O. M. ROBINSON.

BREECH LOADING FIREARM.

No. 103,504. Patented May 24, 1870.

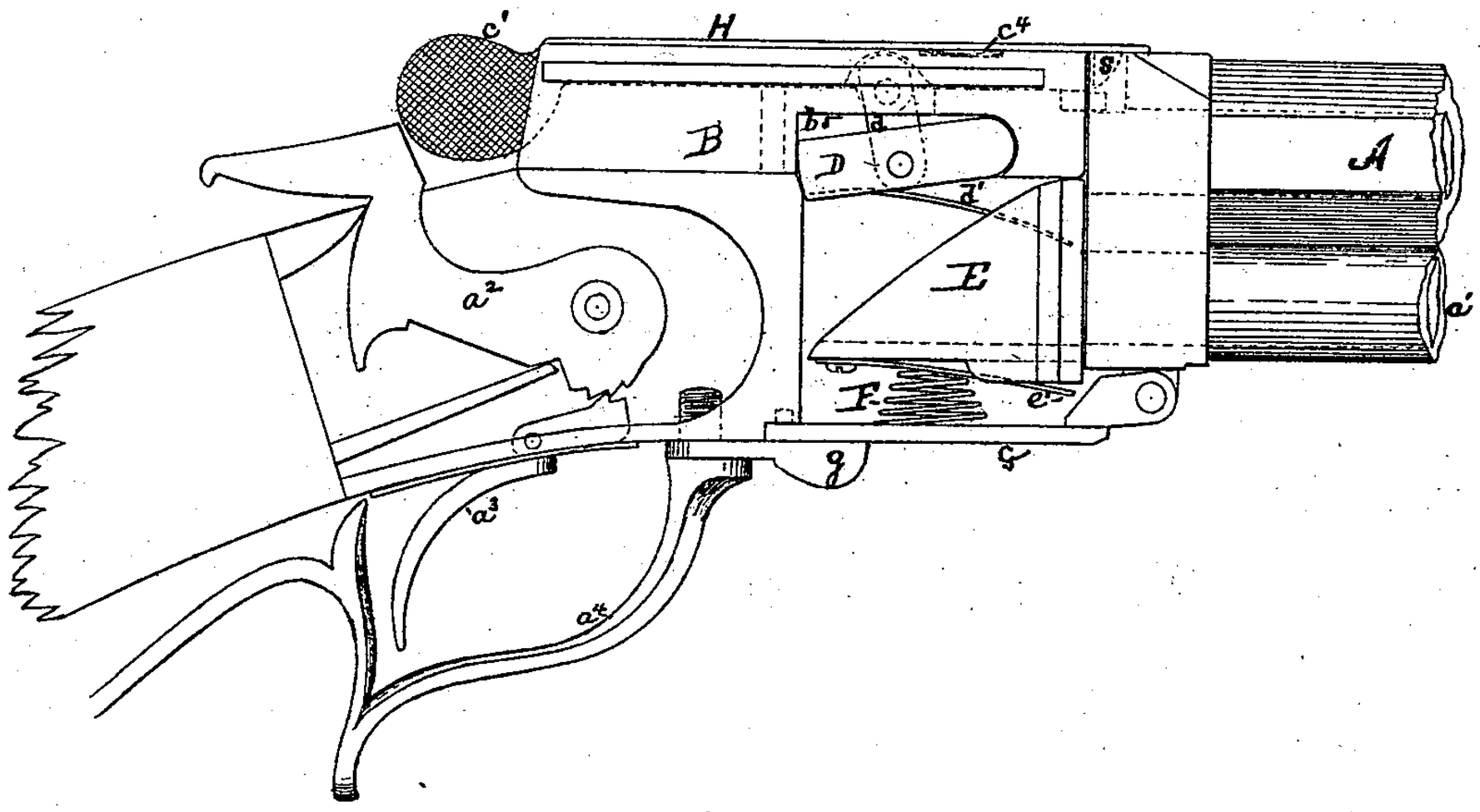



Fig. 2.

