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W. GARDNER.

MAGAZINE GUN.

No. 174,798. Patented March 14, 1876.

Fig. 1.

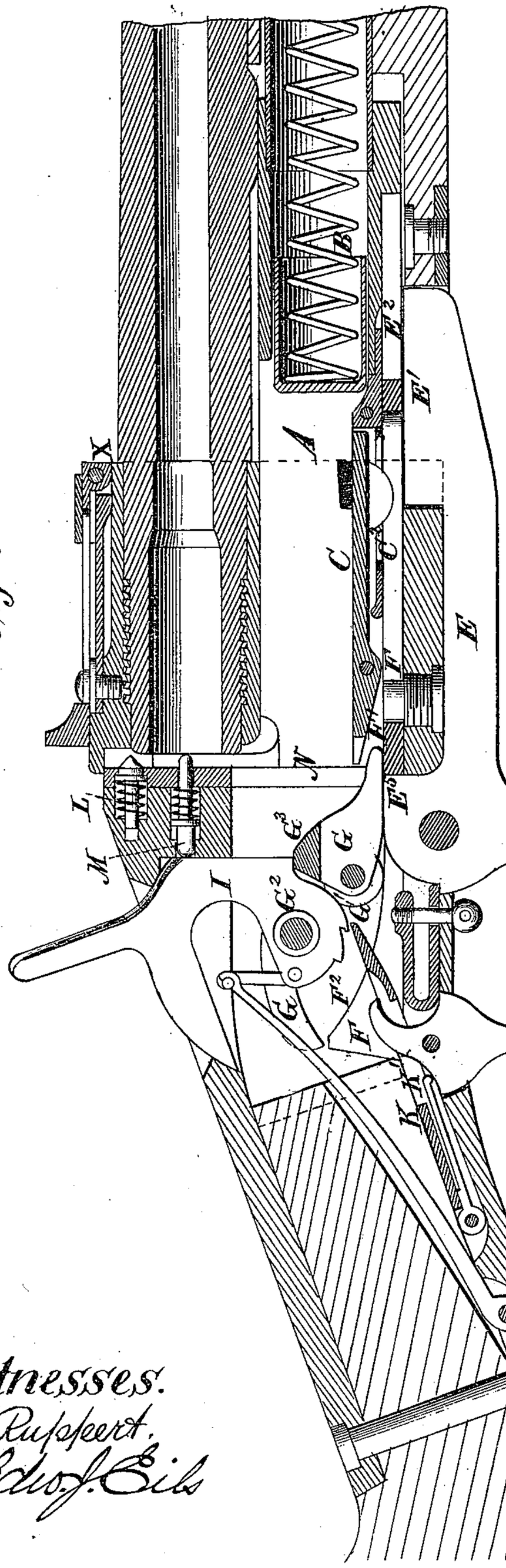

Fig. 4.

