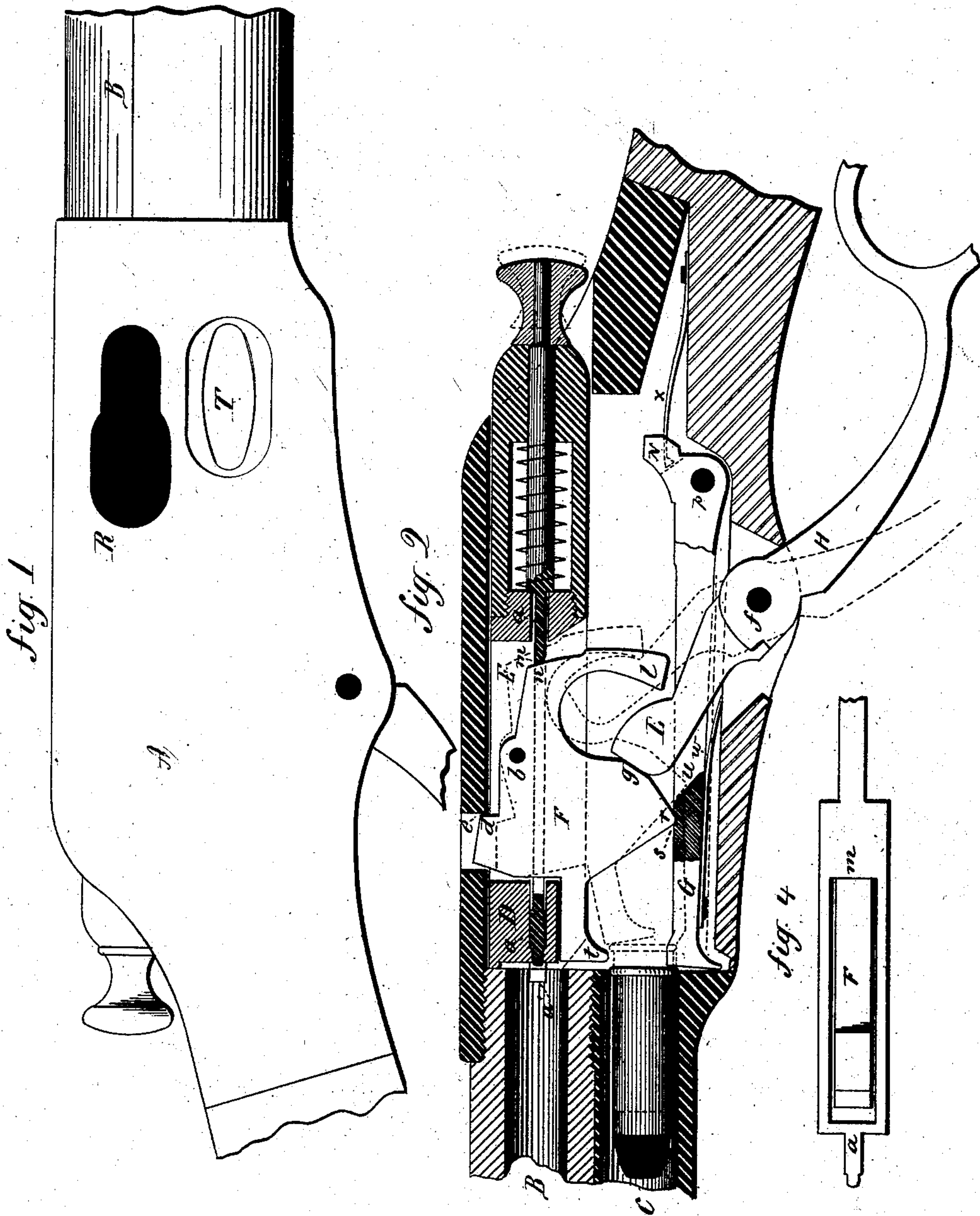


F. W. TIESING.
Magazine Fire-Arm.

No. 226,809.

Patented April 20, 1880.



Witnesses.

