

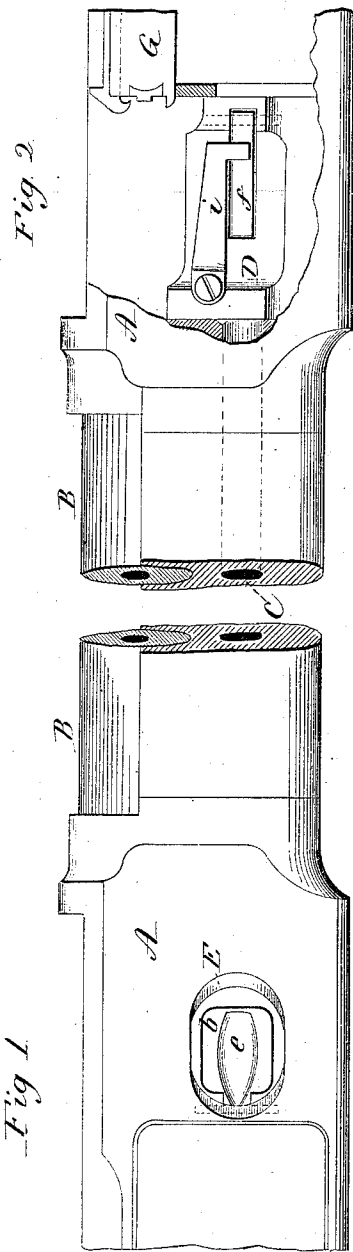
(No Model.)

W. MASON.

MAGAZINE FIRE ARM.

No. 312,139.

Patented Feb. 10, 1885.



Witnesses
J. K. Shumway
J. C. Earle

Wm Mason
By atty Inventor
Wm E. Miles

UNITED STATES PATENT OFFICE.

WILLIAM MASON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 312,139, dated February 10, 1885.

Application filed December 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MASON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Magazine Fire-Arms; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a right-hand side view of the forward portion of the receiver and rear portion of the barrel and magazine, showing the opening in the receiver and carrier for the introduction of cartridges; Fig. 2, an opposite side view, a portion of the receiver broken away to show that side of the carrier; Fig. 3, a longitudinal section through the cartridge-chamber in the carrier; Fig. 4, a top view of the carrier removed from the arm, illustrating the cover and stop as in the position of introducing cartridges; Fig. 5, a transverse section of the receiver, showing a rear end view of the carrier; Fig. 6, a side view of the carrier, and Fig. 7 a horizontal section showing a modification whereby the cover is made to serve both as a cover and as a check or stop. Figs. 8, 9, 10, and 11 illustrate a modification, Fig. 8 being a right-hand side view of the carrier, Fig. 9 a horizontal section through the cartridge-chamber, Fig. 10 a reverse side view of Fig. 8, and Fig. 11 a rear end view of the carrier.

This invention relates to an improvement in that class of magazine fire-arms adapted to use the smaller class of cartridges, such as 22's. In this class of arms, if the same method of charging the magazine be employed—to wit, an opening through the side of the receiver, with a trap therein, and a passage leading from the opening to the magazine-tube—the cartridges are so short that they cannot be followed by the thumb so far through the opening in the receiver as to take them to a point where they may be caught and held in their proper position in the magazine or carrier. To obviate this difficulty detachable magazines have been employed, which, after being charged, are applied to the arm; but such construction is open to serious objections, one of the principal of

which is the fact that the magazine is detachable and removable from the arm, and in such removing, loading, and replacing it is liable to be bent out of shape or otherwise deranged so as to prevent its practical working.

