2 Sheets—Sheet 2.

J. D. COON.

Breech-Loading Fire-Arm.

No. 208,889. **Patented Oct. 15, 1878.**

Fig 6.

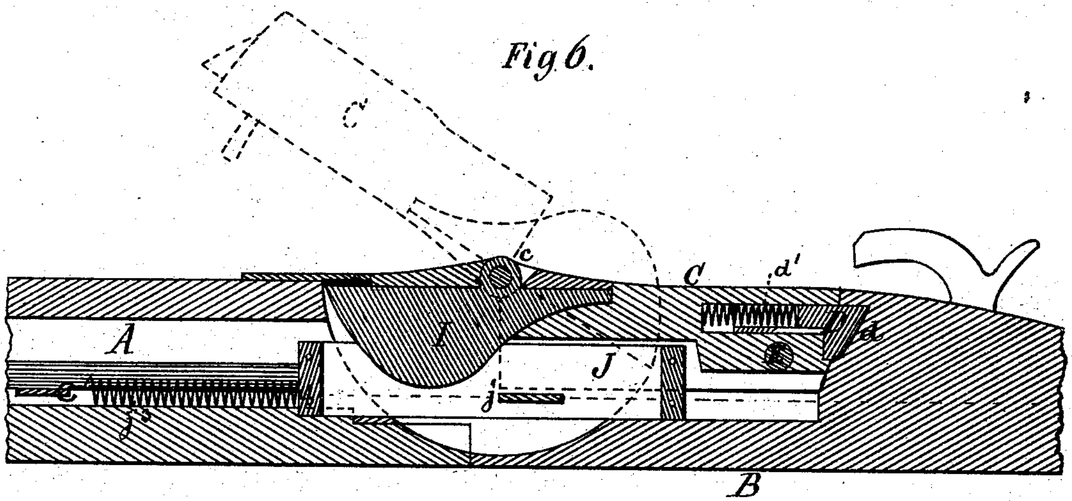


Fig 7.

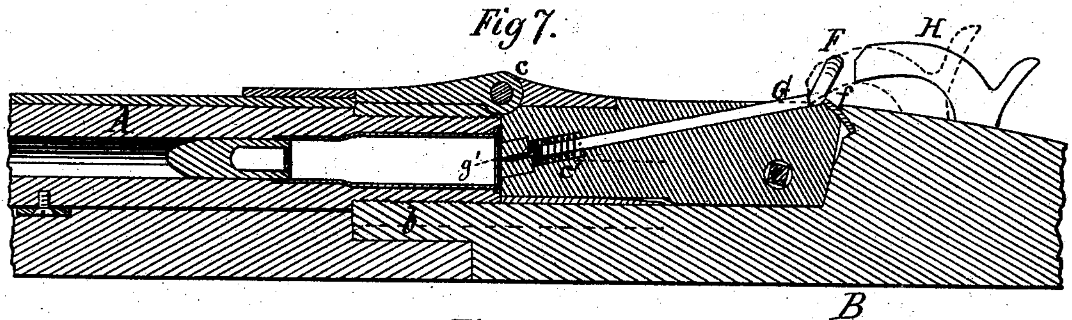


Fig 8.

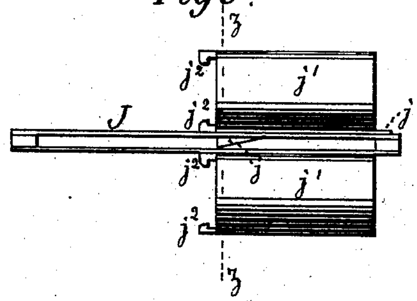


Fig 9.

Fig 10.

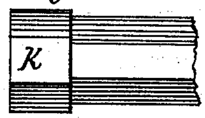
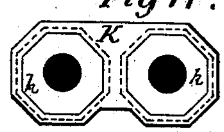


Fig 11.



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2 Sheets—Sheet 1.

J. D. COON.

Breech-Loading Fire-Arm.

No. 208,889. **Patented Oct. 15, 1878.**

Fig 1.

