S STRONG.

Breech-Loading Fire-Arm.

No. 37,208 Patented Dec. 16, 1862.

Fig: 1.

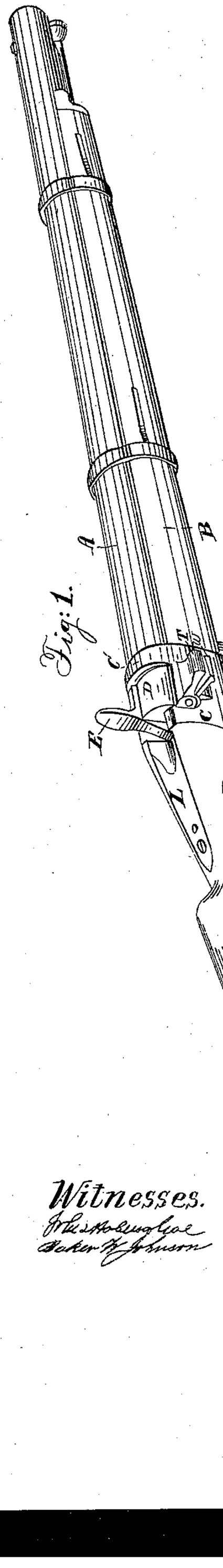


Fig: 2.

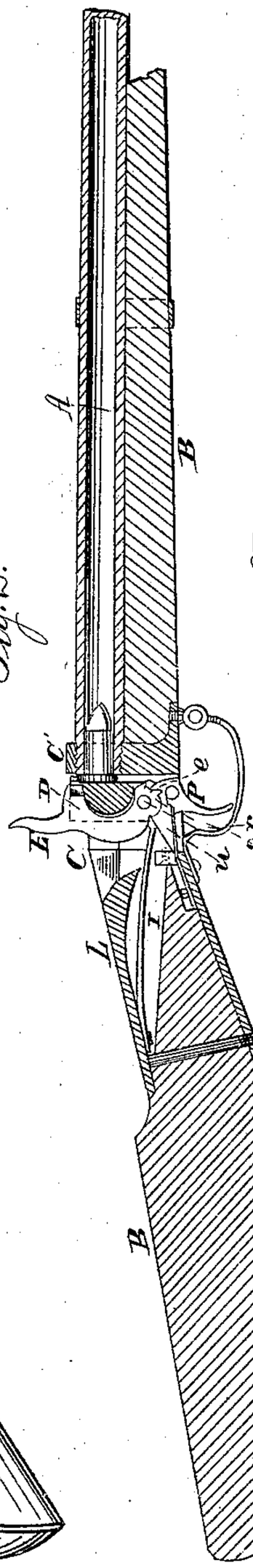


Fig: 4.

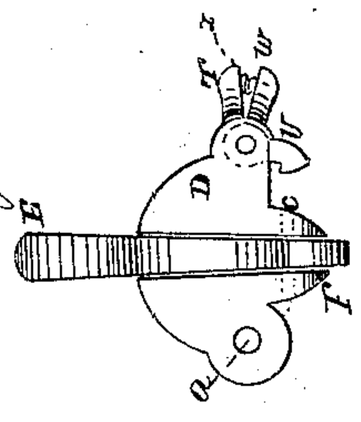
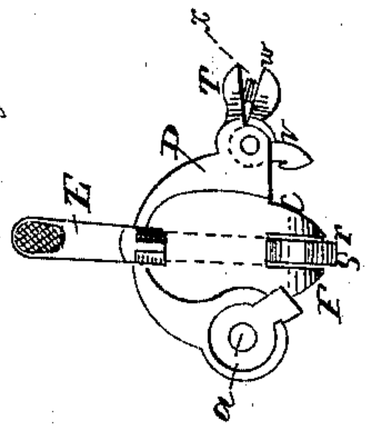


Fig: 3.



Witnesses.

J. Ellis Hollingshead

Baker H. Johnson

Inventor.

Samuel Strong

UNITED STATES PATENT OFFICE.

SAMUEL STRONG, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **37,208**, dated December 16, 1862.

To all whom it may concern:

Be it known that I, SAMUEL STRONG, of Washington, in the District of Columbia, have invented new and useful Improvements in Breech-Loading Fire-Arms, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a view in perspective of a musket with my improvements applied thereto. Fig. 2 is a vertical longitudinal section of Fig. 1, showing the interior mechanism. Fig. 3 is a front elevation of the hinged gate and hammer detached for the purpose of showing its construction more clearly. Fig. 4 is a rear elevation of the hinged gate and hammer also detached.

