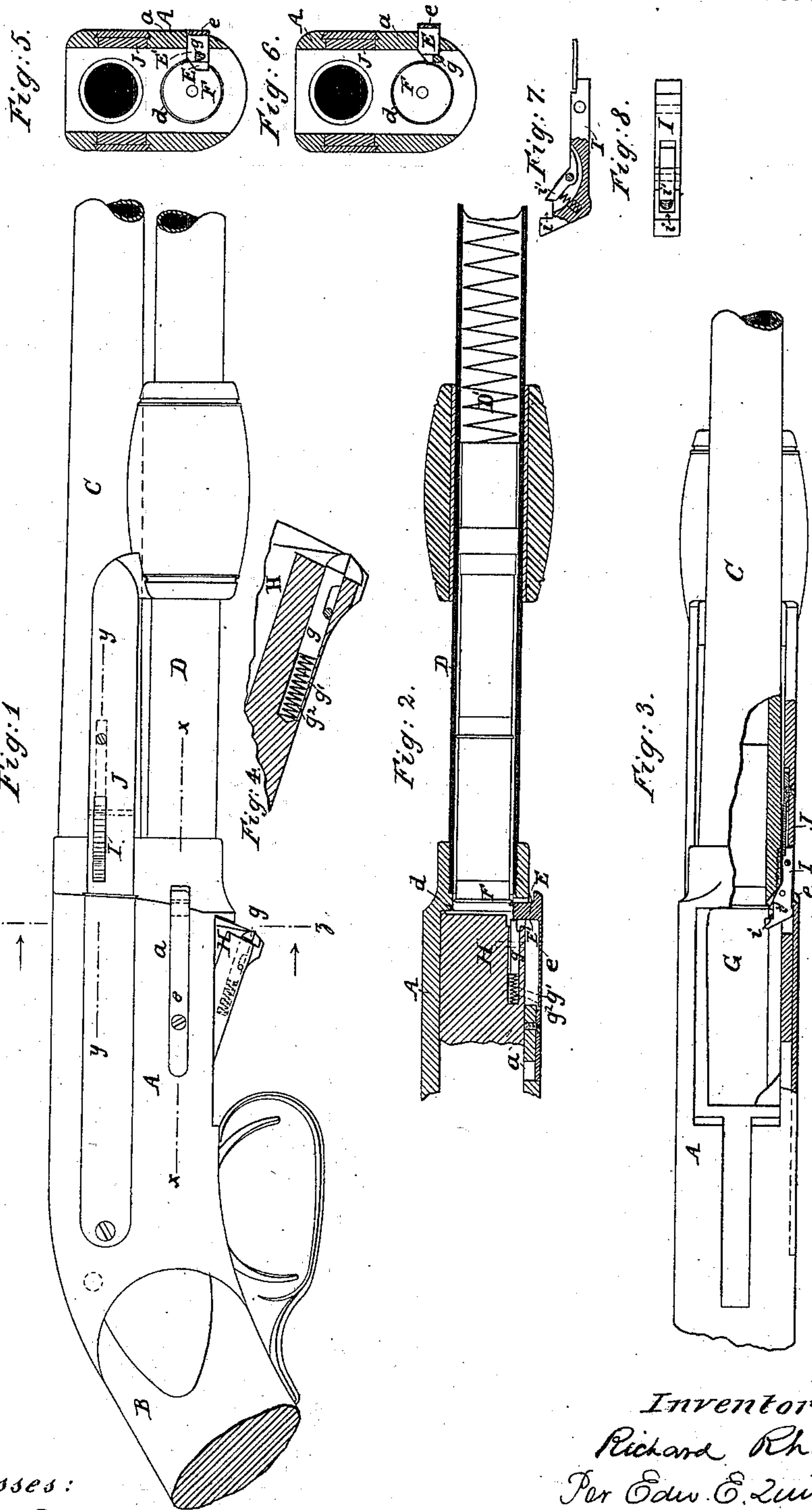


(No Model.)

R. RHODES.
MAGAZINE GUN.

No. 308,702.

