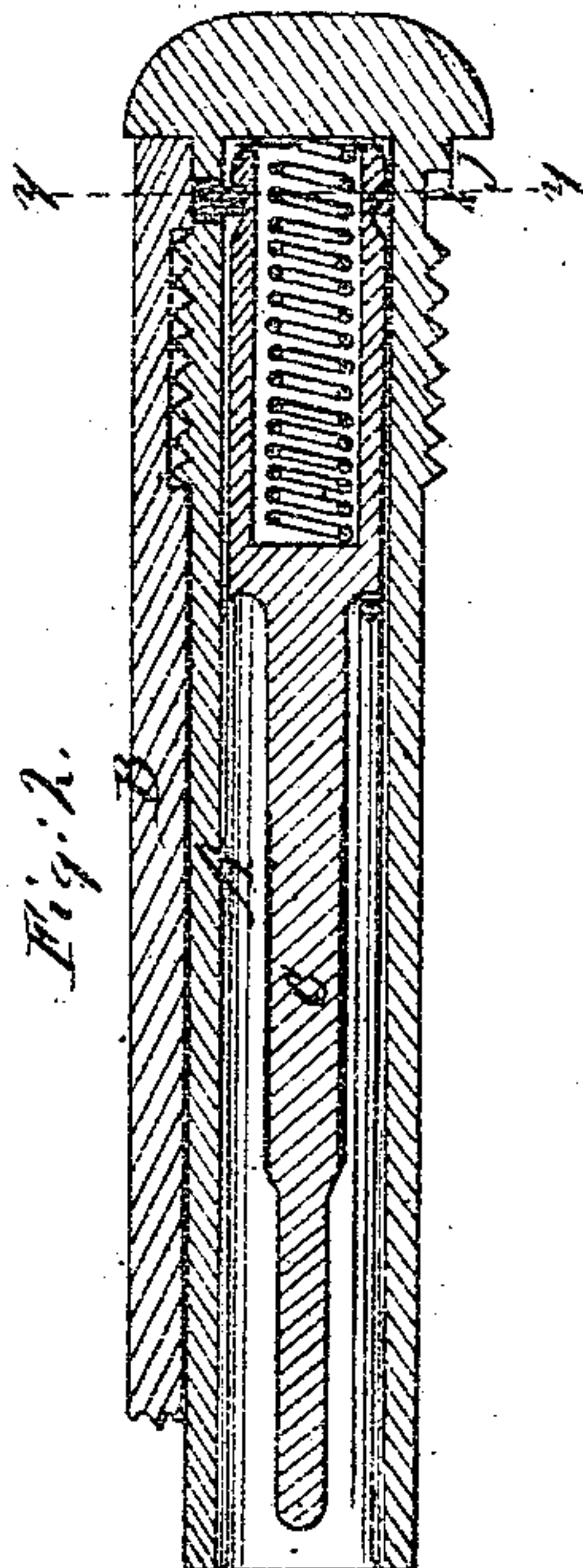
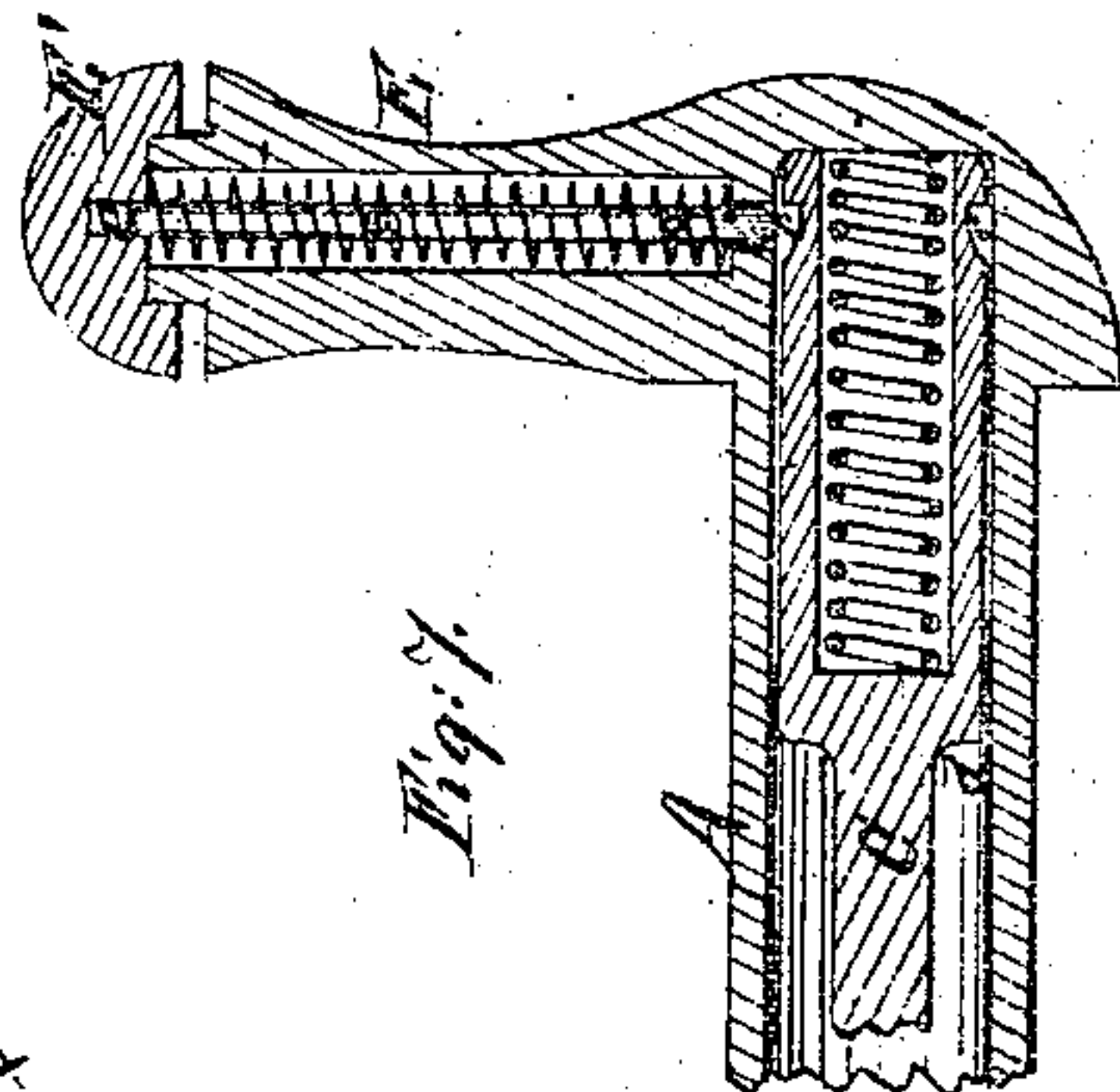
