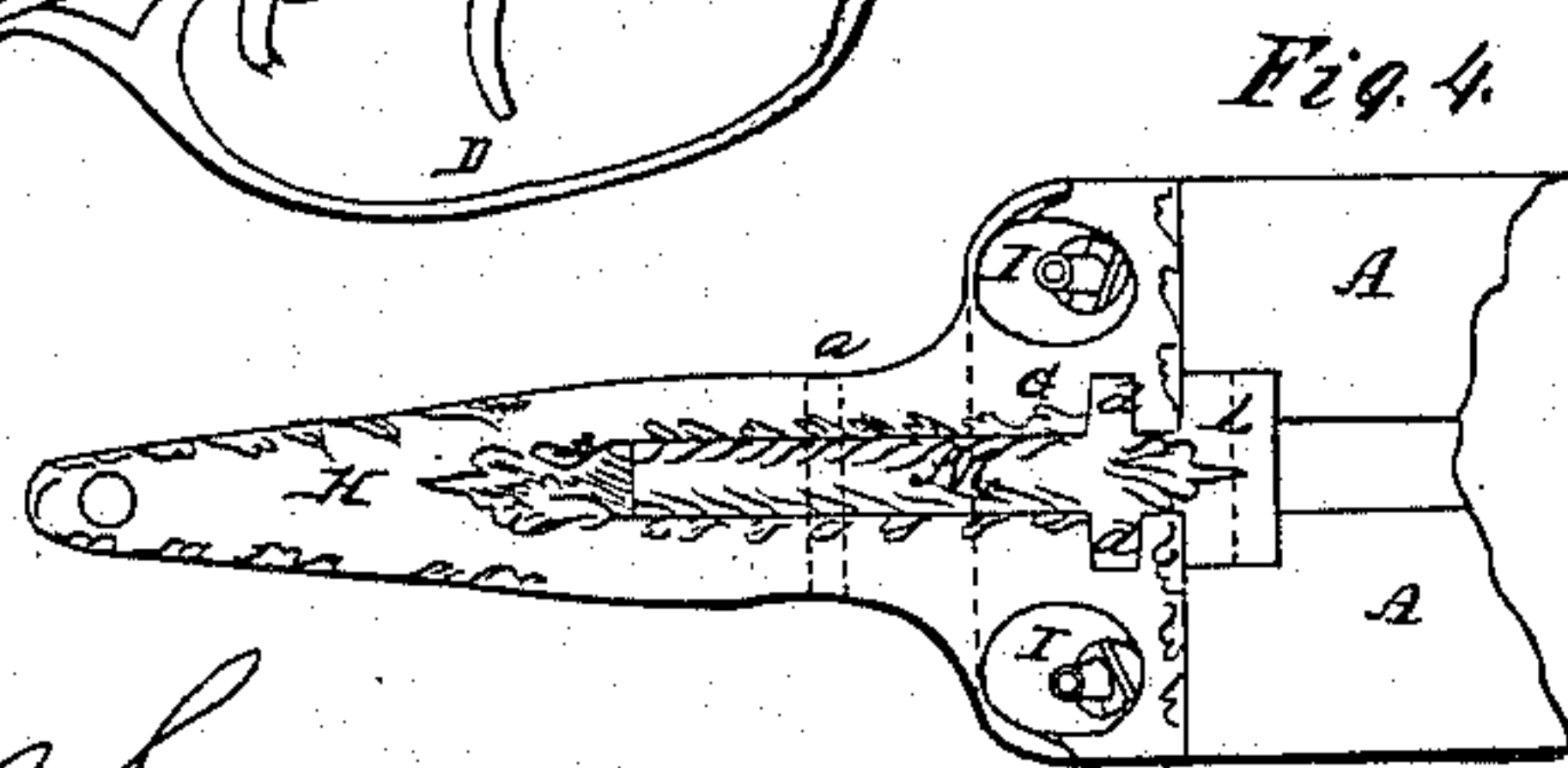
