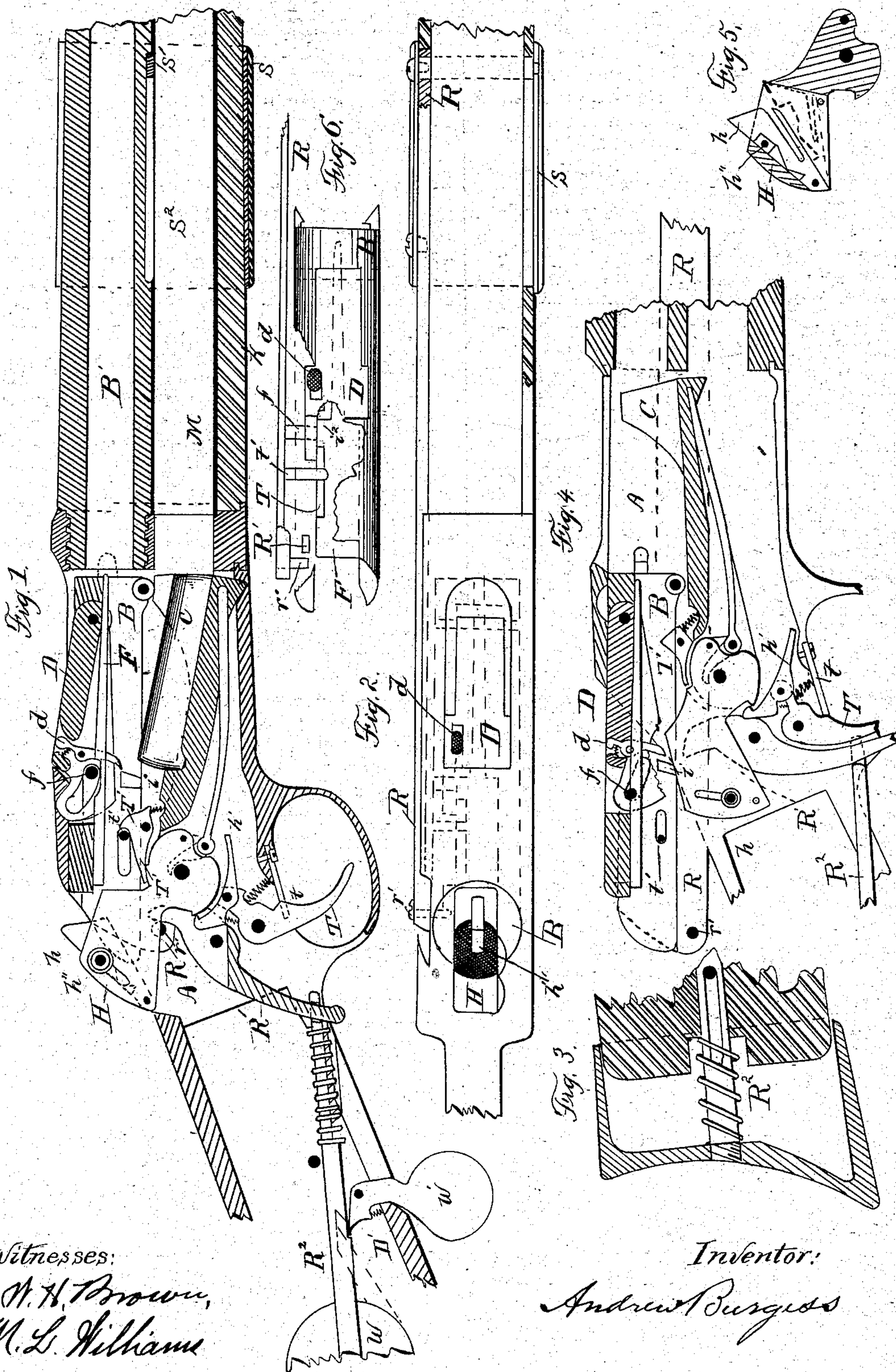


(No Model.)

A. BURGESS.
MAGAZINE GUN.

No. 366,565.

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Witnesses:

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UNITED STATES PATENT OFFICE.

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MAGAZINE-GUN.

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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.

This invention relates to magazine and breech-loading fire-arms; and it consists in improvements on locking, unlocking, and moving the breech mechanism, and various combinations of parts for the object of easy or semi-automatic and safe operation, as hereinafter more fully set forth.

Figure 1 is a longitudinal side elevation in section of an arm constructed with these improvements. Fig. 2 is a plan view of the top. Fig. 3 is a reduced section of the butt. Fig. 4 shows the operative parts of Fig. 1 in an open position. Fig. 5 shows the hammer in section; and Fig. 6 shows in detail the relation of the top of the lever R', the unlocking device worked thereby to start open the breech, and other details.

A is the frame; B, the breech-bolt; B', the barrel; M, the magazine; C, the carrier; D, the locking-brace; S, the sliding handle; R, the operating-rod; F, the firing-pin; H, the hammer, T', the trigger; R', the starting-lever; R'', its operating-rod, and D, its locking-dog.

