

(No Model.)

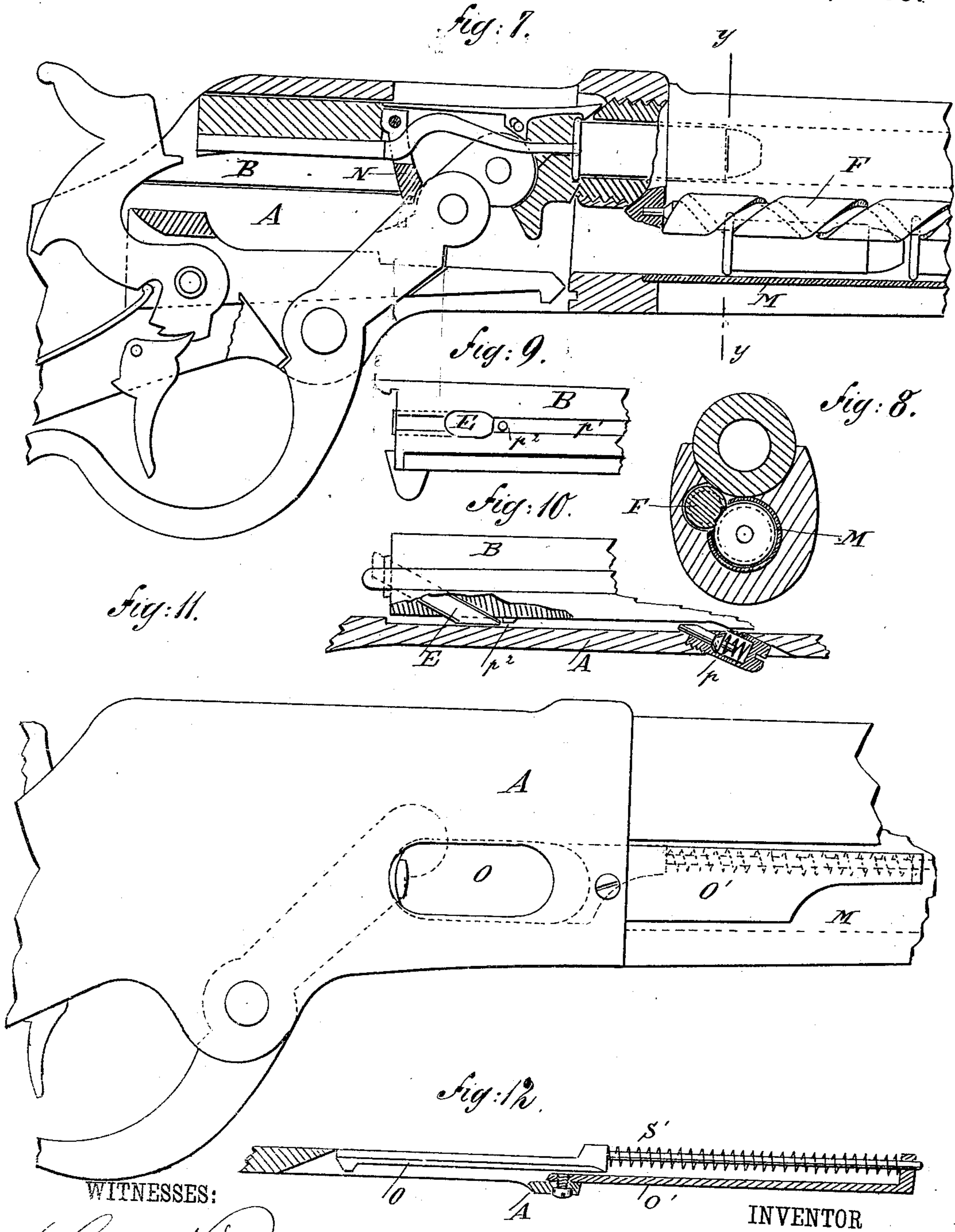
2 Sheets—Sheet 2.

A. BURGESS.

MAGAZINE FIRE ARM.

No. 290,848.

Patented Dec. 25, 1883.



WITNESSES:

Chas. Wade
H. A. West

INVENTOR

Andrew Burgess

(No Model.)

2 Sheets—Sheet 1.

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Fig: 1.