The nature of my invention consists in mounting the hammer upon and securing it to the hinged gate and notching the face of the hammer at such a point in relation to the trigger that in the act of closing the gate to its seat in the breech the trigger will enter this notch and raise the face of the hammer off the cartridge; also, in dividing the projection on the gate, by which it is operated, or securing to its lower surface a spring-catch, which takes into a notch formed in the side of the breech to retain said gate in position when closed; and the arrangement of the gate, hammer, trigger, and mainspring, the gate and hammer leaving the mainspring and trigger in loading the piece, and when the gate is closed the trigger entering the first notch and the mainspring bearing against the heel of the hammer to retain the trigger firmly in this notch, the whole so constructed that unless the gate is fully closed to its seat the hammer cannot be raised to full cock.

Like letters indicate similar parts in all the figures.

To enable others skilled in the art to make and use my improved breech-loading gun, I will proceed to describe the same in detail.

A in the annexed drawings represents the barrel of a musket of any desired kind, and stocked in the usual manner, with the exception that the stock B is divided to admit the breech C, into which the barrel A is secured, and upon which the lock is mounted and operates. This breech is slotted transversely to admit a hinged gate, D, which is pivoted at *a* to the side of this breech, and opens to admit the cartridge into the chamber of the barrel and to withdraw the empty metallic cases, and when closed retains the cartridges in the chamber while being discharged, and is also slotted longitudinally to admit the lower projecting part, F, of the gate D and the trigger P. Upon this hinged gate D is mounted the hammer E, which is pivoted at *c* to the projecting ears F. The rear face of the gate D is grooved to admit the front edge of the hammer E in part, as seen in Figs. 2 and 4. The front face of the hammer E is provided with notches *r s* at such points with relation to the trigger P that in the act of closing the gate D the point *e* of the trigger P enters the notch *r* and raises the face of the hammer off the cartridge and retains it in that position until drawn to full-cock and the piece discharged, or the hammer lowered to the notch *r* by holding the trigger P clear of the notch *s*. This trigger P is retained in position by means of a sear-spring, *u*, bearing upon it in the usual manner. The mainspring I, operating the hammer, is secured to the tang L, and bears against a shoulder, *i*, formed on its lower rear side, and not being attached thereto by a swivel or otherwise, in order that the gate may open and close, carrying the hammer with it. When the gate is open, the hammer is removed, so that the cartridge may be readily inserted into the chamber of the barrel, and when the gate is closed the hammer will be in position to either discharge the piece by cocking it to the notch *s* or to be carried or handled with safety, the trigger bearing in the first notch, *r*, raising the face of the hammer off the cartridge, and the mainspring I, bearing against the shoulder *i*, holds the front face of the hammer in the groove in the gate, as shown in Fig. 2. In notching the breech C to admit the gate D, sufficient material is left on the front C′ to receive the barrel, which is secured therein by means of a screw-thread, Fig. 2. The hammer being attached to the hinged gate, all possibility of premature explosion is removed, as it cannot be raised to full-cock unless the cartridge is in place in the chamber and the gate D fully closed to its seat in the breech. To retain the gate D in position while the piece is being discharged, the handle or projection T on the gate D is halved, and the lower half, *w*, is pivoted to the upper half, T, Figs. 3 and 4. Projecting from the pivoted end of the lower half, *w*, downward, and at right angles thereto, is a catch, V, which takes

into a notch formed in the side of the breech C, and holds the gate D firmly closed while the piece is being discharged or otherwise used. The catch V is shown in position in Figs. 3 and 4, detached and engaged in the notch in Fig. 1. To disengage the catch V from the breech C and to open the gate D, the thumb is placed upon the top half, T, and, closing the fingers against the lower half, *w*, the catch is disengaged from the notch in the breech and the gate released. Between these halves is placed a spring, *x*, so that when they are released by the thumb and fingers in closing the gate the lower half is thrown down in position and the gate locked by the catch V taking into the notch in the side of the breech C.

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

1. Mounting the hammer upon and securing it to the hinged gate, and notching the face of the hammer at such a point relative to the trigger that in the act of closing the gate to its seat in the breech the trigger will enter this notch and raise the face of the hammer off the cartridge, as described.

2. In dividing the handle of the gate by which it is operated, or securing to its lower surface a spring-catch, V, which takes into a notch formed in the breech, in the manner set forth.

3. The combination and arrangement of the gate, hammer, trigger, and mainspring independent, and so constructed that unless the gate is fully closed the hammer cannot be raised to full-cock nor the piece discharged in any other position.

SAMUEL STRONG.

Witnesses:
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