(No Model.) 2 Sheets—Sheet 1.

B. HEMMING.

FIRE ARM.

No. 377,854. Patented Feb. 14, 1888.

Fig. 1.

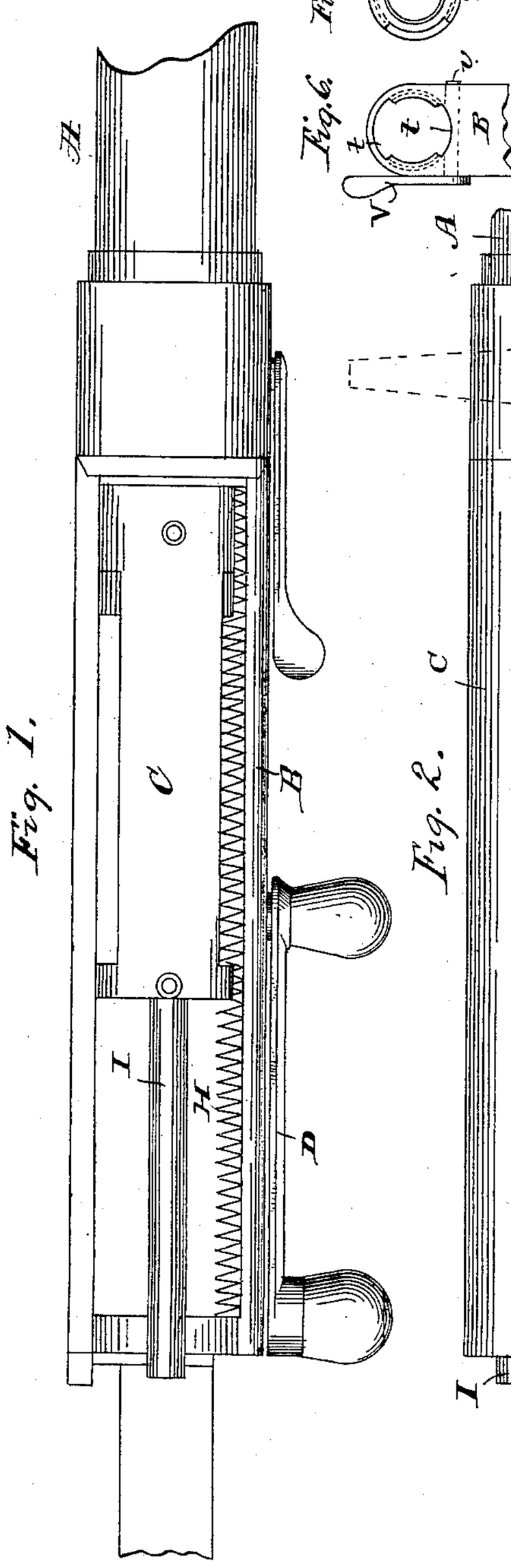


Fig. 2.