This arm is operated by a sliding handle, S, which is connected to the bolt by its rod R and pin *f*, which couples it to the brace. The cross-pin *f*, traveling in a longitudinal slot in the bolt, projects into an oblique slot in the locking-block, so that the backward movement of the handle S moves back the cross-pin *f*, which, first bearing against the side wall of the slot of brace D, turns it inward to unlock it, and then, bearing backward against the rear wall of said slot, forces it and thereby the bolt backward to open the breech, and the forward movement of the handle S closes the breech by reversing the above operation.

The handle S consists of a sleeve encircling the barrel, magazine, and fore-arm, as in Fig. 1, or a section, as in Fig. 2, to curve around the lower part of the body of the gun, and a supporting-bolt, as S', is passed through the sides of the handle, to stiffen it and prevent its sides from bending inward against the fore-

arm when clasped by the hand, and thereby producing too much friction when being operated. A longitudinal slot, S'', is cut between the bores of the barrel and magazine for the bolt S' to travel in and to guide said bolt and handle in its movement back and forth. The bolt S' may also serve, as in Fig. 2, to attach the forward end of the rod R to the sliding handle.

The rod R extends backward to be guided in a groove in the side of the frame, and a slot in the rear part of the frame allows the pin *f* of the operating-rod to reciprocate therein and move the brace and breech bolt, as already described, and a pin, *t'*, of rod R, projecting inward through a slot in the frame and bolt, engages the sear T', when the operating-pin of rod R reaches the horizontal part of the slot of the brace and shall have fully locked the breech, as in Fig. 1, to turn sear T' from the position shown in Fig. 4 (where it holds the hammer cocked) to thereby release the hammer and discharge the gun by the continuation of the same movement of the rod R which closes the breech.

The sear T' is hung in the frame and pressed by a spring to engage a notch in the hammer when in a cocked position.

Another projection, as *r'*, of the operating-rod R, enters the extreme rear part of the frame and bolt to project into the path of movement of the upper arm of lever R', which is pivoted in the frame, so that a forward pressure on the lower arm of said lever R' forces back its upper arm against the pin *r'* to start back the operating-rod and thereby the breech-bolt, and such pressure or force may be applied by the hand to the lower projecting end of lever R', or automatically, as by the rod R'', which extends backward, and is provided with a weight to resist the recoil of the gun, or projects to the butt-plate, so as to be resisted by the shoulder of the operator and its own weight against the recoil, as shown in Fig. 3, and I lock the rod R'' against its forward movement in the gun by a dog, as D', which, engaging the rod R'', as in Fig. 1, locks it in its rearward position; but said arm has a projection, as W', by which it can be turned at will to unlock the rod, and I here show said projection as a weight whose inertia, resisting the recoil of the gun, serves to turn the dog out of its notch in

the rod R'', and as the movement necessary therefor is very slight (and the weight is small in proportion to that which causes the rod to move forward) it results that the rod becomes
 5 unlocked by the first part of the recoil movement and its continuance causes the lever R' to operate by force of its recoil against rod R'' to start open the breech and the shell from its seat in the chamber of the barrel.

10 A dog, d, is pivoted in the breech-brace D, and has a spring to turn it into engagement with the ledge i in the bolt when the brace is in its locked position to hold it there; but said dog has a thumb-piece projecting at the top of
 15 the bolt, so it can be moved at will to unlock the brace, and, also, the firing-pin has a shoulder, z', which in its movement forward, as by being struck forward by the hammer, engages the lower arm of the dog to force it out of en-
 20 gagement, so that the brace is then free to be moved by the rod R, as aforesaid. It is obvious that the locking of the brace by the dog d thereby locks the rod R and the operating-handle forward.

25 The hammer is provided with a long swinging piece or fly, as h, which in its upward position, as in Figs. 1 and 5, receives engagement of the bolt when moved rearward to cock the hammer; but a sliding thumb-piece, h'', is ar-
 30 ranged in a slot in the hammer to carry a wedge or block downward against the rear of fly h to block it forward, as in Fig. 4 and broken lines in Fig. 5, so that its point remains below the line of engagement of the bolt aforesaid, and
 35 the bolt may then be moved back and forth over the nose of the hammer without cocking it and without the expense of power usually applied for that purpose, and the gun may be cocked by the trigger as is usual in the so-
 40 called "self-cocking" arms. I here hang to the trigger the sear-piece h', with a spring to turn its upper arm forward to engage the notch in the hammer, as shown in Fig. 4, and the lower arm of the sear-piece comes in contact
 45 with the guard-strap when the trigger has moved the hammer to full-cock, so that the sear-piece is then turned to release the hammer and a spring bears the trigger back (when released) to its normal position. When the
 50 lower part of lever R' is in its extreme forward position, as in Fig. 4, the trigger cannot be pulled back far enough to release the hammer.

As a substantial equivalent of the weight W', the weight W may slide on the rod R'' and
 55 carry an incline, as shown in dotted lines, to release the dog D.