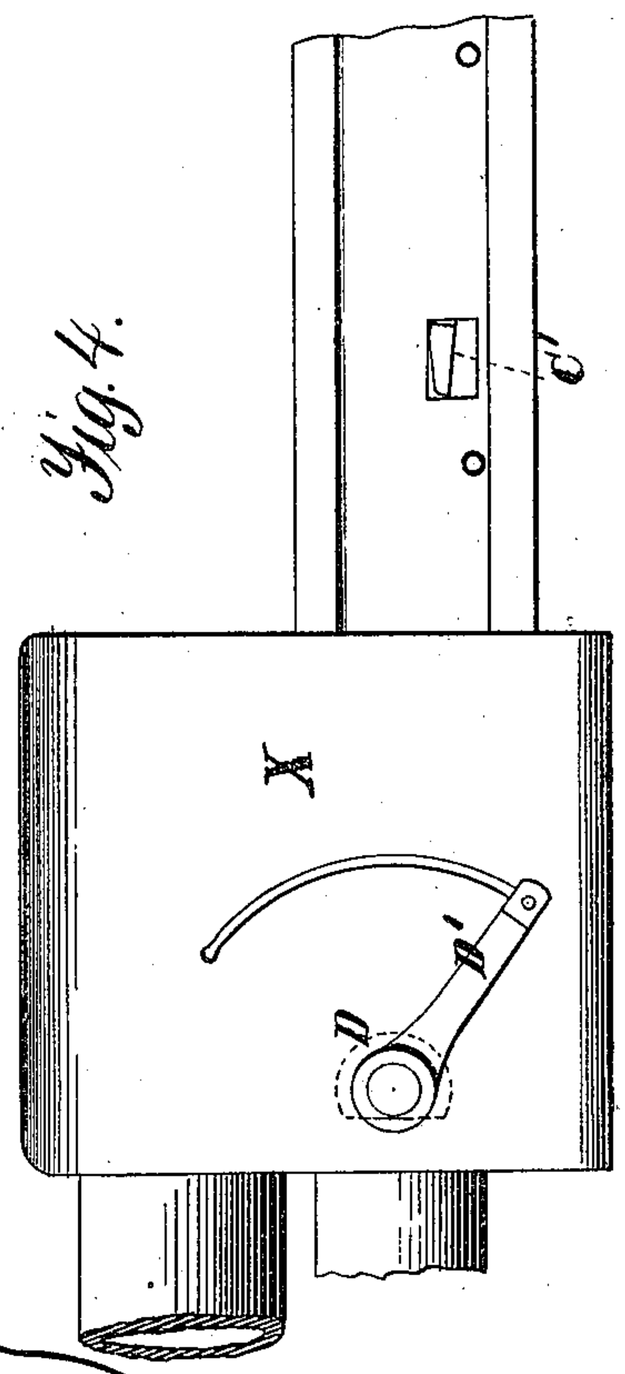

Fig. 5.

Witnesses.
A. Ruppert.
Edw. J. Bils

Wm. Gardner
Inventor.
D. P. Holloway & Co
Atty.

2 Sheets—Sheet 2.

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Fig. 2.

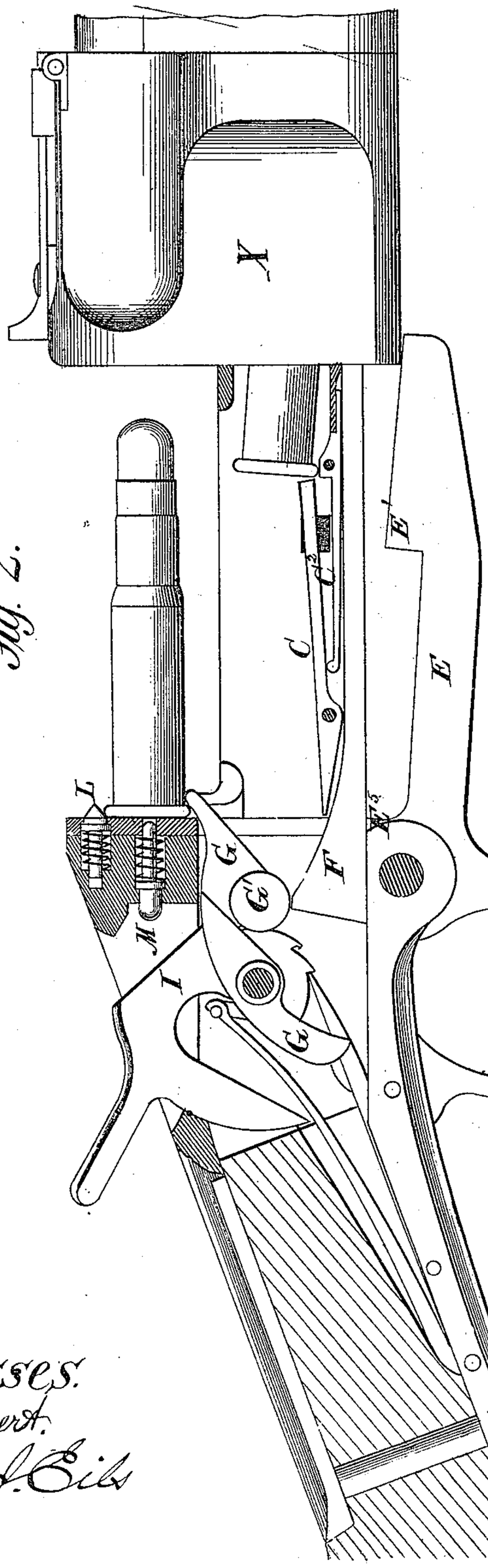
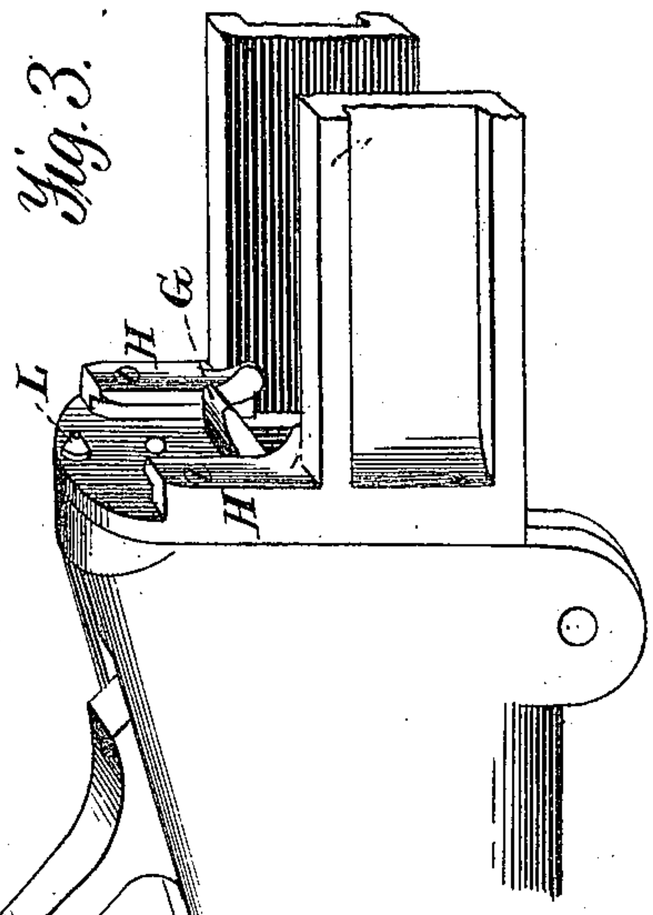