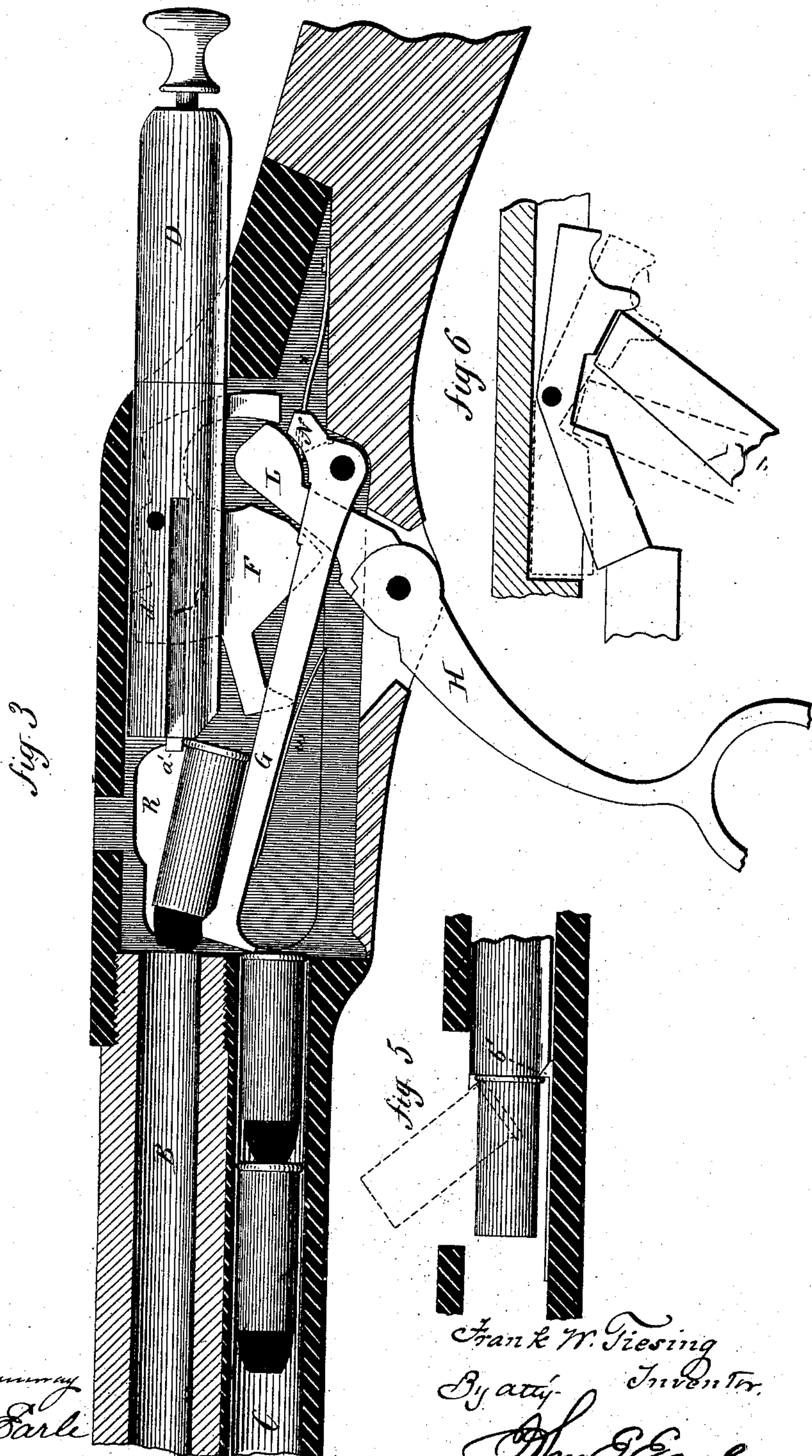
John H. Murray
John A. Earle

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By *John A. Earle* Inventor.

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Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK W. TIESING, OF NEW HAVEN, CONNECTICUT.

MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 226,809, dated April 20, 1880.

Application filed February 14, 1880.

To all whom it may concern:

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

Figure 1, side view; Fig. 2, longitudinal section, all the parts in their normal condition; Fig. 3, longitudinal section, the parts in the
15 condition for introducing the cartridge in the chamber of the barrel; Figs. 4 and 5, detached views; Fig. 6, modification.

