base of the ball, as seen at *f*. The rear end of the barrel is formed so as to receive this semicircular grooved piece, 3, and the cartridge and case. When this block *d* is slid forward the cartridge *f* is entered within the barrel and the block *e*, being brought up behind the block *d*, and filling the space behind it, sustains the block *d* against the force of the explosion, the metallic cartridge-case preventing any escape at the rear of the barrel. It will be evident that, the blocks *d* and *e*, being rectangular and sliding at right angles to each other, the recoil of the explosion is taken upon flat surfaces, and there is no chance for the parts to become wedged, and there is really no wear upon the surfaces that sustain the explosion. When the block *e* is depressed and the block *d* slid back, it draws the copper case of the cartridge *f* out of the barrel, and the same is removed and another cartridge inserted. To explode the piece the hammer *g* is employed, and said hammer may either explode a cap on a nipple upon the block *d*, or a sliding punch in said block *d* may be employed to explode the detonating material when contained in the flange of the copper case of the cartridge.

In order to give the proper relative movements to the blocks *d* and *e*, I employ the two-armed lever *h*, set and moving on the fulcrum 4, and said lever forms the guard for the trigger, and is held up by a spring-catch of any suitable character, as at 5.

i and *k* are two arms to the lever *h*, one extending forward of the fulcrum 4, and the other to the rear, as seen in Fig. 1, where the respective arms enter slots in the blocks *d* and *e*.

When the piece is ready for cocking and firing, as in Fig. 1, the arm *k* is in the lower part of the slot in the block *d*, and the block *e* is held up in place by the other arm, *i*. If, now, the lever *h* is pressed downward and forward to the position Fig. 2, the arm *i* acting in the slot in the block *e*, first draws that down, and then ceases to act, because the arc described by the end *i* of the lever clears the part of the slot in *e*, upon which said arm *i* had been acting. (See Fig. 2.) At this moment the arm *k* slides the block *d* back, drawing out the cartridge or preparing the gun to receive another cartridge, as specified. A spoon-piece, *l*, on

the lever *h* serves to sustain the cartridge when dropped into place prior to insertion into the barrel, and also coming up against the cartridge-case, when drawn out of the barrel, loosens the same from the semicircular groove, so that it will easily drop away when the gun is turned sidewise. Upon drawing the lever *h* back the block *d* is first slid by the arm *k* up against the rear end of the barrel, and then the block *e* is by the arm *i* passed in behind the block *d* to sustain it when fired.

The plate *m*, attached to the upper side of the block *d*, gives a smooth, finished surface to the upper side of the gun.

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

1. The breech-blocks *d*, sliding on the line of the barrel, combined with the rectangular block *e*, moving at right angles to said block *d*, in the manner specified, so that the block

e is drawn down for the block *d* to slide back and over said block *e*, as set forth.

2. The lever *h*, on the fulcrum 4, with the arms *i* and *k*, in combination with the blocks *d* and *e*, so that the movements specified are given to said blocks by said lever, as set forth.

3. The semicircular grooved piece 3, to receive the flange of the cartridge, in combination with the breech-block *d*, fitted and acting as set forth.

4. The spoon-shaped piece *l* on the lever *h*, to receive the cartridge when entered, or to loosen the metallic case from the groove 3, as set forth.

In witness whereof I have hereunto set my signature this 9th day of August, 1861.

DANL. MOORE.

Witnesses:

LEMUEL W. SERRELL,
THOS. GEO. HAROLD.