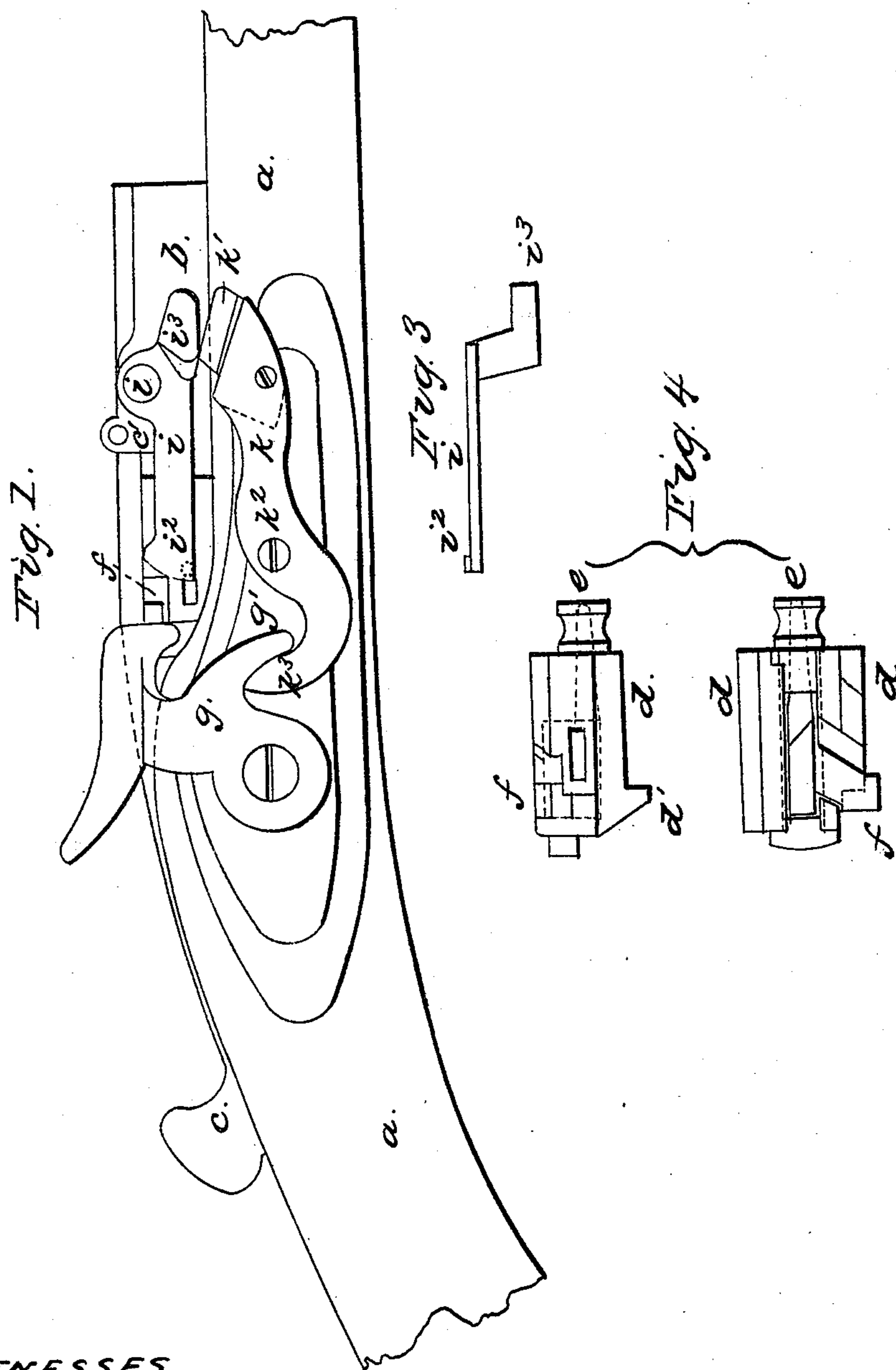


W. RICHARDS.

Breech-Loading Fire-Arm.

No. 89,889.

Patented May 11, 1869.



