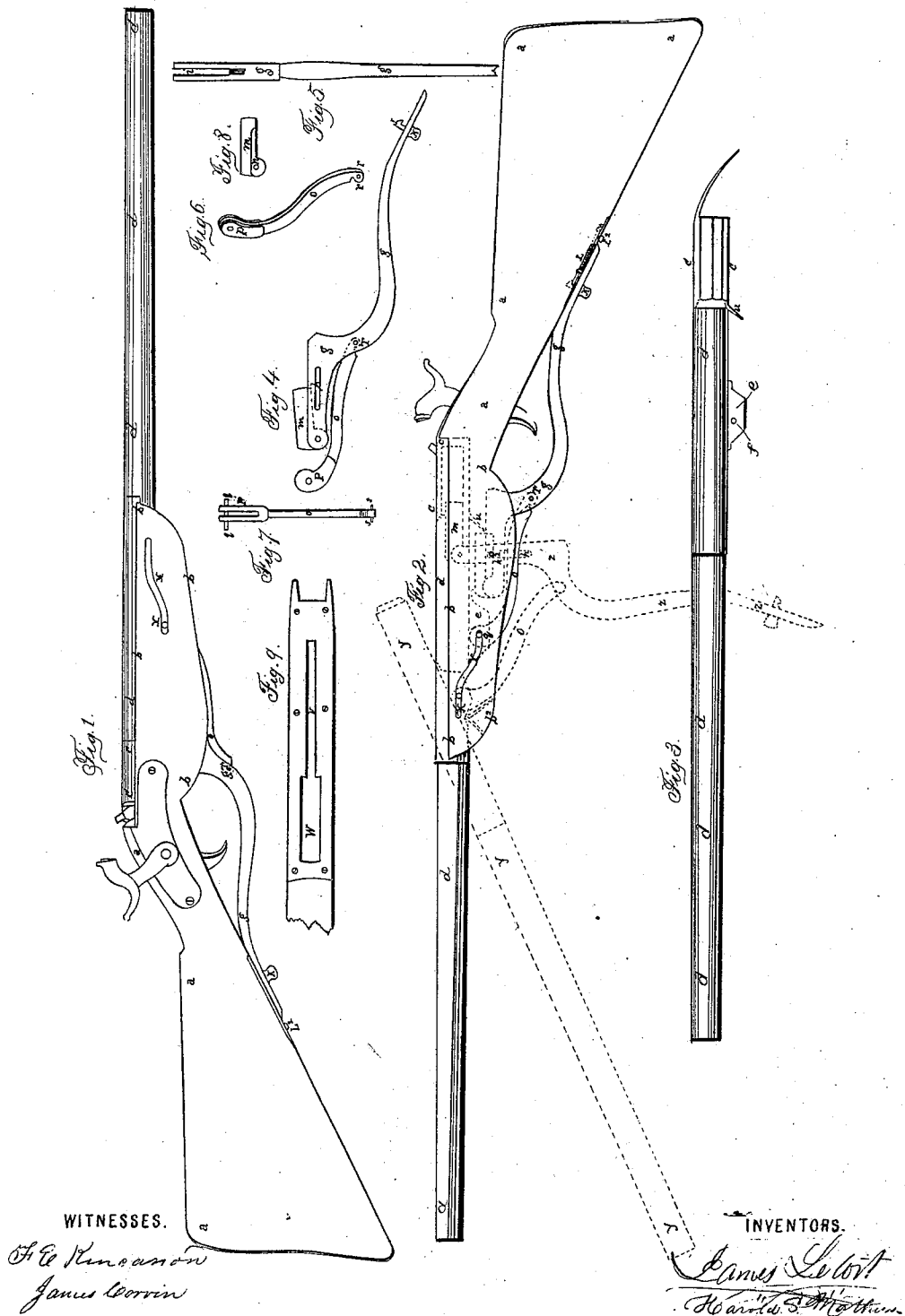


LETORT & MATTHEWS.

Breech-Loading Fire-Arm.