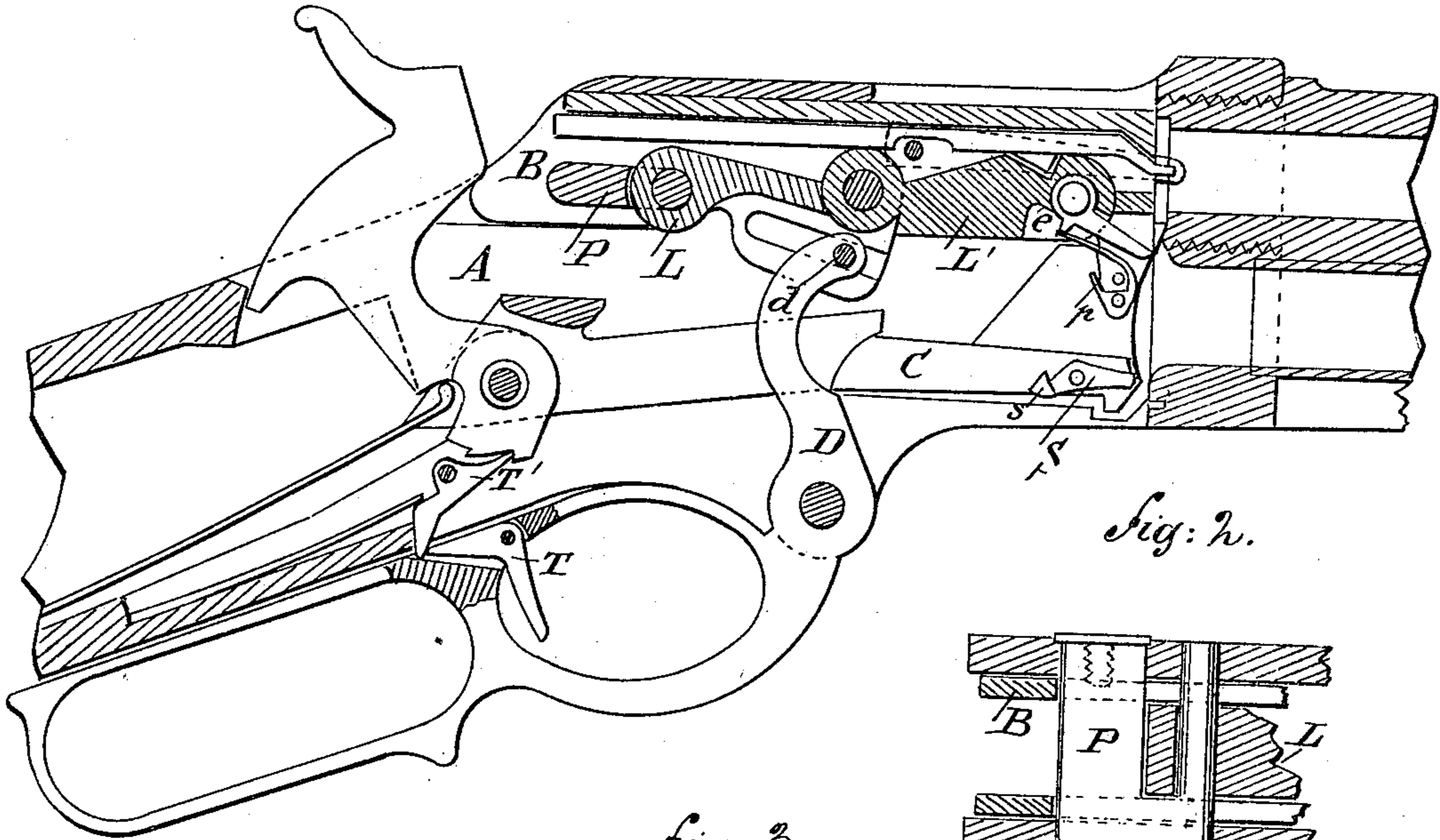


Fig: 2.

