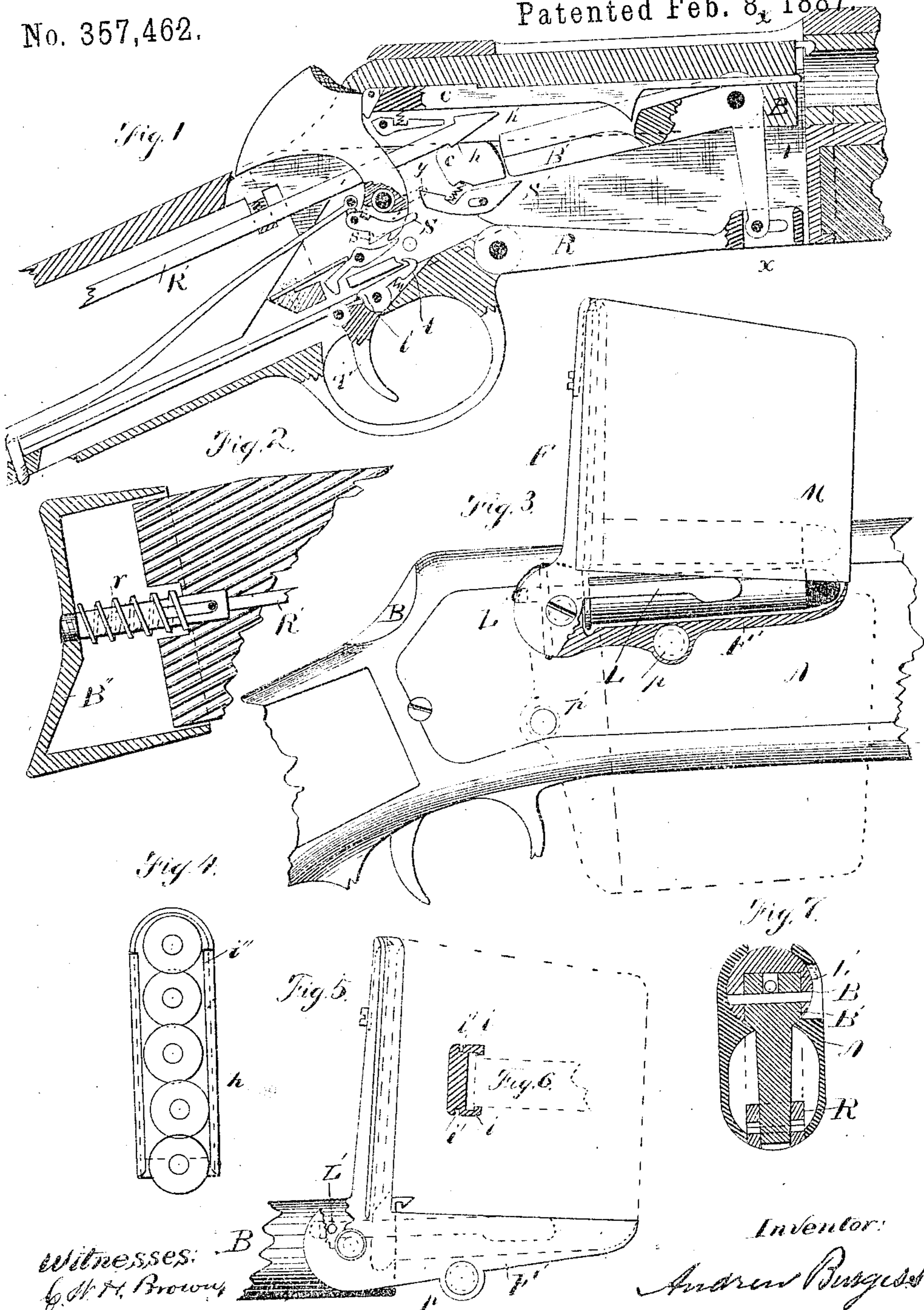


(No Model.)

A. BURGESS.
MAGAZINE FIRE ARM.

Patented Feb. 8, 1887

No. 357,462.



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UNITED STATES PATENT OFFICE.

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MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 357,462, dated February 8, 1887.

Application filed September 9, 1885. Serial No. 176,551. (No model.)

To all whom it may concern:

Be it known that I, ANDREW BURGESS, a citizen of the United States, residing at Owego, in the county of Tioga and State of New York, have invented certain new and useful Improvements in Magazine Fire-Arms, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to breech-loading and magazine fire-arms, and has for its object ease and rapidity of operation; and it consists, principally, in a new method of operating the breech mechanism and arrangement of magazine, together with other combinations of parts, hereinafter set forth.

