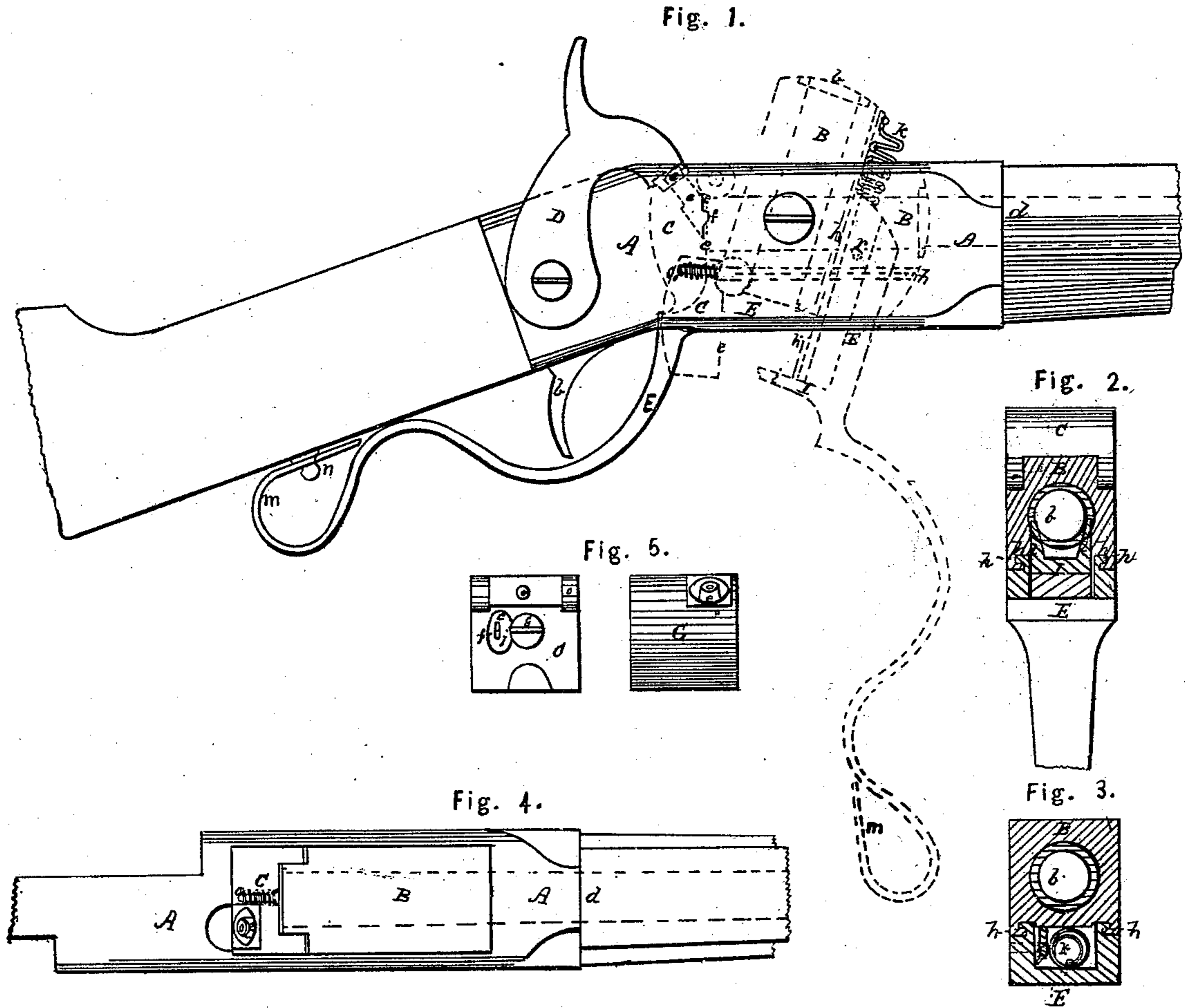


J. S. ADAMS.  
Breech-Loading Fire-Arm.

No. 44,377.

Patented Sept. 27, 1864.



Witnesses  
*Edw. P. Brown*  
*J. B. Woodruff*

Inventor  
*John S. Adams*  
 Lunenburg  
 Mass.

# UNITED STATES PATENT OFFICE.

JOHN S. ADAMS, OF TAUNTON, MASSACHUSETTS.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 44,377, dated September 27, 1864.

*To all whom it may concern:*

Be it known that I, JOHN S. ADAMS, of the town of Taunton, in the county of Bristol, in the State of Massachusetts, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I represents a side view of a carbine broken off at both ends, showing the hinged breech-block in its place in dotted lines, with its position changed for loading in red lines. Fig. II shows the rear end view of the hinged breech, the block open to receive a metallic cartridge, the cartridge-case extractor, and the mode of constructing and securing the sliding trigger-guard. Fig. III shows the front end view of the cartridge-chamber and sliding guard. Fig. IV is a top view of the breech of a carbine. Fig. V shows two views of the hinged breech-block detached from the chamber.