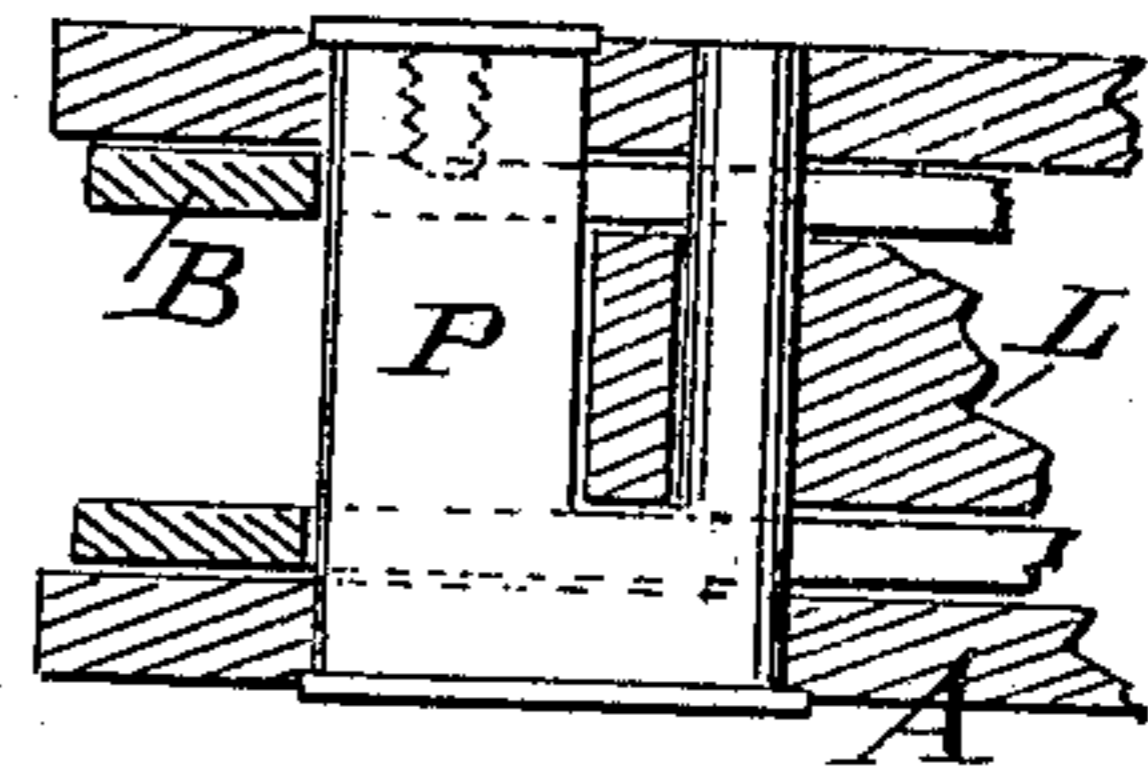


Fig: 3.