Fig. 3.



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Attys.

UNITED STATES PATENT OFFICE.

WILLIAM GARDNER, OF TOLEDO, OHIO.

IMPROVEMENT IN MAGAZINE-GUNS.

Specification forming part of Letters Patent No. **174,798**, dated March 14, 1876; application filed August 10, 1875.

To all whom it may concern:

Be it known that I, WILLIAM GARDNER, of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Fire-Arms, of which the following is a specification:

In the annexed drawings, making part of this specification, Figure 1 is a vertical longitudinal section. Fig. 2 is an elevation, partly in section. Fig. 3 is a perspective view, showing the ways and the mechanism for elevating the cartridge. Fig. 4 is an elevation, showing the mechanism for changing the piece from a magazine-gun to a single shooter; and Fig. 5 is a perspective view of the tilting-lever for holding the cartridges in the magazine.

The same letters in all the figures indicate identical parts.

The object of this improvement is to produce an effective and reliable arm, which may be used either for firing cartridges from a magazine, or for firing single cartridges, as in the ordinary breech-loader. The features of novelty will be indicated in the specification and claims.

The piece is formed in two divisions, one including the barrel and fore-stock and slide, the other the breech and a firing mechanism and magazine. The connection between the two sections is formed by a flanged and recessed projection from the breech, working into a corresponding chamber in the barrel-section. In Fig. 1 the piece is shown as it is when in condition for firing or to be carried, and in Fig. 2 as it is when the forward section is thrown forward to load the piece.

When in position shown in Fig. 2 the magazine A, which is immediately under the barrel and parallel with it, may be charged by pushing in the cartridges at the rear, forcing in the spiral spring B, which bears constantly against the point, and presses the row of cartridges back toward the breech. As each cartridge is introduced its flanged head is engaged by the lever C, which swings upon a pivot having its front end sustained upon the spring C^2, which permits the point of the lever to be depressed for the introduction of the cartridge, but raises it to confine the latter, as soon as its head passes from the lever. A point, C^1, on the side of the lever passes through a slot in the side of the magazine-chamber, and projects into a space left between the latter and the slide X. On the side of the slide is a lever, D′, turning on an axis, which passes through the slide, and carries on the inner end a cam, D, shown in dotted lines in Fig. 4. It is flat on one side, so that when the flattened side is down the parts may slide freely without touching the cam D; but in the position shown in Fig. 4 it will strike against the point C^1 in moving, and thus draw down the lever C, and force the head of the cartridge in the magazine, which will immediately be ejected by the spiral spring B into the chamber above the lever C. It is manifest, therefore, that the position of the arm D′ determines the character of the piece. When turned down, as shown in Fig. 4, the cam and point will free a cartridge from the magazine, with every backward movement of the barrel and slide. If thrown up, the cam will not touch point C^1, and the piece can be operated as a breech-loader, the cartridges remaining undisturbed in the magazine.