My invention consists in hinging to the rear end of a movable cartridge-chamber a breech-block, so that it may open to receive a metallic, Sharps, or other cartridge from the rear end, and close itself firmly when the chamber is brought into position for firing the piece.

My invention further consists in the mechanical device for withdrawing or ejecting the discharged copper cartridge-cases by the sliding trigger-guard, and the mode of attaching the same to the movable chamber.

To enable others skilled in the art to make and use my improvements in breech-loading fire-arms, I will describe them in detail, referring to the drawings, and to the letters marked thereon.

My improved breech-loading fire-arms may consist of muskets, carbines, and pistols. I make the frame A, to which the stock, the barrel, the lock, and the movable cartridge-chamber B are attached, in the same manner, and insert the chamber in the opening, and secure it by the same arrangement of mechanism for which I obtained Letters Patent dated the 11th day of August, 1863, and numbered 39,455, so that these parts require no further description in this specification.

The movable cartridge-chamber B is made in length to fill about four-fifths of the opening in the frame A, with the hole *b* to receive the cartridge through it longitudinally, and when in position for firing is in a direct line with the bore of the barrel *d*. To the upper corner of the rear end of the rotating chamber-piece B is hinged a solid breech-block, C, which is fitted so as to form a perfect joint, *c*, on the rear end of the chamber B, and fills the space in the frame A. When the chamber B is brought into position for loading, as seen in Fig. I in red lines, the breech-block B will be opened by sliding the trigger-guard E downward in the grooves *h h*, with it the ejecting device I, the prongs *i i* pressing against the inner face of the breech-block C, causing it to open, so that the cartridge may be inserted. When the pressure on the trigger-guard is relaxed, the spiral spring *k* draws it back to its position, leaving the bore in the chamber unobstructed. When the cartridge is inserted, the hinged breech-block C is closed and the cartridge pressed firmly forward to its place by the movement of the chamber as it is brought into position for firing. The piece is discharged by the hammer striking upon the cone *e*, or upon percussion-caps placed upon it. When other than metallic cartridges are used, the cone *e*, or piston, is made with an enlarged portion, so as to form a shoulder, which fits in a cavity in the breech-block C, and is inserted from the inside, so that it cannot be forced out by the explosion of the cartridge, and is held in its place by the screw *g*. The projection *f* on the inner face, *j*, comes in contact with the rim of the metallic cartridge and indents it, so as to cause the explosion to take place. I change the position of the cartridge-chamber B, and open it to receive a cartridge of any kind of fixed ammunition by the sliding trigger-guard E, which is fitted to the movable chamber B by double tongues and grooves *h h*, so as to possess great strength, and at the same time withdraw and eject the empty cartridge-cases, which is effected by a fork or two stiff prongs, *i i*, secured to the guard E, the prongs being fitted into and embedded in recesses made for them in the under portion of the rear end of the chamber B, when the guard E is held up by the spiral spring *k*, placed longitudinally between it and

the chamber. The portion of the guard that reaches back of the trigger *l* is so shaped as to form a spring, *m*, it having a hole through it to snap onto a stud or knob, *n*, which secures all firmly in place for firing. When the guard is released from the knob *n* by pressing it downward, the spring *k* yields and allows it to slide in the grooves *h h*, carrying with it the prongs *i i*, they removing the empty cartridge-case. The breech-block *C* being open and held by the spring *o*, another cartridge is inserted, and then by bringing the guard to its place and securing it on the knob the piece is loaded, fired, and reloaded with great facility, the guard *E* being limited in its sliding movement by a stop-pin, *r*, placed in it, and another in the under side of the chamber *B* for that purpose.

Having thus fully described my improvements in breech-loading fire-arms, what I claim as new, and desire to secure by Letters Patent, is—

1. The mode of attaching the trigger-guard to the movable chamber by means of tongues and grooves or their equivalent, thereby securing strength to open and close the chamber, at the same time allowing the guard to slide to open the breech and eject the empty cartridge-case, in the manner specified.

2. Operating the device for withdrawing or ejecting the metallic cartridge-case from breech-loading fire-arms by a sliding longitudinal movement of the trigger-guard.

3. The movable cartridge-chamber *B*, the hinged breech-block *C*, the sliding trigger-guard *E*, the spiral spring *k*, and the ejecting device *I*, all in combination, and operating in the manner herein described, for the purposes set forth.

JOHN S. ADAMS.

Witnesses:

EDM. F. BROWN,  
J. B. WOODRUFF.