

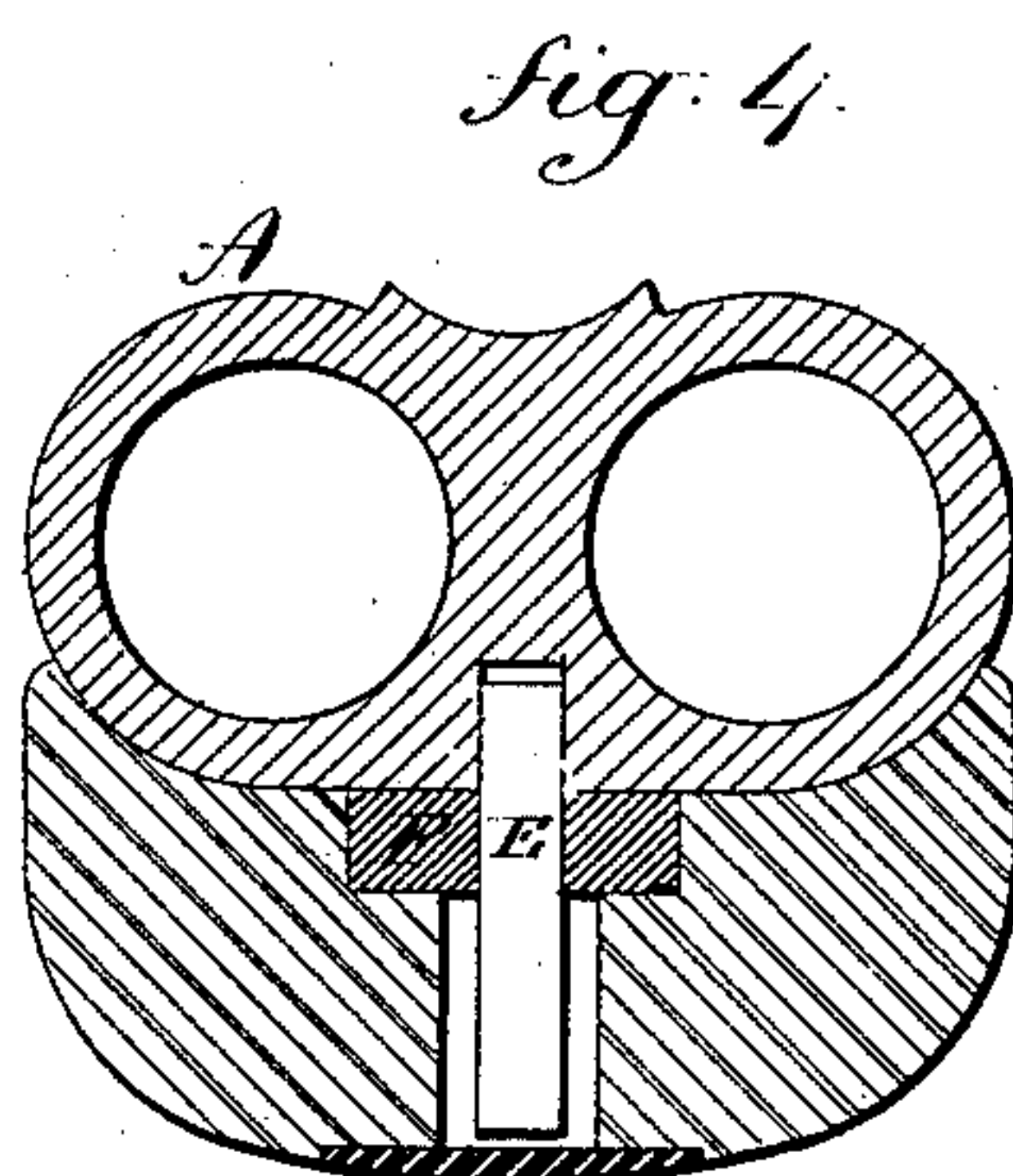