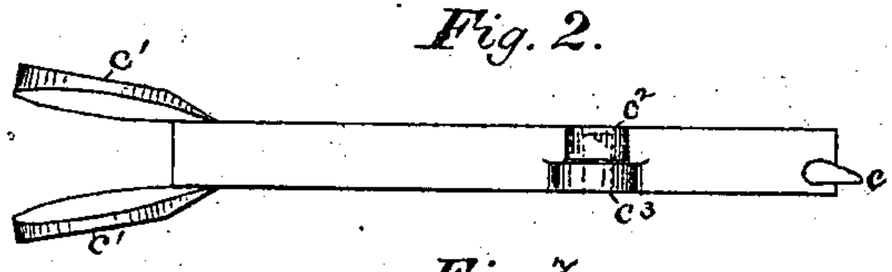



Fig. 3.

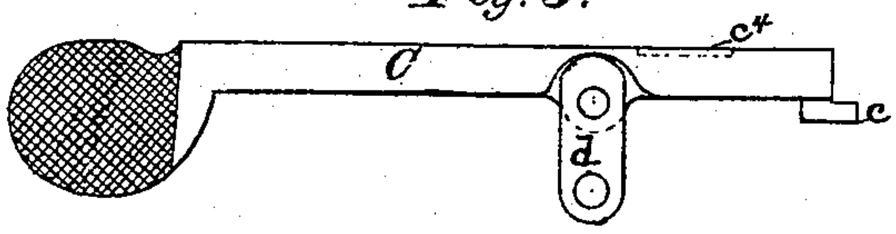



Fig. 6.

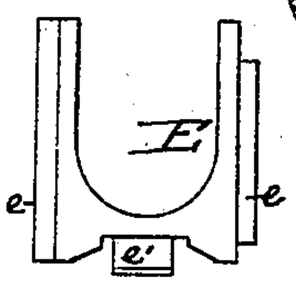



Fig. 4.

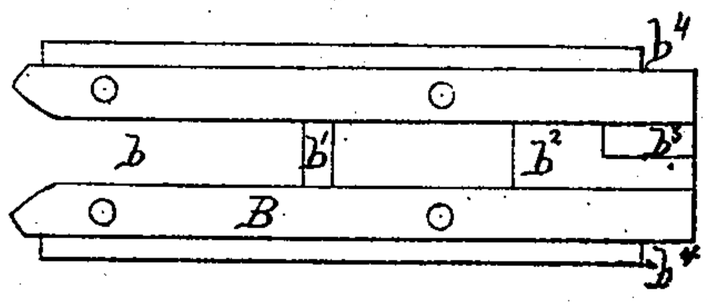



Fig. 5.

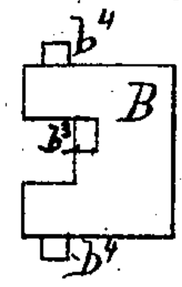
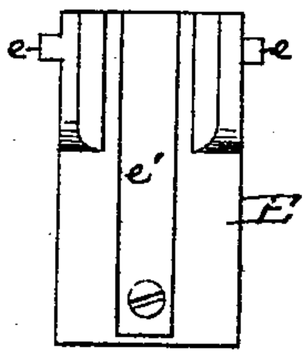



Fig. 7.

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# UNITED STATES PATENT OFFICE.

ORVILL M. ROBINSON, OF UPPER JAY, NEW YORK.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **103,504**, dated May 24, 1870.

*To all whom it may concern:*

Be it known that I, ORVILL M. ROBINSON, of Upper Jay, in the county of Essex and State of New York, have invented a new and useful Improvement in Breech-Loading Guns; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates to that class of guns which uses fixed ammunition in connection with a magazine beneath the barrel, the cartridge being conveyed from the magazine to the breech of the gun by means of a carrier-block, and being exploded by means of a firing-bolt actuated by the hammer; and consists in certain details of construction, which will be fully described hereinafter.

In the drawing, Figure 1 represents a side elevation of my improved gun, with one of the side plates removed to expose the interior mechanism. Figs. 2 and 3 are views of the firing-bolt; Figs. 4 and 5, views of the breech-block; and Figs. 6 and 7, views of the carrier-block.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and method of operation.