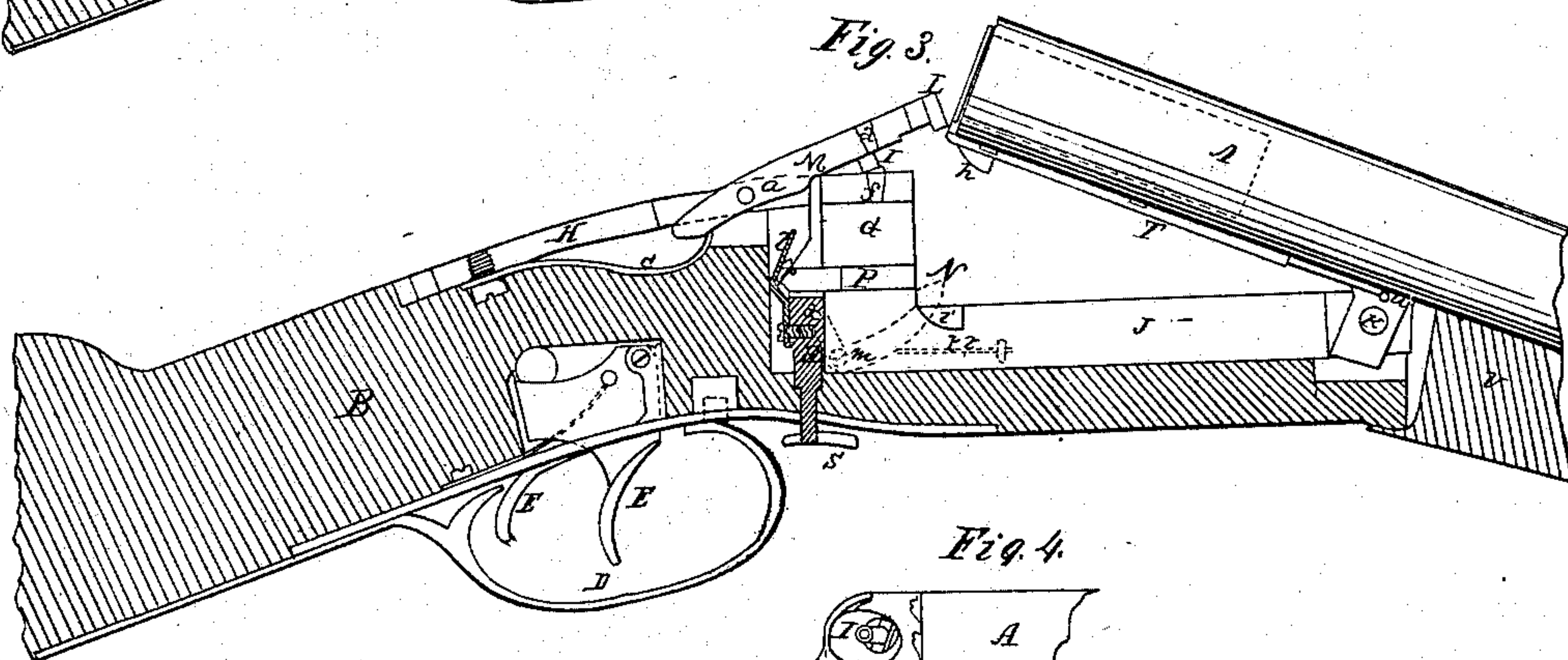
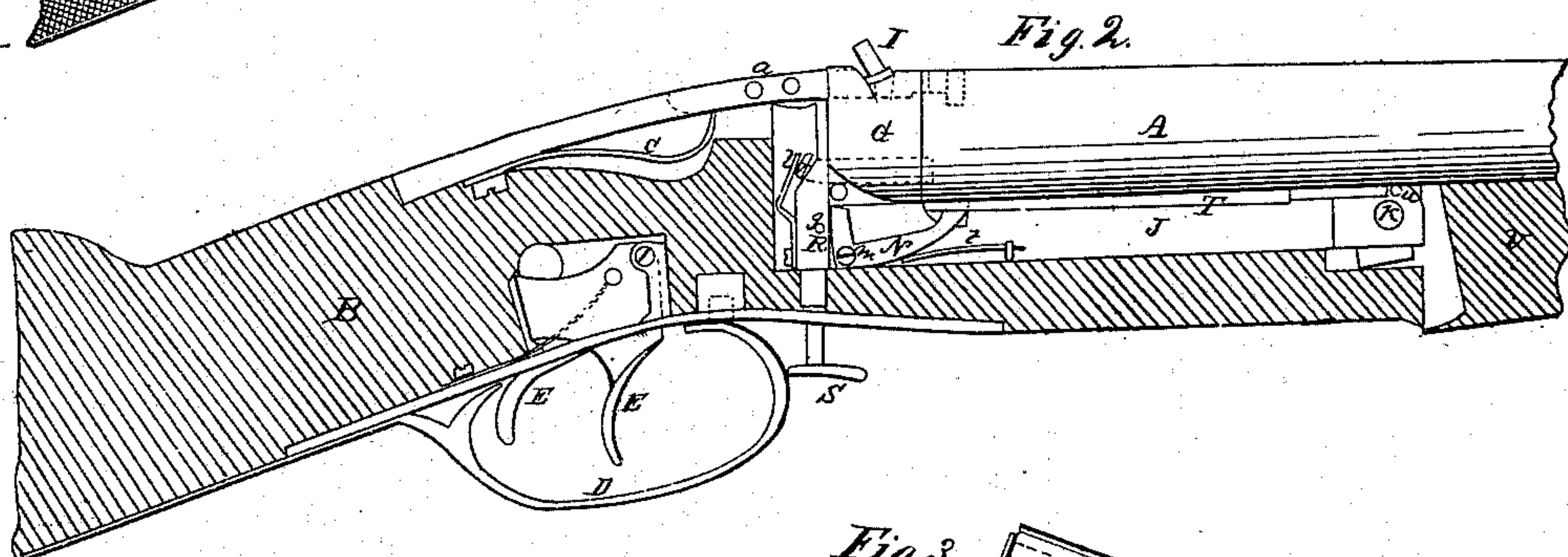
