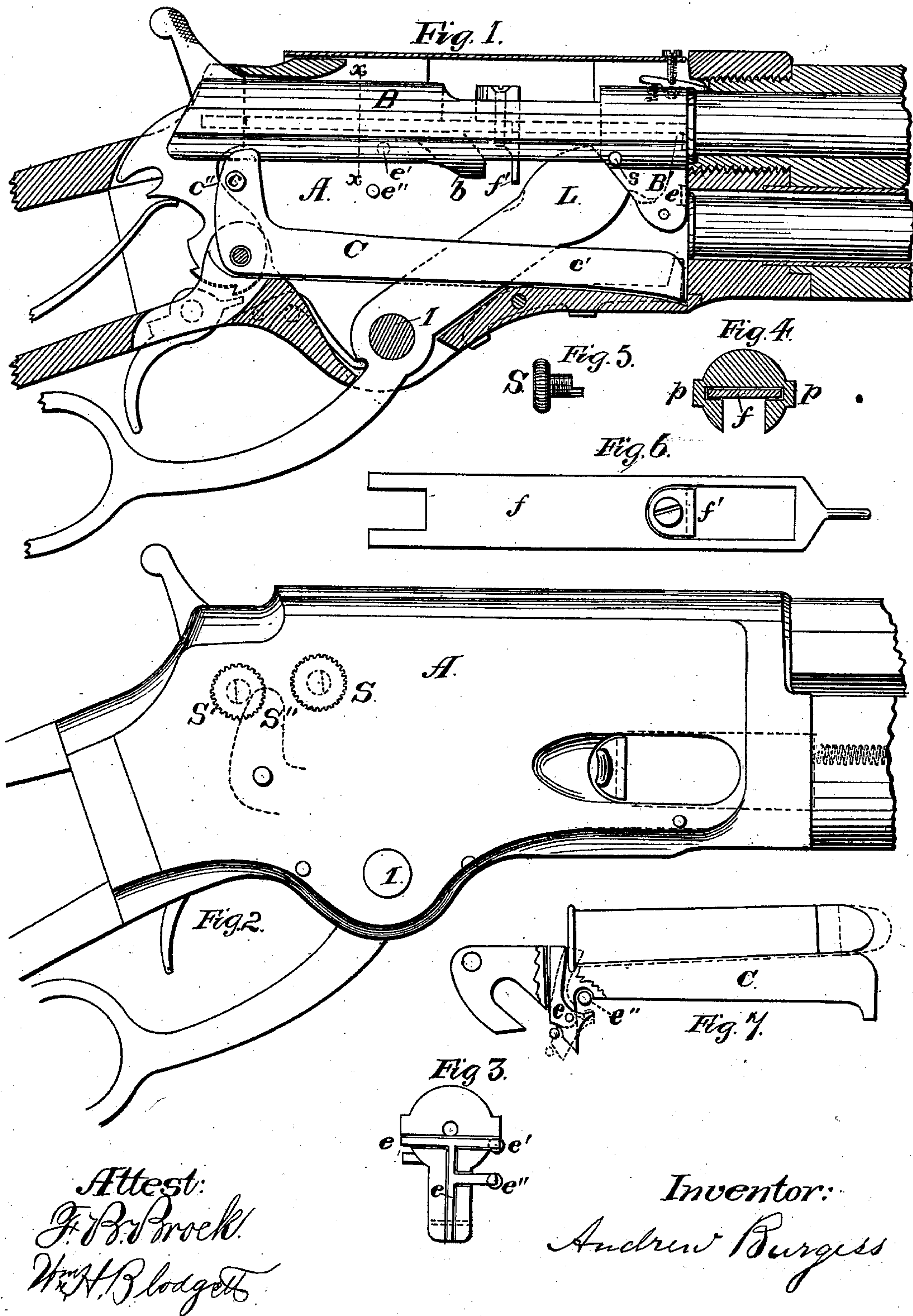


A. BURGESS.
Magazine Fire-Arm.

No. 210,181.

Patented Nov. 26, 1878.



UNITED STATES PATENT OFFICE.

ANDREW BURGESS, OF OWEGO, NEW YORK.

IMPROVEMENT IN MAGAZINE FIRE-ARMS.

Specification forming part of Letters Patent No. **210,181**, dated November 26, 1878; application filed June 12, 1878.

To all whom it may concern:

Be it known that I, ANDREW BURGESS, of Owego, Tioga county, State of New York, have invented a new and useful Improvement in Magazine Fire-Arms, of which the following, in connection with the drawings referred to and forming a part hereof, is a full and complete description.

The general features of this arm are similar to those of the arm shown and described in my application filed October 20, 1877; and the improvements herein claimed are, to some extent, modifications of the construction shown in said application, together with new combinations and details of construction, hereinafter particularly described.

Referring to the drawings, Figure 1 is a vertical longitudinal section of the arm, with the breech-bolt in elevation. Fig. 2 is a side elevation of the frame of the arm. Fig. 3 is an elevation of the front end of the breech-bolt. Fig. 4 is a cross-section of the same on line *x x*, Fig. 1. Fig. 5 represents the stop for limiting the movement of the breech-bolt. Fig. 6 is a plan view of the firing-pin. Fig. 7 is a side elevation of a modified form of the carrier, having the lever for propelling the cartridge into the chamber pivoted thereto.

