2 Sheets—Sheet 1.

A. BURGESS.

Magazine-Gun.

No. 217,987.

Patented July 29, 1879.

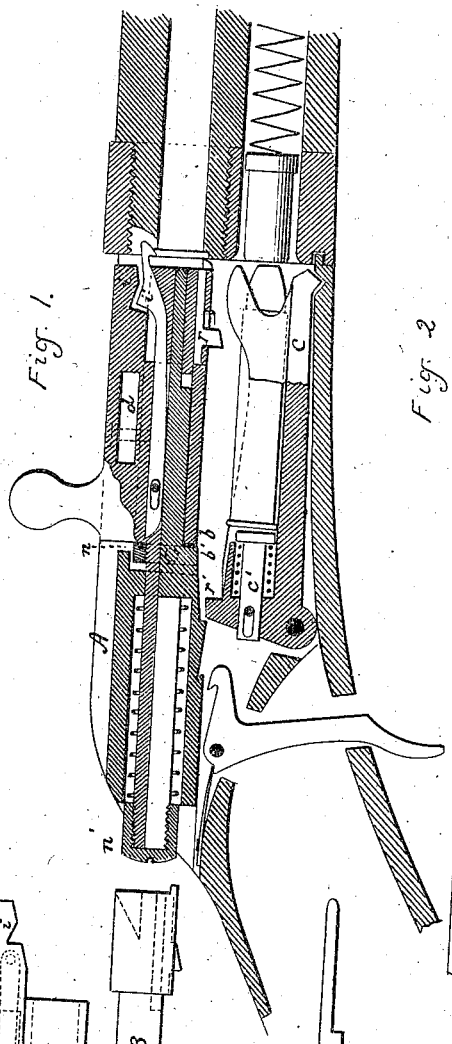


Fig. 1.

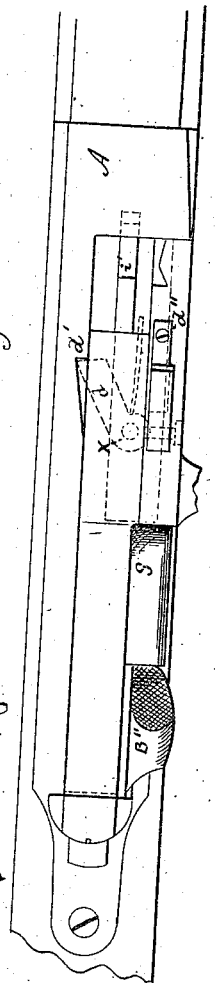


Fig. 2

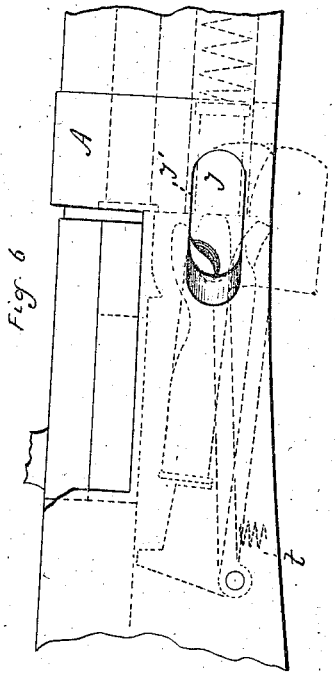


Fig. 6

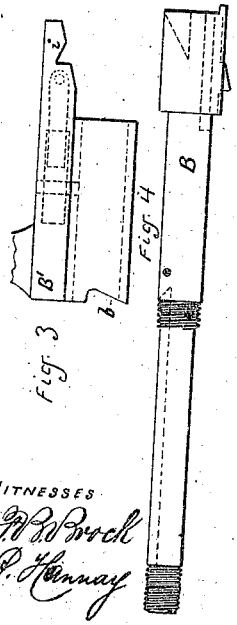


Fig. 3

Fig. 4

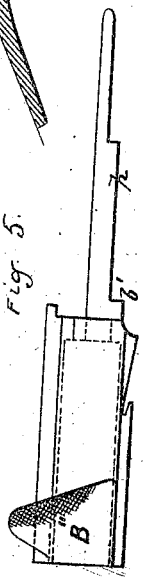


Fig. 5.

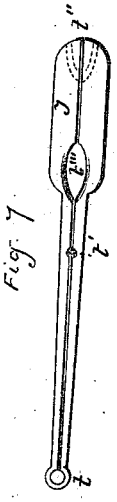


Fig. 7

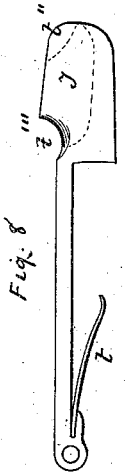


Fig. 8

WITNESSES

P. P. Brock

P. Hennay

INVENTOR

Andrew Burgess

2 Sheets—Sheet 2.

A. BURGESS.

Magazine-Gun.