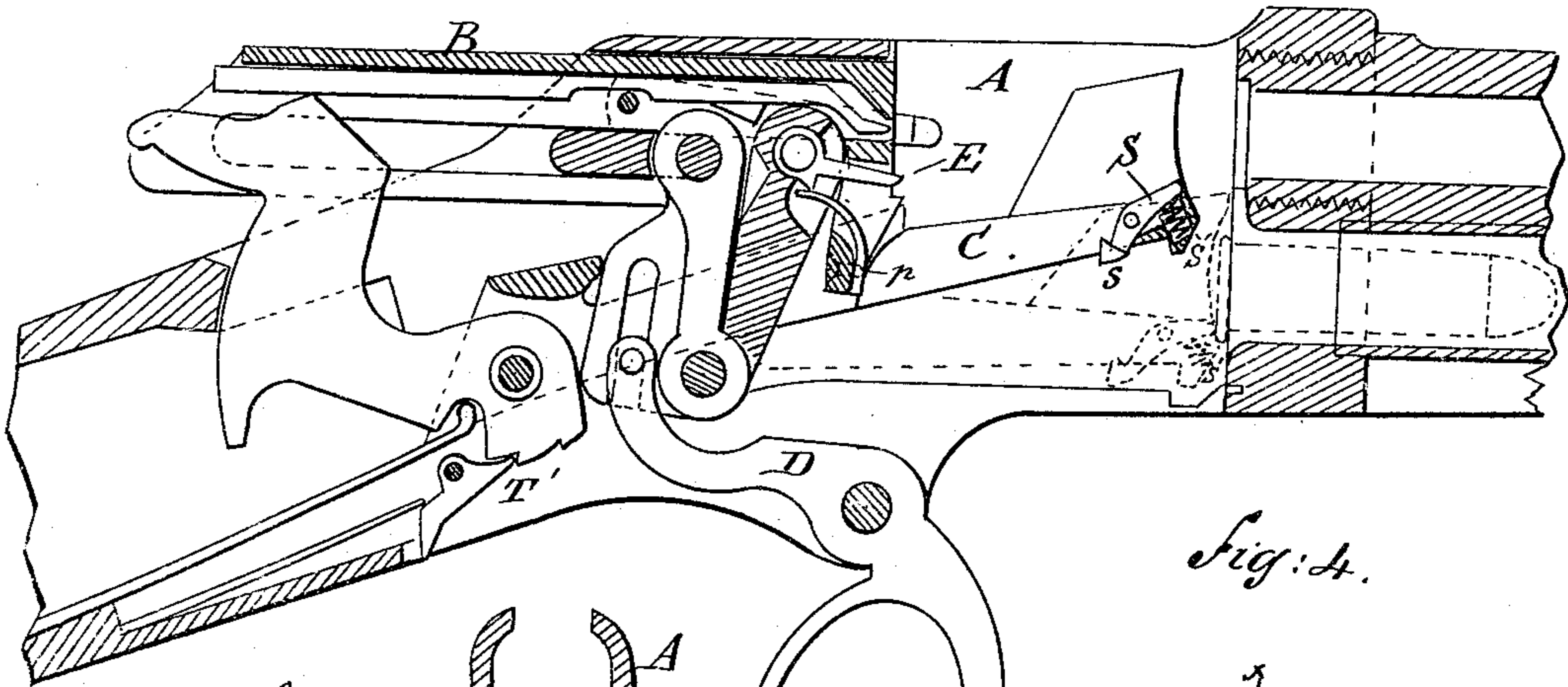


Fig: 4.

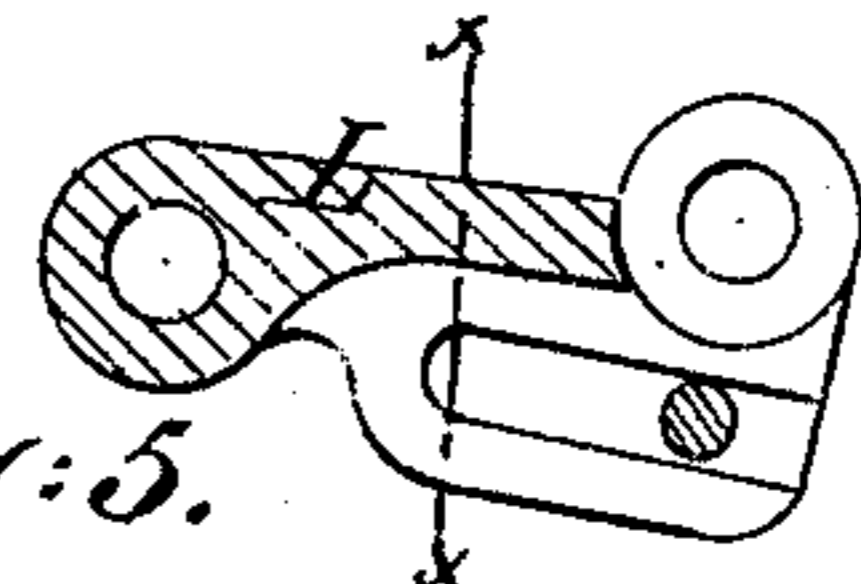
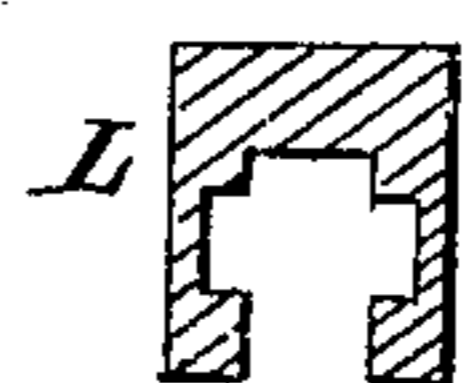


Fig: 5.



INVENTOR

Andrew Burgess

WITNESSES:

Chas. Nida
H. A. West

UNITED STATES PATENT OFFICE.

ANDREW BURGESS

EGO, NEW YORK.

MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 290,548, dated December 25, 1883.