The trigger-guard E swings upon a pivot, its front end E^1 being formed with a notch, which engages a recess in the under side of the fore-stock when the parts are brought together, and so confines them until disengaged by pressing the free end of the guard toward the stock. This guard serves for the further purpose of preventing premature action of the hammer. This is done by making the section E^3 of the guard proper upon a curve, the center of which is the pivot of the guard. The arcs E^3 and E^4 formed at the angle are short, only extending a little distance on each side of the angle, when they are merged into the curves of the trigger-guard, and the section E^4 upon a curve, the center of which is the pivot of the trigger. Thus it will be seen that while the guard is in the position shown in Fig. 1, the piece being ready for firing, the trigger will operate without restraint; but when the parts are detached, as shown in Fig. 2, the angle formed at the intersection of the two curves will prevent the trigger from being drawn back, so long as the notch E^1 remains out of the recess in the fore-stock—in other words, until the barrel is brought back

into contact with the recoil-shield, and securely locked there.

The trigger-guard being drawn up and the parts disengaged, the cartridge may be inserted by sliding the flanged head between the ways H until it passes the detent L, a cone-pointed pin, and rests on the end of the dog G, when the parts may be brought together and the piece fired.

If the arm D′ is depressed to bring the magazine into action, the operation will be as follows: The forward section carries with it a piece, F, placed under the lever C, not attached to either but moving with the barrel. This piece is slotted at the front end to receive the stud F′, which permits the piece F to have free play for the distance of two inches, more or less, until the end of the slot engaging the stud draws the upwardly-curved end under the end of the dog G, and turns up the point, lifting the cartridge, its head sliding between the ways H into place against the pin L, carrying upon it the blank of the discharged cartridge if the piece has been previously fired. The point of the dog projects into the cartridge-chamber, and on the dog, between the axis and the point, are friction-wheels G′, which run on the upper face of the curved ends of piece F.

The dog G turns upon a pin, which also carries the hammer, indicated at G^2. A shoulder at G^3, Fig. 1, also engages a projection on the hammer I, so that as the dog is raised by the slide, as shown in Fig. 2, the hammer will also be thrown back until the sear K engages a notch on the hammer, by which the latter will be sustained when the sections are brought together, relieving the dog, which is thrown down to engage another cartridge, leaving the hammer cocked, so that the piece may be fired as soon as the sections are connected and the trigger freed. Thus, while the dog and hammer are connected in such manner that the ascent of the dog cocks the hammer, the descent of the former is independent of the latter.

The slide *x* extends over the barrel and behind it, forming a recess (seen in Fig. 1) when it slides over the recoil-shield, thus forming a slip-joint. It encircles the barrel, which is screwed into it, and also incloses the magazine, for which it serves as a guide in sliding the two sections. It is notched to form part of the recess in the fore stock, which receives the notched head of the trigger-guard.

The trigger-guard is so formed that a shoulder, E^5, bears against the sliding piece F, and that against the stud F′ gives forward movement to the front section of the piece as the trigger-guard is operated to detach the sections to assist in starting the cartridge which is to be extracted.

The piece N forms the recoil-shield, and also supports the parallel slides H, and has holes bored to receive the pins M and L, which pass through it, and, fitting neatly into the holes, they form guides for the front end of the pins. The lower end of this piece is also slotted to permit the point of the dog G to pass into the magazine-chamber to act on the head of the cartridge to lift it, as described herein.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The slide *x*, into which the barrel is screwed, and which is formed with a flanged edge, to form, with the recoil-shield, a slip-joint, substantially as set forth.

2. The slide *x*, in combination with the hooked head of the trigger-guard, substantially as set forth.

3. In combination with the slide *x* and lever C, the cam D and lever D′, substantially as set forth, for converting the piece from a magazine-gun to a single-loader, or vice versa.

4. The trigger-guard formed with a shoulder, E^5, in combination with the piece F and stud F′, to start the forward section, substantially as set forth.

5. The trigger-guard, constructed with a notched head to hold the sections, substantially as set forth.

6. The trigger-guard, constructed with the angle formed by the lines E^3 and E^4, and arranged in relation to the trigger, substantially as described.

7. The slide F, in combination with the dog G, which is pivoted at the rear and acted upon by the inclined face of the slide F, and which, extending forward into the cartridge-chamber, throws up the cartridge, substantially as described.

8. The slide F, in combination with the dog G and hammer I, connected in such manner that the lifting of the dog cocks the hammer, but the former may fall independently of the latter, substantially as described.

9. The conical-pointed detent L for confining the cartridge, substantially as described.

10. In combination with the dog G, pivoted in the rear, and projecting forward into the cartridge-chamber, the slotted plate placed between the magazine and lock mechanism, and guides H for the cartridge and pin L, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. GARDNER.

Witnesses:
THOMAS C. CONNOLLY,
A. RUPPERT.