WITNESSES

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Mg. Pub Bure:
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INVENTOR

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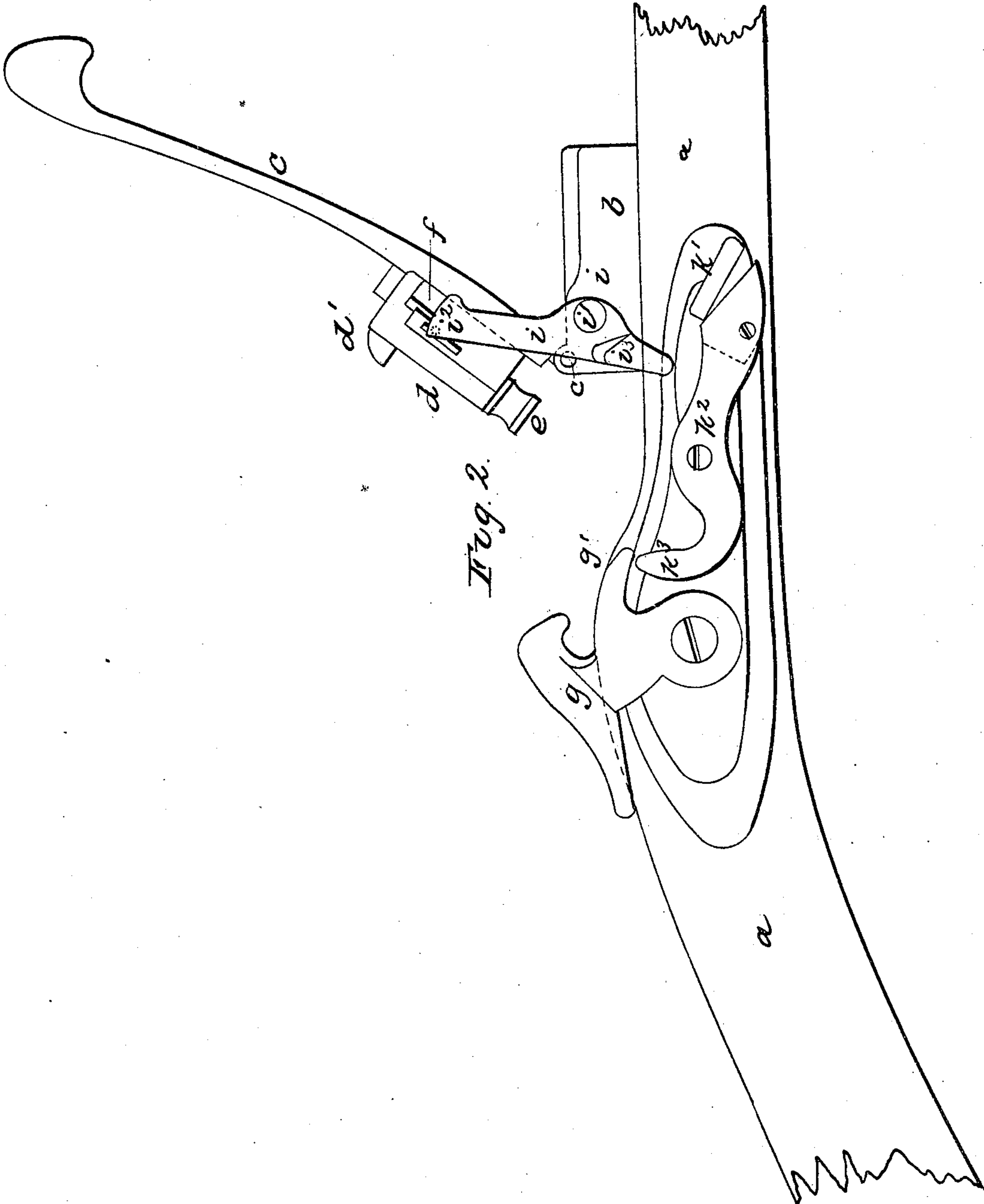


Fig. 2.

WITNESSES

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Westley Richards.

United States Patent Office.

WESTLEY RICHARDS, OF BIRMINGHAM, ENGLAND.

Letters Patent No. 89,889, dated May 11, 1869.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

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

To all to whom it may concern:

Be it known that I, WESTLEY RICHARDS, of Birmingham, in the county of Warwick, England, a subject of the Queen of Great Britain, have invented or discovered new and useful "Improvements in Fire-Arms;" and I, the said WESTLEY RICHARDS, do hereby declare the nature of the said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof; that is to say—

This invention has for its object improvements in fire-arms.

