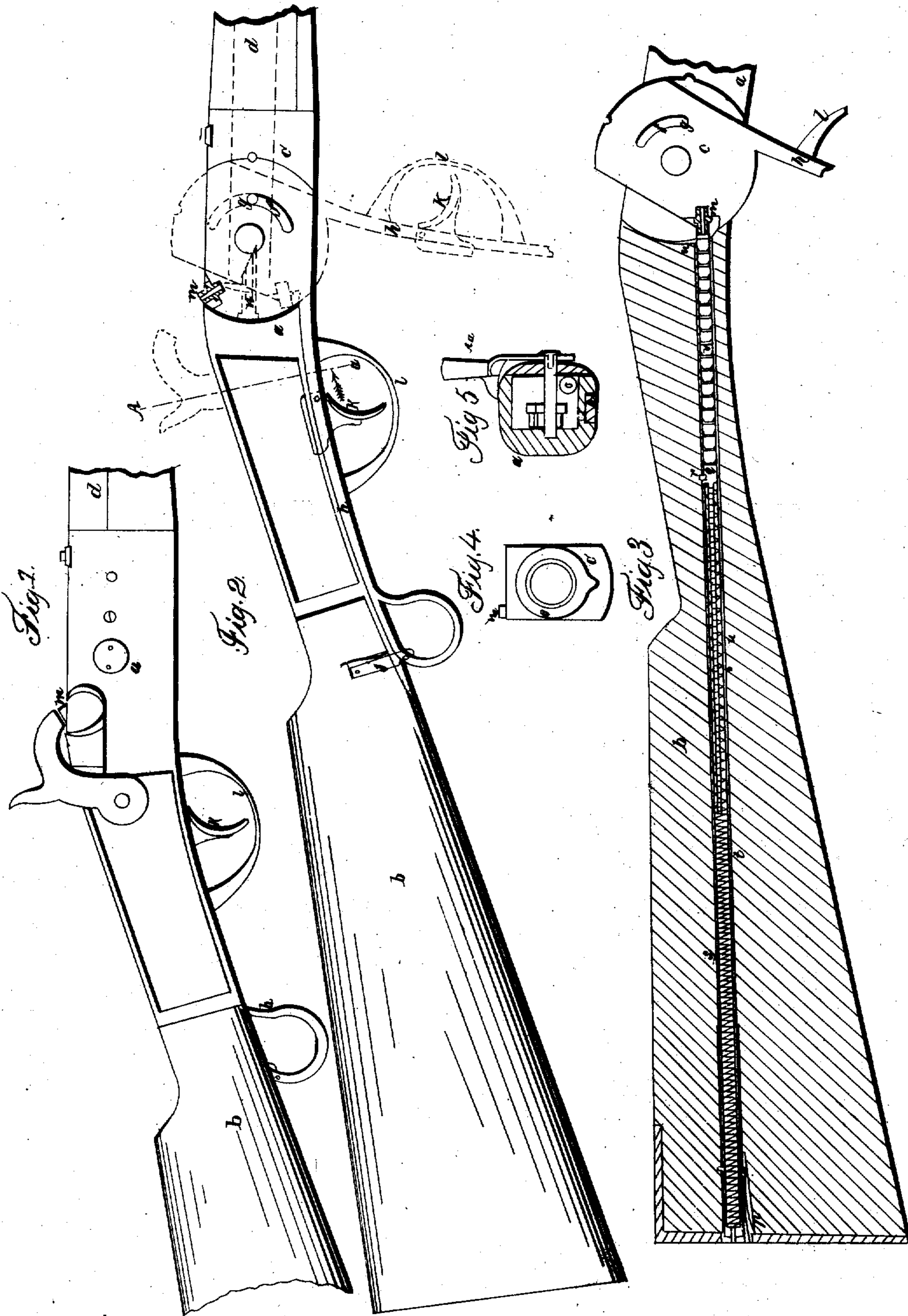


A. D. PERRY.

Breech-Loading Fire-Arm.

No. 12,244.

Patented Jan. 16, 1855.



UNITED STATES PATENT OFFICE.

ALONZO D. PERRY, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN FIRE-ARMS.

Specification forming part of Letters Patent No. 12,244, dated January 16, 1855.

To all whom it may concern:

Be it known that I, ALONZO D. PERRY, of Newark, New Jersey, have invented certain new and useful Improvements in Fire-Arms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of a rifle on my improved plan; Fig. 2, a longitudinal section to represent part of the internal arrangement; Fig. 3, another longitudinal section to represent the internal arrangement of the primer; Fig. 4, an end view of the movable breech; Fig. 5, a cross-section taken at the line A *a* of Fig. 2.

My invention is specially intended for rifles, muskets, and carbines, although applicable to other fire-arms.

My invention consists in combining with a tube containing the caps, and in which they are forced toward the delivery-aperture thereof by a spring or its equivalent, the placing of the nipple on a vibrating breech, so that in the act of turning the said breech to receive the charge the nipple shall be brought to the end of the priming-tube, that a cap may be forced onto it by the tension of the spring; and my invention also consists in combining with the above the making of the rear end of the chamber in which the breech works with an eccentric surface or plane, so that in turning back the breech to bring the bore thereof in a line with the bore of the barrel for the discharge the cap shall move in contact with the said eccentric surface or plane, and be thereby forced to its proper place on the nipple, the rear face of the breech being so formed as to confine the caps in the tube; and my invention also consists in making the lever for operating the breech a part of or attached directly to the body of the breech, and to constitute the trigger-plate instead of having the lever attached to one of the journals of the breech, as heretofore, whereby the trigger is kept away from the lock until the breech is brought in line with the barrel, so that the discharge cannot be effected by the lock until the gun is in a condition to be discharged.

