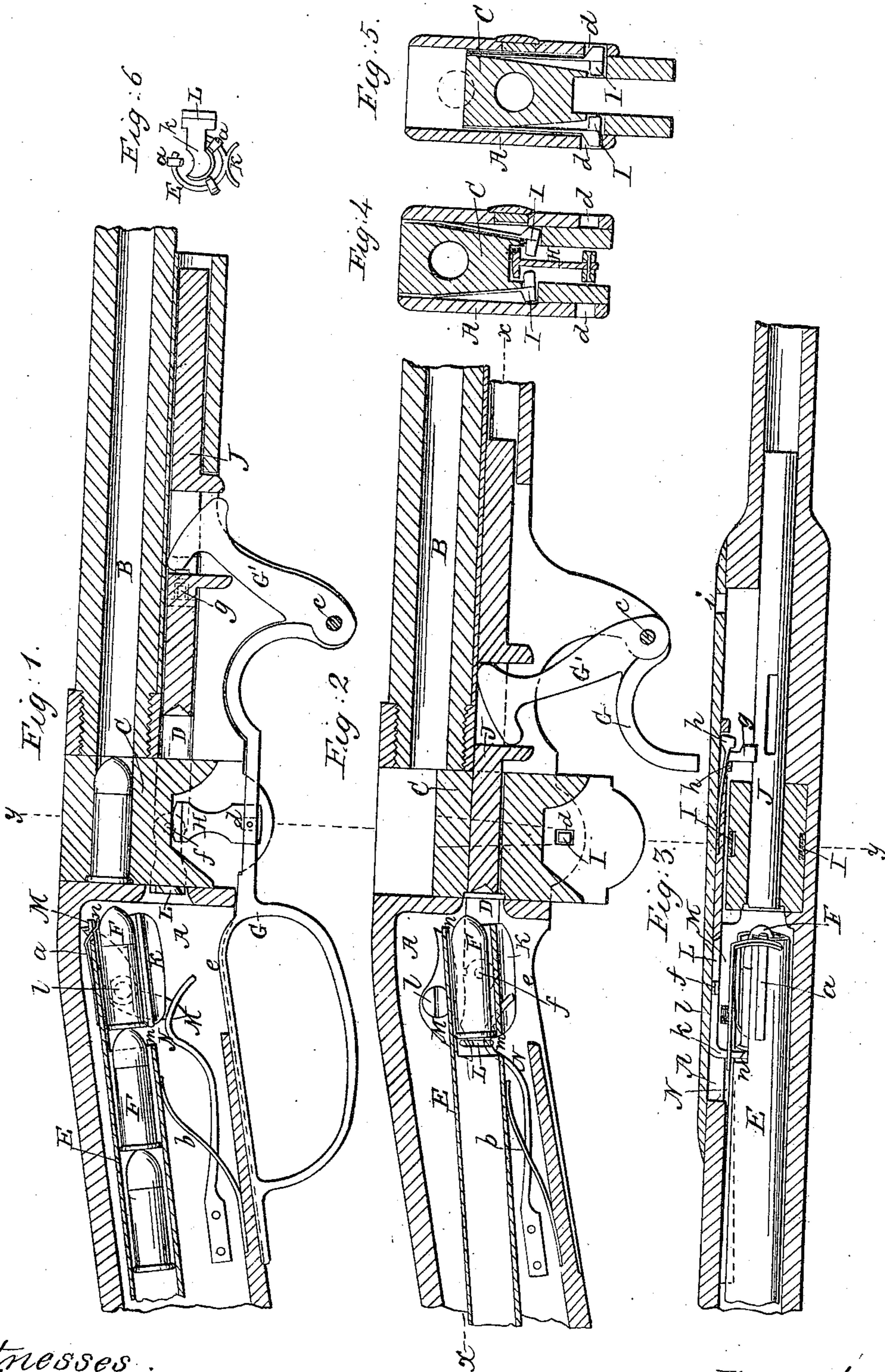


D. ELLIS.

Magazine Fire-Arm.

No. 101,845.

Patented April 12, 1870.



Witnesses
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R. P. Ketchum

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UNITED STATES PATENT OFFICE.

DARWIN ELLIS, OF WHITESTONE, NEW YORK.

IMPROVEMENT IN MAGAZINE FIRE-ARMS.

Specification forming part of Letters Patent No. **101,845**, dated April 12, 1870.

To all whom it may concern:

Be it known that I, DARWIN ELLIS, of Whitestone, in the county of Queens and State of New York, have invented a new and useful Improvement in Magazine Fire-Arms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figures 1 and 2 represent similar longitudinal sections of my improved gun, with the operating parts in different working positions; Fig. 3, a longitudinal section at right angles to Figs. 1 and 2, taken mainly as indicated by the line $x x$ in Fig. 2. Figs. 4 and 5 are transverse sections through the line $y y$ in Figs. 1, 2, and 3; and Fig. 6, an end view of the magazine with the loader in position therein.