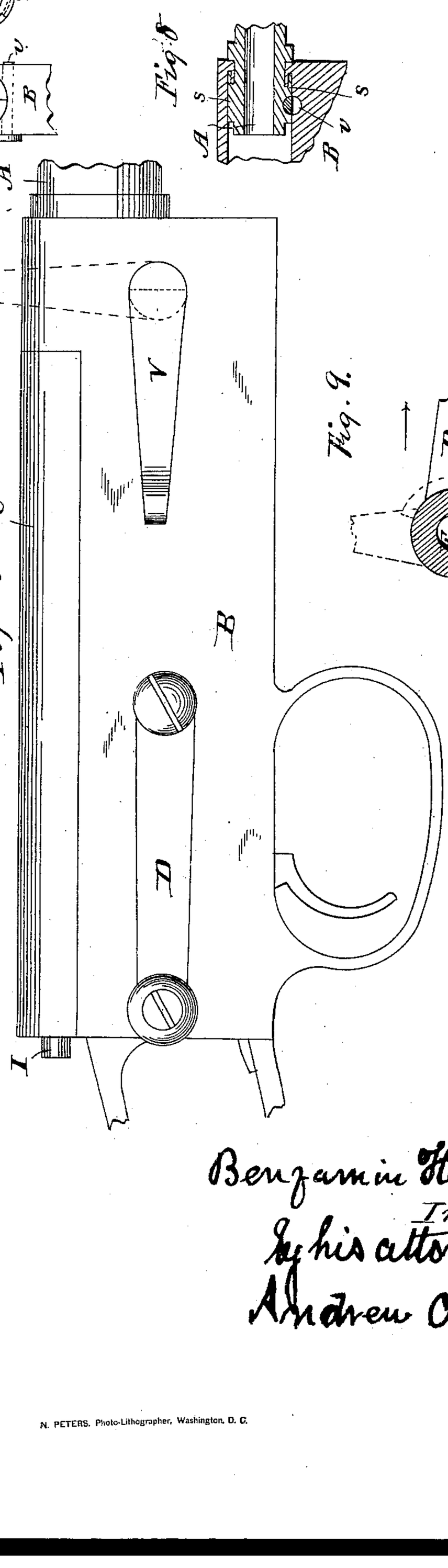


Fig. 3.

Fig. 4.

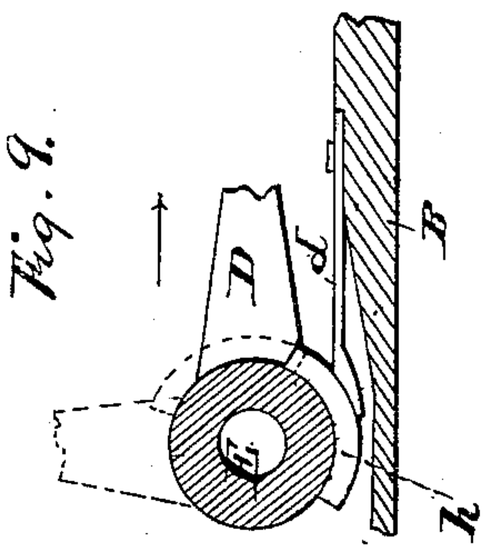
Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.



Witnesses:
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William Grad.

Benjamin Hemming.
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by his attorney.
Andrew O'Neill

(No Model.) 2 Sheets—Sheet 2.