This invention relates to an improvement in that class of magazine fire-arms in which
20 the magazine is arranged longitudinally beneath the barrel, with a carrier in the rear to transfer the cartridges from the magazine to the barrel, and in which the breech-piece is a longitudinally-sliding bolt, and of the character known as "bolt-guns," parts of the inven-
25 tion being applicable to that class of breech-loading arms in which the longitudinal-sliding bolt is employed; and the invention consists in the construction, as hereinafter described, and
30 particularly recited in the claims.

A represents the frame or receiver within which the operative mechanism of the arm is arranged; B, the barrel, and C the magazine, attached to the forward end of the receiver in
35 the usual manner for this class of arms; D, the bolt or breech-piece, arranged to slide longitudinally through the receiver to open and close the breech, and provided with a longitudinally-movable firing-pin, *a*, to which
40 the blow of the hammer is imparted in any known and convenient manner, not necessary to be described in this specification. Through the breech-piece a vertical mortise, E, is made, in which the locking-lever F is hung upon a
45 pivot, *b*, and so that when in its closed position, as seen in Fig. 2, a projection or shoulder, *d*, stands in front of a corresponding shoulder, *e*, in the receiver to aid in the resistance to recoil.

50 H is the lever hung below upon a pivot, *f*, which also serves as a trigger-guard, and is

operated in the usual manner for such levers in this class of fire-arms. The shorter or inner arm, L, of the lever abuts against the lever F, as at *g*, which holds the lever up to place, and
55 also serves to resist recoil.

The lever F extends back to the rear of the arm L of the lever H, and so that when the lever is turned, as for the purpose of opening the breech, it strikes the lever at the rear, as
60 at *l*, the operation of which is, first, to move the arm L away from the bearing at *g*, and then strike the extension of the lever F, turn that from its locking engagement with the receiver, as indicated in broken lines, Fig. 2.
65 This leaves the breech-piece free. Then, the continued movement of the lever H, being against the lever F, forces the breech-piece backward and to its open position, as seen in Fig. 3, the locking-shoulder *d* passing back just below
70 the upper surface of the receiver-chamber, it being understood that the chamber of the receiver is closed at the top. When the lever H is returned the arm L presses forward against the lever F, as seen in Fig. 3, moving
75 the breech-piece to its closed position, then turns the lever up to its locking position, and the arm L again coming against the bearing *g* to lock the parts in their closed position.

The firing-pin is made to extend around the
80 lever F, as seen in Fig. 4, and so that the rear end of the lever, as at *n*, will rest against a shoulder, *m*, on the firing-pin when the firing-pin is at its extreme forward position.

The rear end, *n*, of the lever F is made of
85 cam shape, so that in the first movement of the lever F in releasing the breech-piece it will throw back or withdraw the firing-pin, as indicated in broken lines, Fig. 2, and hence prevent the firing-pin from being forced forward
90 to strike the primer until the lever is in its completely-locked position.

So far this construction is applicable to breech-loading arms without the magazine.

G is the carrier, hung at the rear upon a
95 pivot, *p*, in similar manner to carriers on other arms, and arranged so that in its normal condition its forward end will lie in rear of the head of the rear cartridge in the magazine, as seen in Fig. 2, so as to prevent the rearward
100 movement of the column of cartridges in the usual manner.

A projection, *r*, from the lever *F* rests in a depression or recess, *s*, in the carrier when all the parts are at rest, as seen in Fig. 2; but in turning the lever *F* for unlocking the breech, as before described, the projection *r*, passing out from the recess *s* in the carrier, depresses the carrier, as seen in broken lines, Fig. 2, sufficiently to permit the head of the rear cartridge to pass on to the carrier and strike an arm, *t*, on the forward end of the lever *F*, as seen in broken lines, Fig. 2. From this point the cartridge follows against the arm *t* until the breech-piece is opened; then the upper end of the arm *L* strikes an arm, *N*, on the carrier *G*, as seen in Fig. 3, and turns the carrier upward to bring the cartridge into position forward of the breech-piece, and so that when the breech-piece is advanced it will force the cartridge from the carrier into the chamber of the barrel in the usual manner, and when it has been inserted and the breech-piece closed the projection *r* on the lever *F* strikes an incline, *u*, on the carrier, (see Fig. 2,) and in the locking movement forces the carrier down to its place, as seen in Fig. 2, the projection *r* passing over and into the recess *s* in the carrier, as before described.