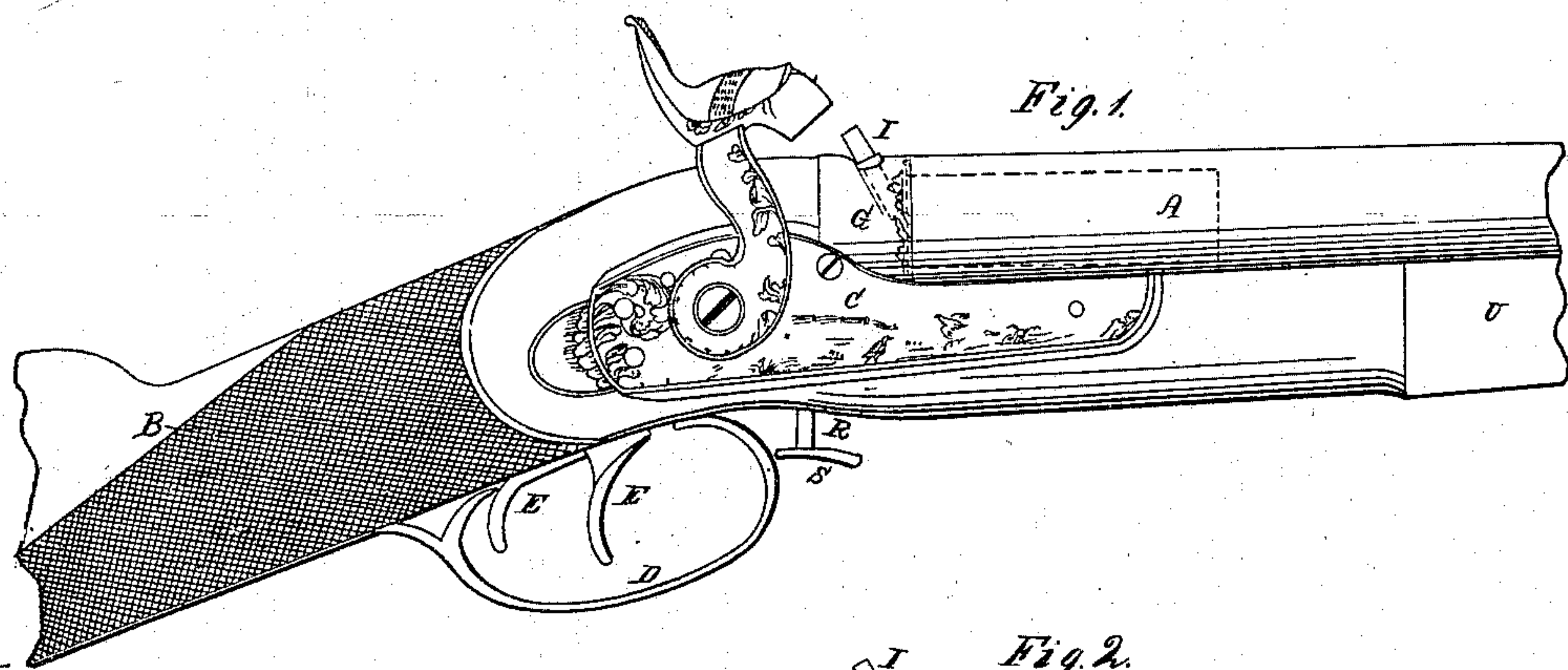