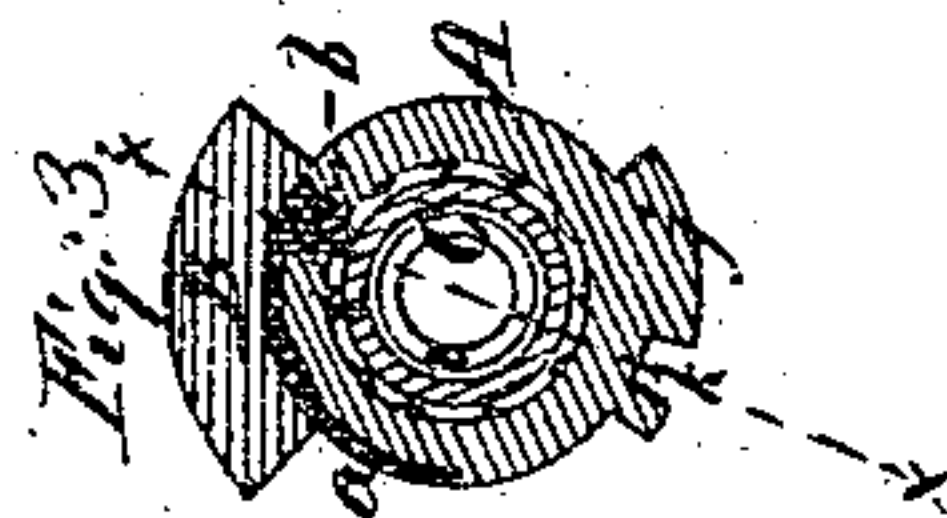