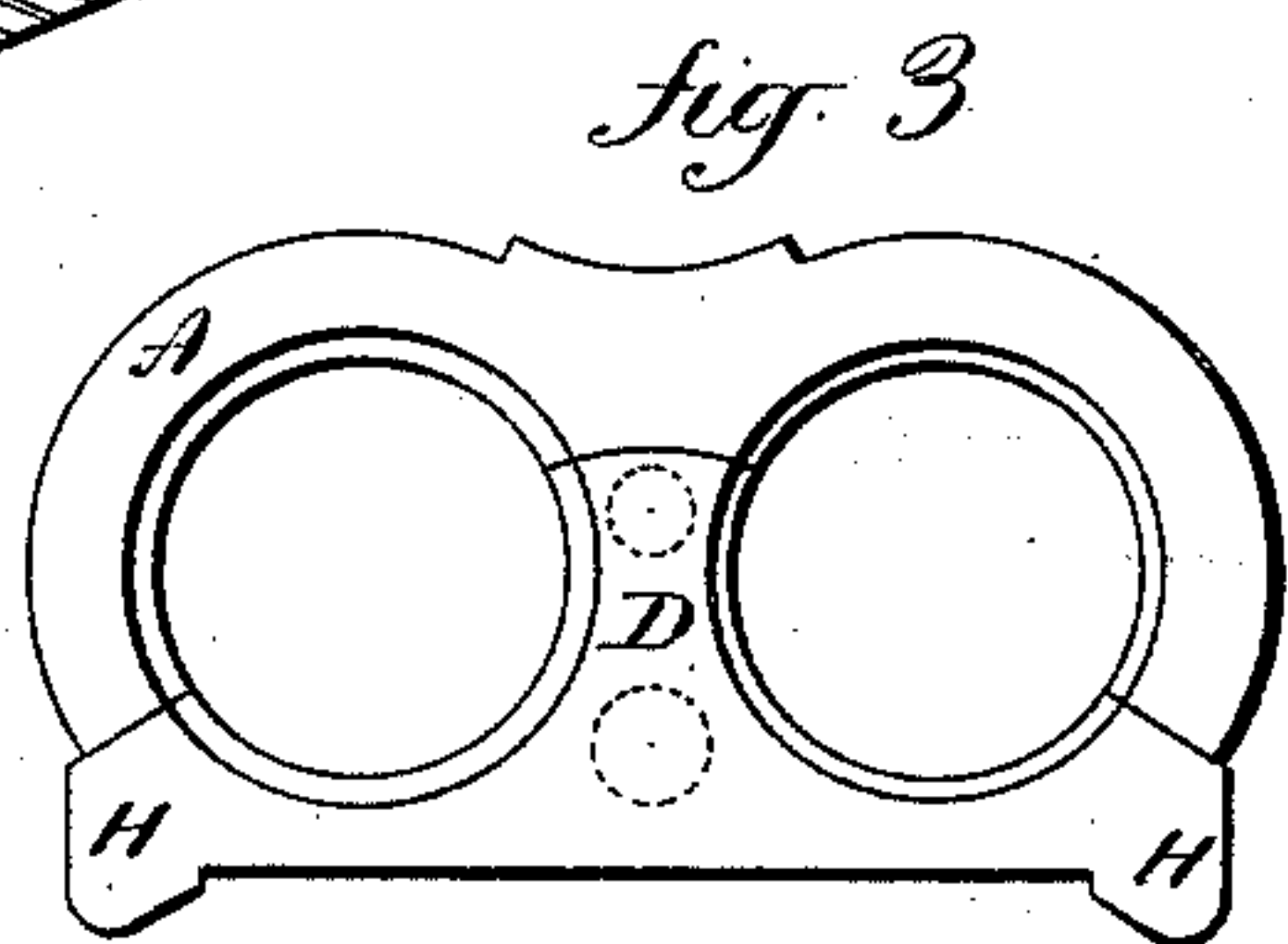
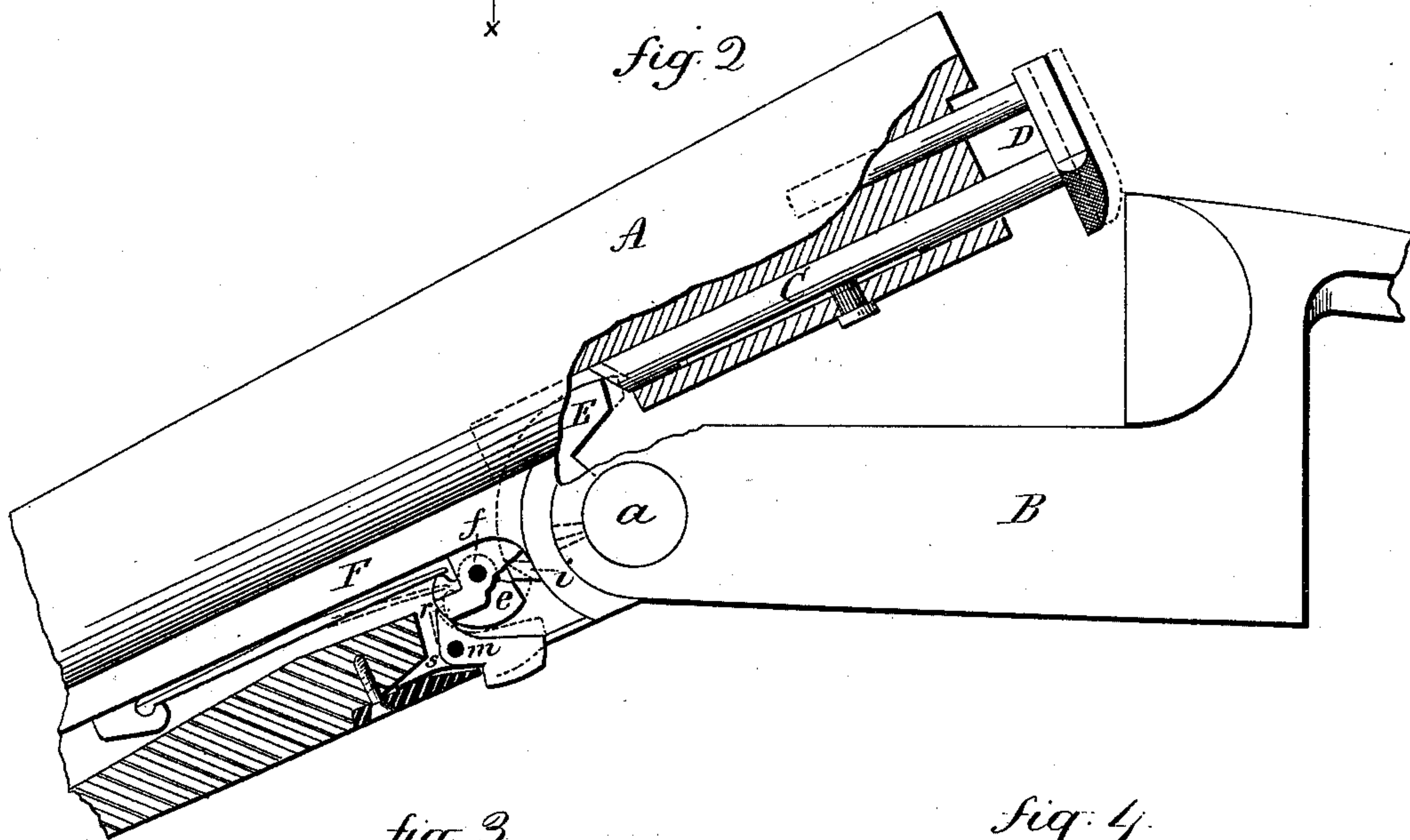