B. HEMMING.

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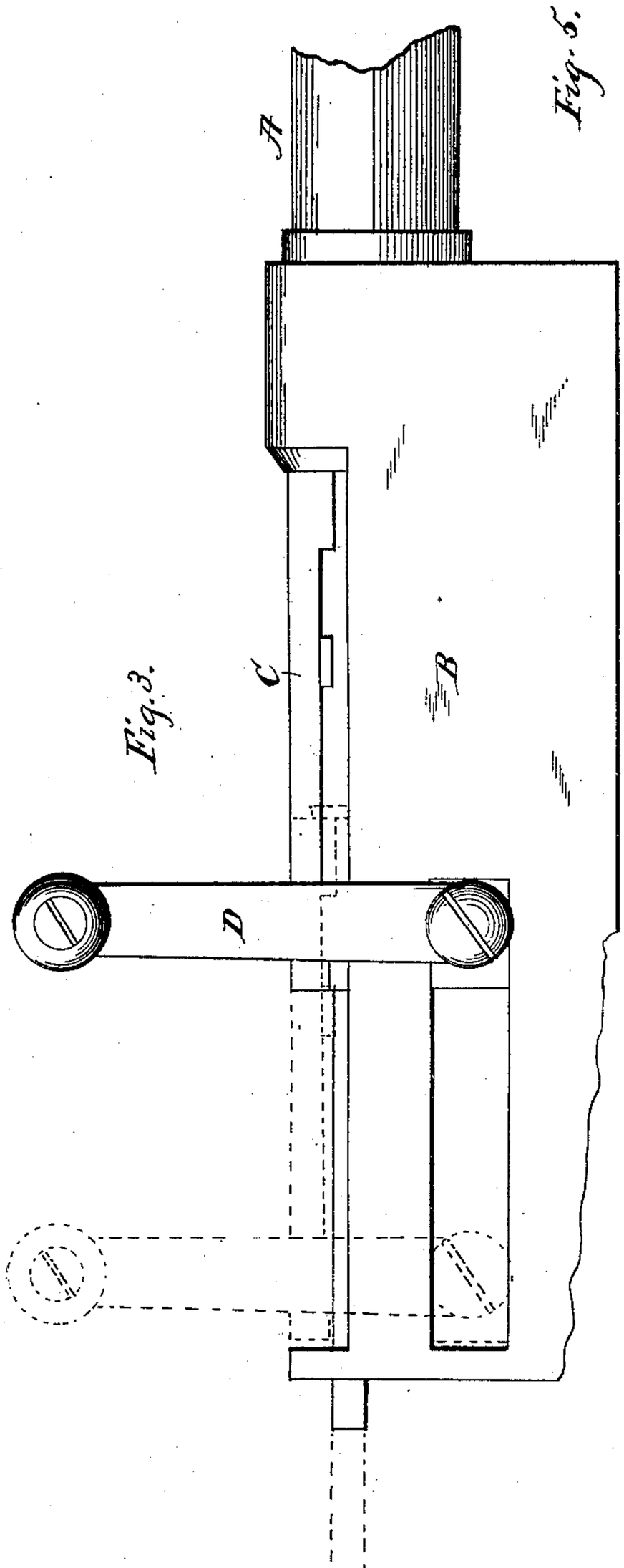
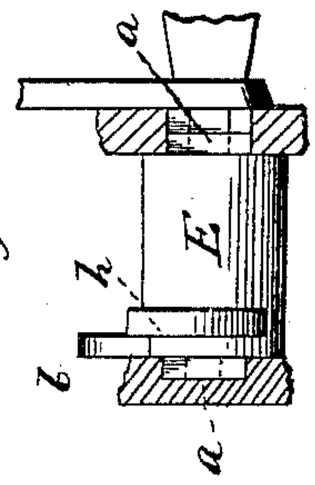
No. 377,854. Patented Feb. 14, 1888.





Witnesses
Edwin S. Ferry.
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UNITED STATES PATENT OFFICE.

BENJAMIN HEMMING, OF NEW HAVEN, CONNECTICUT.

FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 377,854, dated February 14, 1888.

Application filed December 20, 1886. Serial No. 222,053. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN HEMMING, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Fire-Arms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of my invention is a breech-loading fire-arm whereby the breech piece or block is rapidly, easily, and safely manipulated by means of mechanism hereinafter described, and also consists in means for adjusting barrels of different calibers to one breech.

In the accompanying drawings, Figure 1 is a top plan view. Fig. 2 is a side view. Fig. 3 is a side view showing the lever which operates the breech-piece in different positions. Fig. 4 is a sectional view showing the mechanism of the arm. Figs. 5, 6, 7, 8, and 9 are detached views.

This invention relates to an improvement in breech-loading fire-arms; and it consists in the mechanism and operation of the arm, as hereinafter described.

A represents the barrel, and B the frame or receiver. Within the receiver and in line with the barrel is the breech-piece C, which is operated by a lever, D, on the outside of the frame or receiver. The lever D is secured to a shaft, E, as seen in Fig. 5. The shaft E has pieces *a*, as seen in said figure, which slide in longitudinal grooves in each side of the receiver. The said shaft E is connected to the breech-piece in any convenient manner. At one end of the said shaft is an ear, *b*. To said ear is hinged at *c* a lever, F, which operates the firing-pin.

The arm is operated as follows: To throw back the breech-piece for the introduction of a cartridge in the barrel, the lever D is thrown up, as seen in Fig. 3, when the breech-piece will be free to move rearward sufficiently far for the introduction of a cartridge in the barrel. The locking and releasing of the breech-piece is shown in Fig. 9. In the frame, in connection with the shaft E, is a spring, *d*, which, when the lever D is down and the breech-piece forward, bears against a cam, *h*, in the said shaft, which is connected to the breech-piece and prevents the breech-piece from moving rearward. When the lever D is thrown up, as seen in broken lines, Fig. 9, and in solid lines, Fig. 3, the cam moves away from connection with the spring and allows the breech-piece and the connections to move rearward by the action of a spring, H, in Fig. 1, as seen in broken lines, Fig. 3.