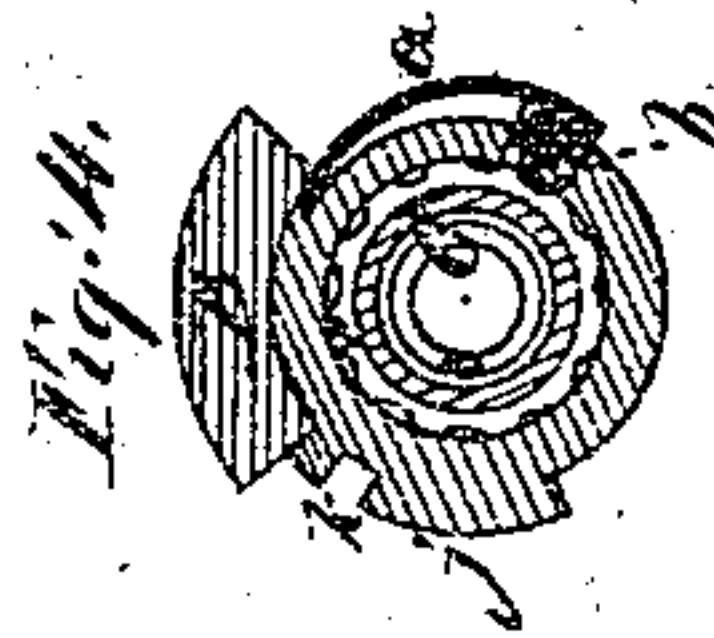
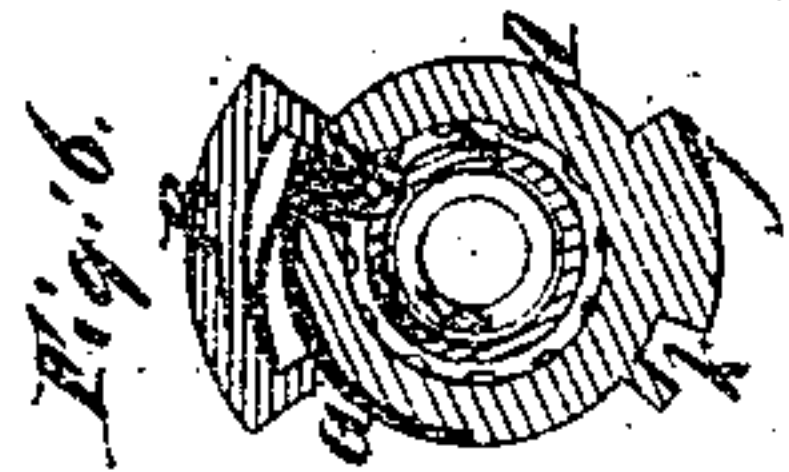


