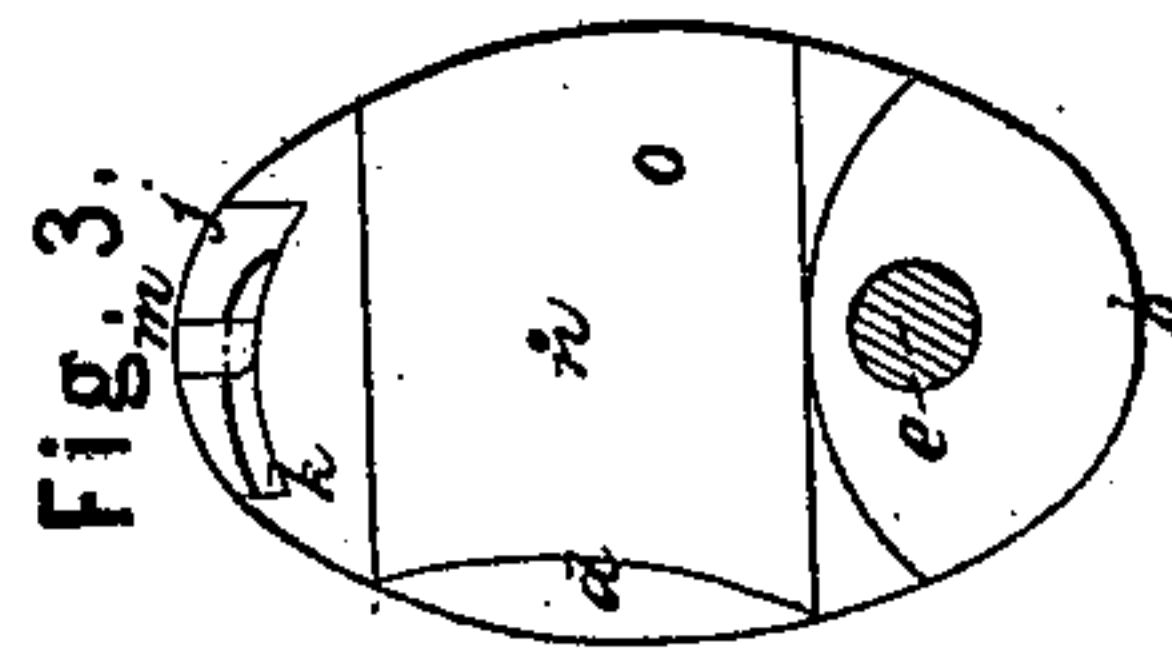
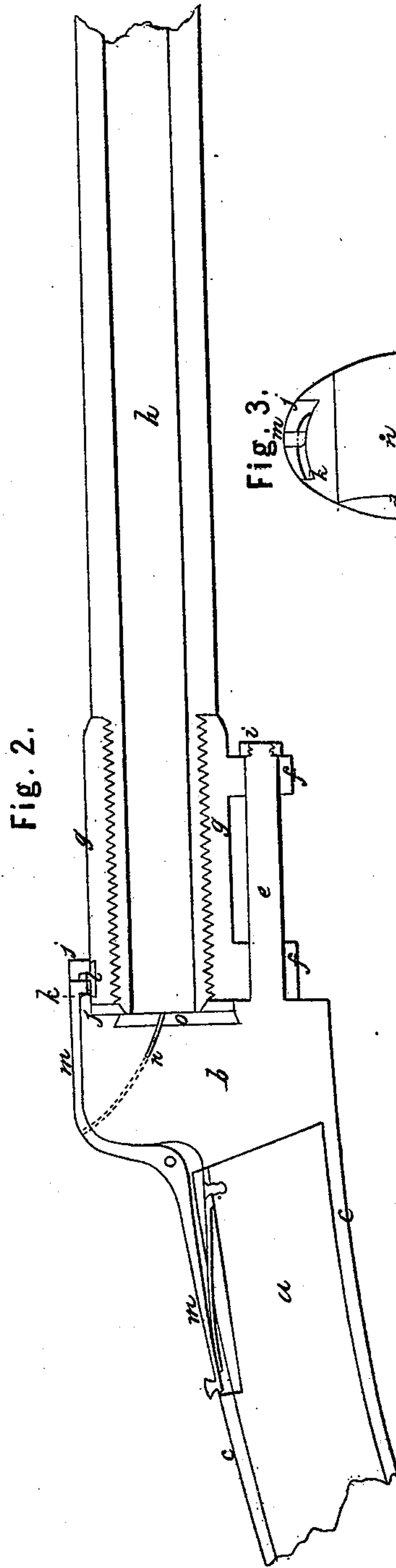
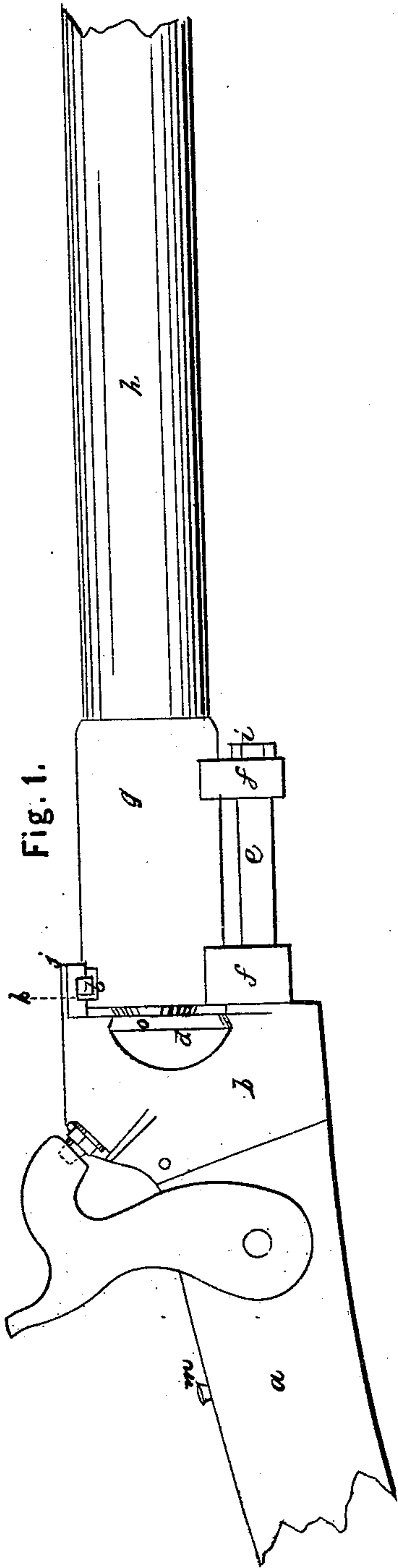