A represents the barrel of my improved gun; $a^1$, the magazine; $a^2$, the cock; $a^3$, the trigger, and $a^4$ the trigger-guard. As these parts do not especially belong to my invention, they need not be here particularly described. They may be constructed in any suitable manner.

B, Figs. 1, 4, and 5, represents the breech-block, which is nearly divided into two parts by the longitudinal opening *b*, in which moves the firing-bolt C. It is united, however, by the cross-bar $b^1$ and end piece $b^2$, in which latter is located a depression, $b^3$, which permits the proper movement of the point *c* of the firing-bolt C. The breech-block is also provided with guides $b^4$ $b^4$, which slide in corresponding grooves in the side plates of the lock, which are provided with suitable stops to limit its rearward motion. It has also a recess, $b^5$, Fig. 1, in which is located the brace-block D.

The firing-bolt C is provided with the point *c*, handles $c^1$ $c^1$, recess $c^2$, and projection $c^3$. It has also a recess, $c^4$, in which a small spring is placed for the purpose of holding the bolt against accidental displacement in moving the gun. To it is connected the brace-block D by means of the bar *d*, which is pivoted to it, as clearly shown in Fig. 1. The brace-block is provided with a suitable opening for receiving the end of the arm *d*, and has also attached upon its lower side a spring, $d^1$.

E represents the cartridge-carrier, which is provided with guides *e e*, as shown. Its slides are triangular in shape, as shown in Fig. 1, and its rear elevation is U-shaped, as shown in Fig. 6. $e^1$ represents a flat metallic spring, which is attached directly to the carrier-block.

F represents a spiral spring, located below the carrier-block, which is attached to the hinged cover G. This latter is secured in place ordinarily by means of a button, *g*. H represents a covering-plate, which is secured to the breech-block by any suitable fastening.

The operation is as follows: The cartridges are inserted into the magazine by opening the hinged cover G, and by pressing downward the carrier-block, the gun being inverted and the breech-block being pulled out by the fingers to the limit of its rearward motion. When the magazine is full, the cover G is replaced in position and secured, and the gun is ready for use.

To fire the gun, the hammer must first be brought to a half or full cock, and the breech-block be drawn out by the fingers to the limit of its rearward motion. By means of this movement the carrier-block is permitted to rise, being forced upward by the spring beneath, and brings with it a cartridge, which then rests in line with the breech of the gun. The breech-block is now pushed forward, by which means the cartridge is forced into the breech, and the carrier-block is forced down into its former position. The cartridge is forced into the breech instead of being carried down again by the carrier-block, because it is moved forward by the breech-block, and caused to enter the breech before the downward movement of the carrier-block begins. The gun may now be fired in the usual manner.

It will be observed that the hammer is peculiarly formed, in order to permit the breech-block to slide back readily over it.

The relative movement of the brace-block and firing-bolt should also be observed. The former being connected to the latter by means

of the bar *d*, and, being actuated by it, it is impossible that an explosion can occur until the brace-block is in position.

By means of the covering-plates the breech is entirely closed when the gun is fired. The empty cartridge is drawn back by means of the hook *s* on the covering-plate, and is thrown out by the upward movement of the carrier-block.

The movements necessary to fire the gun after the magazine is filled are as follows: First, to cock it; second, to pull back the breech-block; third, to thrust it forward; and, fourth, to pull the trigger.

The operation of the breech-block is essentially one movement. The parts are all simple and easily manufactured. The gun is not likely to get out of order, is easily operated, and is remarkably safe.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The carrier-block E, when constructed and operating substantially as described.

2. The combination of the firing-bolt and brace-block, substantially as described.

3. The combination of the breech-block, firing-bolt, and brace-block.

4. The combination of the breech-block, firing-bolt, brace-block, and covering-plate, substantially as described.

5. The gun described, provided with a longitudinally-sliding breech-block, firing-bolt, brace-block, and carrier-block, when constructed and arranged substantially as described.

This specification signed and witnessed this 29th day of March, 1870.

ORVILL M. ROBINSON.

Witnesses:
A. S. BABBITT,
A. S. PRIME.