The object of my invention is to construct the arm so that the magazine may be conveniently and readily charged through the receiver, and my invention is particularly adapted to the construction of arm commonly known as the "Winchester" arm—that is to say, in which the carrier moves vertically up and down in a recess in the receiver at the rear of the barrel, and through which a longitudinally-moving breech-piece works to transfer the cartridge from the chamber in the carrier to the barrel, the carrier dropping after the breech-piece has thus passed through it; and my invention consists in an opening through the receiver, and a corresponding opening through the carrier into the chamber arranged to receive the cartridge, so that a cartridge may be introduced through this said opening in the receiver and in the carrier to said chamber, and which said chamber leads directly to the magazine, combined with a check or stop in the carrier to prevent the return of the cartridge, as more fully hereinafter described.

A represents the receiver, B the barrel, and C the magazine, of a Winchester arm; D, the carrier, which is arranged in a recess in the receiver in rear of the barrel in the usual manner, and through the side of the receiver into the carrier-recess is an opening, E, and in the same side of the carrier a corresponding opening, F, is made, the said openings being made in line with the chamber *a* in the carrier, which corresponds to and forms substantially a continuation of the magazine when the carrier is in its down or normal position. In the opening F in the carrier a cover, *b*, is hinged at the rear, as at *d*, and so as to be turned inward, as indicated in Fig. 4. The outer surface of the cover or trap is recessed, as at *e*, to form a guide for the cartridge into the passage, and in like manner as are the traps or covers of magazine-charging openings in other arms. The cover is constructed so as to come to a bearing when in its closed position, as seen in Fig. 3. Upon the side of the carrier opposite

the cover, a latch or stop, *f*, is hung upon a hinge, *h*, near the rear end of the carrier. The nose of the latch is distant from the forward end of the carrier equal to the length of the cartridge to be used in the arm. The latch *f* is provided with a spring, *i*, (see Figs. 2 and 4,) the tendency of which is to throw the latch inward, so that its nose stands across the chamber in the carrier, as seen in Fig. 3. The latch *f* being directly opposite the cover *b*, if the cover be turned inward, as seen in Fig. 4, it will strike the latch on the opposite side and force the latch outward from the chamber in the carrier, as indicated in Fig. 4. Thus constructed, to charge the arm, the nose of the cartridge is placed upon the cover *b*, and the cover depressed, in like manner as such a cover is depressed when arranged in the side of the receiver, and such depression of the cover turns the latch *f* out of the chamber or passage in the carrier, as indicated in Fig. 4, and so that the cartridge may be pressed forward with the finger toward the magazine, until the latch *f* may return in rear of the head of the cartridge, then left free, the latch springs inward, to form a stop to prevent the return of the cartridge. Successive cartridges are introduced until the required number have passed into the magazine. The latch *f* serves as a stop to hold the rearmost cartridge in its proper position in the carrier, to be transferred by the carrier to a position in line with the barrel and forward of the longitudinally-movable breech-piece *G*. Then when the breech-piece is moved forward it strikes the inclined back of the latch *f*, turns the latch outward, so that the breech-piece will readily pass it and transfer the cartridge to the barrel. Then, the carrier being dropped, the latch returns in time to form a stop for the next cartridge which passes from the magazine into the chamber in the carrier. The cover *b* may serve as the check or stop for the cartridge, and thereby avoid the use of the latch *f*. This arrangement may be seen in Fig. 7, the cover of the same shape and hung in substantially the same manner in the opening in the carrier, the forward end of the carrier constructed with an inwardly-projecting nose, *l*. In this case the cover should also be provided with a spring, *m*, the tendency of which is to force the cover outward into its closed position, and in this position the nose *l* of the cover stands within the chamber of the carrier as a check or stop against which the head of the cartridge will abut, as it did in the first illustration against the nose of the latch *f*. In this construction it will be desirable to make an opening, *n*, in the opposite side of the receiver, into which the nose of the cover may enter, so as to leave a free passage into the carrier. The same spring *m* may be applied to the cover *b* in the first illustration, but it is not necessary in that construction, for the reason that the breech-piece passing through the chamber in the carrier will serve to close the cover. The

cover for the opening *F* in the carrier may be omitted, as seen in Fig. 9. In this case the check upon the opposite side will be depressed by the nose of the cartridge as it passes into the chamber in the carrier.

