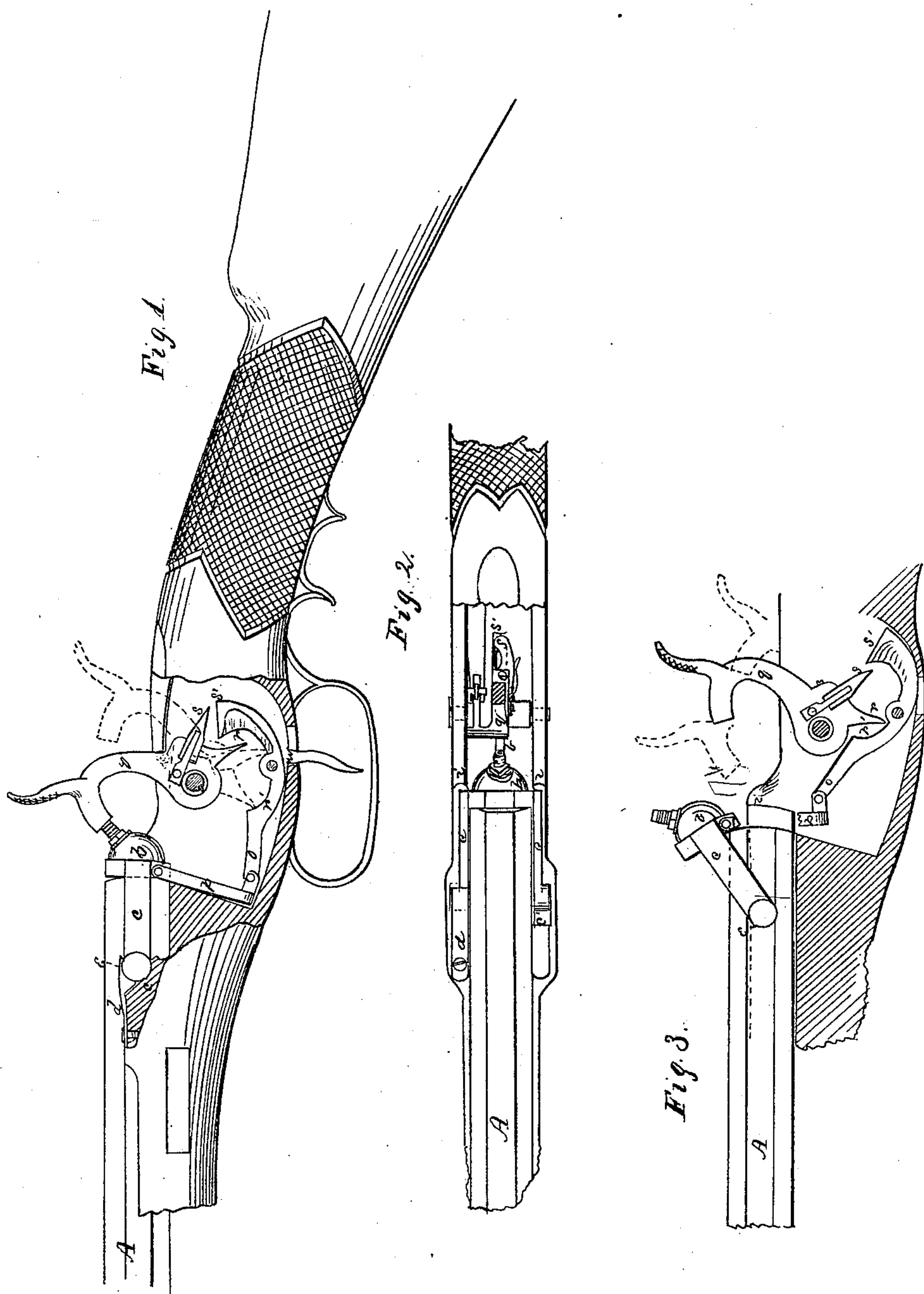


F. W. HOFFMAN.  
Breech-Loading Fire-Arm.

No. 15,516.

Patented Aug. 12, 1856.