The carrier is provided with a spring, *w*, below, which serves to press the carrier upward against the projection *r* of the lever *F*, and also with a spring, *x*, at the pivot, which will hold it in its raised position in the usual manner.

The spring *w* may be otherwise arranged, or it may be dispensed with entirely, and the spring *x* made to serve the purpose of that spring, as well as to hold the carrier up. The breech-piece is provided with a spring extracting-hook, *a'*, on one side, and on the opposite side there is a stud, *b'*, stationary on the frame at the point where the head of the shell or cartridge will strike it, as seen in Fig. 5, just before the breech-piece completes its extreme rear movement, and so that by striking this stud the forward end of the cartridge will be turned outward and be discharged through an opening, *R*, in the side of the receiver.

The magazine is charged through an opening, *T*, in the side of the receiver, below the opening *R*, as seen in Fig. 1, and provided with a cover to close the opening, in substantially the usual manner for side-charging magazines, the carrier serving as a latch to engage the cartridges as they are successively introduced in the usual manner.

Instead of the lever *F* locking by the shoulder *d*, it may be made, as in Fig. 6, to lock at the rear end, or the locking of the lever with the frame may be dispensed with entirely.

I am aware that a lever has been hinged to the breech-piece so as to lock the breech-piece by engaging with a shoulder in the receiver.

I am also aware that the trigger-guard lever has been arranged to lock the breech-piece. I therefore do not wish to be understood as broadly claiming such locking of the breech-piece.

I claim—

1. The combination, in a breech-loading fire-arm, of the longitudinally - movable breech-piece, the lever *F*, pivoted in the breech-piece so as to swing in the same plane with the lever *H*, which is pivoted in the frame, and the arm *L*, the said lever *F* constructed with a bearing, *g*, to rest against the arm *L* of the lever *H*, substantially as and for the purpose specified.

2. The combination, in a breech-loading fire-arm, of the longitudinally - movable breech-piece, the lever *F*, pivoted in the breech-piece so as to swing in the same plane with the lever *H*, which is pivoted in the frame, and the arm *L*, the said lever *F* constructed with a bearing, *g*, to rest against the arm *L* of the lever *H*, and a shoulder on said lever *F* to lock against a stationary bearing on the receiver, substantially as and for the purpose described.

3. The combination, in a breech-loading fire-arm, of the longitudinally - movable breech-piece, the lever *F*, pivoted in the breech-piece so as to swing in a vertical plane with the lever *H* and arm *L*, the said lever *F* constructed with a bearing, *g*, to rest against the arm *L* of the lever *H*, a longitudinally-movable firing-pin in said breech-piece with cam *n* on said lever *F*, and shoulder *m* on the firing-pin, substantially as and for the purpose described.

4. The combination, in a magazine fire-arm, of the longitudinally - movable breech-piece, the lever *F*, pivoted in the breech-piece so as to swing in a vertical plane with the lever *H* and arm *L*, the said lever *F* constructed with a bearing, *g*, to rest against the arm *L* of the lever *H*, with carrier *G*, hung below the breech-piece, and projection *r* on said lever *F*, with recess *s* and shoulder *u* on the carrier, substantially as and for the purpose described.

5. The combination, in a magazine fire-arm, of the longitudinally - movable breech-piece, the lever *F*, pivoted in the breech-piece so as to swing in a vertical plane with the lever *H* and arm *L*, the said lever *F* constructed with a bearing, *g*, to rest against the arm *L* of the lever *H*, with carrier *G* hung below the breech-piece, a projection, *r*, on said lever *F*, with recess *s* and shoulder *u* on the carrier, and arm *t* on the forward end of the lever *F*, substantially as and for the purpose described.

FRANK W. TIESING.

Witnesses:

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