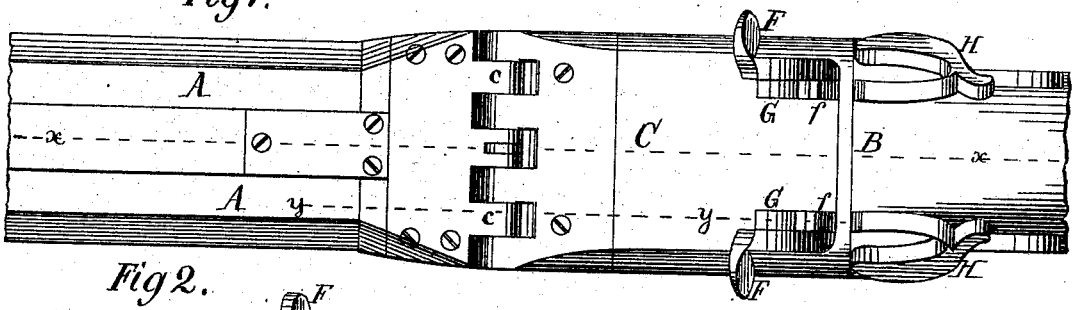


Fig 2.

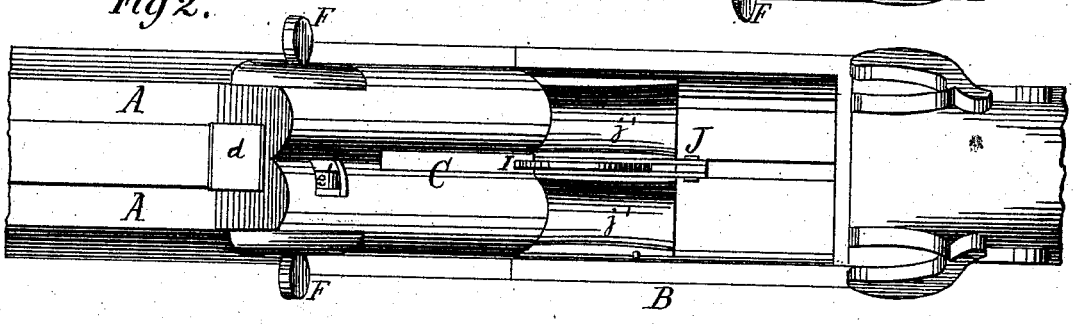


Fig 3.

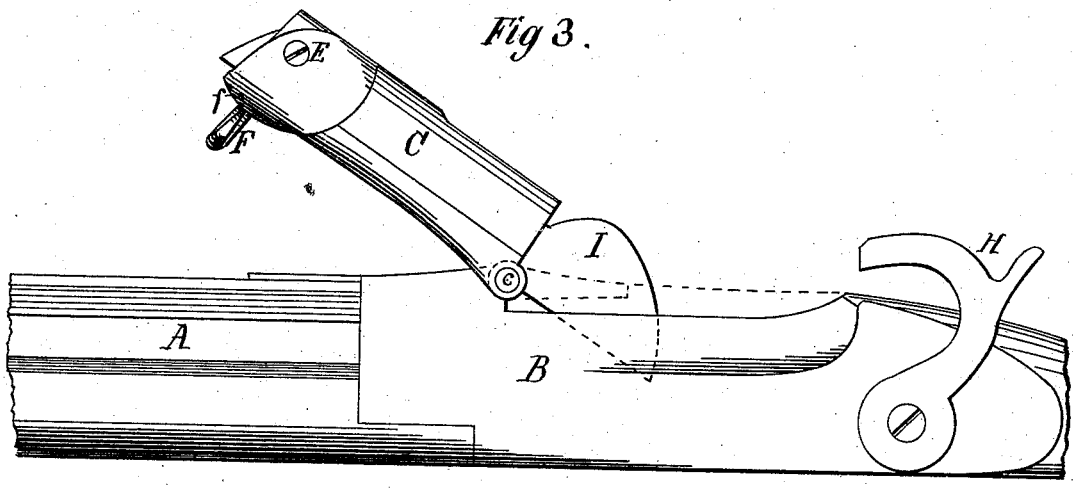


Fig 4.

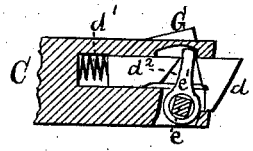
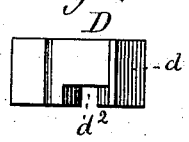


Fig 5.



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UNITED STATES PATENT OFFICE.

JOHN D. COON, OF CENTREVILLE, COLORADO.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **208,889**, dated October 15, 1878; application filed April 5, 1878.

