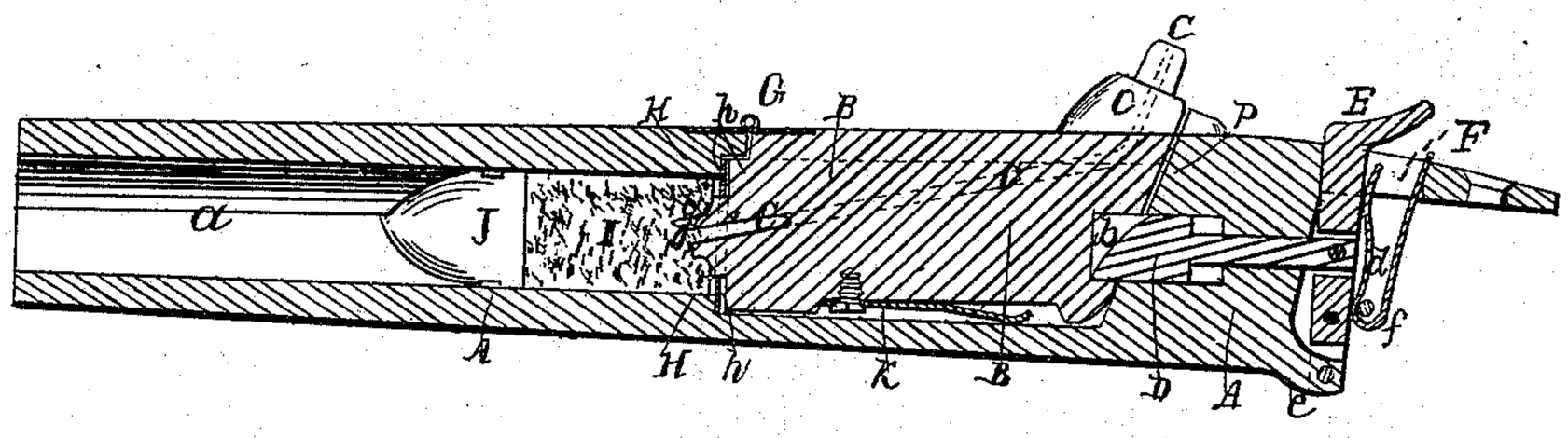
J. W. PRESTON.

Breech-Loading Fire-Arm.

No 61,865.

Patented Feb. 5, 1867.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES W. PRESTON, OF NEWTON, MASS., ASSIGNOR TO A. B. ELY.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **61,865**, dated February 5, 1867.

To all whom it may concern:

Be it known that I, JAMES W. PRESTON, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Fire-Arms, which are fully described and represented in the following specification and accompanying drawing.

A A is the barrel of an ordinary musket or rifle, the rear portion of the bore of which, in front of the breech-pin and up to the points H H, is enlarged, leaving a shoulder at those points. The enlarged part is then opened on the upper side, on the line H *p*, sufficiently to admit the solid plug B B, which is cylindrical, and made to fit the enlarged cavity of the barrel, and fastened to the upper part of the barrel, cut off on the line H *p*. This plug is hinged to the barrel at G, so as to turn up and over, and rest upon the barrel when open. *b* is a recess in the rear of this plug, into which a bolt, D, enters when it is shut down for the purpose of confining it in place.

The bolt D projects backward through the breech-pin, and is pivoted at *d* to a lever, E, which has a thumb-piece projecting above the upper surface of the gun, and is pivoted at its lower end to a projection in the under hinder part of the barrel at *e*.

F is a slot, through which the lever E passes, and *f* is a bent spring for throwing the bolt D forward, so that it will catch into the recess *b* of the plug B, and lock it fast when down. C is the cone and nipple for the cap, and *c c* the fire-duct for reaching the powder. *g* is a sharp point on the inner end of the plug, projecting forward for the purpose of tearing and penetrating the cartridge as the plug is shut down. At *h h* bards or washers of rubber, or other elastic material, are placed on the end of the plug, which is recessed, and which, being crowded against the shoulder H when the plug is down, serve to make the joint tight.

Among the main advantages of my invention are the ready application of it to any ordinary gun, and the ease with which any gun may in this manner be altered into a breech-loader, its cheapness, simplicity, durability, and tightness of joints. It may be loaded from the muzzle, also. Instead of the rubber washers, or in addition thereto, a washer of metal or pasteboard may be used, and it may be attached to the plug or to the cartridge, and act as a flange thereto. The cartridge may be inclosed in thin, or, if desired, in combustible paper. When the plug is brought down, the washer or flange being at the short arm of the lever, while the powder is applied to the long arm, the pressure insures a tight joint without liability to become loose by wearing. No metallic cartridge-case is necessary for firing.

Instead of the cap and fire-duct, a percussioned cartridge may be used, the duct being replaced by a needle or rod to be struck by the hammer.

I have the impression that a charge-chamber has been constructed similar in appearance to my plug; but that was hollow, and intended to contain the charge. Swinging breeches or breech-pins which open and close the rear end of the barrel are not new, and to those my plug does not apply. My device is intended to be inserted in the cavity of the barrel in front of the breech-pin, and to be applied more particularly to the alteration of guns or gun-barrels already made. It is a plug inserted within the barrel, in distinction from a breech or breech-pin closing the end of the barrel, and this arrangement in the manner described is, I believe, new.

What I claim, then, is—

1. Inserting the solid plug in the barrel of the gun instead of the breech, when constructed, arranged, and operating in the manner substantially as described.

2. The combination and arrangement of the plug, constructed and inserted substantially as described, with the locking-bolt constructed, arranged, and operating substantially as set forth.

J. W. PRESTON.

Witnesses:

DAVID D. BRODHEAD,

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