R. S. LAWRENCE.  
Breech-Loading Fire-Arm.

No. 8,637.

Patented Jan. 6, 1852.



# UNITED STATES PATENT OFFICE.

RICHARD S. LAWRENCE, OF WINDSOR, VERMONT.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 8,637, dated January 6, 1852.

*To all whom it may concern:*

Be it known that I, RICHARD S. LAWRENCE, of Windsor, in the county of Windsor and State of Vermont, have invented a new and useful Improvement in Breech-Loading Guns and other Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of a gun on my improved plan; Fig. 2, a longitudinal section, and Fig. 3 a cross-section, of the same.

The same letters indicate like parts in all the figures.

Fire-arms have heretofore been made to load at the breech by having a breech-piece to slide down to open the barrel for the reception of a cartridge, and then up to close the rear end of the barrel, the upper end of the said sliding piece being made a cutting-edge to cut off the rear end of the cartridge in the act of closing, to avoid the necessity of biting off; but when thus constructed fire-arms are objectionable, for the reason that the parts must be heavy to give the requisite support to the sliding breech-piece and insure its close and firm contact with the rear end of the barrel; and as the cartridge is cut off by the upper edge of the breech-piece when forced up, some of the powder accumulates and lodges on the upper part of the breech, and is liable there to explode, to the injury, or at least great inconvenience, of persons using such arms.

