W. G. WARD.

BREECH LOADING FIREARM.

No. 111,994. Patented Feb. 21, 1871.

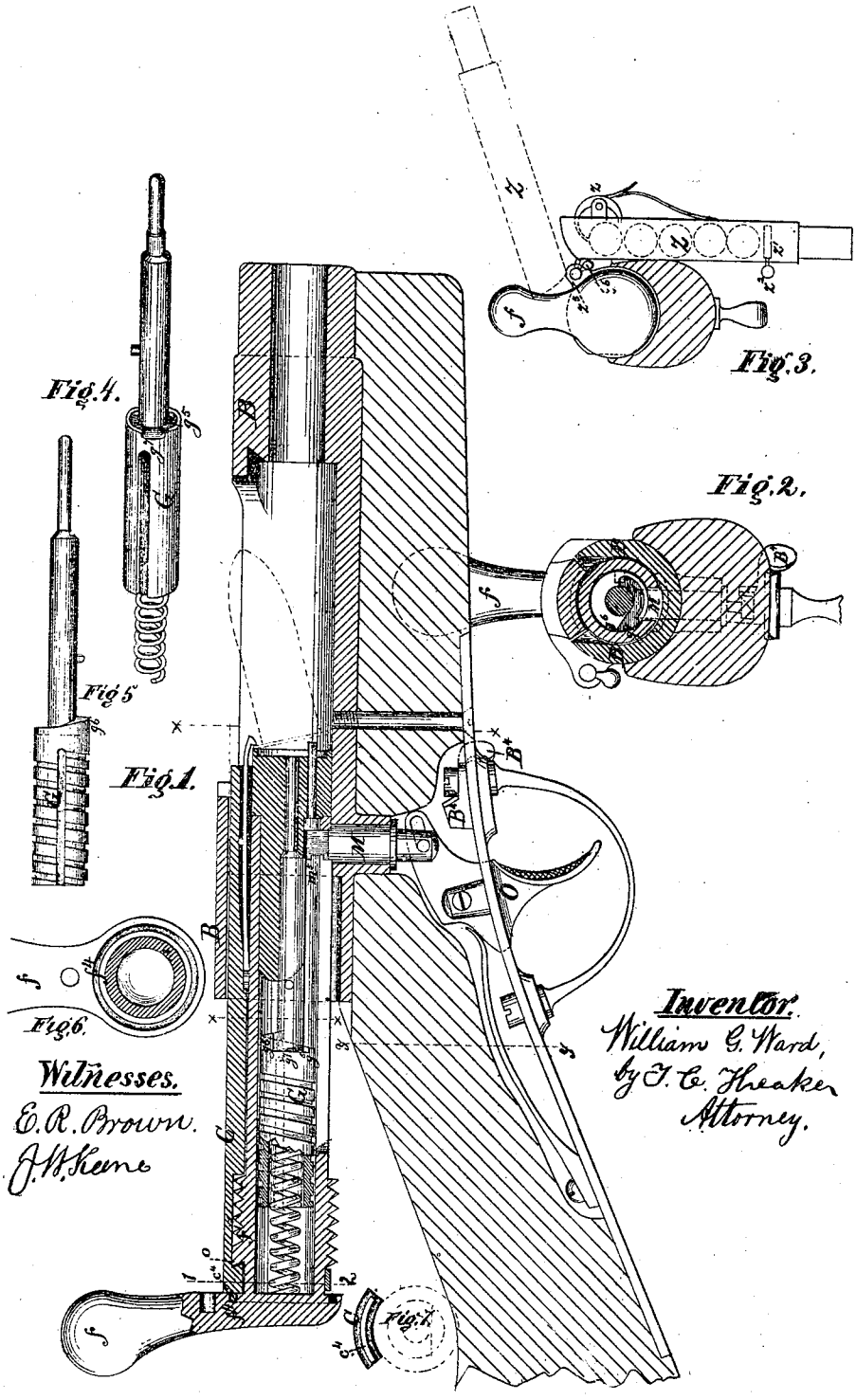

Fig. 3.

Fig. 4.

Fig. 2.

Fig. 5

Fig. 1.

Fig. 6.

Fig. 7.

Witnesses.

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WILLIAM G. WARD, OF EDGEWATER, NEW YORK.

Letters Patent No. 111,994, dated February 21, 1871.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

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

To all whom it may concern:

Be it known that I, WILLIAM G. WARD, of Edgewater, in the county of Richmond and State of New York, have invented a new and useful Improvement in Breech-loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, sufficient to enable those skilled in the art to to which my invention appertains to make and use the same, reference being had to the accompanying drawing making part of this specification, and to the letters and figures marked thereon.

My invention relates to certain improvements in fire-arms for which Letters Patent of the United States were granted to Bethel Burton on the 11th day of August, 1868, (reissued November 2, 1869,) and the 29th day of June, 1869, and to myself on the 29th day of June, 1869, the 31st day of August, 1869, the 7th day of December, 1869, and the 1st day of February, 1870; and

It consists in—

First, a safety device on the front end of the hammer, for engaging with a hook on the upper end of the trigger-bolt;

Second, a cam, on the front end of the hammer, for pressing down the trigger-bolt and diminishing the travel of the trigger;

Third, a stop, for limiting the movement of the trigger and preventing the accidental dropping out of the breech-pin;

Fourth, a combination of devices for preventing displacement of the parts by downward pressure when the breech is open;

Fifth, a combination of devices for attaching, operating, and detaching a magazine.