Similar letters of reference indicate corresponding parts.

This invention consists in a novel means of transferring the cartridge from the magazine to a chambered breech-block, and novel means for operating the latter in conjunction with the means for expelling the shell of the discharged cartridge after the breech-block has been lowered out of line with the barrel.

In the accompanying drawing, A represents the breech-receiver, which unites the barrel B with the stock, and C is the chambered block, that is arranged to slide transversely up into line with the barrel and down into line with a discharge-chamber, D, running parallel with the barrel. E is the magazine, lying within the receiver A, and which may be pivoted in the rear to allow of its front end rising and falling, and is provided with the usual or any suitable spring-follower, to keep the cartridges F pressed forward in the magazine, the front cartridge being retained in position and prevented from being forced into contact with the forward end of the receiver by a spring, a , arranged at points around the magazine, and made to bear or press upon the bullet. Said magazine is held in a raised position by a spring, b .

G is a lever, pivoted as at c , and which carries a link or catch, H, for operating the chambered block C, such catch acting against the under side of the block to raise it, and on spring jaws or clips I I to depress it, said clips shooting into holes $d d$ in the sides of

the receiver when the chamber of the block C is depressed into line with the discharge-chamber D, in order that the catch H may be released from communicating further downward movement to the chambered block. This is the position represented for the parts in Figs. 2 and 5.

The chambered block C having been thus brought into line with the discharger-chamber D, and left there by the release of the catch H, the lever G is continued in its downward movement to effect the discharge of the shell brought down in the chambered block, and to project the loader into the magazine; also, to depress the latter as necessary for recharging the chambered block.

The shell is discharged from said block by the lever G, in its continued downward movement, operating in a backwardly direction a sliding discharger, J, within the chamber D and chamber of the block C through an arm, G', of said lever in slotted gear with the discharger, a shield or deflector, K, attached to the magazine serving to insure the proper delivery of the shell through a bottom opening, e , in the breech-receiver by a downward movement given to the forward end of the magazine through the action of a loader, L. This loader is jointed, as at f , and arranged to slide longitudinally within the breech-receiver along a suitably-constructed slot in the one side of it, and is driven by a stud, g , on the one side of the discharger J, arranged to fit within lips $h h$, the one of which is carried by a spring, to enable it to shoot into a notch, i , in a fixed portion of the gun, out of the way of the driving-stud g , toward the close of the return movement of the discharger, and whereby a fixed starting position is retained for the loader in the next advance stroke, which insures its timely and proper action. Said loader L, which is bent, as at k , to enter the magazine, and for the performance of its several functions, is made to act, when being forced forward and toward the close of the discharger's advance stroke, on the lower limb of a double-armed magazine-depressor, M, pivoted, as at l , to the side of the breech-receiver, in such manner that the upper limb of said depressor is made to bear down the forward end of the magazine toward the discharger. This secures the ejection of the shell by the deflector

K through the opening *e*. Likewise said loader L, toward the close of the advance stroke of the discharger J, presses by its bent exterior *k*, and rides over a spring, N, which shoots it up into the magazine through a bottom slot, *m*, immediately in rear of the advance cartridge in the magazine.

All these several operations take place by and during the depression of the lever G. In raising or closing said lever again the discharger J retires from the chambered block C, and the loader L is caused to force the advance cartridge into position within said block before the catch H acts upon said block to lift it into line with the barrel, which the closing action of the lever G effects, the magazine again flying up so soon as the loader L escapes from out of its forward end. While said loader is jointed, as described, and should have play to a limited extent toward the close of its first-mentioned stroke, which provides for its entry through the bottom slot, *m*, the same that in being moved forward to load the chambered block works along a side slot, *n*, in the magazine, is so guided by the slot in the side of the breech-receiver, within which it slides,

as to insure the completion of the dip to the magazine and proper retention of it in its depressed position till the chambered block C is charged.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination of the chambered breech-block C and the discharger J with the lever G, substantially as described, and whereby the said breech-block is depressed by the lever out of line with the barrel in advance of the discharger being operated by said lever to expel the shell, essentially as specified.

2. The combination of the catch H and spring-clips I I with the lever G and discharger J, essentially as shown and described.

3. The combination of the loader L, the chambered breech-block C, and the discharger J with the lever G, essentially as described.

4. The loader L, constructed to operate substantially as described, in combination with the magazine-depressor M and spring N.

DARWIN ELLIS.

Witnesses:

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