The gun is cocked in the following manner: Rigidly attached to the firing-pin I is a finger, J, as seen in Fig. 4. At the lower end of said finger J a notch, K, is formed, which holds a corresponding projection, *l*, on the lever F. The said lever F is held up against the finger J by means of a spring, L, having a groove, *m*, which bears against a pin, *n*, in the lever F. When the lever D is turned to the position as seen in Fig. 2, it draws the lever F rearward, thereby forcing the firing-pin also rearward and to a cocked position. When the lever F is drawn rearward, its flanged end *f* passes beneath an L-shaped projection, *g*, on a firing-lever, M, as seen in Fig. 4. When it is desired to discharge the arm, an extension, N, on the trigger O forces up the end R of the lever M. By such action the end *g*, being in connection with the lever F, forces it down out of connection with the finger J on the firing-pin. The firing-pin, when so released, flies forward by the action of the spring W and discharges the arm. When the lever D is again raised to its upright position, the spring L forces the lever F again in connection with the firing-pin, as before. To lock the arm against accidental discharge, I arrange in the frame an L-shaped arm, S, which, to prevent the arm being discharged, is forced over the part R of the lever M by means of a thumb-piece, T.

Another feature of my invention is the manner in which the barrel is arranged. I make the barrel adjustable, so that barrels having different bores may be introduced when occasion requires it. The breech of the barrel is made with lugs *s s*, (see Fig. 7,) which set into corresponding recesses, *t t*, in the end of the receiver. When the barrel is inserted, it is

turned one-half around. Then a pin through the frame, actuated by a lever, V, (see Fig. 2,) locks the barrel in place, as seen in Fig. 8.

Having described my invention, what I claim is—

1. The combination, in a breech-loading fire-arm, with the breech-piece C and lever D, connected to shaft E, of the lever F, operating in conjunction with the notched finger J, shaft I, carrying the spring W, the said lever F having a projection, *f*, engaging with an arm, *g*, on the lever M, the said lever M being actuated by means of trigger O through the medium of arm N on said trigger, and stop R on lever M, all as shown and described.

2. In a breech-loading fire-arm, the combination of the breech B, breech-piece C, and lever D, operating with the shaft E, having ear *b* and cam *h* and operating in connection with the lever F, which, having the pin *n* resting in a groove, *m*, in the spring L, serves to maintain the lever F in contact with the notch *k* of the finger J, as shown and described.

3. In a breech-loading fire-arm, the combination of the breech B, breech-piece C, lever D, through-shaft E, and ear *b*, connecting with the lever F, the said lever F having the flange *f*, which, by contact with the lug *g* on lever M, serves, through the medium of the said lever M, stop R thereon, arm N, and trigger O, to release the projection *l* on the said lever F from contact with the notch *k* on the finger J, as set forth.

4. In a breech-loading fire-arm, the combination of the breech B, breech-piece C, lever D, shaft E, lever F, spring H, shaft I, and finger J, the said breech B having the spring *d* and the said shaft E having cam *h*, which jams spring *d* down on breech B, when a rearward movement of the breech-piece C occurs, checking it, substantially as shown and described.

5. In a breech-loading fire-arm, the combination of the breech B, having the recesses *t t*, barrel A, having the lugs *s s*, and hand-lever V, having a pin, *v*, partially cut away to permit the breech and barrel to be unlocked, the said pin and lugs securing the breech and barrel, as shown and described.

6. In a breech-loading fire-arm, the combination of the breech B, having set-screw T, safety-arm S, operating in conjunction with the stop R on lever M, arm N, trigger O, and lever M, having lug *g*, engaging with the flange *f* on lever F, said lever being operated by lug *b* on shaft E, and lever D, operating said shaft and retracting breech-block C, all as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN HEMMING.

Witnesses:
WILLIAM GRAB,
EDWIN S. FERRY.