In breech-loading fire-arms, in which the breech is opened and closed by a lever moving on a transverse horizontal axis, and in which, also, a lock, with an external hammer is employed, I connect the breech-lever, by means of intermediate instruments, with the hammer, in such manner that the movement of the breech-lever to open the breech, raises the hammer to full cock.

The breech-lever is connected with one end of a bent lever jointed near the breech-end of the barrel. The other end of the bent lever, which is consequently depressed when the breech-lever is raised, then bears on a lever centred on the lock-plate at a point intermediate of its length, so as to cause this latter lever to rock on its centre, and in so doing it acts against a suitable projection on the hammer, which is thus raised.

The bent lever may in some cases also conveniently serve to bring back the striker when the breech-lever is raised; and, in order that my said invention may be most fully understood and readily carried into effect, I will proceed to describe the drawings hereunto annexed.

Description of the Drawings.

Figure 1 is a side view of a portion of a breech-loading fire-arm, having my improvements applied to it.

It is represented as it appears when the breech is closed.

Figure 2 is a side view of the same parts as they appear when the breech is open for loading.

a is a portion of the stock.

A shoe is fitted into it, and the barrel, which is not shown in the drawing, screws into the socket *b*, which forms the fore part of the shoe, and in rear of this socket the shoe is of a trough-like form.

c is the breech-lever, hinged to the part *b*, at *c'*.

It carries upon it the block *d*, which is able to slide to and fro a short distance on a guide formed on the under side of the lever.

A plan and side view of this block are shown in Figures 4.

e is a stopper, secured to the fore end of the block, and which, when the breech-lever *c* is down, enters into the bore of the piece and forms the abutment for the base of the cartridge.

d' is an incline on the block, which, as the breech-lever is shut down, comes against the back or end of the trough-like portion of the shoe, and the block is thus guided into its place, the inclined projection *d'* being received into a slot in the bottom of the trough-like portion of the shoe.

Within the block *d*, a longitudinal passage is bored, and it is continued, also, through the stopper *e*, and into it the needle or striker is fitted, and secured to it is a stud, *f*, which projects out through a slot in the side of the block *d*, and stands in such a position that the hammer *g*, when it falls, (the breech being closed,) strikes it, and so drives forward the needle or striker against the priming in the base of the cartridge, which is in the barrel, and fires the piece.

All these parts, however, are such as have heretofore been used, but, according to my invention, I combine with them the levers *i* and *k* in such manner that when the breech is opened the hammer is raised to full cock.

This lever *i*, of which a plan is shown separately at Figure 3, is jointed to the shoe, at *i'*. At one end it has a stud, *i''*, formed upon it, which enters a groove or recess in the block *d*, and so causes this lever to move with the breech-lever, and at the other end it has a nose, *i'''*, which, as the breech-lever is raised, presses upon the inclined end *k'* of the lever *k*, and forces it downwards.

The lever *k* is centred to the lock-plate at *k''*, and its further end *k'''* then acts on the projection *g'* of the hammer, and lifts it as it is shown at fig. 2. Also, as the breech-lever is raised, the end *i'''* of the lever *i*, in consequence of the relative positions of the axes of the breech-lever and of the lever *i*, will press against the stud *f* of the needle or striker, and will push it back so as to insure its not striking the priming of the cartridge on closing the breech.

When the breech-lever is put down, the nose *i'''* of the lever *i* is able to pass the lever *k* freely, the inclined end *k'* being jointed to the other part of the lever, so as to be able to yield and let the nose of the lever *i* pass. Also, as the breech is closed, the end *i'''* of the lever *i* recedes from the stud *f* of the needle or striker, and leaves it free to be acted on by the hammer.

What I claim, is—

The combination of the breech-lever, and its stopper, (constructed to be turned upward and forward to open the breech,) with the hammer, through the intermediate cocking-lever *k*, the combination being and operating substantially as set forth.

Also, the combination of the breech-lever and its stopper, (constructed to be turned upward and forward to open the breech,) with the hammer, by means of the intermediate levers interposed between the breech-lever and the hammer, the whole constructed to operate substantially as before set forth.

Also, the combination of the breech-lever and its sliding block, with the plunger and the lever *i*, substantially as set forth, to draw back the plunger as the breech opens, and thus prevent accidental explosions.

Also, the combination of the lever *i* with the jointed end *k'''* of the cocking-lever, as set forth.

WESTLEY RICHARDS.

Witnesses:

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