Application filed August 25, 1882. (No model.)

To all whom it may concern:

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

My invention relates to breech-loading and magazine-guns, and has for its object simplification of construction, increase in strength, and ease and certainty of manipulation.

This invention consists of various improvements on the well-known Winchester arm, together with other combinations and arrangements of parts, hereinafter more fully set forth and claimed.

In the annexed drawings similar letters indicate corresponding parts.

Figure 1 represents a longitudinal vertical section of this arm. Fig. 2 is a plan section of part of the frame, showing the method of attaching thereto the link and the position of the bolt. Fig. 3 is a sectional view of the arm in its open position. Fig. 4 is a section of the rear link. Fig. 5 is a cross-section of same on line *x x*. Fig. 6 is a cross-section of the frame and forward part of carrier. Fig. 7 shows the application of the revolving cartridge-separator to the magazine. Fig. 8 is a cross-section of same on line *y y*. Fig. 9 is a side view of bolt, showing diagonal ejector. Fig. 10 is a top view of same. Fig. 11 shows a side view of loading-trap in the frame, and Fig. 12 shows sectional plan view of same.

A represents the frame of the arm; B, the bolt; C, the carrier; D, the operating-lever; E, the ejector; L, the rear link; L', the forward link; P, the resisting-pin; T, the trigger; T', the sear; S, the cartridge-stop; F, the cartridge-separator; M, the magazine; N, a lever for withdrawing the firing-pin; *p*, a spring to operate the ejector. O is the loading-trap, and O' is the guide and cover for same; *s'*, spiral spring for closing the loading-trap. The frame A is provided with a reciprocating bolt, B, which is operated back and forward by the lever D through the links L and L', said links locking the bolt against the double pin P. The bolt B is hollowed out in its lower portion to receive the links L and L', the forward end of L' being pivoted to the bolt near its face, and the rear end of link L pivoted to the frame through a slot in the bolt, and the for-

ward part of link L is provided with a slot which takes the pin *d* of lever D to operate the bolt in the manner well known in link systems; but the lever D is bent near its upper end to fall clear of the links when the breech is opened, as in Fig. 3. By this arrangement I am enabled to use heavy links in a strong continuous bolt, and by pivoting the link L to the frame by a pin with its strong rearward extension, P, to support the rear of said link, Fig. 2, great strength as well as ease in assembling is obtained. The extractors are fixed to the sides of the bolt in Figs. 1 and 3, and an ejector is pivoted in the forward end of the bolt. Said ejector is provided with a spring to set the ejector on a center downward when the breech is closed, and when the breech is being opened a shoulder, *e*, on link L' starts the projection on the ejector forward of the line of pressure on it of the spring *p*, when said spring drives the ejector vertically upward to strike the head of the shell to throw it up clear of the frame. When the ejector is hung on the link-pivot, as here shown, the pivot is enlarged at one end to facilitate construction of parts. The carrier is split at the front end, and has spring sides pressing together, and I pivot between said sides a dog, *s*, Figs. 1, 3, and 6, on which I form a wedge-shaped projection, *s*, rearward of the pivot, so the pressure of the sides of the carrier on said wedge tends to throw it downward, and thereby raise the forward end of dog S, as shown in Fig. 3, so by a slight rise of the carrier it stops the magazine; but when the carrier is forced down, as in Fig. 1, the rear or wedge-shaped piece of said dog, striking the guard-strap, turns the forward end of said dog down to permit the cartridge to pass onto the carrier from the magazine.

It is obvious that the above dog may be operated by any ordinary spring in lieu of the split carrier and wedge.

Figs. 1 and 3 show the trigger T pivoted in the guard-lever, so that it can only act on the sear T' to discharge the arm when the breech is closed, as in Fig. 1, so the operator need not remove his finger from the trigger in manipulating and firing the gun.

To hold the cartridges separate in the magazine, I use a spirally-grooved rod, Figs. 7 and 8. A slot is cut in the side of the magazine

and the spiral F hung longitudinally, so its side shall project into the magazine and engage the flange of the cartridges in its groove.

As the said rod is free to rotate, the flanges of the 5 cartridges move easily forward and back in its spiral groove, and as the flanges cannot pass out of the groove along the body of the rod they are held in the same relative position by the grooves when moved by the spiral spring, 10 or any other means of propulsion.