W. H. MILLER.  
BREECH LOADING FIREARM.

No. 59,723.

Patented Nov. 13, 1866.



WITNESSES.

John D. Shumway  
A. J. Shumway

INVENTOR

W. H. Miller  
by his atty  
John E. Cook



# UNITED STATES PATENT OFFICE.

WM. H. MILLER, OF WEST MERIDEN, CONNECTICUT, ASSIGNOR TO MERIDEN MANUFACTURING COMPANY.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 59,723, dated November 13, 1866.

*To all whom it may concern:*

Be it known that I, W. H. MILLER, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Breech-Loading 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 same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, a sectional side view, the several parts in a home position as for discharge; Fig. 3, a central section, the parts in position for charging; and in Fig. 4, a top view.

My invention relates more particularly to an improvement in double-barrel shot-guns, yet it is applicable to other arms and other purposes, and is designed for the use of the "Maynard" cartridge, which has the rear centrally pierced; and consists in the peculiar manner of opening and closing the breech, and locking the same when closed.

To enable others to construct and use my improvement, I will proceed to describe the same as illustrated in the accompanying drawings.

A is the barrel, represented as double, (see Fig. 4;) B, the stock; C, the lock; D, the trigger-guard, and E E the triggers, of the usual form and construction; G, the breech-piece, which is formed upon a tail-plate, H, and into which the tubes I are set, communicating directly with the barrel, as denoted by broken lines, Fig. 1. The said breech-piece G extends forward, forming a frame for the support of the barrel, (see Figs. 2 and 3,) and to which the barrel is hinged, as at K, so as to be raised from the position in Fig. 2 to that in Fig. 3, or returned.

L is a latch formed upon a lever, M, pivoted to the tail-piece H at *a*, and formed to enter a recess in the top of the barrel, as denoted by broken lines, Fig. 4, when the barrel is in its home position, and so as to secure it in that position. The said latch is returned by the reaction of a spring, *c*, and in order to make the security of the latch L more certain projections *d* are formed upon the sides of the lever M, which, when the lever M descends,

fall into notches *f* in the breech-piece G, as seen in Figs. 3 and 4, which said projections *d* relieve the pivot *a* from the strain of discharge which would otherwise be brought upon it, and makes the security doubly sure.

In addition to the security of the latch L, I form a projection, *h*, upon the under side of the barrels, (see Fig. 3,) which, as the barrels descend, falls into a corresponding notch, *i*, on the frame J.

P, Fig. 3, is a bolt passing through the breech-piece G, so as to enter a hole in the rear of the barrel, as denoted in broken lines, Fig. 2, when the barrel is at rest, as in the position in said Fig. 2, which prevents the barrel from being accidentally opened.

