J. DAVIS.

Breech-loading Fire-arm.

No. 42,529. Patented April 26, 1864.

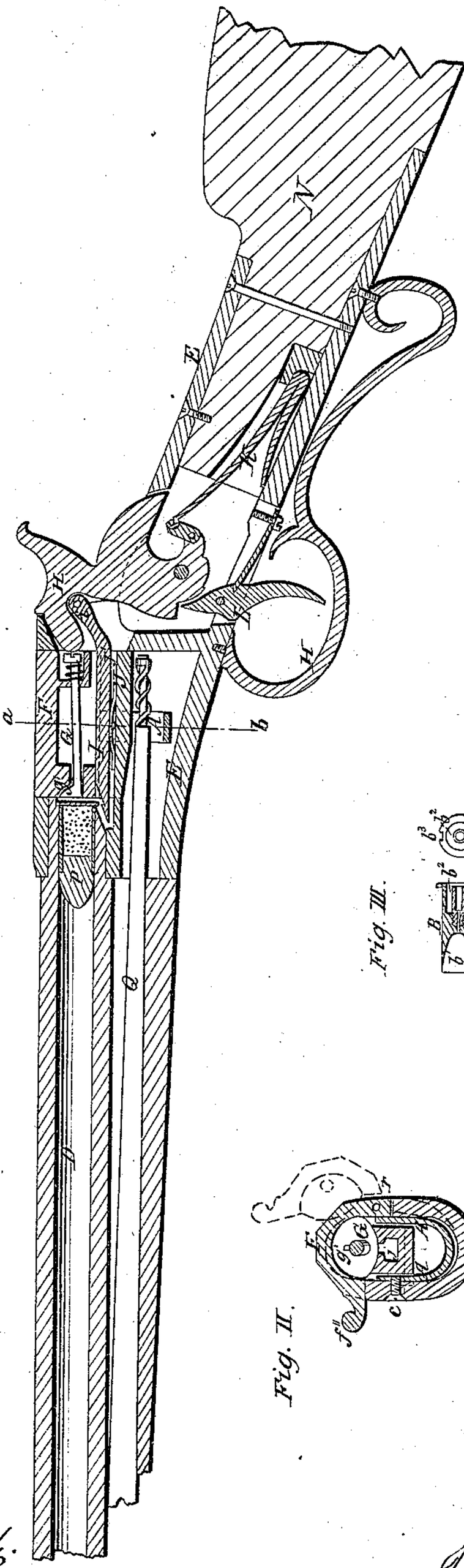

Fig. I.

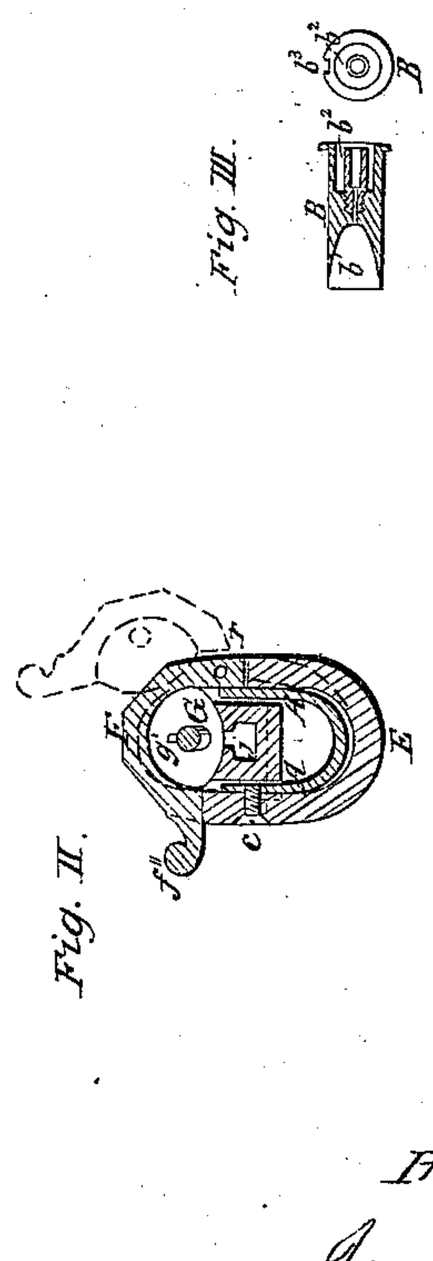

Fig. II.