Patented Dec. 2, 1884.



Witnesses:
Jennie Turner
W. F. Heath

Inventor:
Richard Rhodes
Per Edw. C. Quimby
Atty.

UNITED STATES PATENT OFFICE.

RICHARD RHODES, OF HARTFORD, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, TO SPENCER ARMS COMPANY, OF NEW YORK, N. Y.

MAGAZINE-GUN.

SPECIFICATION forming part of Letters Patent No. 308,702, dated December 2, 1884.

Application filed March 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, RICHARD RHODES, of Hartford, Connecticut, have invented certain Improvements in Magazine Fire-Arms, of which the following is a specification.

My improvements relate to the magazine-gun shown and described in Letters Patent of the United States No. 255,894, issued to C. M. Spencer and S. H. Roper, April 4, 1882.

My invention consists, first, in the provision of a spring stop or check which, when under the influence of its spring, so far projects across the mouth of the magazine as to prevent the ejection of cartridges therefrom. This stop sways back and forth in a plane perpendicular to the plane in which the breech-block swings. During the downward movement of the breech-block toward the firing position the side of a spring-latch projecting from the forward end of the breech-block is carried against the end of the stop and forces the stop laterally outward, holding it away from the mouth of the magazine for a sufficient length of time to permit the base of the end cartridge to be moved out of the magazine by the magazine-spring. By the continued downward movement of the breech-block the spring-latch is carried below the end of the spring-stop, which is thus permitted to spring inward, and thereby acquire a position which enables it to catch against the base of the next following cartridge in the magazine, and prevents its ejection therefrom until the next time the breech-block is operated. The spring-latch is inserted in a hole in the breech-block, in which there is a spring tending to throw the spring-latch outward, but capable of yielding when the latch is pushed longitudinally inward. The end of the spring-latch is outwardly and downwardly beveled. The outer side of the projecting portion of the spring-latch—that is, the side of the latch which is toward the spring-stop—is inwardly and downwardly beveled; hence in the downward movement of the breech-block the side of the spring-latch is carried down across the end of the spring-stop, and thus wedges the spring-stop laterally outward until the latch is below the stop, when the stop springs inward over the latch, after which, in the upward movement of the breech-

block, the beveled end of the latch is carried up and rides across the side of the spring-stop, and the latch is thereby forced inward without affecting the position of the stop.

The second part of my invention consists in providing the endwise-reciprocating bar, which performs the function of extracting the shell from the chamber of the gun during its backward movement, with a laterally-yielding extracting-jaw. This reciprocating bar derives its movement from its connection with a bifurcated slide, which is moved back and forth in a line parallel with the axial line of the barrel for the purpose of performing the reloading operation. During the forward excursion of the bifurcated arm a fixed jaw projecting laterally inward from the rear end of the reciprocating bar catches upon the base of the cartridge in the carrier-cell of the breech-block and thrusts the cartridge forward into the chamber of the gun.

The accompanying drawings, representing my improvements applied to the Spencer and Roper magazine fire-arm, are as follows:

Figure 1 is a side elevation of the right-hand side of the receiver and adjoining portions of the stock, and of the barrel and magazine, showing the breech-block dropped below its middle position. Fig. 2 is a longitudinal section through the line *xx* on Fig. 1, with the breech-block in its middle or firing position. Fig. 3 is a top view of the receiver and adjoining parts of the stock and barrel, partly in section, through the line *yy* on Fig. 1, showing the construction of the spring-extracting jaw. Fig. 4 is a detached view, partly in section, of the lower portion of the breech-block. Fig. 5 is a transverse section through the line *zz* in Fig. 1, showing the stop in position to check the ejection of cartridges from the magazine. Fig. 6 is a similar transverse section showing the action of the spring-latch for forcing the stop away from the mouth of the magazine. Fig. 7 is a top view, partly in section, of the extractor and inserter. Fig. 8 is a view of the inner face of the extractor and inserter.