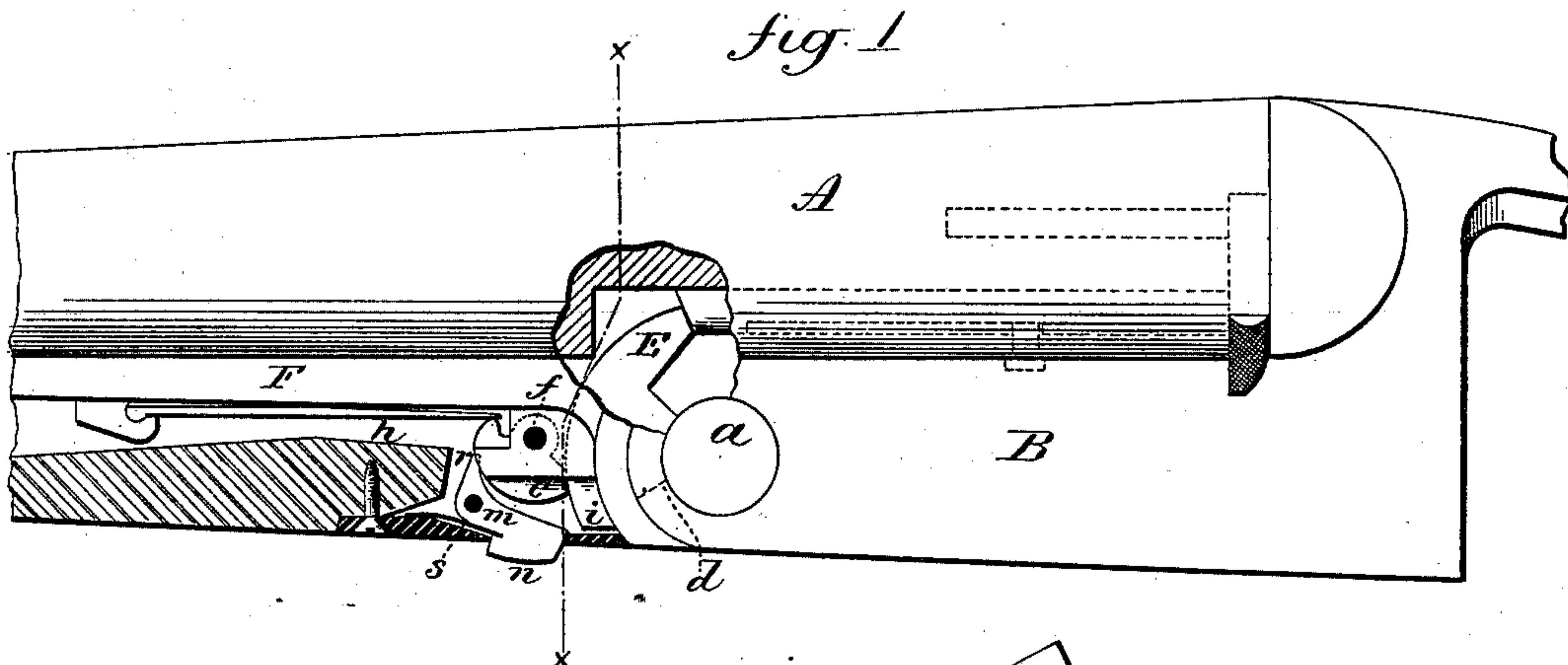
(No Model.)

