

F. W. FREUND.
Breech-Loading Fire-Arms.

No. 153,432.

Patented July 28, 1874.

Fig. 1

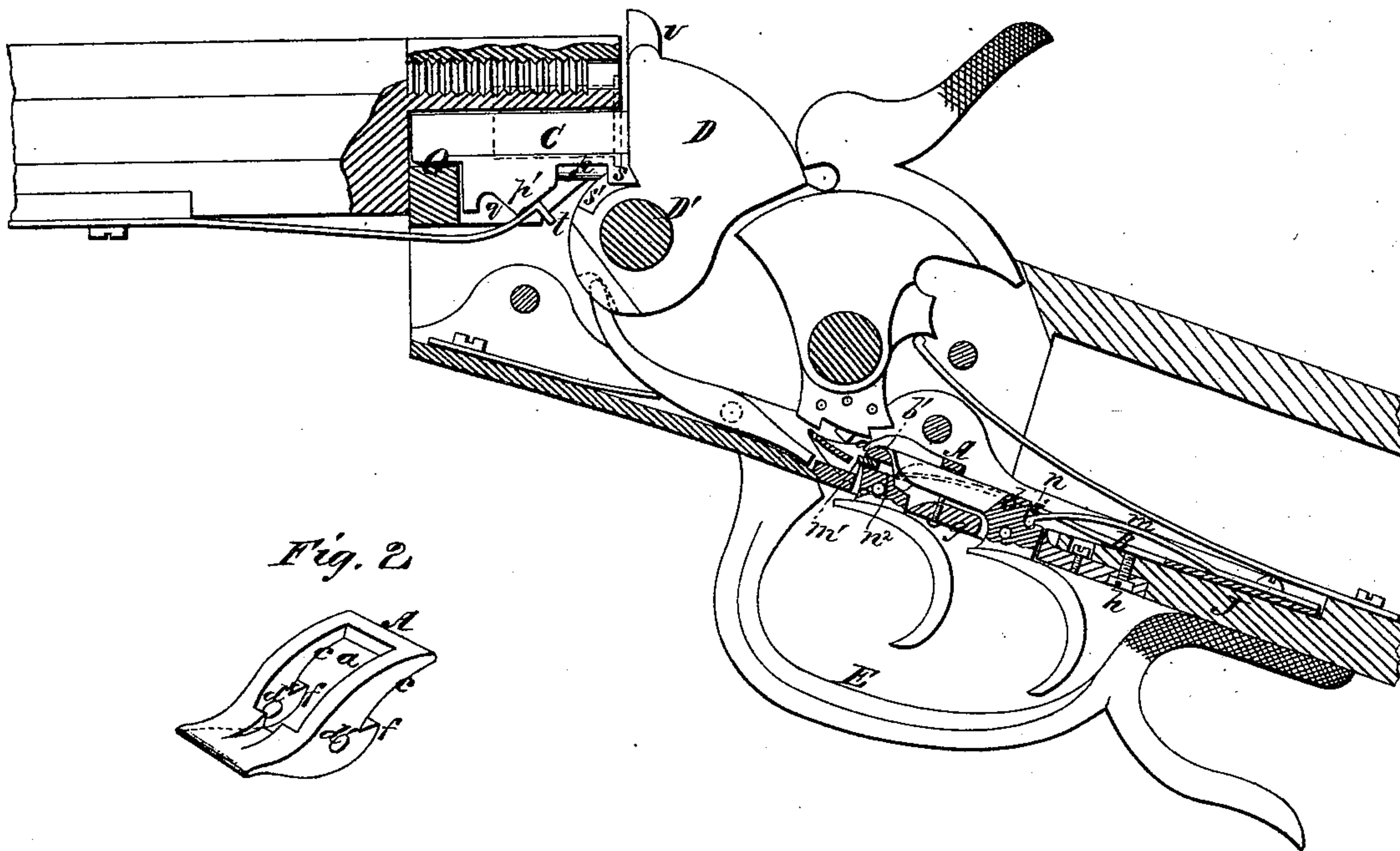


Fig. 2