W. G. WARD.

Breech-Loading Fire-Arm.

No. 97,734.

Patented Dec. 7, 1869.



Witnesses.
G. A. Smith.
E. R. Brown.

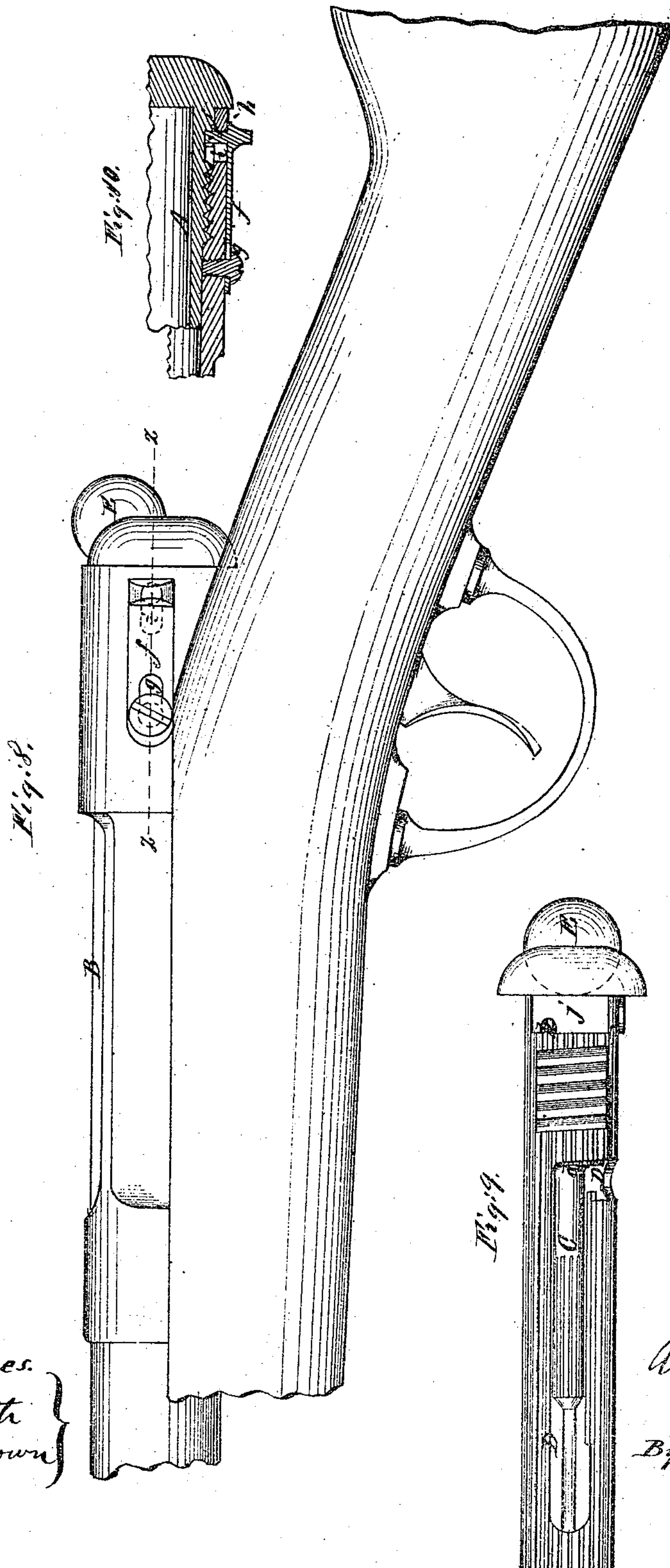
W. G. Ward
Inventor.
By J. C. Theaker
his attorney.

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By J. C. Shaker
his attorney.

United States Patent Office.

WILLIAM G. WARD, OF NEW YORK, N. Y.

Letters Patent No. 97,734, dated December 7, 1869.

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 New York, in the county of New York, and State of New York, have invented a new and useful Improved Breech-Loading Fire-Arm; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of the sliding bolt;

Figure 2, a longitudinal vertical section of the same, taken in the line *x x* of fig. 3;

Figure 3, a transverse section, taken in the line *y y* of fig. 2, when the handle of the sliding bolt is in a vertical position;

Figure 4, a transverse section, taken in the same line of fig. 2, but the bolt has been given a quarter turn to the right;

Figure 5, an elevation of the firing-pin;

Figures 6 and 7 show modifications of my device for holding back the firing-pin;

Figure 8, a side elevation of the breech-piece and part of the stock;

Figure 9, a view of the under side of the sliding bolt; and

Figure 10, a horizontal section of a portion of the breech-piece, sliding bolt, and the locking-device, taken in the line *z z* of fig. 8.

Like letters designate like parts in all the figures.

The nature of my invention consists—

First, in forming the firing-pin of a bolt-gun, with a groove around it, which receives the end of a pin, which is attached to a spring that is secured to the sliding bolt, the object of this part of my invention being to hold the firing-pin back inside the sliding bolt, when it is desired to withdraw a loaded shell from the gun, thus preventing the extractor from throwing it out, and also preventing the accidental discharge of the cartridge during its withdrawal.

Second, in the peculiar construction and arrangement of the locking-device, for holding the operative parts in a fixed position when desired.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawing—

a represents a spring in a recess in the side of the sliding bolt A, and near its rear end.

