F. J. ABBEY & J. H. FOSTER.

Improvement in Breech-Loading Fire-Arms.

No. 114,081. Patented April 25, 1871.

Fig 1.

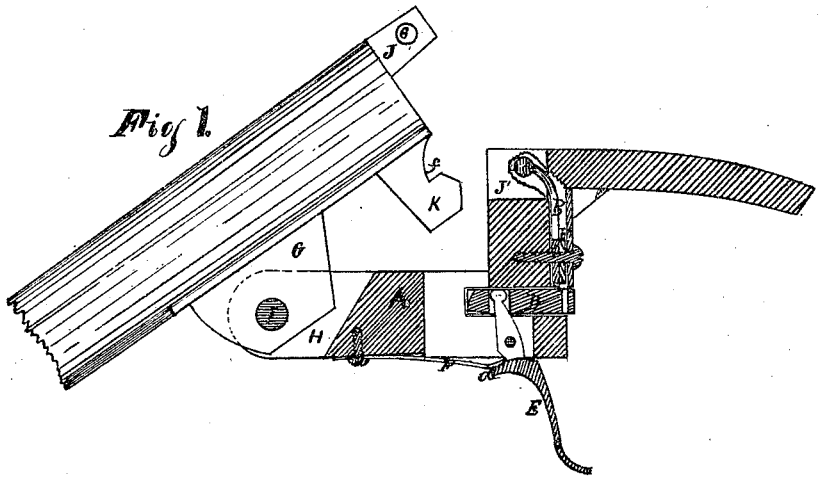


Fig 2.

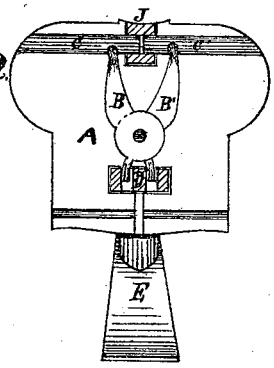


Fig 3.


Witnesses

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FREDERICK J. ABBEY AND JAMES H. FOSTER, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 114,081, dated April 25, 1871.

*To whom it may concern:*

Be it known that we, FREDERICK J. ABBEY and JAMES H. FOSTER, of the city of Chicago, county of Cook and State of Illinois, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and we do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a vertical longitudinal central section of our invention. Fig. 2 is a cross-section of the same, showing the moving parts thereof; and Fig. 3 is a top view of the slide employed in adjusting the levers.

Similar letters of reference indicate like parts in the several figures of the drawing.

Our invention relates to that class of breech-loading fire-arms in which the barrel is pivoted to the breech-plate, and so arranged as to admit of a tilting movement; and the improvements consist of the mechanism for locking the barrels in position, by which the same is prevented from drawing forward or moving upward when discharged, a more full and particular description of which is hereinafter set forth.

In the accompanying drawing, A represents the breech-plate, which may be as shown, or may be any suitable form that will receive the moving parts connected therewith. Pivoted to the rear end of said breech-plate are levers B B, the upper ends of which are made round, and bent or slightly curved forward, in line one with the other. Fitted within the apertures, cut transversely through said breech-plate near its upper surface, are bolts C C′, which are so arranged as to admit of a sliding movement. The said bolts are provided near their inner ends with apertures, into which the upper end of levers B B′ are loosely fitted; thus, as the said levers are moved on their fulcrum, the bolts are moved in the direction of their length to or from the center. In the rear end of said breech-plate, near the lower end of said levers, is a longitudinal mortise, within which is loosely fitted a metal slide, D, the rear portion of which is provided with a V-shaped slot, into which the lower ends of said levers pass. Pivoted to the lower side of said breech-plate is a lever, E, the upper end of which passes into a vertical mortise cut through the front of said slide, the end of said lever being so shaped as to allow a free and easy forward or backward movement to the slide. Affixed to the lower side of the breech-plate is a spring, F, the rear end of which rests upon a shoulder, *d*, projecting forward from said lever below its fulcrum, by which the upper end of the same is tilted forward by the downward pressure of the spring. Solidly connected to the lower side of the barrel, near its rear end, is a lug, G, which is loosely fitted within a slot, H, in the end of the breech-plate, and is firmly secured therein by a bolt, I, passing through the same, the arrangement of which is such as to allow the barrel to be tilted upward at the breech for the purpose of introducing the cartridge. Affixed to the upper side of the barrel is a projection, J, which fits a corresponding recess, J′, in the upper side of the breech-plate. Within said projection is an aperture, *e*, passing laterally through the same, into which the inner ends of said bolts C C′ pass when the barrel is in position. Solidly attached to the lower side of the barrel, at the breech, is a lug, K, the rear side of which is provided with a hook, *f*, as shown in Fig. 1. The rear surface of said lug below the hook is of peculiar shape, being slightly curved backward and upward to a point near its center vertically, thence slightly beveled forward to the surface of the hook, making less resistance to the slide than would be the case if made in the ordinary manner, and allowing the slide more readily to enter the hook. Thus, as the barrel is tilted downward into position, the curved surface of the lug is brought in contact with and against the forward end of slide D, the end of which is curved on its upper side approximating to the curve of the lug, by which the said slide is forced backward, bringing the inner surface of the V-shaped slot in contact with the lower ends of levers B B, forcing the same outward laterally at the lower and upper ends, which moves bolts C C outward to allow projection J of the barrel to enter recess J′ of the breech-plate.

The barrel being in position, slide D is forced forward into the niche of the hook, the same being beveled on its lower side to admit of a free and easy movement, imparted by the

action of spring F upon lever E, tilting the upper end of the same forward, by which the outer surface of the V-shaped slot is brought in contact with the levers, which forces bolts C C into apertures *e* of the projection J, thus firmly locking the barrels in position. When it is desired to tilt the breech upward preparatory to introducing the cartridge, pressure is applied to the rear side of lever E, moving the same on its fulcrum, which moves said slide backward, withdrawing the bolts from the apertures, thus allowing the barrels to be tilted upon their fulcrum to the desired position.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The bolts C C, moving laterally to and from, and within a lateral perforation or opening, *e*, of the projection J, substantially as and for the purpose described.

2. The projection J of the barrel, with its lateral perforation *e*, in combination with bolts C C, substantially as and for the purpose described.

3. The slide D, provided with V-shaped slot for operating the levers B B, substantially as and for the purpose described.

4. In combination, the bolts C C, levers B B, slide D, and lever E, the whole arranged and operating substantially as and for the purpose described.

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Witnesses:
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