A stop, t, is pivoted in the guard-strap, so that when it is turned one side, as shown in Fig. 1, it allows the trigger to turn forward,
 60 so that its sear-piece may be operated by the trigger in the self-cocking manner; but when the trigger is pulled nearly back and the stop t is turned forward of it, as in Fig. 4, to hold the trigger back, it then has but little
 65 movement, and the sear is held by it in position, as shown, to catch and hold the hammer

at full-cock, (whenever it shall be turned back by the bolt or hand,) and the trigger has to be pulled but slightly back to release the hammer, as in the ordinary manner in arms that
 70 are not self-cocking.

Obvious changes in location of parts and equivalents of construction are intended to be covered by the claims.

I claim—

1. In a magazine fire-arm, a sliding handle curved around the fore-arm in front of the frame and provided with a supporting-bolt to hold the sides of the handle apart, the slot S'' between the bores of the barrel and magazine
 80 for said bolt to traverse, and a reciprocating rod connected to the handle and breech-piece, by which reciprocating movement of the handle opens and closes the breech, all in combination, substantially as specified. 85

2. In a breech mechanism of a magazine-gun, having reciprocating movement to open and close the breech, the sear-pawl T', pivoted in the frame above the axis of the hammer, and having an arm extending rearward into en-
 90 gagement with a notch in the hammer when said hammer is in cocked position, and a projection above its pivot, which is engaged by a shoulder on the breech mechanism in the final movement of the breech to disengage said sear-
 95 pawl from the hammer, and a trigger which operates on the hammer independently of the breech-closing mechanism, all combined substantially as described.

3. In combination with a breech-loading gun
 100 having the usual operating-handle and connections therefrom for operating the breech mechanism, a starting-rod, in combination with a locking-piece to hold said rod out of opera-
 105 tive engagement, a connection to the locking-piece to disengage it from the rod, and a breech-piece and means of engagement between the breech-piece and rod, by which the forward movement of said rod assists to open the breech, substantially as specified. 110

4. In a breech-loading fire-arm, a vibrating hammer, a sear, as T', hung in the frame in position to engage a notch in the hammer and hold it at full-cock, in combination with a re-
 115 ciprocating rod which serves to connect the operating-handle with the breech mechanism and its projection, as t', to engage and release the sear in the last part of the movement of said rod in closing the breech, substantially as specified. 120

5. In combination with the breech mechanism of a breech-loading fire-arm having the usual operating-handle and breech-connections, a lever pivoted in the frame, whose upper end makes connection with the reciprocating
 125 breech-bolt, and means of propulsion below its pivot, substantially as described, by which the lower end of said lever may be forced forward to rotate backward its upper end and thereby start back the bolt. 130

6. In a breech-loading fire-arm, a reciprocating rod operated by a sliding handle and

connected with the breech mechanism to operate it, in combination with an auxiliary lever hung in the frame in position to engage said rod to start it, and thereby the breech-piece and cartridge-shell, said lever being disengaged as the breech-piece moves backward, and a projection of said lever extending outside the body of the gun, by which it may be operated by a movement in the opposite direction to that of the sliding handle to start open the breech, substantially as described.

7. In a breech-loading fire-arm, a starting-lever hung in the frame in position to engage the operative mechanism of the gun, and, in combination therewith, an operating-piece in the stock, said piece provided with a locking device to hold it from moving with the lever, and means for releasing the said operating-piece, substantially as described.

8. In a breech-loading fire-arm, a starting-lever hung in the frame, and having an arm extending into position for engagement with the reciprocating breech mechanism and another arm in position to be engaged by a propelling reciprocating piece, which turns said arm forward to vibrate the other arm rearward and thereby start open the breech, in combination with said reciprocating propelling-piece and a locking-dog, which holds it rearward, but is released by the recoil of the gun, substantially as specified:

9. In a frame of a breech-loading fire-arm, a locking shoulder and a reciprocating bolt, a swinging brace to lock said bolt, and a dog to lock the brace outward, in combination with a firing-pin moving forward in the bolt, and having a shoulder to strike forward the dog to disengage it and release the brace in its act

of moving forward to fire the gun, substantially as described.

10. In a breech-loading fire arm, a reciprocating bolt, a pivoted hammer, and a fly arranged in the hammer to swing into the path of movement of the bolt, and be engaged thereby to cock the hammer, in combination with a movable blocking-piece to lock the fly forward and downward out of position for the engagement of the bolt, substantially as specified.

11. In a breech-loading fire-arm, a reciprocating bolt, a pivoted hammer, a fly arranged in the hammer to swing into the path of movement of the bolt and be engaged thereby to cock the hammer, in combination with a movable blocking-piece to lock the fly forward and downward out of position for the engagement of the bolt, and a trigger having means of engagement by which the pulling thereof cocks the hammer when the fly is turned out of operative position, as described.

12. In a breech-loading fire-arm, a trigger and means of connection between said trigger and a hammer, by which the pulling of the trigger cocks the hammer and releases it to fire the gun, in combination with a movable stop, arranged to lock the trigger back in position where it shall be inoperative to cock the hammer, when said trigger and its sear-piece may operate to retain the hammer cocked and release it, substantially as and for the purpose set forth.

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

ANDREW BURGESS.

Witnesses:

ARRA H. ELLIS,
AUSTIN F. TIFFANY.