Figure 1 is a longitudinal side section of the frame and breech mechanism of this arm; Fig. 2, a section of the butt, showing arrangement of the rear end of rod R'; Fig. 3, a side plan view with the magazine box and standard in position; Fig. 4, a rear view of magazine-box; Fig. 5, a side view of magazine-standard; Fig. 6, a cross-section of standard F. Fig. 7 is a cross-section on line *x x* of Fig. 1.

A is the frame; B, the bolt; B', the locking-brace; R, operating strap or rod; R', an auxiliary operating-rod; B'', the butt-plate; *c*, a dog or pawl in the bolt. S is a spring-catch in the hammer, and S' a lever to retire the catch S. T is the trigger; *t*, its catch to lock the sliding handle. M is the magazine-box; F, the magazine-standard with a horizontal arm, F'. A spring-pin, P, locks the standard in an up or down position. L is the feeding-lever, and L' a projection on the bolt to operate it.

This arm is operated by any of the well-known sliding handles which carry an operating strap or rod, as R, to connect the handle to the breech-piece and thereby operate it; but some parts of this invention are applicable to a gun operated by a lever or other than a sliding handle.

A dog, as *c*, is hung in the bolt, and an auxiliary operating or starting rod, R', is arranged in the butt of the gun in connection with a telescopic butt-plate or weight and a spring to bear it backward, so that the forward pressure of the shoulder against the butt of the gun, or its backward recoil, as in firing, forces the rod R' forward, compressing its spring,

and its hook *h* at its forward end is thrust forward of dog *c* and over the notch *c'*, which is in a fixed part of the frame, and with which it engages by being pressed therein, as by the spring of dog *c*, to hold the rod R' forward with its spring *r* compressed; but when in unlocking the breech the brace swings upward against the rod R' and raises its hook out of notch *c*, said rod being forced backward by its spring *r*, its hook *h* engages the dog *c*, and thereby transfers its backward pressure from a fixed part of the gun to the bolt, so that it will pull back the bolt to open the breech and cock the hammer, when it will release itself from the bolt by falling out of engagement with the dog *c* by passing below the line of movement of said dog.

The rod R' may engage at any convenient point with any of the movable parts of the operating mechanism to assist in moving the same.

To prevent the hammer from falling accidentally from full-cock by jarring or otherwise when the breech is not fully locked, I hang a spring-piece, S, having a projection, *s*, in the hammer to spring outward from the full-cock notch. When the hammer is at full-cock or slightly beyond, the sear engages the projection *s* of the catch. If the sear is then retired outward, the catch follows it out and still engages it, so that it cannot release the hammer until, in locking the bolt, the brace B' falls upon the forward arm of the lever S' to turn its rear arm up, as shown in Fig. 1, and the forward-projecting arm of the catch (which obtains the position indicated in broken lines at *y* when the hammer is cocked) is raised thereby, to turn its point *s* inward out of engagement with the sear. The sear will then engage the fixed full-cock notch of the hammer and operate in the usual manner; but if the sear is held so far outward from the hammer as to remain out of engagement with its full-cock notch said sear will engage the spring-catch, and will be released therefrom by the locking-brace, which retires the catch in locking the breech.

The trigger T has hung therewith a spring-catch, as *t*, to engage a bearing in the frame to lock the sliding handle in position when the breech is closed.

The catch *t* has some movement independent of the trigger to allow it to lock, but has a shoulder, as *u*, which the trigger engages (after having been pulled so far as to fire the gun) to act as a lever thereon and turn the catch out of engagement with its bearing in the frame and thereby unlock the sliding handle. By making the catch hook in and back a little, as shown, it cannot be easily released by pulling the trigger, but only when in the act of firing the recoil of the gun against the inertia of the sliding handle gives it a forward impulse (relatively to the gun) to release the catch-hook while the trigger is still being pulled.

The magazine here shown and claimed is taken from my application of June 15, 1885, No. 163,819, and consists of the grooved standard *F*, pivoted to the side of the gun and having the arm or trough *F'* and the casing *M*, which is detachable, and also serves to carry the cartridges in and load their flanges into the grooves *i i* of the standard *F*.

The case *M* is open at its bottom and rear, and has inward flanges at its rear to enter the grooves *v v* of the standard, by which it is held in position on the gun, and the sides of said case may be springs to bear inward to hold the cartridges, but will be forced out to release them by inserting the standard; or a paper slip may be attached to the case in a well-known manner to hold the cartridges therein for transportation.