In the accompanying drawing—

Figure 1 is a longitudinal vertical section of my improved gun.

Figure 2 is a transverse vertical section, taken in the line $x\,x$, fig. 1.

Figure 3 is a rear view, showing a magazine attached to the gun.

Figure 4 is a perspective view of the hammer and firing-pin.

Figure 5 is a side view of the hammer and firing-pin.

Figure 6 is a front view of the handle or lever.

Figure 7 is a rear view of the slide or cover.

On the front end of the hammer G a curved groove, g^3, is formed, extending for about one-fourth of the circumference of the hammer, more or less, as may be desired.

This groove g^3 is of a depth corresponding with a hook, m^5, on the rear side of the upper end of the trigger-bolt, and is abruptly terminated by the formation of a notch, g^7, at such point as that when the parts are in position, shown in figs. 1 and 2, the groove g^3 is ready to engage with the hook m^5 and prevent the withdrawal of the trigger-bolt M by the pulling of the trigger O; but when the lever f is turned down to lock the piece, the notch g^7 is brought opposite the trigger-bolt so that it may be withdrawn by pulling the trigger. If desired the groove g^3 may extend entirely around the hammer, and the notch g^7 may be formed as shown in fig. 4.

When the groove g^3 is formed, as first-above described, I also form, on the front end of the hammer, a cam, g^6, for the purpose of pressing down the trigger-bolt M and diminishing the travel of the trigger.

This cam g^6 is situated on the side of the notch g opposite to the termination of the groove g^3, so that when the lever f is turned down to lock the piece the cam g^6 presses upon the upper end of the trigger-bolt M and forces it down a short distance, thus diminishing the travel of the trigger.

For limiting the movement of the trigger and preventing the breech-pin from dropping out, I employ a button, B^4, (see figs. 1 and 2,) pivoted between the stock and the guard-plate in such a manner that by moving it toward the rear, it rests immediately under the trigger-bolt and prevents it from being drawn down far enough to allow the breech-pin to fall out or be withdrawn from the breech-piece; but, by turning it in the opposite direction, the trigger-bolt is allowed to descend far enough to allow the withdrawal of the breech-pin.

For preventing the possibility of displacement of the parts by downward pressure when the breech is open and the parts are in the position shown in fig. 1, I form on that portion of the bolt which comes in contact with the rear end of the breech-piece or receiver B a groove, f^4, which engages with a tongue, c^4, formed on the rear end of the slide or cover C, (see figs. 6 and 7,) so that when the parts are together the tongue c^4 and groove f^4 hold them together and prevent displacement by engaging with each other, as shown in fig. 1.

The same object may be accomplished by forming the sides of the recess o in the slide or cover C at acute angles with the top of said recess instead of perpendicular thereto, and forming the sectional screw or cam f^1 to correspond therewith, so that when in place they act as a dovetail, as shown in fig. 1.

When desired the fluting or grooving on the rear portion of the hammer G may be arranged spirally or transversely instead of longitudinally, as heretofore.

On one side of the breech-piece or receiver B, at each end of the opening in said breech-piece, I form lugs or enlargements, having sockets to receive the pivots of a magazine, Z, so that it may be suspended,

as shown in fig, 3. The magazine consists of a box or case made of metal or any other suitable material, and of any desired capacity. It is provided with a spring-follower, z^1, which may be held in different positions by means of a thumb-screw, z^2. It is also provided with a spring cut-off, z^3, by means of which the cartridges may be fed out singly.

One of the pivots by which it is attached to the breech-piece is rigid, the other pivot z^6 plays loosely in a casing and is provided with a thumb-piece for drawing it back and a spring for pressing it forward.

When the magazine is turned up and the cut-off z^3 pressed by the thumb or finger the cartridges may be fed into the breech-piece singly.

When not needed for use the magazine may be readily detached from the gun and carried on the belt.

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

1. A groove on the front end of the hammer, constructed to engage with the upper end of the trigger-bolt, substantially as shown and described.

2. The combination of a groove on the front end of the hammer, and a notch in or hook on the rear upper end of the trigger-bolt, substantially as and for the purpose specified.

3. A cam on the front end of the hammer, to press down the trigger-bolt and diminish the travel of the trigger, when constructed substantially as shown and described.

4. The stop B^4, in combination with the trigger, for limiting the movement of the trigger-bolt, substantially as shown and described.

5. The combination of the tongue and groove for preventing displacement of the parts, substantially as shown and described.

6. In combination with a breech-loading fire-arm, provided with lugs z^5, the magazine Z, provided with the pivots z^6, as and for the purpose specified.

W. G. WARD.

Witnesses:
J. W. KEENE,
J. F. WHIPPLE.