No. 217,987. Patented July 29, 1879.

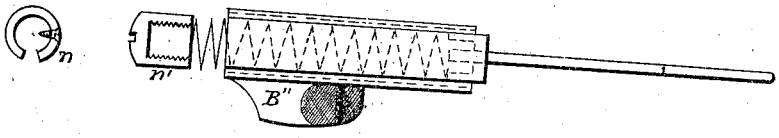
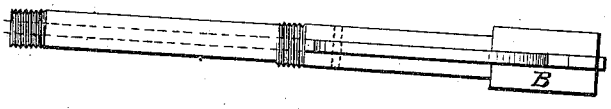
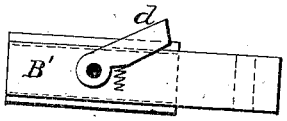


Fig. 10





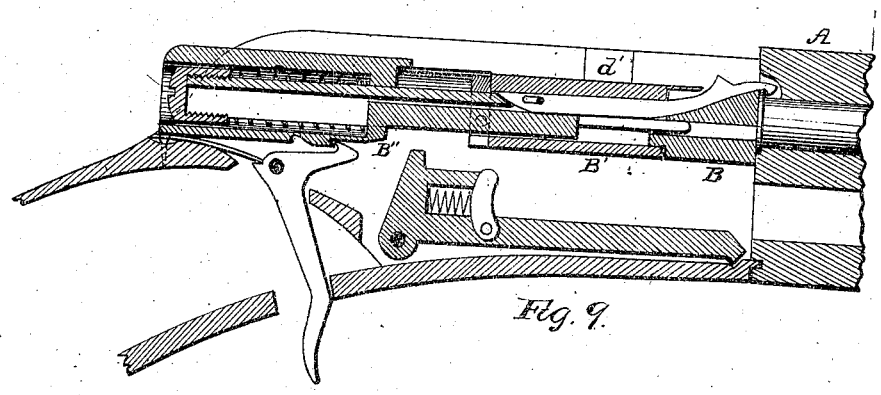


Fig. 9.

Attest:

R. Hannay

F. B. Brock.

Inventor:

Andrew Burgess.

UNITED STATES PATENT OFFICE.

ANDREW BURGESS, OF OWEGO, NEW YORK.

IMPROVEMENT IN MAGAZINE-GUNS.

Specification forming part of Letters Patent No. **217,987**, dated July 29, 1879; application filed January 31, 1879.

To all whom it may concern:

Be it known that I, ANDREW BURGESS, of Owego, county of Tioga, State of New York, have invented a new and useful Improvement in Magazine Fire-Arms, of which the following, in connection with the accompanying drawings, is a specification.

Figure 1 is a vertical longitudinal sectional view of this arm; Fig 2, a top view. Fig. 3 is the rotating or locking part of the breech-bolt. Fig. 4 is the continuous bolt; Fig. 5, the firing-pin; Fig. 6, a side view of the arm, showing the loading-aperture and a trap or gate for closing it. Figs. 7 and 8 show modifications of the loading-trap. Fig. 9 is a view similar to Fig. 1, but in a locked position and cocked; Fig. 10 shows the parts of the bolt detached.

Similar letters of reference indicate corresponding parts.

A is the frame or receiver; B, the bolt; B′, the locking-piece of the bolt; *b*, the incline to withdraw the firing-pin; B″, the cocking-piece carrying the firing-pin; *c*, the carrier; *c′*, an elastic buffer; *r*, the ejector and stud to raise the carrier; *d*, a dog to take up the shock of the closing-bolt and assist in opening it; and T, the loading-trap or cover.

In this arm the magazine delivers the cartridges from beneath the barrel to the carrier in the ordinary manner. The carrier has spring sides to hold the feeding cartridges in place, and an elastic buffer, *c′*. This serves a twofold purpose. It relieves the shock of the cartridges as they spring from the magazine into the carrier, and prevents the danger of any explosion thereby, and when the carrier rises it springs the feeding cartridge forward partly into the chamber, so that the ball may not rise too high or catch on the top of the chamber.

The bolt is made in three principal parts, the main part B being continuous, the rotating part B′ inclosing a part of it, and the part B″ incloses its rearward portion, while the firing-pin *p* passes through its front. The nut *n* holds B′ forward, the nut *n′* confines the spiral mainspring, and the incline *i* locks down the extractor.

