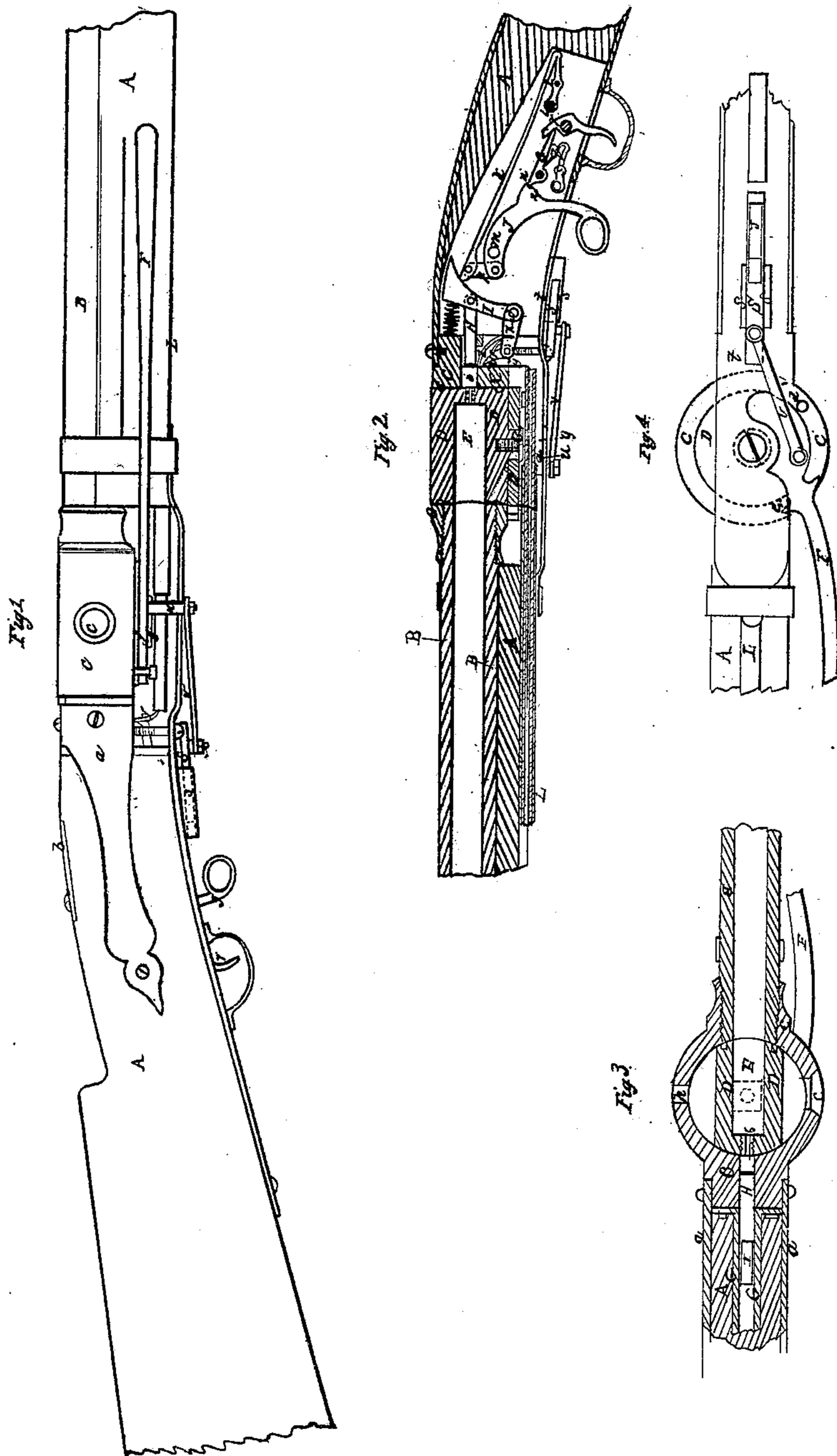


BROOKS & WALKER.  
Breech-Loading Fire-Arm.

No. 20,776

Patented July 6, 1858.



# UNITED STATES PATENT OFFICE.

E. BROOKS AND G. WALKER, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 20,776, dated July 6, 1858.

*To all whom it may concern:*

Be it known that we, ENOCH BROOKS and GEORGE WALKER, both of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view of a breech-loading carbine with our improvements. Fig. 2 is a vertical longitudinal section of the breech, lock, and parts of the barrel and stock. Fig. 3 is a horizontal section of the same. Fig. 4 is an inverted plan of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in a novel construction of the lock for the purpose of enabling the hammer to be cocked by the movement of a breech of faucet-like construction.