W. MASON.

BREECH LOADING FIRE ARM.

No. 253,736.

Patented Feb. 14, 1882.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

WILLIAM MASON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE COLTS  
PATENT FIRE-ARMS MANUFACTURING COMPANY, OF SAME PLACE.

## BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 253,736, dated February 14, 1882.

Application filed December 24, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WM. MASON, of Hartford, in the county of Hartford 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 sectional side view; Fig. 2, the same with the barrels tilted; Fig. 3, a rear end view, showing the cross-head; Fig. 4, a vertical section on line *x x*.

This invention relates to an improvement in that class of fire-arms commonly called "break-downs"—that is, such as have the barrel or barrels hinged near their rear end, and so that the breech is opened by tilting up the rear end, and particularly to devices for removing the exploded shells or cartridges, if they be not exploded, from the cartridge-chamber.

In the usual construction a spindle is introduced between the barrels, substantially parallel with the axis of the barrels, with a cross-head at the rear, which will lie in front of the flange of the cartridge when in place. As the rear end of the barrels is raised the forward end of the spindle comes in contact with a stationary shoulder, which imparts a rear longitudinal movement to that spindle, moving the cross-head rearward, and in such rear movement the cross-head engages the flanges of the shells and removes them from the barrel to the extent of its movement. Then the shells have to be taken by hand from the chambers.

The object of this invention is to impart to the cartridge-starter a sudden accelerated movement after the shells have been started, which will eject the shells from the chamber; and it consists in the arrangement of a spring and intermediate mechanism, whereby the action of the spring will be applied to the extractor during the last part of the rising movement of the rear end of the barrels, and suddenly impart to the extractor the force of the spring to give to the said extractor a quick rear movement, as more fully hereinafter described.