At N, Fig. 7, I show a modified firing-pin retractor consisting of a lever pivoted in the bolt and a link to force it back. Said retracting-lever has also a spring to rotate it forward, 15 so that by pressing against the link it holds the breech closed. I also show a diagonally-moving ejector in Figs. 9 and 10. It consists of a pin passing diagonally through the face of the bolt B, and a spring-stop, *p*, projecting 20 through the side of the frame. The stop *p* enters a groove, *p'*, of the bolt, and when the bolt moves back the projection *p''* pushes back the stop, compressing its spring, so that said stop, riding over, engages and starts the ejector 25 positively forward until it clears the projection *p''*, when it is free to spring the ejector forward. I use the well-known slide and spiral spring to close the magazine-loading aperture in the side of the frame; but to prevent 30 it from coming in contact with the wood of the stock I insert the guiding-shield O' within the wood and fasten it to the frame A, as shown in Figs. 11 and 12. The slide O moves freely inside of it and is guided by a rod on 35 its forward end, which passes through a hole in the end of said guiding-shield, the whole being attached to and supported by the frame. A solid abutment of the frame may extend upward into the hollow of the bolt to resist 40 the link L; but I prefer to use the removable pin P to facilitate the assembling of the parts. The pivoted vibrating carrier C is hung beneath the bolt in the usual manner, and has an upward projection near the pivoted end, 45 as is usual. (See Fig. 1.) This projection is engaged by link L as the link swings backward, thus serving to raise the carrier.

I do not herein claim the firing-pin of Fig. 7, or the diagonal ejector of Figs. 9 and 10, 50 or the loading-trap and shield, Figs. 11 and 12, as these are claimed in a pending application filed by me, office Serial No. 111,421.

Certain of the details shown herein (notably in Figs. 9, 10, 11, and 12) are not herein 55 claimed, but are claimed in my application No. 111,421, filed November 10, 1883.

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

60 1. A reciprocating breech-bolt having a recess in its lower portion, a link, L', pivoted at the front of the bolt, so as to close into said recess, a link, L, pivoted to said front link and to a resistance-piece passing through the 65 recess near the rear of the bolt, (when in

closed position,) and an operating-lever connected to one of said links, all the parts being combined and arranged substantially as described.

2. A reciprocating breech-bolt having a recess in its lower portion, a link, L', pivoted 70 at the front of the bolt within said recess, a link, L, pivoted thereto and to a pin in the frame near the rear of the bolt when closed, a resistance-piece immediately in rear of the 75 pivoted portion of said link L, and an operating-lever connected to one of said links, all arranged and combined substantially as set forth.

3. In combination with the frame and operative mechanism of a breech-loading gun, 80 a double pin, P, having a portion which serves as a pivot for a link or brace, as L, and a portion to the rear thereof, made strong to serve as an abutment, said pin passing removably 85 through the frame and link, substantially as and for the purpose specified.

4. The combination, with a reciprocating bolt, of links L' and L, each constructed in 90 one piece and occupying the lateral center of the bolt, said links being pivoted to each other and to the frame and bolt, and a downward extension on link L, having a cruciform slot, and the lever D, extended upward 95 within the frame to carry a cross-pin which enters said cruciform slot to operate the breech mechanism, substantially as set forth.

5. The combination of an ejector hung in the face of the bolt, a link having a projection 100 to start said ejector, and a spring to throw said ejector against the head of the cartridge-shell and strike it vertically upward, substantially as described.

6. In the frame of a magazine-gun, a vibrating carrier, mechanism to force said carrier 105 up and down, and a dog pivoted within the carrier, and provided with a spring which slightly raises the carrier and turns up the front end of said dog to stop the magazine, 110 in combination with an abutment in the bottom of the frame to turn said dog to open the magazine when the carrier is forced down, substantially as set forth.

7. The carrier, pivoted, as described, at the 115 rear of the frame, and having a projection, as shown, in combination with the bolt-operating link L, located as described, so as to engage said projection, and thus operate the carrier, substantially as set forth. 120

8. In combination with the magazine of a gun, a spirally-grooved rod pivoted outside of and projecting laterally into the magazine to engage the cartridge-flanges, substantially as and for the purpose described.

ANDREW BURGESS.

In presence of—

ALEX. F. BLINN,
JOHN A. DAVIES.