Referring to the drawing by letters of reference, A is the receiver. B is a longitudinally-reciprocating breech-bolt, which is operated to open and close the breech by the upper extension of the guard-lever L, which is pivoted in the lower part of the frame at 1. The upper end of the lever L projects into a mortise in the under side of the breech-bolt, by which engagement of the bolt and lever is effected to withdraw the former by movement of the latter to open the breech. At the forward end of the bolt, and on its under side, is formed a lug or projection, B', whose rear face forms an arc of a circle struck from the center of the bolt or pivot 1, upon which the lever L is mounted. When the parts are in position for firing, the upper end of the lever L has a bearing on the rear face of this lug B', by which means the bolt is firmly locked in place to resist the force of the explosion. At the sides of the bolt are ribs or feathers, which take into corresponding grooves formed in the interior sides of the receiver, and which help

to resist the upward tendency of the bolt when the arm is discharged.

The firing-pin *f* is a flat bar, as shown in Figs. 4 and 6, with a round point or needle at its front end. It is provided with an opening, as shown in Fig. 6, into which the end of lever L projects when withdrawing the bolt, and by which its point is retracted or withdrawn into the bolt.

The firing-pin is provided with a removable part, *f'*, by which it is retained in its position in the bolt. This removable part projects downward through the opening in the bolt, and serves also to prevent the forward movement of the pin to fire the cartridge until the bolt is securely locked, by reason of its lower part coming in contact with the locking-lever L; and if the latter is not fully in its place to lock the bolt the force of the hammer will drive it into its proper position before the point of the firing-pin can reach the cartridge.

C is the carrier, pivoted on the same bolt or pivot with the hammer. This carrier is of such width as to allow of an opening being formed in its body, through which the upper part of the locking-lever L projects. A pin, *c*, connects the two links which form its rear end, and when the lever L is operated to open the breech when near the limit of its movement it strikes this pin *c*, and, by pressure exerted upon it, oscillates the carrier upon its bearing, and throws its forward end up to bring the cartridge which has been received from the magazine into position to be driven into the barrel.

In the lower part of the downward-projecting lug B', at the front end of the bolt, is pivoted a starting or propelling lever, (shown in side elevation by dotted lines in Fig. 1 and in front elevation in Fig. 3,) by which the cartridge is started forward into the chamber of the barrel when the carrier is being raised, and just before the bolt reaches the limit of its backward movement the upper part of the starter comes in contact with the pin *e'*, projecting from the side of the receiver, which serves to start the cartridge slightly forward. As soon as this has been accomplished the starter strikes another pin, *e''*, which, being lower than the pin *e'*, strikes nearer the pivot of the starter and accelerates its movement, by

which the cartridge is given a smart blow, and is thrown well into the chamber. Then when the bolt is moved forward to close the breech, the cartridge is fully seated, and the parts are brought into position ready for firing.

At the side of the frame I arrange a stop, S, (shown detached in Fig. 5,) the point of which is eccentric to the body, and which projects into the receiver. A stop or projection, s, projects laterally from the bolt near its forward end, and when the stop S is turned into proper position its point will arrest the movement of the bolt by contact with the pin s.

By thus arresting the bolt before the completion of its backward movement it follows that the carrier will not be raised to deliver the cartridge to the barrel, and the arm is then in condition to be used as a single loader.

In lieu of the stop S just described, I may use a stop, S', similar in construction to the stop S, but located behind the rear upward extension of the carrier, so as to prevent the movement of the latter when the lever L comes in contact with it in the act of opening the breech. This accomplishes the same result as the stop S. Whichever of these stops is used, when they are turned in position to arrest the bolt or carrier, as just described, by giving a half-turn the eccentric-point is carried back far enough so as to allow the parts to be moved the full extent or distance, and the cartridges will then be supplied from the magazine.

In the modification shown in Fig. 7 the car-

tridge-starter *e* is pivoted to the carrier, and its upright arm is impelled forward by the pin *e''* in the receiver engaging its horizontal arm when the carrier rises.

Having thus described my invention, what I claim is—

1. A firing-pin provided with the downward projection *f'*, in combination with the brace L and reciprocating bolt, substantially as described.
2. The combination of the bolt, the firing-pin provided with a downward projection, *f'*, and the locking-lever L, by which the forward movement of the firing-pin to fire the cartridge is prevented until the bolt is locked.
3. A starting-lever, *e*, pivoted to the movable part of the breech mechanism, in combination with studs or projections on the sides of the frame, as and for the purpose described.
4. The pivoted starting-lever *e*, in combination with the bolt and with a stop or stops projecting from the inside of the receiver.
5. In a magazine-gun, the combination of a reciprocating bolt, a carrier, and an adjustable stop, consisting of an eccentric pin or screw, S', to engage the breech-bolt and thereby limit the movement of the parts and prevent the delivery of the cartridges to the chamber of the barrel, as set forth.

ANDREW BURGESS.

Witnesses:

WM. H. BLODGETT,
GEO. M. LOCKWOOD.