

(No Model.)

J. L. VOLKEL.  
Breech Loading Fire Arms.

No. 234,632.

Patented Nov. 16, 1880.

Fig: 1.

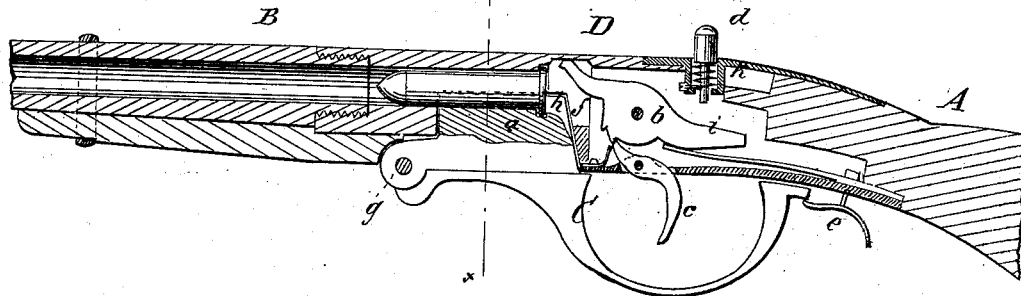


Fig: 2.

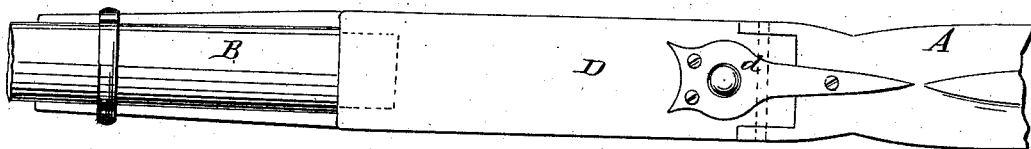


Fig: 3.

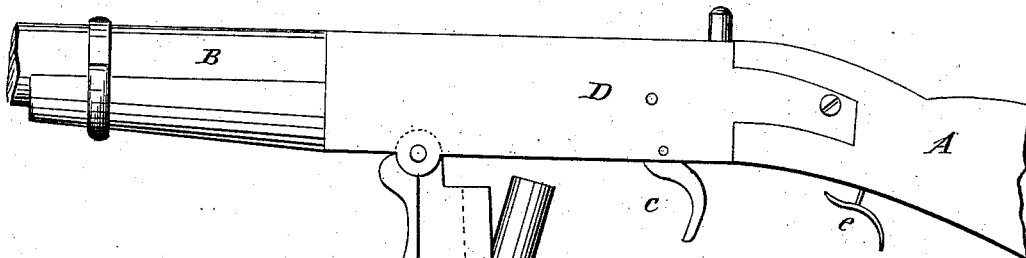
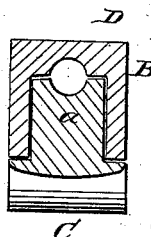


Fig: 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN L. VOLKEL, OF SULPHUR SPRINGS, MISSOURI.

## BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 234,632, dated November 16, 1880.

Application filed August 19, 1880. (No model).

*To all whom it may concern :*

Be it known that I, JOHN LEO VOLKEL, of Sulphur Springs, in the county of Jefferson and State of Missouri, have invented a new and useful Improvement in Breech-Loading Fire-Arms, of which the following is a specification.

The object of my invention is to construct breech-loading fire-arms adapted for rapid firing in a durable form and without complicated parts. I dispense with a separate device for extracting the shells, and use a swinging lever carrying the breech-block, that is formed to receive the cartridge and retain the same while being fired. The cartridge is thrown out by the act of opening the breech. I also use a spring-pin for setting the hammer.

The construction is shown in the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a longitudinal section of a fire-arm constructed in accordance with my invention. Fig. 2 is a plan view of the same. Fig. 3 is a side view with the breech open, and Fig. 4 is a cross-section on line *xx* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the wooden stock; B, the barrel; C, the lever carrying breech-block *a*. *b* is the hammer; *c*, the trigger; *d*, the spring-pin for setting the hammer, and *e* a spring-catch for retaining lever C in position with the breech closed.

Between the wooden stock A and barrel B is a metal breech-piece, D, forming a continuation of the stock and containing the mechanism. This piece D is bored in line with the barrel, and mortised at the under side to form a breech-cavity, that is separated from the recess containing hammer *b* by an abutment, *f*, which is slotted for the end of the hammer to pass through. The upper side of the breech-cavity is recessed lengthwise, as shown most clearly in Fig. 4, to receive the upper side of the cartridge, and is formed with a semi-annular groove near the abutment for receiving the flange of the cartridge.

The lever C is hung between lugs at the under side of piece D by a cross-pin, *g*, so as

to swing backward in closing. The upper side of block *a* is recessed to receive the cartridge, the portion *h* at the back of the recess forming an abutment, against which the base of the cartridge rests, and which is provided with a slot for the hammer. At the base of the abutment *h* is a groove for the flange of the cartridge. By this construction the recesses in piece D and block *a* form, when the breech is closed, a continuation of the bore of the barrel, and the cartridge is held snugly and solidly therein, with its forward end entering the bore of piece D.

To load the gun the cartridge is laid on the open breech-block, and is brought to its place by closing the breech. In opening the breech after firing, the block *a* holds the shell by its flange, and the outer end being retained for a moment by the breech-piece, the shell is thereby raised and turned out of the breech-block by the movement of the breech-block. The shells are thus discharged without the use of an extractor, as usual.

The hammer *b* is of a shape for being contained entirely within the recess of piece D, and is formed with a tail portion, *i*, that extends beneath the spring-pin *d*. The pin *d* is within a tubular socket, *k*, of metal, that contains a spiral spring between the head of the pin and bottom of the socket, so that the head is held above the socket in position for convenient use, while the lower end of the pin extends through the bottom of the tube. The hammer is cocked by pressing the pin *d* downward.

The arm above described has but few parts, and there is no complicated mechanism expensive to manufacture or liable to get out of order.

The invention can be applied to rifles, carbines, and shot-guns.

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

1. In a fire-arm, the breech-piece D, arranged between barrel and breech, bored in line with the barrel, having a breech-cavity separated from the hammer-recess by a slotted abutment recessed longitudinally on its upper side, and having an annular groove for the car-

tridge-flange, in combination with the hinged lever C, carrying the grooved breech-block *a*, hung on a pin between lugs on the under side of piece D, and provided with an abutment, *h*,  
5 and groove for the cartridge-flange, as and for the purpose described.

2. The combination, with the hammer *b*, hav-

ing tail *i*, of the pin *d*, projecting at the top of fire-arm, and supported by a spring in a socket, *k*, as and for the purpose specified.

JOHN LEO VOLKEL.

Witnesses:

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