I have not deemed it necessary to show an entire gun, as the construction of my improvements and their mode of operation will be easily understood by an inspection of those

parts of the gun with which they are immediately connected. Thus the drawings represent the receiver A, a portion, B, of the stock, and portions C and D of the barrel and tubular magazine, respectively. The right-hand-side wall *a* of the receiver is horizontally slotted to receive the shank *e* of the spring-stop E, which, as will be seen, projects slightly over the edge of the mouth *d* of the magazine a sufficient distance to catch behind the flanged base F of the outermost cartridge contained in the magazine, while not projecting a sufficient distance to bear upon the body of the cartridge.

The device for retracting the spring-stop to allow the ejection of the cartridge from the magazine consists of the longitudinally-yielding spring-latch *g*, which is loosely seated in the hole *g'* in the lower part of the right-hand-side wall of the carrier-cell H, formed in the lower part of the breech-block G, and containing an expanding spiral spring, *g*². The projecting end of the spring-latch *g* is beveled, as shown, so that during the upward movement of the breech-block the spring-latch will be forced longitudinally inward by the collision with the rear side, E', of the stop E. During the downward movement of the breech-block from its highest position the beveled side of the spring-latch is carried against the end of the stop E, which is thereby rocked outward, and being thus removed from the mouth of the magazine permits the outermost shell to be ejected therefrom, by the action of the magazine-spring D, into the carrier-cell H. The width of the spring-latch is such that it holds the stop clear from the mouth of the magazine for a sufficient length of time to permit the base of the outermost cartridge to move outward beyond the stop E; but before the cartridge has been fully ejected from the magazine the spring-latch *g* has been carried by the downward movement of the breech-block clear of the stop E, and the latter therefore springs back partially across the mouth of the magazine in time to catch the base of the next following cartridge, which it holds in the magazine until the breech-block is again reciprocated, as in the act of reloading the arm.

The instrumentality for extracting the empty shell from the chamber and inserting a fresh cartridge into the chamber is a longitudinally-reciprocating bar, I, which is secured to and moves with the right-hand arm J of the bifurcated slide by which the reloading mechanism is actuated, this slide having imparted to it, for the purpose of performing the

reloading operation, a reciprocating motion in a line parallel with the axial line of the barrel. The bar I presents a square notch, *i*, upon its inner face, near its rear end. The square notch *i* is the space between two jaws—the one a rigid jaw affixed to the rear end of the bar I, and forming part thereof, and the other a pivoted spring-jaw, *i'*. The spring-jaw *i'* swings in and out toward and from the axial line of the barrel, and hence during the forward movement of the arm J, in case there is a cartridge in the chamber of the gun, the jaw *i'* yields and rides over the edge of the flange of the cartridge in the chamber, and then springs inward, so that during the backward movement of the arm J the jaw *i'* catches against the flange of the cartridge-shell in the chamber, and as the arm J continues to move back pushes the shell out of the chamber.

I claim as my invention—

1. In a magazine fire-arm containing a tubular magazine and a movable breech-block, the herein-described mechanism for controlling the delivery of cartridges from the magazine into a cell formed in the breech-block, which consists of the spring-stop E, supported in suitable proximity to the mouth *d* of the magazine, and an actuating spring-latch carried by the breech-block, and adapted to force the stop E away from the mouth of the magazine during the movement of the breech-block in one direction, and also adapted to yield during the movement of the breech-block in the opposite direction, and thus pass by without affecting the position of the stop E, for the purpose of preventing the issue of a cartridge from the magazine, excepting when the cell has been brought by the movement of the breech-block into proper position to receive the cartridge, and also for the purpose of preventing the ejection from the magazine of more than one cartridge at a time.

2. In a fire-arm, and in combination with operating mechanism therefor, a cartridge inserting and ejecting bar reciprocating longitudinally at the breech of the barrel, having a rigid jaw at the rear end and a yielding jaw in front of the same, to act on the flange of the cartridge, respectively, for inserting and ejecting the same, the forward jaw yielding to the flange of the cartridge in its forward movement.

RICHARD RHODES.

Witnesses:

GEO. H. DAY,
C. M. SPENCER.