It also consists in certain means of cocking the hammer by the aforesaid movement.

To enable others to make and use our invention, we will describe its construction and operation.

A is the stock of the gun.

C is the breech-holder, consisting of a circular metal socket secured to the stock by plates or metal straps *a a*, and having its axis upright when the gun is held in a horizontal position for firing.

B is the barrel, screwed into the front of the breech-holder.

D is the breech, constructed like the plug of a faucet, and fitted to the holder C, in which it is confined by a washer, *f*, and screw *g*. This plug is cut away on opposite sides, as shown in Fig. 3, to prevent it becoming clogged up by constant use. This breech contains the chamber E, and is furnished with a lever, F, by which to turn it to bring the mouth of the chamber opposite to an opening, *e*, in one side of the breech-holder to receive a charge inserted in said opening, and afterward to turn it to a position to bring the chamber in line with the barrel. The movement of the breech is regulated by two stop-pins, *d e*, in the breech-holder. There is another opening in the breech-holder opposite to the opening *e*, for the purpose of cleaning the vent 6, when

necessary, the vent coming opposite to said opening when the mouth of the chamber is opposite to the barrel.

The working parts of the lock are all arranged between two plates, G G, which are formed with flanges on their front ends, and are bolted to the breech-holder C.

H is the hammer, consisting of a straight steel bolt fitted to slide through an opening, *i*, in the breech-holder, and jointed to a vibrating arm, I, which works upon a fixed pivot, *j*, that is secured in the plates G G. The back part of this arm is curved in the manner shown in Fig. 1.

K is the mainspring, secured to the plates G G by two pins, *l l*, and arranged to bear against the curved back side of the hammer-arm I.

J is a lever working on a fixed pivot, *m*, between the plates G G, and protruding from below the stock. This lever J serves the purpose of the tumbler of the ordinary gun-lock by its being provided with notches *n n'* to receive the sear *o*, and it is connected with the mainspring K by a stirrup or link, *p*. *q* is the sear-spring. *r* is the trigger.

S is a slider fitted into a guide, *s*, under the bottom plate, *t*, of the stock, and connected with a wrist-pin, *u*, on the breech D by means of a rod, *v*, the object of said slider being to force back lever J to cock the gun by the act of opening the breech to load.

L is a tube fitted to the bottom of the front portion of the stock to contain a ribbon priming, *y*, which passes through the open rear end of the said tube and up through a cavity in the back of the breech-holder C.

W is a small dog attached to an arm, *x*, that is attached to the hammer-arm I, for the purpose of feeding up the priming *y*.

L is an elastic dog attached to the lock-plates G G, for the purpose of preventing the dog *w* drawing back the ribbon *y*.

The operation is as follows: To load the piece the lever F is pulled away from the side of the stock as far as permitted by the stop *d*, which turns the breech a quarter of a revolution and brings the mouth of the chamber opposite the opening *e*, and permits the insertion of the charge, either a cartridge or loose powder and ball being employed, as may be convenient. The above-described movement of the breech carries back the slider S

against the lever J, and drives back the lower portion or handle thereof, which protrudes through the stock, and thus pulls down the upper portion thereof and the end of the mainspring, thus permitting the hammer-arm I and hammer H to be thrown back by a spring, 5, provided for the purpose, as shown in Fig. 2, and bringing the cock-notch *n'* to a position for the sear to enter into it and cock the lock. The above-described movement of the hammer-arm causes the arm *x* and dog *w* to move upward and said dog to feed up the priming *y*. The charge having been inserted and the lever F moved back to the side of the stock, the gun is ready for firing. The pull on the trigger to fire the gun throws the sear *o* out of the notch *n'* and permits the mainspring to fly up, in doing which it passes along the curved back side of the hammer-arm I and drives the same and the hammer forward, and causes the latter to cut off a piece of the priming-ribbon and drive the same against the vent with sufficient force to cause it to be fired and to fire the charge.

The lock may be cocked and uncocked by aid of lever J without moving the breech.

We do not claim the faucet-like construction and manner of applying the movable breech; but

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The attachment of the hammer to an arm, I, having a curved back, to which the mainspring K is applied, to operate in the manner substantially as described.

2. The arrangement of the cocking-lever J, the sear *o*, and trigger *r*, as applied in combination with the mainspring K and hammer-arm I, substantially as herein set forth.

3. Combining the cocking-lever J with the breech by means of a slider, S, rod *v*, and wrist-pin *u*, applied, as described, to cock the lock by the movement given to the breech to permit the loading.

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Witnesses:

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