To all whom it may concern:

Be it known that I, JOHN D. COON, of Centreville, in the county of Lake and State of Colorado, have invented certain new and useful Improvements in Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a top view of my improved fire-arm with its breech closed. Fig. 2 is a similar view, showing the breech open. Fig. 3 is an elevation of the same. Fig. 4 is a detail view of a spring-bolt used for locking the breech. Fig. 5 is a bottom view of the same. Fig. 6 is a vertical central longitudinal section of the fire-arm in the line *x x* of Fig. 1. Fig. 7 is a vertical longitudinal section in the line *y y* of Fig. 1. Fig. 8 is a detail view of the shell-extractor turned bottom upward. Fig. 9 is a section in the line *z z* of the same. Fig. 10 is a detail view of the muzzle-portion of my fire-arm, and Fig. 11 is a front view of the same.

This invention relates to improvements in breech-loading fire-arms; and consists in the construction and combination of parts, as hereinafter more fully described and claimed.

In the drawings, A represents a gun-barrel fastened or screwed to a breech-frame, B, of gutter shape. The front part *b* of the frame B is at the top provided with hinges *c*, to which a breech-block, C, is attached. The breech-block C has at its rear end a straight slide, D, with an inclined face, *d*, and a tension-spring, d^1. A transverse pin, E, having a square portion, *e*, is inserted into the breech-block C below the slide D, and has an arm, *e'*, fitted onto its square portion, which arm operates the slide by means of a notch, d^2, in the side of the slide, the notch being of such shape that the arm *e'* operates the slide without lost motion. The ends of the pin E are provided with thumb-levers F, which are inserted into the sides of the breech-block so as to enter the breech-frame B with it. The said thumb-levers have concentric shields *f*, which pass over the broken corners of the breech-block and over the rear ends of the firing-pins G of the gun, so that when the thumb-levers F are pushed forward the ends of the firing-pins are covered by the said shields, and when the thumb-levers are left to themselves the shields are down and off the said firing-pins, leaving their ends exposed. Thus, in locking the breech-block, if the slide D is not completely moved back into its retaining-notch in the breech-frame B, the thumb-levers F are not in their normal position, and the shields *f* cover the ends of the firing-pins G and prevent the hammers H of the gun from accidentally operating them. The firing-pins G are of square shape, so as to prevent them from turning, and they have needle-points *g'* snugly fitted in the forward end of the breech-block, and they are also provided in a cavity, *c'*, of the breech-block with retractor-springs, which keep the points *g'* within the breech-block and the rear ends of the firing-pins within the range of the hammers H. The breech-block C is provided with a cam-plate, I, which operates a spring-catch, *j*, of a sliding frame, J, suitably inserted into the bottom of the breech-frame B. To the sides of the frame J two semi-cylindrical carriages, j^1, are attached, which are provided with hooks j^2 at the front corners. The said hooks are diametrically opposite each other, and take hold of the rims of the inserted cartridges at two opposite points, so that even when the cartridge-case should fit tightly into the gun-barrel, it will not jam while being extracted, as is often the case when the extracting-hook only takes hold at one side of the cartridge-shell. The forward end of the frame J is provided with a tension-spring, j^3, suitably fastened in the stock of the gun, whereby the carriages j^1 are kept against the breech ends of the gun-barrels.

The remaining parts of the fire-arm may be of ordinary construction, which I do not deem necessary to describe.

Operation: When the gun is to be loaded the operator pushes the thumb-levers F forward and swings the thereby unlocked breech-block C over toward the muzzles of the gun. The cam-plate I is thereby swung backward, and pushes the spring-catch *j* before it, where-

by the frame J and the carriages j^1 are also moved back, causing the hooks j^2 to extract the cartridge-shells from the barrels. By holding the muzzles of the gun up the extracted shells slip down in the carriages j^1 and are easily removed therefrom. Before the breech-block is swung quite back the cam-plate I leaves the spring-catch j, and the frame J, with the carriages j^1, is moved forward into its old position by the spring j^3. Fresh cartridges are now inserted into the breech ends of the barrels, and the breech-block C is moved down again. The straight part of the cam-plate I comes now in contact with the spring-catch j, pushes it aside, and finally passes it, the spring-catch then resuming its former position. Previous to this operation, and during the same, the hammer H must be in the safety or first rest, as shown in full lines in the drawings.

When the gun is to be fired the breech-block C must be in its normal position, and the bolt D must be fully back in the retaining-notch in order that the shields f do not cover the ends of the firing-pins G. The hammer is moved into the second rest and the gun discharged, which is effected by the hammer striking the firing-pin G and driving the needle-end g' into the cartridge, thereby exploding the fulminate and the powder therein.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent, is—

The combination of the breech-block C, having cam-plate I, and the shell-extractor J j^1 j^2, having tension-spring j^3 and spring-catch j, substantially as set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in the presence of two witnesses.

JOHN DENNIS COON.

Witnesses:

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F. A. LAND.