Fig. III.

Witnesses.
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JARVIS DAVIS, OF BUFFALO, NEW YORK, ASSIGNOR TO PATRICK SMITH, OF SAME PLACE.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **42,529**, dated April 26,1864.

To all whom it may concern:

Be it known that I, JARVIS DAVIS, of the city of Buffalo, county of Erie, and State of New York, assignor to PATRICK SMITH, of the same place, have made new and useful Improvements in Breech and Muzzle Loading Rifles; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I is a longitudinal section showing my present improvements as a breech-loader. Fig. II is a cross-section on line *a b* of Fig. I. Fig. III is a longitudinal section and end elevation of a combined chamber and expansion breech-pin and percussion-nipple, which converts the breech-loader into a muzzle-loader.

Letters of like name and kind refer to like parts in each of the figures.

The nature of this invention relates, first, to the application and use of a spring placed under the grooved block, and so formed as to act upon or against the hinged abutment to hold it in place when shut, and to hold it open, as required.

A represents a strong flat steel spring in the form of the letter U, which is placed in a chamber or recess below the hinged abutment F, and so formed and placed that it will reach up on either side of the grooved block J, (recesses being cut in the sides of the block for that purpose,) with the free end thereof bearing strongly against the hinge part of the abutment in a manner to hold the hinged abutment shut or open, as desired. The hinge part f' of the abutment has two plane surfaces, which drop below the center r, upon which the abutment swings, against one of which plane surfaces the spring bears heavily when the abutment is shut, as shown by the black lines in contact therewith in Fig. II, and against the other when open, as shown by the red lines in contact therewith. One end of the spring is made fast to the breech-casting by means of the screw *e*.

B, Fig. III, represents a combined removable and expansion breech-pin, which exactly fits the bore of the gun at the breech, and is inserted and used therein whenever it is desired to use the gun as a muzzle-loader. This breech-pin has a chamber or cavity, as shown at b', for the reception of the powder, and a percussion-nipple, as shown at b^2. This chambered part is made quite thin and strong, so that it will expand when the gun is fired, and prevents windage. A notch, b^3, is cut through the flange to allow the percussion-rod G to pass in far enough to explode the cap. This removable breech-pin may be applied very quickly and at any time when it is desirable to use the gun as a muzzle-loader, and when so used, powder and ball and percussion-caps are used in a common manner. The hooked bar I will take hold of the flange of the breech-pin and draw it out of the bore, whenever desired, in the same manner that the said hooked bar will remove an exploded cartridge. The hinged abutment may be easily thrown open by pressing the thumb of the left hand against the projection f^2. It is hinged lower down on the breech-casting E than formerly, to admit of the full action of the spring A thereon.

D represents the gun-barrel, the breech end of which is inserted into a casting, E, which casting forms an extension-breech sufficient to receive the hinged abutment F and other working parts of the lock.

G is the percussion-rod. This is peculiar in respect to its having a projection, g', which will strike the fulminate or flange of the cartridge and explode it when a cartridge is used, and the center end of the rod will strike the percussion-cap and explode it when that is used, and the one does not interfere in the least with the action of the other.

H is the hammer.

I is a hooked bar, which is made in one piece, and hinged to the hammer, as shown at i'. There is sufficient room in the groove j' to allow this bar to work freely.

J is a grooved block, in which the hook-bar I works through the groove j'; K, spring; L, trigger; M, guard; N, stock; P, cartridge; Q, ramrod; S, recess for end of hook-bar I. These last-named parts are substantially the same as described in my patent of July 7, 1863, to which reference may be made.

What I claim in this patent, and desire to secure as my invention, is—

The spring A, constructed and operating upon the hinged abutment F, substantially as herein described.

JARVIS DAVIS.

Witnesses:

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