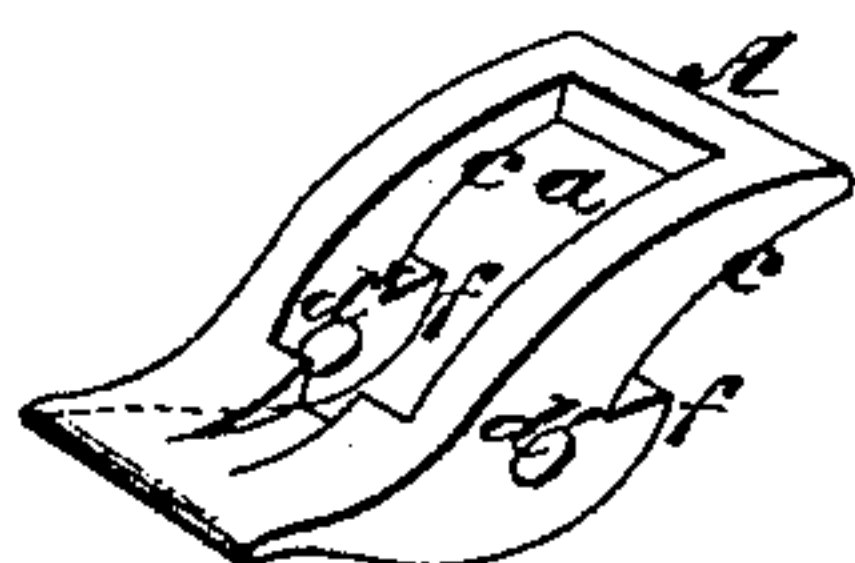


Fig. 3

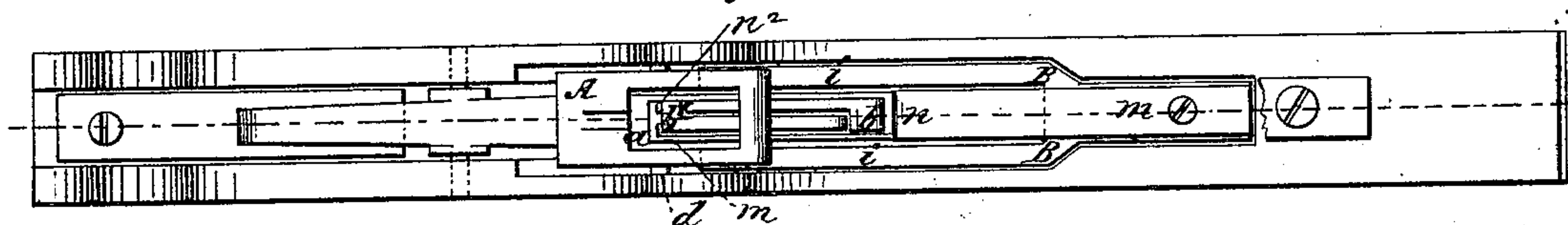
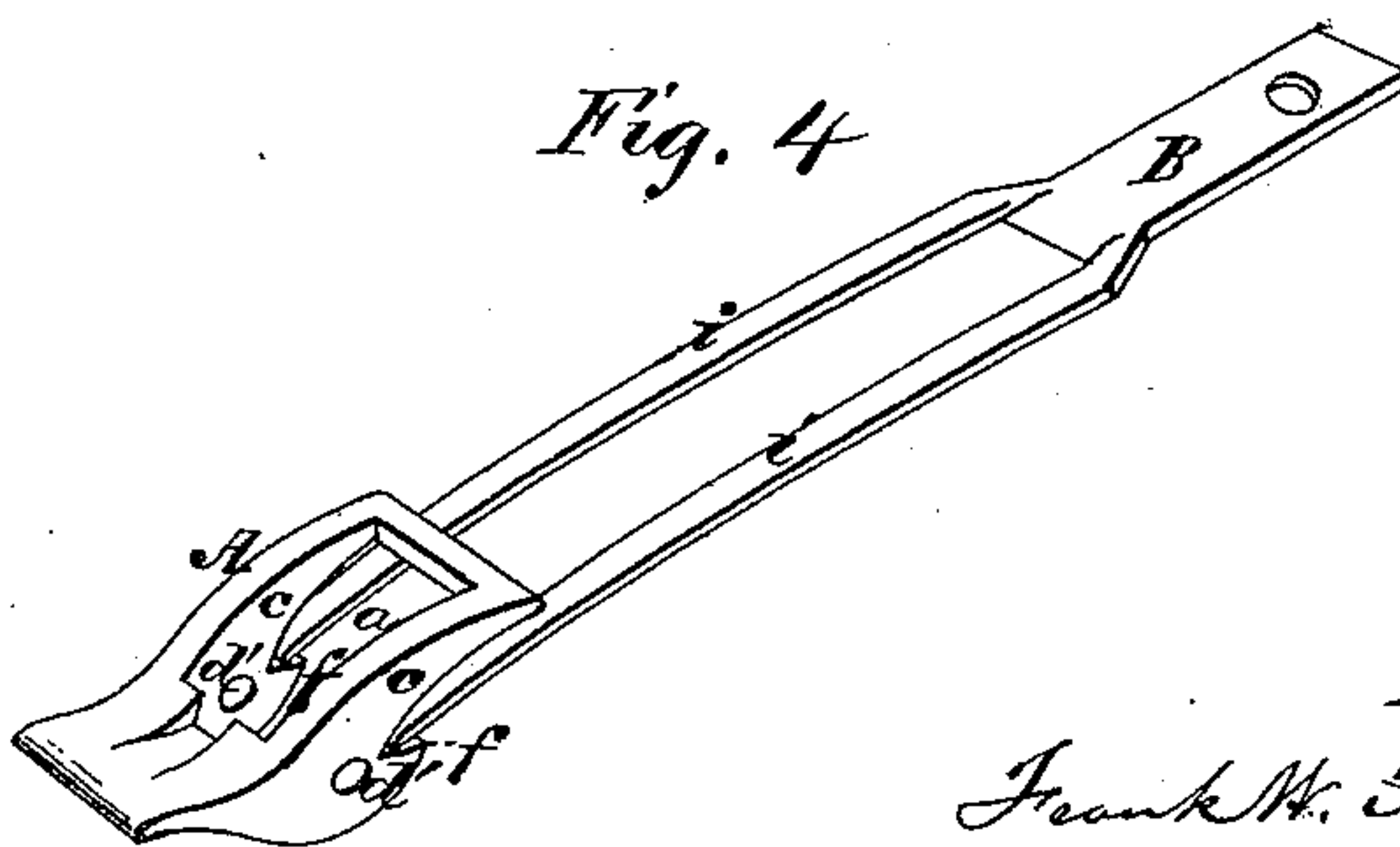