The rotating part B′ of the breech-bolt is provided with dog *d*, and the frame has a notch, *d′*, to engage the point or free end of said dog, which is pressed toward or into aforesaid notch by a spring, *d″*.

The firing-pin *p* has a thumb-piece, B″, attached thereto, and so arranged at the side and top of the arm that the piece may be cocked by it as by an ordinary hammer without moving the locking mechanism of the breech.

The ejecting-stud *r* has a limited longitudinal motion relatively to the breech-bolt, to eject the cartridge or shell, and its lower projection, striking the point *r′* when the bolt is withdrawn, raises the carrier.

The trap T, Figs. 7 and 8, is to cover or close the side-loading aperture, as shown in Fig. 6. Said trap oscillates laterally in a cut-out in the inside of the frame, and is pressed over or into the opening T′ by a spring, *t*. By the insertion of the cartridges into the magazine this trap is pressed out, as shown in dotted lines in Fig. 6; but if a double trap is used, as shown in Fig. 7, it can open enough to admit a cartridge without projecting from the frame.

It is obvious that this trap T can be hung forward instead of in the rear of the loading-aperture, in which case it will be scored out on dotted lines *t″ t″*, as shown in Figs. 7 and 8, to allow the point of the cartridge to press the trap open, instead of at *t‴ t‴*. The pin *t′*, Fig. 7, is to prevent the trap from swaying sidewise.

To operate this arm after discharge, the knob is turned up to unlock the bolt by rotating the part B′. This withdraws the firing-pin by the incline *b* pressing back the shoulder *b′*, and locks the extractor tightly to the shell by the incline *i* pressing on it. The point of the dog *d* enters the notch *d′* of the frame, as shown in dotted lines in Fig. 2, and forces the pivot of the dog to describe an arc of a circle of which the notch *d′* and point of the dog must continue the center, and thereby force the pivot back to *x*, Fig. 2, when the breech is fully unlocked. This constitutes a powerful device for starting back the bolt and shell, the rounded or beveled locking-shoulder permitting the movement as described. Then by drawing back the bolt in the usual manner, the ejector strikes the stud *r′* to expel the shell

and raise the carrier and the cartridge thereon. As the carrier rises the spring-buffer c' will advance the cartridge thereon partly into the barrel, and the closing breech will force it home, while the sear, snapping into the notch of the firing-pin, prevents its advance and holds it in a cocked position. The dog d, springing into the notch d', receives the shock of the closing bolt and inclines the part B′ to rotate to lock the bolt, when the piece is ready to fire by pulling the trigger.

The spring of the elastic buffer is preferably made a little weaker than the magazine-spring, by which the cartridges are fed onto the carrier, so that the buffer-spring will be partially compressed by the strength of the magazine-spring. Then, when the carrier is raised and the point of the cartridge brought into line with the chamber, the force of the buffer-spring will start the cartridge into the chamber. The forward movement of the bolt in closing the breech will then push it entirely in and complete the operation of loading. But when the buffer is only intended to relieve the shock on the cartridges, it may have a spring as strong or stronger than that in the magazine; or the said buffer may be provided with two springs of greater and less strength, to more fully serve both purposes.

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

1. The bolt system shown and described, consisting of a central continuous portion, B, carrying the extractor, a rotary sleeve, B′, provided with a handle for turning it and a locking-shoulder, and with an inclined portion, b, for retracting the firing-pin, a firing-bolt having tubular rear part, a side thumb-piece, B″, and a mainspring in said tubular part surrounding the central stem, the whole secured together and arranged substantially as described.

2. In a breech-loading fire-arm, a rotating and longitudinally-moving bolt provided with a pivoted dog, in combination with a frame provided with a notch or shoulder, with which said dog engages, to take up the shock of the bolt in closing, and to start back the bolt in the act of unlocking, substantially as set forth and described.

3. In combination with the magazine of a gun, and with the carrier, a spring-buffer, arranged within the receiver of the arm to receive the blow of the cartridges as they are fed into the receiver by the magazine-spring, as described.

4. In a magazine fire-arm, a carrier provided with a spring-buffer, to take up the impact of the cartridge as it is fed from the magazine and to start it into the chamber of the barrel, as set forth.

5. In combination with the frame of a magazine fire-arm, provided with a loading-aperture in the side, a laterally-moving spring gate or cover, constructed substantially as described, with cut-out portion to receive the point of the cartridge, as shown and described.

ANDREW BURGESS.

Witnesses:

VINTON COOMBS,

I. I. COOMBS.