In the accompanying drawings, *a* represents a chamber, made of metal and properly secured to the stock *b*, the cavity of which is formed to receive the turning breech *c*, hung

therein by journals on the sides of the breech fitted to the sides of the chamber. The front and rear ends of the chamber are concentric with the breech, and the rear end of the barrel *d* is let into and properly secured to the forward end of the chamber. The breech *c* is properly fitted to the inside of the chamber, the sides being parallel and the periphery cylindrical, and then bored radially to correspond with the bore of the barrel, as represented by dotted lines in Fig. 2. Segments of this circle are then cut off at top and bottom—at top to be in a line with the top of the barrel, and at bottom to be in a line with the trigger-plate. A groove, *e*, is cut all around the bore of this breech on that face of it which fits up against the front of the chamber, and on each side this groove runs out. The object of this groove is for the free discharge laterally of the fire, which will escape at the joints, and which, if confined, will soon foul the gun and be otherwise injurious. A corresponding groove, if desired, may also be made in the corresponding face of the chamber, as this groove may be in either or both. A concentric groove, *f*, is cut into one side of the breech, which works on a pin, *g*, projecting inward from one of the sides of the chamber, the length of this groove limiting the extent to which the breech may be turned, and it must be of sufficient length to permit the bore of the breech to be elevated upon the top of the barrel that the charge may be inserted. This breech is operated by a lever, *h*, which is a continuation of the bottom of the breech, and which runs back to the required distance, and at its rear end it has a mortise which fits onto the end of a spring friction lever or catch, *j*, let into a mortise in the stock, the end of the friction-lever being so formed as to hold the breech-lever *h* by friction only. This lever *h* is let into a recess in the under side of the stock, and constitutes the trigger-plate, and therefore the trigger *k* is hung to it in the usual way, with a guard, *l*, around it.

The nipple *m* is secured to the breech on the top, and at or near the rear end thereof, and the touch-hole extends down into the body of the breech and through the inside of a hollow punch, *n*, which is fitted and tapped into a hole in the rear end of the breech in a line with the bore, the forward end of the said punch extending within the bore of the breech

and beveled from the top and brought to a point, the hole in the said punch passing through the bevel face thereof. In this way, as the cartridge is forced into the bore of the breech the punch penetrates it, so that the fire from the cap, when discharged, passes directly to the inside of the charge of powder, and thus insures the discharge and the more effectual burning of the powder.

A tube, *o*, is inserted in a hole made therefor in the stock and held in place by a spring-catch, *p*, so that it can be taken out and inserted at pleasure. The open end of this tube passes to the rear face of the chamber *a* in such a position, as represented at Fig. 3, that when the breech is thrown up to receive the charge the nipple shall be in a line with the tube, as represented in Fig. 3. Within this tube is fitted a follower, *q*, with a pin, *r*, which passes through and slides in a longitudinal slot in the tube, which slot is notched, as at *s*, near the rear end, into which the pin can be turned to hold back the follower against the tension of a helical spring, *t*, and interposed between the follower and the rear end of the said tube. The follower is provided with a stem, *u*, within the helical spring, which stem, when the follower is drawn out, passes out through a central hole in the back end of the tube, for the purpose of turning the follower when it is desirable to lock or liberate it from the notch *s*. The tube is taken out of the stock, the follower drawn back and secured, and then the caps *v* are inserted with the open end toward the open end of the tube, which is then inserted in its place in the stock and the follower liberated, so that by the tension of the helical spring *t* the caps are forced toward the delivery-aperture of the tube, and when the nipple is brought in line, as in Fig. 3, a cap is pushed onto it. The breech is then turned to bring it in line with the barrel, which brings the nipple, with its cap, to the required position to be struck by the hammer of the lock. But to insure the forcing of the cap down onto the nipple, the rear part of the chamber along the path of the nipple as the punch is moved is made in the form of an eccentric plane, *w*, against which the top of the cap rubs, and by which it is forced to the required position on the nipple; and as the rear

part of the breech below the nipple is concentric it will prevent the next cap from being forced forward out of the tube until the nipple is again brought down, when the breech is again turned to receive another charge. In this way the caps are put on the nipple by the turning of the breech to receive the charge and to bring it in line for the discharge, and as the trigger is attached to the lever which operates the breech no discharge can take place by the action of the lock until the breech is in line with the barrel, and there held, because until this takes place the trigger is not in place to act on the lock.

I do not wish to limit myself to the precise construction and arrangement of the parts herein specified, but to vary these so long as I attain the same ends by means substantially the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the tube in the stock for containing the caps, and a spring to force them forward in a line radiating from the axis of motion of the turning breech, and placing the nipple also in a line radiating from the axis of motion of the breech, so that when the breech is opened to receive a charge the nipple will be brought into the same radial line with the cap-tube, so that the same spring which forces the caps forward in the tube may also force one of them upon the nipple, thus simplifying the mechanism for automatic capping.

2. The use of an eccentric or its equivalent, as specified, in combination with the capping-tube and nipple on the movable breech, as specified, for the purpose of forcing the caps to their proper place on the nipple as the breech is brought in line for the discharge, as specified.

3. Pivoting the trigger to the lever for operating the breech, as described, so that the trigger shall be carried in and out by said lever, and shall not be brought into a position to act upon the lock until the breech is in a line with the barrel, as set forth.

A. D. PERRY.

Witnesses:

SAML. GRUBB,
G. GAY.