Fig. 4



Witnesses.
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UNITED STATES PATENT OFFICE.

FRANK W. FREUND, OF DENVER, COLORADO TERRITORY.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **153,432**, dated July 28, 1874; application filed October 13, 1873.

To all whom it may concern:

Be it known that I, FRANK W. FREUND, of Denver, Territory of Colorado, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view, showing a portion of the arm in section in the line *x x*, Fig. 3, and a portion in elevation. The fire-arm appears not cocked. Fig. 2 is a perspective view of my improved sear. Fig. 3 is a top view of the trigger-box or bottom piece of the stock with the improved sear and sear-spring and other trigger mechanism, the main spring of the hammer being broken away in order to not have it hide the said mechanism. Fig. 4 is a perspective view of the improved sear and forked spring in proper relation to one another, but detached from the arm.

To enable others skilled in the art to understand my invention, I will proceed to describe the same with reference to the drawing.

My improvements relate to an improved slotted sear and forked sear-spring, whereby I am enabled to put double-set triggers in breech-loading guns which have the lock in the center and a low hammer.

In the accompanying drawings, A represents the sear. It is made of one solid piece of steel cut out at the center, as at *a*, to allow the set-triggers *b b'* to work in between the inner sides formed by cutting out the metal to form the opening *a*. The sides of the sear are shaped like the rocker of a cradle, and the rear under portion of each is cut away to form a detent, *f*, for the end of the sear-spring, as shown at *c*. This sear is fastened to the trigger-box or bottom piece J of the stock, so as to vibrate, by two screws, *d d*, one on each side, in order that it may work with an equal bearing on each side as the set-triggers *b b'* strike at points between these screws. The sear is also made so that the set-triggers are independent of it; these triggers therefore can be and are attached to the trigger-plate *g*, and

this plate being confined by only one screw, *h*, great convenience for taking these triggers out for oiling, or any other purpose, is afforded, it not being necessary, as in many cases, to take the whole lock apart for this purpose. B represents the sear-spring. It is forked as at *i i*, and its respective forks *i* fit above the respective detents *f*, which are near the screw-pivot holes *d'* of the sear, as shown. The opening between the forks of the spring B allows room for the set-triggers to work up and down, and it also permits the spring *m* of the rear trigger *b* to be placed above it, and its front end to pass down between its forks behind the detent *n* of said trigger; and it also permits the angular spring *m'*, which operates upon the forward trigger *b'*, to be extended to the detent *n'* of said trigger, and to play up and down without obstruction between its forks. This sear-spring, by being set in detents near the pivots of the sear, is not subject to great leverage strain, and therefore is not liable to be broken easily.

It has long been a serious complaint against the single-set trigger of the most approved arms that when it is set fine it is not safe, and if constructed to be set otherwise it is too hard to operate for fine shooting. This complaint my improvement entirely obviates without altering the approved style of the arm.

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

1. The sear A, open at its center, as at *a*, and constructed with independent detents *f f*, whereby it is adapted for use with a forked spring, the set-triggers *b b'*, and the hammer, substantially as and for the purpose described.

2. The sear-spring B, forked as at *i i*, in combination with the sear A, whereby these parts combined are adapted for use with the set-triggers *b b'* and the hammer, substantially as and for the purpose described.

FRANK WM. FREUND.

Witnesses:

H. M. HALE,
L. C. CHARLES.