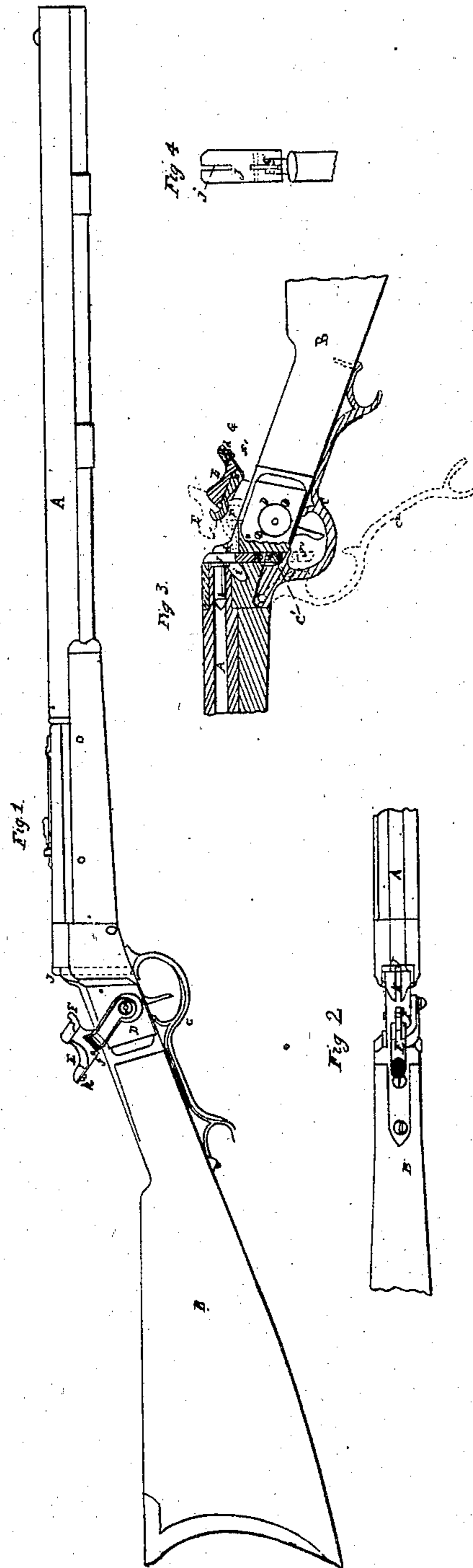


J. DAVIS.
Breech-loading Fire-arm.

No. 37,544.

Patented Jan. 27, 1863.



Witnesses:

H. H. Fisk
C. B. Fisk

Inventor

Jarvis Davis

UNITED STATES PATENT OFFICE.

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. 37,544, dated January 27, 1863.

To all whom it may concern:

Be it known that I, JARVIS DAVIS, of the city of Buffalo and State of New York, assignor to PATRICK SMITH, of the same place, have invented certain new and useful Improvements in Breech-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 side elevation of my improved breech-loading rifle. Fig. II is a top plan. Fig. III is a longitudinal section. Fig. IV is a plan of the sliding abutment as connected to the guard.

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

The nature of my invention relates, first, to the construction of a spring-hook, in combination with the lock of a breech-loading rifle, so that when the rifle is fired the hook will catch under the cartridge and draw the shell or case of the exploded cartridge out of the barrel and throw it off when the gun is "cocked;" second, in the construction of a slotted sliding abutment so combined and arranged that when the gun is fired the thin end of the cock-hammer will pass through the slot and strike and explode the cartridge, the shoulders of the thicker part of the hammer striking against the abutment and completely closing the slot.

A represents the gun-barrel; B, stock; C, guard; D, lock; E, hammer, to which the spring-hook is attached.

F represents a hook, which is hinged or jointed to the hammer at the butt-end thereof, as shown at *f'* in Fig. III, the hook end projecting forward of the hammer so as to pass under the cartridge when the gun is fired.

G represents a spring, which is connected to the hammer by means of the screw *h*, the free end of the spring lapping onto the butt-end of the hook, so as to bear hard against it. The surface of the butt end, against which the spring bears, is made eccentric to the center or joint, so that when the hook is forced down a little (as it is in drawing out the case of the exploded cartridge) it will throw back the spring, causing it to press with great force thereon, and as soon as the cartridge-case is liberated from the barrel the spring

will react and throw the spring back to its place in the hammer with sufficient force to throw off the case of the exploded cartridge. A groove is made in the hammer, in which the hook and spring are placed, and in which they act, as represented in Fig. III. A small recess or chamber is made in the breech, as shown at *i*, in order to allow the hook to pass under the cartridge and hook onto its flange.

J represents the sliding abutment. (The slot therein is shown at *j*, Fig. IV.) It is hinged to the guard, as shown at *C'*, so that the guard will move it up and down, as desired. When the guard is dropped down to the position of the dotted lines *C''*, Fig. III, the abutment will be drawn down to the position of the dotted lines *J'*, and when the guard is thrown up to its place in the stock, the abutment will be carried up to its place in the breech, covering the bore.

K is a slot made in the mounting in rear of the abutment, making a passage-way for the hammer and hook.

Operation: To load, first drop the guard down to the position of the dotted lines *C''* in Fig. III; then cock the gun; then put your cartridge into the barrel and draw up the guard to its position in the stock. This brings the abutment up to its place in the breech, ready for discharge. If not discharged directly after loading, the hammer should be let down to half-cock, where it may be handled with safety. When the rifle is fired, the thin end of the hammer passes through the slot in the abutment, nearly filling it, and strikes and explodes the cartridge. The hook, at the same time passing into the chamber *i*, hooks onto the cartridge, the shoulders of the hammer striking against the abutment. When the gun is discharged, the guard should be immediately lowered, so as to draw the abutment to uncover the bore. Then it should be cocked, and in the act of cocking the hook pulls the case of the exploded cartridge out of the barrel in a direct line, as represented by the dotted lines *F*, Fig. III, and as soon as the case is fully out of the barrel the spring reacts upon the hook and throws the old case out of the way.

I claim as my invention—

1. The combination of the spring-hook G with the hammer E, the said spring-hook

being connected to and operating with the hammer, for the purposes and substantially as herein described.

2. The sliding abutment J, having a slot, *j'*, therein, when arranged and used as herein described.

3. The recess or chamber *i* made in the

breech, for the purposes and substantially as set forth.

JARVIS DAVIS.

Witnesses:

E. B. FORBUSH,
W. H. FORBUSH.