(No Model.)

# G. HUNTLEY.

## BREECH LOADING FIRE ARM.

No. 345,902. Patented July 20, 1886.

Fig. 1

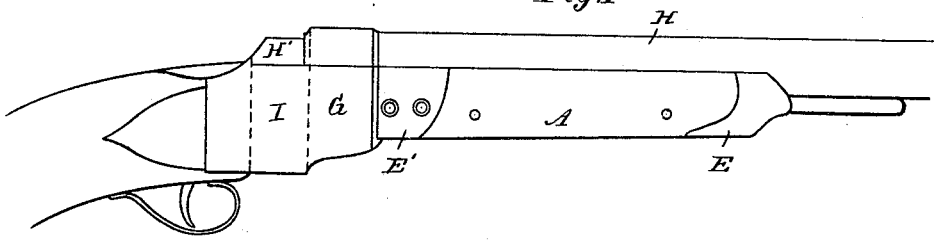



Fig. 3

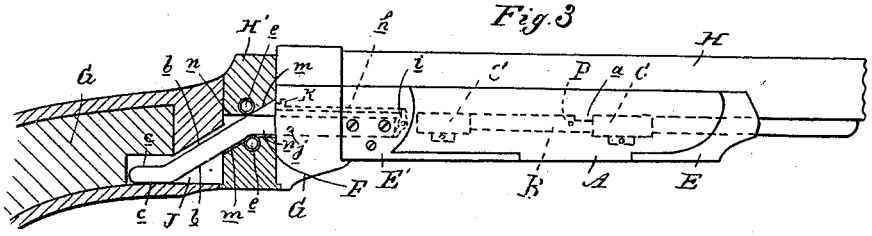



Fig. 2

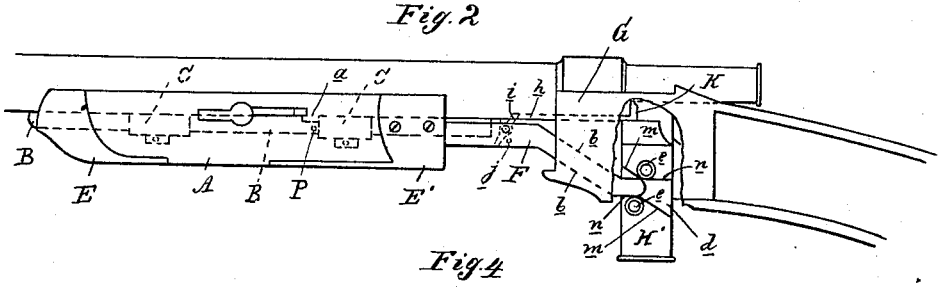



Fig. 4

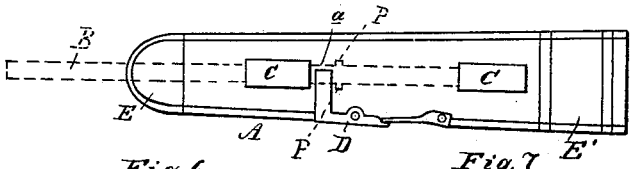



Fig. 6

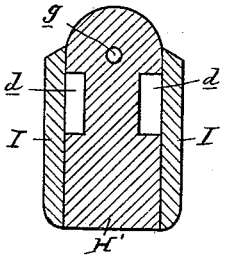



Fig. 7

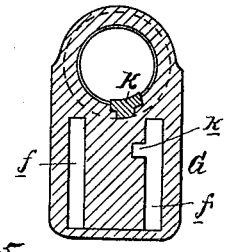
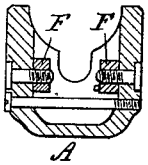



Fig. 5

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Thos. J. Sprague

# UNITED STATES PATENT OFFICE.

GIBBS HUNTLEY, OF BAY CITY, MICHIGAN.

## BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 345,902, dated July 20, 1886.

Application filed May 10, 1886. Serial No. 201,661. (No model.)

*To all whom it may concern:*

Be it known that I, GIBBS HUNTLEY, of South Bay City, in the county of Bay and State of Michigan, have invented new and useful Improvements in Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to a new and useful improvement in breech-loading fire-arms; and it consists in the improved means for operating the breech-block, and, in connection therewith, of the means for operating the extractor, all as more fully hereinafter set forth.

In the drawings which accompany this specification, Figure 1 is a side elevation of my improved breech-loading fire-arm. Fig. 2 is a similar side elevation with the side of the breech left off to more fully disclose the breech-block, which latter is shown in its depressed position. Fig. 3 is a corresponding view to Fig. 2, with the breech-block in its raised position. Fig. 4 is a plan of the fore end detached. Fig. 5 is a cross-section of the fore end. Fig. 6 is a cross-section of the breech-block. Fig. 7 is a cross-section of the breech.

The fore end, A, fits against the under side of the barrel, as usual, but slides on a guide-rod, B, by means of the bushings C, secured to the fore end and sliding on the guide-rod, which latter is fastened to the under side of the gun-barrel. Stops P on the guide-rod prevent the fore end from being pushed forwardly any farther than shown in Fig. 2.