No. 27,723

Patented Apr. 3, 1860.



# UNITED STATES PATENT OFFICE.

JAMES LETORT AND H. S. MATHEWS, OF WYTHEVILLE, VIRGINIA.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 27,723, dated April 3, 1860.

*To all whom it may concern:*

Be it known that we, JAMES LETORT and H. S. MATHEWS, residents of Wytheville, in the county of Wythe and State of Virginia, have invented and made certain new and useful Improvements in Breech-Loading Fire-Arms; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and making a part of this specification, in which—

Figure 1 represents a view of the gun complete. Fig. 2 represents a left-hand view of the gun. Fig. 3 represents the barrel and breech connected and detached from the stock part. Fig. 4 represents the lever-guard with the jointed rammer and sliding rod. Fig. 5 represents the lever-guard detached. Fig. 6 represents side view of the sliding connecting-rod. Fig. 7 represents front view of the sliding connecting-rod. Fig. 8 represents the rammer detached. Fig. 9 represents the under side plate of the stock of the gun.

The nature of our improvements relates more especially to the construction of breech-loading fire-arms, wherein we employ a compound device of a sliding lever-guard having a jointed folding rammer and a sliding, shifting, lifting connecting-rod, the said compound device performing the several offices of detaching and sliding out the barrel from the breech-connection, elevating and canting or tilting the barrel out of the way of the breech, so as to admit the charge, and at the same time allowing the ramming of the charge and drawing the barrel back again and confining it securely in its place, ready to be discharged, the whole of said offices or functions being performed at one operation and through the combination agency of but three simple parts of mechanism.

The better to enable others to construct and use our improvements we herewith give the following description thereof.

If necessary, a new gun-stock may be constructed out and out; but any ordinary musket or rifle stock can be readily altered to suit the devices with the least possible cost, and of the form indicated by the letters *a a a a b b b b*, Figs. 1 and 2.

At *c c*, Figs. 1, 2, 3, is represented a separate breech part or charge-chamber, formed and fitted to the butt of the barrel by any suitable

air-tight shoulder and rim projection, so as to form a close connection to prevent the escape of gas.

The barrel *d d d d*, which may be of any kind of bore, has attached or formed on its under side a suitable flange-piece, *e*, of sufficient thickness, with a hole, *f*, Fig. 3.

At *g g*, Figs. 1, 2, 4, 5, is represented a sliding shifting lever-guard formed with a slot, *h*, Fig. 4, and forked end *i*, Fig. 5, and provided at its smaller tapering extremity with a suitable catch, *J*, and knob *K*, to confine the lever-guard in place through agency of a small spring-bolt, *L*, inserted in the stock of the gun, as indicated in Fig. 2. To the short end or arm of the lever-guard *g g* is connected the jointed or hinged rammer *m*, Figs. 4 and 8, the rammer *m* being filed out at the joint *n*, so as to let down partly into the slotted or forked end *i*, Fig. 5, or to admit of folding up, so as to be out of the way of the under part of the barrel, as shown in Fig. 4 and by the dots in Fig. 2. The lever-guard is held in place by a fixed or stationary axis or fulcrum-pin, *h<sup>2</sup>*, passing through the slot *h* and entering the stock of the gun, as indicated in Fig. 2.

At *O*, Figs. 1, 2, 4, 7, is represented a sliding, shifting, lifting, or canting connecting-rod, formed with a slotted or forked end, *P*, with a small bolt-hole and bolt, *q q*, the smaller end of the rod having a jointed part, *r r*, Fig. 6, and a joint-pin, *s s*, Fig. 7, the smaller end and joint fitting into a joint-seat formed in the lever-guard, as shown in Figs. 1, 2, 4, at the dots *T'*, while the slotted or forked end *P* clasps over or astride the flange *e* of the barrel *d d d d*, Fig. 3, and as indicated at the dots *e*, Fig. 2.