# UNITED STATES PATENT OFFICE.

FREDERICK W. HOFFMAN, OF NEW YORK, N. Y.

## IMPROVEMENT IN FIRE-ARMS.

Specification forming part of Letters Patent No. 15,516, dated August 12, 1856.

*To all whom it may concern:*

Be it known that I, FREDERICK WILLIAM HOFFMAN, of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawings, making a part of this specification, in which—

Figure I is a side view or elevation, partly in section. Fig. II is a top view or plan, partly in section. Fig. III is a view of parts in detail; and similar letters indicate similar parts throughout.

My improvement in breech-loading fire-arms consists in the application of a movable cap to the end of the barrel, in lieu of the usual breech-pin, and effecting the removal and replacing of said cap by the act of cocking the piece, thus allowing for the insertion of the cartridge at the breech and the closing of the same by a very simple and effectual contrivance.

At A in the several figures is a view of a portion of a gun-barrel, which should in this construction be fitted securely to a metallic stock. The breech-cap is seen at *b*, and is a thick plate of the same size in circumference as the barrel. This cap is secured to the stock by means of two arms, *c*, lying parallel with the barrel, and embracing it on either side. The ends of said arms terminate in pivots, which drop into sockets formed in the stock, as shown at *c'*. Thus the cap may be lifted up clear of the barrel, as seen in Fig. III, and dropped over it again, as in Figs. I and II. The sockets *c'* are enlarged back of the pivots, so that the cap and arms may easily be taken out. The arms are kept in place by means of a piece of spring-plate, (shown at *d*,) the ends of which press down upon the pivots. These plates also hold up the cap *b* after being thrown up by the cocking motion, while the piece is at half-cock, and in order that the charge may be put in. This holding is accomplished by a pin or projection on the pivot, which rides in and out of a notch in the end of the spring-plates, as shown at *e*, Figs. I and III. The nipple for the percussion-cap is put upon *b*, as shown. As the cap *b* must stand the whole force of the recoil on firing, additional security for holding it, besides the strength of the arms *c*, is provided by a projection formed from each side of the metal breech, which embraces the barrel, as

shown at *i*. The face of this is beveling, so that the cap *b*, in being brought down over the barrel, has a bearing against *i*, and as represented in Fig. II. The raising of the cap from and returning it to the end of the barrel are performed by the movement of the cock or hammer. Below the cock there lies a peculiarly-shaped lever, *o*, to one end of which the cap *b* is connected by a link, *p*, which is forked at its upper end, and it is by the movement of this lever that the cap *b* is operated. The cock is at *q*, and is of the usual construction, with the exception of the parts for operating the cap *b*. These consist of two toes, one of which is permanent and the other movable, the permanent toe being at *r* and the movable one at *s*. The movable toe is that which effects the lifting of the cap *b*, and for this purpose it strikes upon the end *s'* of the lever *o*, whereby the opposite end is thrown up, thus lifting *b*, as shown in Fig. III. This is accomplished by moving the hammer to "half-cock;" and by carrying it on to "full-cock" the toe *r* comes into play by gliding along the curve *r'* of the lever. It thus throws its end *o* down, thereby replacing the cap over the end of the barrel. The reason for having the toe *s* movable is to allow it, on its upward motion, to get past the end *s'* of the lever, in order that it may re-engage on the top for pushing the lever down after the piece has been fired. The side of the lever at this place is made beveling, and as the point of the toe comes by it rides over this beveled surface similar in action to a spring-latch.

The operation is as follows: First draw the hammer to half-cock. This throws up the cap *b* clear of the end of the barrel and leaves the bore open, as in Fig. III. The cartridge can now be put in with the fingers and the priming put upon the nipple. Drawing the hammer now to full-cock, the toe *r*, gliding along the curve *r'*, brings the cap down in place over the barrel, and the piece may now be fired by pulling the trigger in the usual way. The other pieces of the lock have not been described, as they are of a common construction and operation.

I claim—

So combining the cap *b* with the cock that the opening and closing of the end of the barrel shall be effected by the act of cocking the piece, substantially as set forth.

Witnesses:

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J. P. PIRSSON,

S. H. MAYNARD.