While I prefer to hinge the stop or check at the rear, and so that it will swing in a horizontal plane, it may be arranged to swing in a vertical plane—that is, hinged below—as seen in Figs. 9, 10, and 11, it extending up so that its nose projects into the chamber in the carrier, as seen in Figs. 9 and 11.

It may sometimes happen in introducing a cartridge through the opening into the carrier that it may escape the fingers of the operator before its head shall have passed forward of the nose of the latch. In that case it would, under the action of the spring of the magazine, be free to be thrown farther to the rear. I therefore find it desirable to provide a second check, *r*, in shape substantially like the check *f* in Figs. 9 and 10. This check is arranged at the rear of the first check, its nose extending into the chamber of the carrier, and so that should the first check, *f*, permit the cartridge to move to the rear it will be caught by the check *r*, and will there stand to prevent the introduction of other cartridges until the cartridge so stopped by the check *r* shall be moved forward into its proper position and caught by the check *f*. In this case the two checks *f* *r* are provided with their independent springs, respectively *s* and *t*, as seen in Fig. 10.

I have not illustrated the mechanism of the arm other than the carrier, as such mechanism is too well known to require particular illustration or description.

I claim—

1. In a magazine fire-arm having a longitudinally-movable breech-piece, and in which the magazine is arranged beneath the barrel, a carrier arranged to move up and down to transfer a cartridge from the magazine to a position between the front face of the open breech-piece and the barrel, the receiver constructed with an opening, and the carrier with a corresponding opening into its chamber which receives the cartridges from the magazine for transfer to the barrel, and through which openings the cartridges may be introduced to the cartridge-chamber in the carrier, and thence to the magazine, the carrier provided with a check or stop to engage the head of each cartridge so introduced through the opening in the receiver and carrier, substantially as described.

2. In a magazine fire-arm in which the magazine is arranged beneath the barrel and having a longitudinally-movable breech-piece, the combination therewith of a carrier arranged to transfer the cartridges from the magazine to a position between the front face of the breech-piece and the rear end of the barrel, the receiver constructed with an opening through one side, the carrier with a corresponding opening upon the same side but in

rear of the front end of the carrier, the opening in the carrier provided with a cover arranged to turn inward into the cartridge-chamber in the carrier and serve as a guide for the introduction of cartridges through the opening in the receiver, and the opening in the carrier to the said chamber in the carrier, and thence to the magazine, substantially as described.

10 3. In a magazine fire-arm having a magazine arranged beneath the barrel, a longitudinally-movable breech-piece and a carrier arranged to transfer cartridges from the magazine to a position between the front face of the open
15 breech-piece and the rear end of the barrel, the receiver constructed with an opening through one side, the carrier with a corresponding opening leading into its chamber which receives the cartridges from the maga-
20 zine, the said opening in the carrier provided with a cover opening inward, the said cover serving as a guide to conduct the cartridge through the opening in the receiver and opening in the carrier to the chamber in the car-
25 rier, thence to the magazine, and a stop ar-

ranged to engage the head of the cartridge so introduced into the chamber in the carrier, substantially as described.

4. In a magazine fire-arm having a magazine arranged beneath the barrel, a longitudi- 30
nally-movable breech-piece, and a carrier arranged to transfer a cartridge from the magazine to a position between the front face of the open breech-piece and the barrel, the receiver
35 constructed with an opening through one side, the carrier with a corresponding opening into the cartridge-chamber in the carrier, and through which opening in the receiver and opening in the carrier cartridges may be in-
40 troduced to the chamber in the carrier, and thence to the magazine, a stop arranged to fall in rear of the head of the last-inserted cartridge, and a second or auxiliary stop ar-
45 ranged in rear of the before-mentioned stop, substantially as and for the purpose described.

WILLIAM MASON.

Witnesses:

DANIEL H. VEADER,
LEE H. DANIELS.