A represents the barrel, hung upon a pivot, *a*, in an arm, B, which extends forward from the frame, and so that the barrel will tilt up at the breech, as seen in Fig. 2, in the usual manner. Centrally between the barrels the extractor-spindle C is arranged, with a cross-head, D, at the rear, in the usual manner. Hung to the pivot *a* is a finger, E, which extends up through a slot in the under sides of the barrels into line with the spindle C, as seen in Fig. 1. This finger bears at the bottom upon the frame, as at *d*, Fig. 1, broken lines, so that when the barrel is tilted and the parts are raised, as seen in Fig. 2, the said finger forms a stop, against which the spindle will strike to cause its rear movement, in the usual manner, to start cartridge-shells—say as to the position indicated in Fig. 2. Thus far the finger E acts as a stationary shoulder. Underneath the barrel is the usual fore end, F. In this fore end a cam, *e*, is hung upon a pivot, *f*, one end (its rear) bearing upon the forward surface or periphery of the finger E. Upon the other end a spring, *h*, bears, tending to turn the cam toward the finger. This cam and its spring turn with the barrel upon its pivot *a*, and so that the end of the cam which bears against the front surface of the finger E gradually approaches the lower end, *i*, of the finger, until a little before the barrels have reached their extreme tilting movement the end of the cam comes beneath the lower end, *i*, of the finger, as seen in Fig. 2. Then the power of the spring causes the cam to turn quickly upon its pivot *f*, throwing up that part of the cam which is beneath the finger and imparting to the finger a corresponding quick or sudden turning upon its pivot, as from the position in Fig. 2 to the position in broken lines of that figure, which will impart to the extractor a corresponding quick sudden movement to the rear, sufficient to eject the shells from the barrel.

When new cartridges are inserted the extractor will be pushed inward in the usual manner, which will force the finger E forward and return the cam, and then as the barrels are returned the cam will ride upon the front face of the finger back to its position, as seen in Fig. 1, in which it has no effect upon the finger, save its frictional contact. In some cases it may be



desirable to prevent this ejection or to apply the force of the cam after the barrels have been fully opened. To this end I arrange a trigger below the cam upon a pivot, *m*, its one end, *n*, extending through below, so that the finger may be conveniently placed upon it to turn it upon its pivot, the other end, *r*, engaging a corresponding notch in the cam, as seen in Fig. 1, and held in engagement with that notch by a spring, *s*. In this condition the finger will remain stationary and the extractor operate in the usual manner as with a stationary shoulder; but when the barrels are turned so as to completely open the breech, then pressing upon the arm *n* of the trigger, the cam will be released, and it will apply the force of the spring *h* to the finger as a blow to give to the finger the requisite quick ejecting movement; or the cam may not be employed. When the cam has been thus tripped the return of the barrels returns the cam and brings the cam again into connection with its trigger.

I construct the cross-head to extend to the right and left outside the barrels, to form finger-pieces *H H*, by means of which the extractor may be drawn farther outward, so that if the shells should stick in their chamber the force of the fingers may be applied to the extractor.

While I prefer the cam between the spring and the finger, as I have described, other mechanism may be applied which will impart to the finger the sudden force of the spring during the last part of the opening movement of the barrels. I therefore do not wish to be understood as limiting my invention to the precise mechanism described for operating the finger.

I am aware that extractors of breech-loading fire-arms of the "break-down" class have been arranged so as to be started in breaking

down the arm, and during the last part of the movement a device has been arranged to apply a spring action to the extractor to cause it to operate as an ejector, and therefore do not broadly claim such devices.

I claim—

1. In that class of fire-arms in which the barrel is arranged to tilt up at the breech, the combination, with the barrels and extractor-spindle, of a finger hinged at the pivot and so as to bear against the extractor-spindle as a shoulder to start the extractor, a cam hung to the fore end and so as to turn with the barrel in its opening and closing movement, and so that its rear end will come beneath the finger as the barrels approach their extreme opening movement, and a spring to turn said cam and impart to said finger a sudden rear movement during the last part of the opening movement of the barrels, substantially as described.

2. In that class of fire-arms in which the barrel is arranged to tilt up at the breech, the combination, with the barrels and extractor-spindle, of a finger hinged at the pivot and so as to bear against the extractor-spindle as a shoulder to start the extractor, a cam hung to the fore end and so as to turn with the barrel in its opening and closing movement, and so that its rear end will come beneath the finger as the barrels approach their extreme opening movement, and a spring to turn said cam and impart to said finger a sudden rear movement during the last part of the opening movement of the barrels, and a trigger to lock and release said cam, substantially as described.

WILLIAM MASON.

Witnesses:

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