C. C. BRAND.

Breech-loading Fire-arm.

No. 35,989. Patented July 29, 1862.

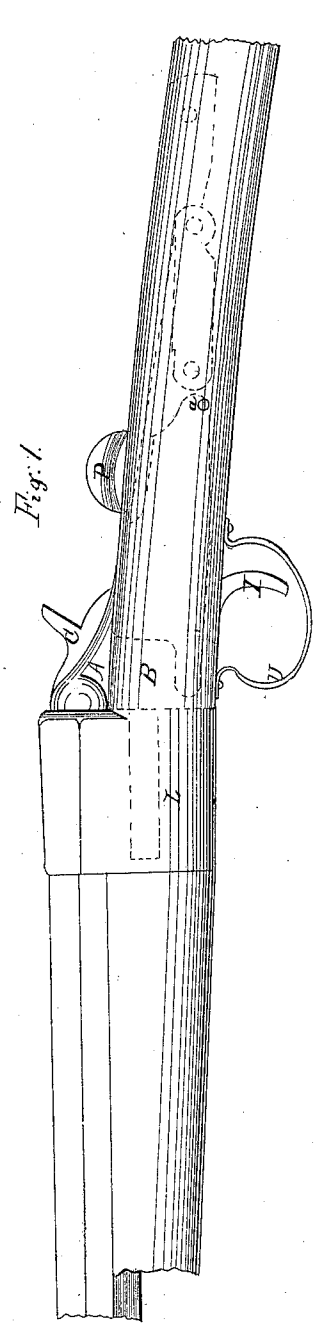

Fig: 1.

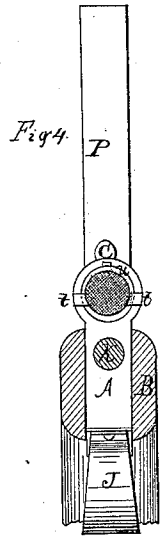

Fig 4.

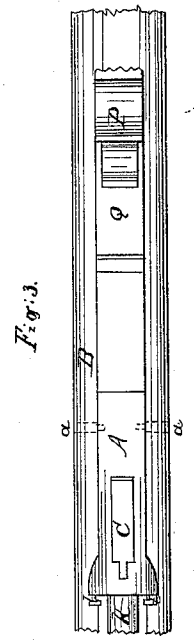

Fig: 3.

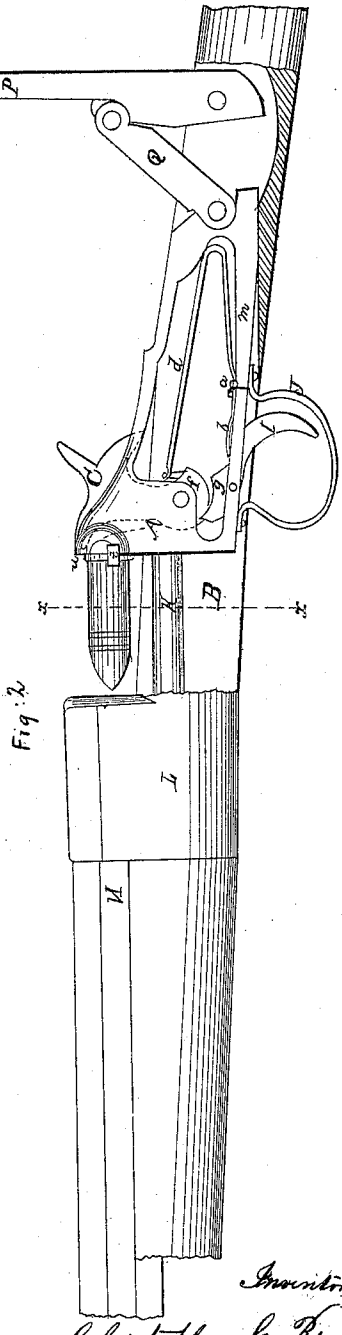

Fig: 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BRAND, OF NORWICH, CONNECTICUT.

IMPROVEMENT IN FIRE-ARMS.

Specification forming part of Letters Patent No. **35,989**, dated July 29, 1862.

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BRAND, of Norwich, in the county of New London and State of Connecticut, have invented 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 the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a side view of a portion of a breech-loading rifle embodying my improvements. Fig. 2 represents a view of the same with a portion of the stock removed to show the internal construction. Fig. 3 represents a fragmentary top view of the same; and Fig. 4 represents a transverse section of the same at the line *x x* of Fig. 2, and looking toward the butt of the stock.