The object of my invention is to avoid the defects pointed out; and to this end my invention consists in mounting the barrel on a parallel spindle placed below and projecting from the breech or stock, so that by turning the barrel on the said spindle it can be let down out of line to present its open rear end by the side of the breech for the insertion of the charge, and then turned up, that the rear end of the barrel, with the charge or cartridge therein, may be closed up tight by contact with the breech-piece, when such construction is combined with the making of the side of the stationary breech-piece a cutting-edge for cutting off the rear end of the cartridge as the barrel is brought up into line. I am thus enabled to work the arm with more facility, and, as the cartridge is cut off at the side, the powder will fall down, instead of lodging on the breech, as heretofore.

In the accompanying drawings, *a* represents the stock of a gun, and *b* a breech-piece of metal, secured to the forward end of the stock by two metal straps, *c c*, let into the stock at top and bottom. The front face of this breech-piece is flat and at right angles to the bore of the barrel. The right-hand edge is slightly curved, as represented in the drawings at *d*, and brought to a sharp edge, such as will effectually cut paper. A spindle, *e*, projects from near the bottom of this breech-piece, and to the spindle is fitted to turn freely but accurately thereon two arms, *f f*, that project downward from a sleeve, *g*, that embraces and in which is firmly fitted the rear end of the barrel *h*. After these arms have been put on the spindle, they are held in place by a nut, *i*, on the end of the spindle, which should be screwed up so tight as to insure the close contact of the rear end of the barrel with the front face of the breech-piece.

The breech-piece is formed with a flange or projecting piece, *j*, at the top, and projecting out in front and extending some distance over the barrel, and in the under face thereof is formed a transverse groove, *k*, which receives a lip, *l*, projecting upward from the sleeve that embraces the barrel, so that when the barrel is in place the fitting of this lip in the groove shall firmly bind together the barrel and breech-piece to resist the force of the explosions. The barrel is locked in place by a spring catch-lever, *m*, the forward end of which enters a notch in the lip *l*, its rear end having a thumb-piece projecting upward, by which the operator can unlock the barrel at pleasure.

In the line of the axis of the barrel, or at any point within the bore, when the barrel is in place and locked, there is a hole, *n*, which runs up through the breech-piece to and through the nipple, for the purpose of communicating fire to the charge.

If the breech-piece is made of iron or other soft metal, then a part of its face should be cut and filled up with a plate of steel, *o*, to make the cutting-edge. This plate of steel is best secured by being dovetailed into the breech-piece.

It will be seen from the foregoing that by pressing the thumb of the right hand on the catch-lever *m* the barrel can be turned by the left hand until the bore of the barrel is brought outside of the breech-piece for the reception



of a cartridge, which is conveniently and readily inserted by the right hand while the gun is held in the left, and then the barrel is turned back and locked, the cutting-edge at the side of the breech-piece cutting off the rear end of the cartridge, so that the powder of the charge is thus exposed to the touch-hole in the breech-piece.

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

Mounting the barrel on a spindle attached to or projecting from the breech-piece, so that the barrel can be turned thereon to carry the bore to the side of the breech for the insertion of a cartridge and back to close the bore

against the breech-piece, substantially as herein described; but this I only claim in combination with the stationary breech-piece provided with a cutting-edge at the side to cut off the rear end of the cartridge, and with a projection at top extending over the barrel and grooved transversely to receive a lip from the barrel to bind the barrel to the breech-piece to resist the force of the discharge, all as herein described.

RICHARD S. LAWRENCE.

Witnesses:

S. E. ROBBINS,  
H. S. BOYNTON.