The grooves *i i* in the standard for holding the cartridge-flanges may be omitted, as the case *M* will guide the cartridges downward.

The standard *F* and its case *M* may be lengthened vertically to take as many cartridges as desired, and can be turned down when not in use, as shown in dotted lines in Fig. 3, and the spring-pin *p* enters depressions, as *p'*, in the frame to hold the standard in vertical or horizontal position.

The feed-lever *L* is arranged in relation to the feed-opening in the side of the frame and its operating-stud *L'*, (on the bolt,) similar to the lever *T* of my Patent No. 303,262. In the present construction, however, the lever *L* is hung in the magazine instead of the frame, and the projection *L'* of the bolt operates said lever when the magazine is turned up, but fails to engage it when the magazine is turned down.

I claim—

1. In a fire-arm, and in combination with the stock and the reciprocating breech-piece and operative mechanism therefor, a rod in the stock extending forward to the breech mechanism, a fixed stop in the frame, with which said rod engages to hold the rod out of operative position, and a movable piece in the breech mechanism, which engages the rod to detach it from the stop and throw it into engagement with the breech mechanism, whereby the rod is made to assist in opening the breech, substantially as described.

2. In a breech-loading fire-arm, the combination of the rod *R'*, reciprocating in the stock, a spring to force said rod in one direction, a bearing in the frame, with which said rod engages and by which it is locked, a reciprocating bolt and a locking-piece therefor, and a bearing in the bolt, the parts so arranged, substantially as described, that the locking-piece during its movement engages the rod *R'* to shift the rod from its locked position into engagement with the bearing in the bolt, whereby the rod assists in the opening of the breech, as set forth.

3. In a breech-loading fire-arm, a spring-rod extending from the butt of the gun, provided with a hook, as *h*, to engage a fixed projection in the frame, in combination with a reciprocating bolt and a shoulder, as *c*, therein, and a locking-piece which by its unlocking movement disengages the hook *h* and throws the rod into engagement with the bolt.

4. In a breech-loading fire-arm, a hammer having a notch by which the sear engages it to hold said hammer in a cocked position, in combination with an auxiliary catch, as *S*, arranged to project between the hammer and sear-point to obtain and hold engagement between the hammer and sear, and means, substantially as specified, to retire said catch and thereby break the engagement between the hammer and sear by the movement of locking the breech.

5. In a breech-loading fire-arm, a sear and a hammer having a fixed notch therein, by which the sear engages it to hold said hammer in a cocked position, in combination with an auxiliary catch, *S*, between the hammer and sear-point to hold them in engagement, substantially as described, and a locking-piece arranged to throw the catch out of engagement in the movement of locking the breech.

6. In a breech-loading fire-arm, a sliding handle having suitable connection with the breech to operate it, in combination with a spring locking-piece to lock said handle, and a trigger pivoted in the handle, with movement independent of the locking piece or catch, and a shoulder thereon to engage the locking-catch after having moved to fire the gun and release it by the continued pulling of the trigger.

7. In a magazine-gun, the standard *F*, provided with grooves, as *v v*, attached to the side of the frame, and having the arm *F'* at nearly a right angle thereto, in combination with a detachable cartridge-case, *M*, provided with flanges to enter the grooves of the standard to attach said case thereto.

8. In a magazine-gun, the standard *F*, provided with grooves, as *i i*, pivoted to the side of the frame, and the arm *F'*, fixed to said standard at nearly a right angle thereto, in combination with a frame having a side opening, and a lever, as *L*, to force the cartridges through said opening, and means, substantially as described, to hold the standard in a vertical or horizontal position.

9. In a breech-loading fire-arm, a catch in the frame and a sliding handle having suitable connection with the breech mechanism to operate the same, and a movable locking-piece with
5 an operating projection carried by the handle, said movable piece and catch having engagement by a slightly-overhanging hook, in combination, substantially as described, whereby
10 the recoil of the arm in firing loosens the hook by a slight yield of the parts for ready disengagement by pressure on the operating projection, substantially as described.

10. In a breech-loading gun, a movable breech, a reciprocating rod, and a spring pressing said rod in one direction, a stop in the frame,

with which the rod engages and by which it is held inoperative with the spring compressed, and means, substantially as described, consisting of a movable part of the breech-operating mechanism in position to engage the rod and
20 throw it into engagement with the breech to assist in starting the breech-piece, all in combination, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW BURGESS.

Witnesses:

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CHARLES B. FOOTE.