To operate the bolt P and the lever M to release the barrel—that is, to move them from the position denoted in Fig. 2 to that denoted in Fig. 3—I place centrally in the rear of the barrels a sliding bar, R, extending up to the under side of the lever M and down through the trigger-guard plate to receive a finger-plate, S. The upper end of the bar R is forked, so that one leg passes up either side of the flattened portion of the bolt P, and the rear side of the said forked portion is inclined, so that a head, *r*, on the said bolt will rest upon the incline of the two legs of the fork, so that the movement of the bar R upward from the position in Fig. 2 to that in Fig. 3 will withdraw the bolt, as denoted in said figures, and when the said bar has returned a plate, *l*, attached to the bar R, and correspondingly inclined, bears against the head *r* of the bolt and returns the bolt, as denoted in Fig. 2. The upward movement of the bar R at the same time raises the lever M, as denoted in Fig. 3, and thus raised the rear end of the barrel rises from the position in Fig. 2 to that in Fig. 3, in which position the cartridge is inserted in the usual manner.

In order to retain the bolt P and the lever M in the position seen in Fig. 3 until the barrel is again returned, a lever, N, (see Fig. 2, and denoted in red, Fig. 3,) is hung to the frame at *m*, which, when the barrel is raised, is forced by a spring, *t*, from the position seen in Fig. 2 to that in Fig. 3, the shorter arm extending out, so as to catch under a pin, *s*, on the bar R, as seen in Fig. 3. This retains the bar R in its upward position, and consequently the



bolt P and lever M; but when the barrel is again returned, as in Fig. 2, it strikes the longer arm of the lever N, forcing it down, as in Fig. 2, and, releasing the bar R, the lever M and bolt P return by the action of the spring c, and securely lock the barrel in its home position.

To start the discharged shell from the barrel, I place a slide, T, beneath the barrel, its rear end extending up so as to come in front of the flange of the cartridge, as seen in Fig. 3. The said slide extends forward to a pin, u, on the frame J, near the bearing K, so that, as the barrel rises from the position in Fig. 2 to that in Fig. 3, the slide T strikes the pin u and starts the shell from the barrel, as denoted in Fig. 3. Returning the barrel to the position in Fig. 2 the slide strikes the breech-piece G, and returns as denoted in Fig. 2.

To charge my arm, press the finger-plate S from the position in Fig. 2 to that in Fig. 3, when the barrel will freely rise, as denoted in Fig. 3; then insert the cartridge and return to the position denoted in Fig. 2, the central perforation of the cartridge corresponding to the passage of the tubes I. A percussion-cap or other equivalent placed upon the said tubes and discharged will, through the said passage, ignite and discharge the cartridge in the barrel.

That part of the stock U forward of the joint K, I fix to the barrel, and form the joint between the two parts of the stock, so that the space between the two necessary to permit the movement of the barrel will be closed when the barrel is in its home position, as seen in Fig. 2.

I have thus far described my arm as for two barrels; yet the same arrangement may be equally well adapted to a single barrel, as those skilled in the art will readily understand.

I have also described my arm as specially adapted to the use of the Maynard or other similar central-fire cartridge; yet the common fulminate-cartridge may be used, it only being required that the hammers so communicate with the cartridge that the blow of the hammer will explode the fulminate.

If occasion requires that the arm should be used as a muzzle-loader it is only necessary that a cartridge-shell should remain in the barrel, so as to prevent the escape of gas at the joint between the rear of the barrel and the breech-piece.

I am aware that a latch upon the upper side of the frame has often been used to lock the barrel in its home position. I do not, therefore, broadly claim a latch so constructed; but,

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

1. The lever M, constructed and arranged with the projections d, in combination with a corresponding recess, f, and the latch L, so as to operate substantially in the manner herein set forth.

2. The vertical bar R, in combination with the bolt P and the lever M, constructed and arranged to operate substantially in the manner and for the purpose herein set forth.

3. The combination and arrangement described of the lever N with the bar R and the barrel of the arm, substantially as and for the purpose described.

WM. H. MILLER.

Witnesses:

GEORGE A. FAY,  
ALFRED P. CURTISS.