The stock, as hereinbefore referred to, has to be mortised or cut out longitudinally nearly the whole length from the point of the breech-connection to the forward end, with the exception of a small portion of material formed with a double slope or incline plane, as indicated by the double rows of dots at *b<sup>2</sup>*, Fig. 2, and at the under side of the stationary breech *c c*, immediately in front, in close contact with the open end of the breech, the stock is formed with a slope or inclination, as indicated at the dots *u*, Fig. 2; or the mouth of the breech may have attached to it a metallic or other suitable incline, as indicated at *u*, Fig. 3.

In order to strengthen the stock of the gun

fitting to the barrel, a suitable metallic plate formed with the slots or opening *vw*, is employed, fastened on the under side of the stock, as represented in Fig. 9. The barrel part of the stock has a slotted formation, *xx*, Figs. 1 and 2. This slot may be curved, as represented, or made straight throughout its length.

The operation of our improvements is as follows, viz: In order to load the gun, the spring-bolt *L* is pushed back by the aid of the projection *L'*, Figs. 1, 2, when the lever-guard is released, and pushed forward, which forces out the butt-end of the barrel from its place in the breech, in the act of doing which the pin or bolt *g*, Figs. 2 and 7, hitched through the flange *e*, Fig. 3, the said pin or bolt extending into the slot *xx* on each side of the gun-stock, the pin or bolt *g* slides forward and upwardly in the slot, carrying the barrel forward. When arriving at the double slope or incline *b'*, as indicated by the dots, Fig. 2, the barrel cants or tilts forward, as indicated at the dots *yy y*, Fig. 2, thus allowing sufficient room to insert the cartridge or charge into the fixed breech *cc*, and then when it is found requisite to use a charge requiring ramming, the lever-guard *gg* is worked outwardly, as indicated by the dots *zzz*, by which means the hinged or jointed rammer *m* opens off the lever-guard, and resting on the incline plane *u*, Fig. 2, can be actuated back and forth through the intervention or levering-motion of the guard *gg*, to "drive the charge home;" and though the axis or fulcrum *h*, Fig. 2, of the lever-guard *gg* is stationary or fixed in the stock of the gun, still the slot *h* allows sufficient play or compensation to change the length of leverage and drop down, thereby bringing the rammer horizontally, or in the required position to enter the breech *cc* of the gun, as indicated by the dots in Fig. 2; and the slot *xx* in the stock also allows the required play or movement of the detached barrel in operating or moving to and fro of the lever-guard *gg* when ramming the gun. After the charge is inserted in the breech, the

lever-guard *gg* is brought back to the position shown in Figs. 1 and 2, when the butt-end of the barrel enters the breech and is held or securely confined in its place by the spring-bolt and catch *J T*, Fig. 2.

The breech *cc* of the gun can be of such a size as to have fitted or adapted to it any form of bore or barrel, either musket, rifle, or shot-gun, and consequently any kind of charge can be adapted thereto, and almost any form of common lock and hammer device may be combined in operation with our improvements.

Having described the nature, construction, and operation of our improvements, and set forth the advantages thereof by the convertibility and adaptability in connection with ordinary fire-arms, and being well aware that in the Colt's and other pistols jointed and lever rammers have been employed, and that many fire-arms have various devices for detaching, lifting, and shifting the barrel and breech for loading or inserting the charge, yet such separate and distinct devices in themselves we do not claim; but

What we do claim, and desire to have secured by Letters Patent of the United States, is—

The combination and arrangement of the compensating slotted sliding lever-guard *gg* *h J K* with the jointed or hinged rammer *m*, the sliding lifting connecting-rod *op*, the slotted stock *bb b x x*, sliding, shifting, tilting, or jointed barrel *dd d y y y*, and breech-loading gun or fire-arm, substantially as herein set forth and described, or in any equivalent manner whereby the several offices or functions are performed, as set forth, at one and the same time through the operation or agency of the guard of a gun.

JAMES LETORT. [L. S.]  
HAROLD S. MATHEWS. [L. S.]

Witnesses:

F. E. KINCAMON,  
JAMES CORVIN.