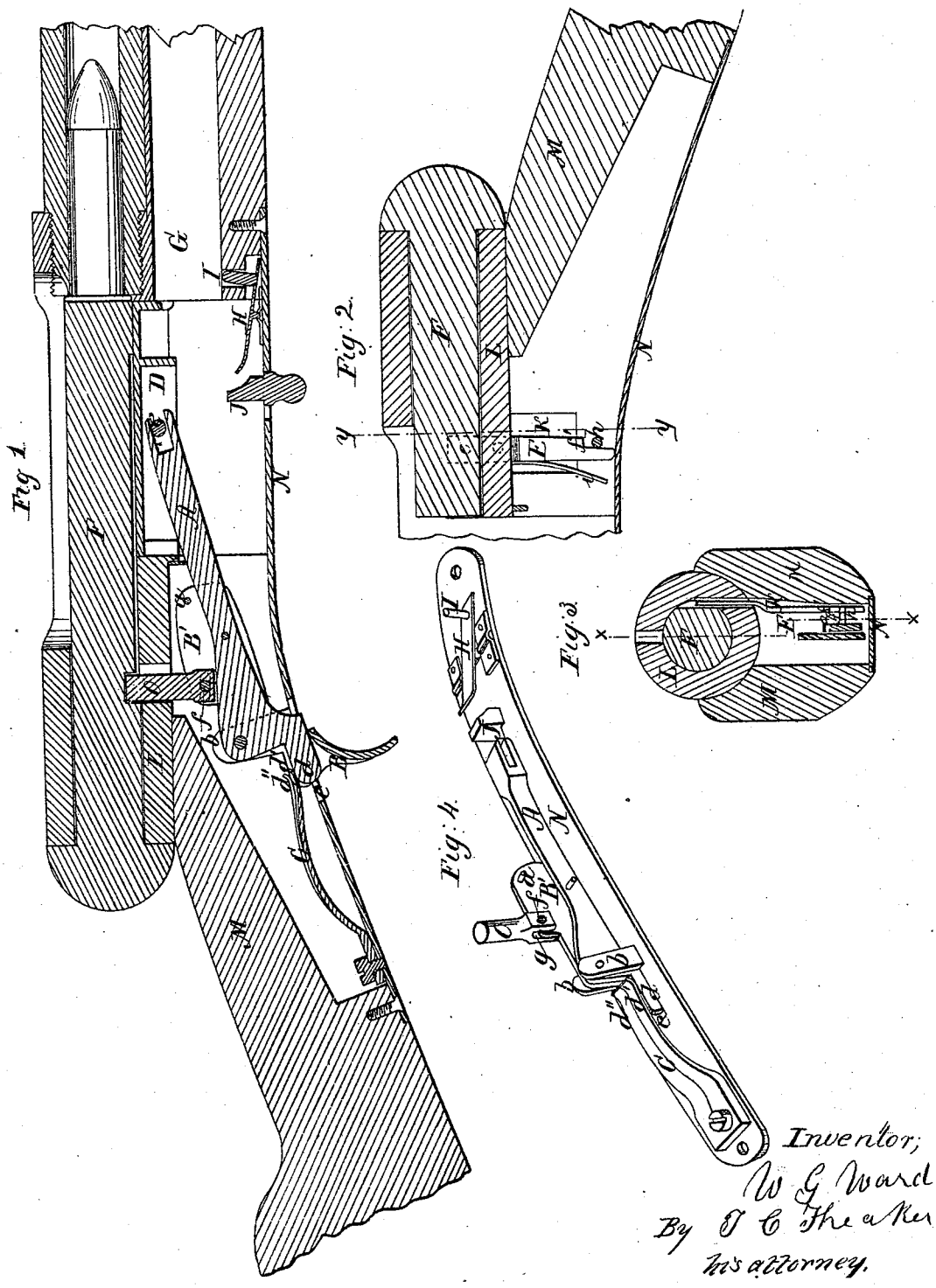
W. G. WARD.

Breech Loader.

No. 92,129. Patented June 29, 1869.



Inventor;
W G Ward
By T C Theaker
his attorney.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM G. WARD, OF NEW YORK, N. Y.

IMPROVEMENT IN BREECH-LOADERS.

Specification forming part of Letters Patent No. **92,129**, dated June 29, 1869.

To all whom it may concern:

Be it known that I, WILLIAM G. WARD, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of my invention.

The nature of my invention consists, first, in constructing the arm which operates the carrier-block of a breech-loading fire-arm in one piece, separate from the trigger, but hung on the same pivot; second, in a divided spring, one part of which is stronger than the other, the stronger part acting on the arm which actuates the carrier-block, and the weaker part on the trigger; third, in a trip, which holds the arm until the discharged cartridge-shell is ejected by the withdrawal of the breech-pin, and then allows the carrier-block to rise (which is caused by the pressure of the stronger part of the divided spring upon the heel of the arms) until the cartridge is brought up into position opposite the bore of the piece, ready to be forced into it by the forward movement of the breech-pin; fourth, in placing at the inner end of the magazine a stop, which prevents the cartridges from being forced into the breech from the magazine too rapidly or before the proper time, thus allowing the carrier-block to rise freely; fifth, in attaching an adjustable stop to limit the movement of the arm and carrier-block when it is desired to use the gun as a single-loader.