One end of this spring is secured to the sliding bolt, and on its other end, is a pin, *b*, which fits into a hole in the bolt A.

When the bolt is in proper position for being withdrawn, this spring is on top, as seen in fig. 1, and is under the sliding cap B, as seen in figs. 2 and 3, which forces the pin *b* through the hole in the sliding bolt A, so that, by throwing the bolt A forward, the gun

is cocked, the pin *b* enters the groove *c* in the firing-pin C, and holds it back until it is released by the pulling of the trigger, thus allowing the bolt to be withdrawn, while the firing-pin is held inside, as shown in fig. 2.

The operation of loading and firing is as follows:

The sliding bolt A is drawn back, and the cartridge is placed in the chamber of the breech-piece. By pushing the sliding bolt forward, the cartridge is driven into the barrel. At the same time the gun is cocked, as the sliding bolt, in its forward movement, carries along with it the firing-pin C, until its shoulder *d* strikes the upper end of the trigger-bolt, which projects up into the sliding bolt through the L-shaped slot D, and holds it until the sliding bolt reaches the limit of its forward movement. At the same time the pin *b*, on the spring *a*, enters the groove *c* of the firing-pin, and holds the said firing-pin while the sliding bolt is in position for being moved either backward or forward, but when the sliding bolt is given a quarter turn to the right, after the bolt has been pushed forward, as the spring *a* moves from under the cover B, it draws the pin *b* from the groove *c* in the firing-pin, which is then held by the trigger-bolt.

The two extreme positions of the spring *a* and the pin *b* are shown in figs. 3 and 4. As will be seen by reference to fig. 9, the rear edge of the slot D is parallel to the sectional screw-threads on the bolt A, and when the firing-pin is held back by the pin *b*, the shoulder *d* projects beyond the rear edge of the slot. As the bolt A is turned to the right, the edges of the rear end of the slot will move against the side of the trigger-bolt, thereby forcing the shoulder *d* of the firing-pin back to the rear edge of the slot, thus releasing the pin *b* from the groove *c* in the firing-pin.

Fig. 6 shows a modification of my invention for holding the firing-pin.

Instead of the cover B bearing directly against the spring *a*, I cut a recess, in which is secured a spring, which bears directly on the spring *a*. The object of this is to allow the pin *b* to ride easily over the rear end of the firing-pin before it reaches the groove *c*.

Fig. 7 also shows a modification for the same purpose.

E E' represent the handle of the bolt, which is made in two parts.

The chamber inside the bolt A extends back beyond the centre of the handle.

In the handle E is a hole, in which is inserted a rod or spindle, *e*, around which is a spiral spring, which rests on a shoulder at the lower end of the hole.

On the upper end of the rod *e* is placed the top or end of the handle. When it is desired to hold the firing-pin back, push the bolt forward until the groove *c* of the firing-pin is directly under the rod *e*; then, by

pressing down the end E' of the handle, the lower end of the rod *e* will be forced into the groove *c* in the firing-pin, and held there until the end of the handle is released from pressure.

Figs. 8, 9, and 10, show the device for locking the operative parts.

On one side of the breech-piece, near its rear end, is a slide, *f*, in which is a slot, *g*. This slide is secured to the breech-piece by means of a screw, which passes through the slot *g*.

Near the end of the slide *f* is a pin, *h*, which passes through the slot *g* in the side of the breech-piece.

On the sliding bolt A, between its handle and the sectional screw-thread on its under side, is a projection, *j*, the face of which is on a line with the apex of the sectional screw.

In this projection *j* is a recess, *k*, into which the pin

h is moved when it is desired to lock the bolt, as shown in figs. 8 and 10.

Having thus fully described my invention,

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

1. The combination of the hammer and firing-pin C, provided with the groove *c* at the rear end thereof, with the automatic catch *b*, substantially as shown and described.

2. The combination of the bolt A, spring *a*, and pin *b*, with the hammer and firing-pin C, formed with the groove *c* at the rear end thereof, substantially as shown and described.

W. G. WARD.

Witnesses:

ROBERT WILSON, Jr.,
H. G. CRAIG.