My invention is particularly adapted to that class of breech-loading fire-arms which are loaded with a metallic cartridge; and the first part of my invention consists in the combination of a sliding breech-pin sliding in a recess of the stock and the lock in such manner that these two move together when the breech is opened and closed, while the stock remains permanently connected with the barrel of the fire-arm.

The second part of my invention consists in the combination of a sliding breech-pin, sliding in a recess in the stock, with the lock and with jaws to take hold of the butt of the cartridge, so that the cartridge-case can be withdrawn from the butt of the barrel at the same time that the breech-pin with its lock is drawn back.

The third part of my invention consists in the combination of a sliding breech-pin, sliding in a recess of the stock, with the lock and with a guide-bolt that guides the forward end of the breech-pin in its movement to open and close the breech.

The fourth part of my invention consists in the combination of a sliding breech-pin, sliding in a recess of the stock, with the lock and with guide-screws, or their equivalent, to maintain the butt of the breech-pin in its position when sliding to and fro in the recess.

The fifth part of my invention consists in the combination of a sliding breech-pin and lock, which move together in a recess of the stock, with a trigger-guard connected with them, so that the trigger is always guarded in whatever position it may be placed by the movement of the breech-pin.

All parts of my invention are embodied in the fire-arm represented in the accompanying drawings. The breech-pin A of this fire-arm is constructed to slide to and fro in a recess formed in the stock B. It is hollow, and carries with it the lock, whose cock C projects through a slot in the top of the breech-pin. The mainspring *d* of the lock, the tumbler *f*, the sear *g*, and sear-spring *h* are contained within the cavity of the breech-pin, and the trigger I, which is made in one piece with the sear, protrudes through a slot in the bottom of the breech-pin.

The trigger-guard J is made fast to the lower side of the breech-pin, so that it always guards the trigger in whatever position the latter may be placed by the movement of the breech-pin. The front end of the breech-pin is guided, in sliding toward and from the butt of the barrel, so as to maintain its proper relative position thereto, by means of a guide-bolt, K, which, being secured to the front end of the breech-pin, projects forward into a socket formed in the breech-block L beneath the barrel M. The hinder end of the breech-pin is maintained in its proper position by means of a pair of guide-screws, *a*, which are screwed into the opposite sides of the stock in such positions that their inner ends overlap the edges of the bottom plate, *m*, of the breech-pin, and prevent it from rising from the bottom plate, *n*, of the recess, on which it slides. The front side of the breech-pin is fitted with jaws *t* of such size and form that they overlap and hold the flange *u* of the cartridge-case, so that the cartridge can be applied to them, as shown at Fig. 2, when it is to be inserted in the barrel, and when the breech-pin is withdrawn, the jaws retaining their hold upon the cartridge-case withdraws it from the barrel. The breech-pin, with its appurtenances, is moved in the recess of the stock by means of a lever, P, whose lower end is pivoted in the said recess. This lever is connected with the breech-pin by a link, Q, and the relative proportions of the parts are such that, when the breech-pin closes the breech, the pivot of the link at the lever is slightly below the line connecting the pivot of the lever and the pivot of the link and breech-pin, so that the strain against the

breech-pin in firing does not tend to throw up the lever. The ends of the link and butt of the lever also come in contact with the parts adjacent to them when the breech-pin is closed, so as to relieve the pivots of a shearing strain.

The lever P may, if deemed best, be fitted with a spring-catch to retain it in its depressed position, and if the fifth part of my invention be not used, the trigger-guard may be slotted at the rear to permit the trigger to play through it.

The fire-arm represented is constructed to fire metallic cartridges with the percussion-powder in the butts of the cartridges, and the cock is fitted with a beak, which strikes the butt of the cartridge through a slot in the upper part of the breech-pin. The cartridge is made up in the usual manner of metallic cartridges with percussion-powder in the flange at the butt of the cartridge, so that a portion of the percussion-powder is opposite the beak of the cock, whichever side of the cartridge be placed uppermost.

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

1. The combination of a breech-pin sliding toward and from the butt of the barrel in a recess in the stock, and a lock, the combination being such that the breech-pin and lock move together in the recess in the stock, substantially as set forth.

2. The combination of the said breech-pin and lock with a guide-bolt, substantially as set forth.

3. The combination of the said breech-pin and lock with guide-screws to guide the butt of the breech-pin, substantially as set forth.

4. The combination of the said breech-pin and lock with a trigger-guard moving with them, substantially as set forth.

In testimony whereof I have hereunto subscribed my name.

CHRISTOPHER C. BRAND.

Witnesses:

JOHN W. STEDMAN,

WM. L. BROWN.