In its retracted position (shown in Figs. 1 and 3) the forearm is locked in place by the spring-latch D, which engages with its free end into a notch, *a*, cut into the guide-rod. E and E′ are metal tips secured to the fore end.

F F are two sliding bars, fastened to the rear part of the fore end. They project rearwardly for a distance in line with the gun-barrels, then they turn off on an angle with said line, and finally turn back again parallel to said line, thereby forming the inclined planes *b b* and the straight planes *c c* on top and bottom of said sliding bars.

G is the forward end of the gun-stock, to which the barrel (or barrels) H is secured.

H′ is the breech-block. It moves vertically in a mortise between the cheek-plates I, and is provided with mortises *d*, which form the inclined planes *m*, corresponding with the inclines *b* of the sliding bars, and the straight planes *n*, corresponding with the planes *c* of said sliding bars, all so arranged that the forward motion of the fore end will, by reason of said engagement, slide down the breech-block into the position shown in Fig. 2, while the rearward motion of the fore end will slide it up again into the position shown in Figs. 1 and 3, thus opening and closing the breech.

To reduce the friction, anti-friction rollers *e* are preferably placed on the upper and lower sides of the mortises *d* in the breech-block.

The sliding bars F pass through slots *f* in the forward end, G, of the gunstock, and the standing breech J is suitably cut away to accommodate the rear ends of such sliding bars when the breech is closed.

A suitable pin-hole, *g*, is provided in the breech-block for the firing-pin to pass through.

K is the ejector, of known construction and operation. It has a forwardly-projecting arm, *h*, which is connected at the opposite end to a little lever, *i*, which is pivotally secured to the under side of the gun-barrel, and a pin, *j*, is secured to one of the sliding bars, to strike said lever when the fore end is pushed forwardly and operate it in the desired manner. The slot *k*, in Fig. 7, permits the passage of the pin *j*.

In practice, the left hand, in naturally taking hold of the gun at the fore end, depresses the latch with the thumb, and then with a push the fore end is moved toward the muzzle as far as it will go. This movement carries with it the sliding bars, which, in moving through the mortises in the breech-block, slide the latter down, thus opening the breech. The breech-block, it will be seen, has slid down the full distance before the slides F have been fully drawn forward, as shown in Fig. 2. Thus the breech-block is out of the way before the pin *j* strikes the lever *i* and projects the ejector. In loading, the ejector is pushed home with the cartridge, and a pull with the left hand brings the fore end home again and slides the breech-block up to its place.

I have not described any particular lock, as most any ordinary lock now in use may be used in connection with my improvement.

The cheek-plates between which the breech-block slides I make of case-hardened steel, about one-fourth of an inch thick, and as the breech-block slides at right angles to the line of discharge it is impossible to blow it out.

In moving the breech-block by means of inclined slides or planes I get the simplest kind of a movement, which combines great strength with a positive action. It will likewise be observed that the movement is extremely handy, whether it is used for single or double shot-guns or rifles, the left hand being always kept in its natural position on the gun, as well as the right.

As a displacement of the fore end of about two inches accomplishes the desired result, it will be conceded that compared with the lever movement, where the right hand describes a circle of eight or ten inches, my movement is much the faster in point of time.

I am aware that the vertically-sliding breech-block is not new of itself. I am also aware of the Patent No. 255,894, and make no claim to the construction shown therein as forming part of my invention; but

What I claim is—

1. The combination of a vertically-sliding breech-block, of a movable fore end arranged to slide in line with the gun-barrel, and of inclined guides or planes carried by the fore end and breech-block, and arranged to interact upon each other to slide the breech-block up or down by the forward or backward motion of the fore end, substantially as described.

2. In combination, a vertically-sliding breech-block, a movable fore end which moves in line with the barrel, a sliding bar attached to the fore end and having an incline, *b*, and a mortise, *d*, in the breech-block, having a corresponding incline, *m*, all arranged to operate as described.

3. In combination, the vertically-sliding breech-block H′, having mortises *d*, forming inclines *m*, the movable fore ends, A, sliding in line with the barrel, and the sliding bars F, attached to the fore end and having inclines *b*, all arranged substantially as described.

4. In combination, the vertically-sliding breech-block H′, provided with mortises *d*, forming guide-planes *m n*, the movable fore end, A, sliding in line with the gun-barrel, the sliding bars F, attached to the fore end and forming guide-planes *b c*, the ejector K, having arm *h* and lever *i*, pivoted to the gun-barrel, and the pin *j* on one of said bars, all arranged to operate substantially as described.

5. In combination, the fore end, A, the horizontally-sliding bars F, secured to said fore end, and forming guide-planes *b c*, the vertically-sliding breech-block H′, having mortises *d*, forming the guide-planes *m n*, and the anti-friction rollers *e* in said mortises, all arranged to operate substantially as described.

GIBBS HUNTLEY.

Witnesses:
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W. E. BEARDSLEY.