To enable those skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings and the letters of reference marked thereon, in which—

Figure 1 is a vertical longitudinal section. Fig. 2 is a vertical longitudinal section of a portion of the breech, taken in the line *x x* of Fig. 3. Fig. 3 is a transverse vertical section taken in the line *y y* of Fig. 2; and Fig. 4 is a perspective view of the trigger-plate and parts connected thereto.

In the drawings, N represents the guard-plate, which is attached to the under side of the gun. On the upper side of this, and inside of the stock or breech, are two standards, *b b*, placed outside of the slot *c* in the plate N. Between these standards, and pivoted to them, are the arm A and the trigger B. The forward end of the arm A is forked, and on its rear end is a heel, *d*. Back of this arm, and on the upper side of the plate N, is secured a divided or double spring, C. The end of the part *d'*, which is much stronger than the part *d''*, rests on the heel *d* of the arm A, and the end of the weaker part *d''* rests on a corresponding heel of the trigger B.

In the breech is an opening or slot, into which fits the carrier-block D, the top of which is concave to receive the cartridge. On the under side of the carrier D is a groove, into which the forked end of the arm A passes, and the pin *e* is placed across the groove, the forked end of the arm A fitting over it. Inside of the breech, above the guard-plate, the flat extension B' of the trigger B extends above and forward of the standards *b b*. Over the extension B' is a trigger-bolt, O, the lower end of which is forked and fits over the upper edge of the extension B', and is secured to it by a pin, *f*, which passes through the slot *g*. The upper end of the trigger-bolt O projects into a groove in the face of the breech-pin F.

To the inside of the mortise in the breech, on the side next to the arm A, is pivoted a trip, E, which extends up outside the breech-pin F to its center, that side of the breech-pin being cut away, leaving a flat surface, which is parallel to the sides of the groove in the breech-pin. Near the lower end of the trip E is a shoulder, *f'*, against which the pin or projection *h* on the side of the arm A rests when the arm A and carrier D are in position to receive the cartridge from the magazine. At the same time a shoulder on the side of the breech-pin F, near its front end, rests against the front edge of the upper end of the trip E.

Below the pivot, and in front of the trip E, is a spring, *i*, secured at its lower end to the breech, its upper end resting against the front edge of the trip E. By drawing back the breech-pin F to its full extent the lower end of the trip E is forced forward, thus allowing the pin or projection on the side of the arm A to pass up above the projection *f'*, the arm A, with the carrier-block D, being forced up by the branch *d'* of the spring C, when the car-

tridge is in position to be forced into the bore of the gun by the forward movement of the breech-pin F.

Near the front end of the guard-plate N is pivoted the magazine-stop H, a portion of which extends under the rear end of the magazine G. On this end of the magazine-stop is a pin or projection, I, which rests in an aperture in the bottom of the magazine G, and by its weight keeps that end of the magazine-stop down, so that the upper end of the pin I does not project above the bottom of the magazine. At the same time the other end of the magazine-stop is elevated above the guard-plate N.

When it is desired to load the gun, by pulling back the trigger B the pin or projection *a* on the extension-piece B′ is brought down until it strikes against the top of the arm A, and by a continuation of the same movement the arm A and carrier-block D are brought down until the carrier-black is in position to receive the cartridge from the magazine G. The carrier-block in its downward movement strikes the elevated rear end of the magazine-stop H, thereby forcing that end down and the front end up, thus raising the upper end of the pin I above the bottom of the magazine, and between the point of the cartridge that is being forced into the carrier-block and the head of the next one, thus preventing either from being forced into the breech and interfering with the free movement of the carrier-block.

When it is desired to use the gun as a single-loader the sliding stop J in the guard-plate N is moved back, which prevents the carrier-block from moving down far enough to uncover the magazine G.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. Constructing the arm A, which is operated by the trigger B and spring C, of one piece, separate from the trigger, substantially as shown and described.

2. The divided spring C, in combination with the arm A and trigger B, when arranged and operating substantially as shown and described, for the purpose specified.

3. Holding the arm A and the carrier D down by means of the trip E, or its equivalent device, until after the discharged cartridge-shell shall have been ejected by the backward movement of the breech-pin F, and the releasing said parts by the prolongation of the same movement in time for the new cartridge to be presented ready for insertion by the forward movement of the breech-pin, substantially as shown and described.

4. Preventing the remaining cartridge in the feed-tube G from interfering with the free movement of the carrier D after the release of the first cartridge by means of the magazine-stop H, when it is operated by the arm A or carrier D, substantially as shown and described.

5. Restricting the movement of the arm A and carrier D by means of the movable stop J, or its equivalent, substantially as shown and described.

W. G. WARD.

Witnesses:
J. W. KEENE,
GEO. FAULKNER.