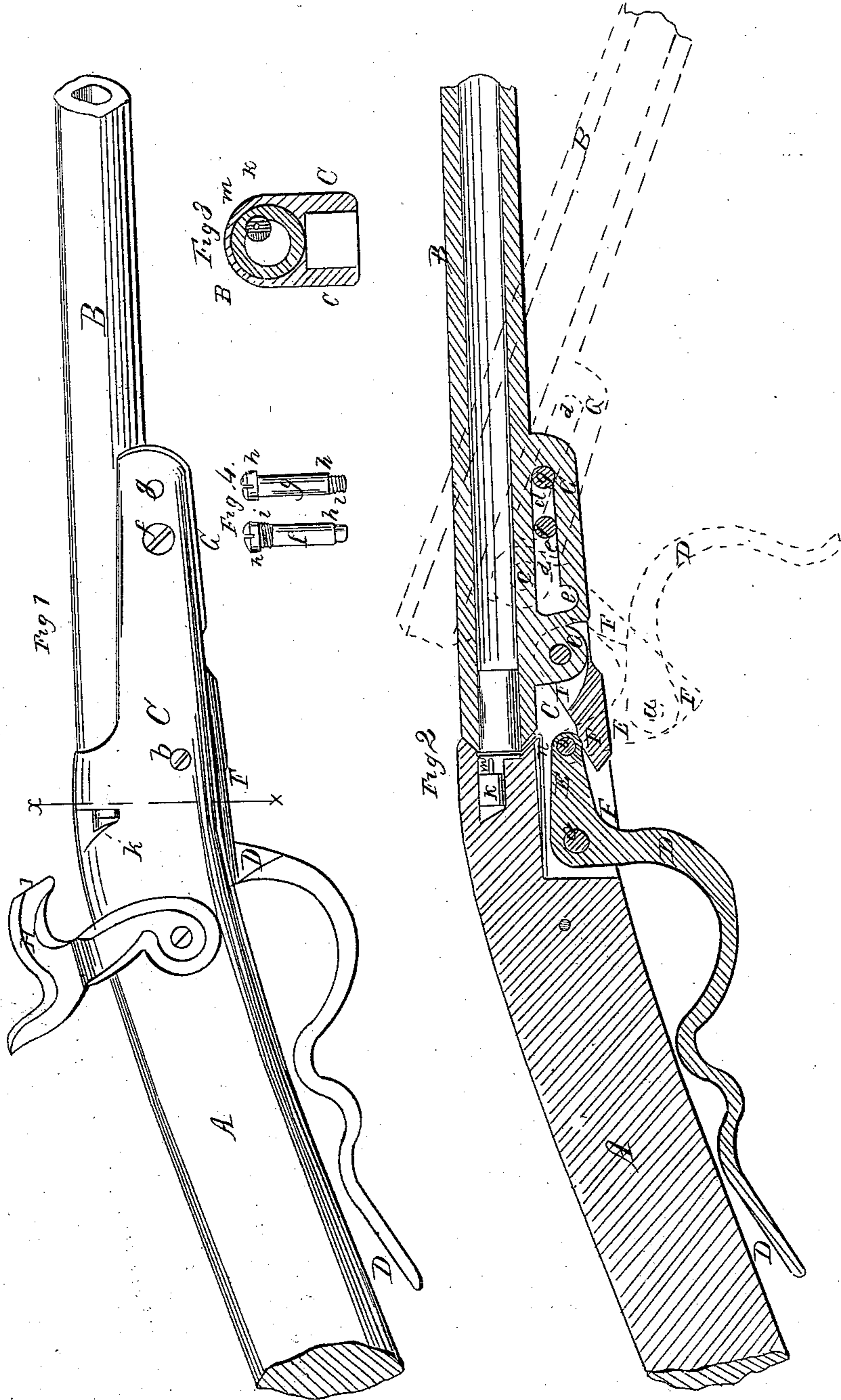


G. J. RICHARDSON.  
Breech-Loading Fire-Arm.

No. 43,929.

Patented Aug. 23, 1864.



Witnesses  
A. Moore } George J. Richardson  
J. D. Patton } by Atty A. B. Slaughter

# UNITED STATES PATENT OFFICE.

GEORGE J. RICHARDSON, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 43,929, dated August 23, 1864.

*To all whom it may concern:*

Be it known that I, GEORGE J. RICHARDSON, of the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side view of so much of a gun as will illustrate my particular improvement. Fig. 2 represents a longitudinal section through the same to show the interior arrangement. Fig. 3 represents a transverse section through the gun, taken at or near the line *x x* of Fig. 1. Fig. 4 represents the form and construction of the combined screw and pivot for holding the parts firmly together, and at the same time allow them free motion without danger of clamping or binding.

Similar letters of reference, where they occur in the separate figures, denote like parts in all the drawings.

My invention relates to that class of breech-loading small-arms in which the barrel is first run forward and then tipped up on a pivoted joint for the purpose of exposing the rear of the bore of the barrel for the easy insertion of the cartridge; and the nature of my invention consists in the combination of the slot and recess or the double slot in the lug under the barrel with the two pins working therein, so that while the barrel is firmly secured to the stock or frame it can freely move back and forth, and be thrown up and down upon the frame for retracting the cartridge-skin and reloading.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents the stock, and B the barrel, of the gun; the portion C serving as the frame to which the barrel is hinged or attached.

D is a lever, which may also serve as a trigger-guard. This lever is pivoted to the frame at *b*, and has pivoted to it at *a* a link, F, the other end of which link is pivoted to the lug G at *c*, said lug being fastened upon the under side of the barrel B. The portion E of the lever D between the two points *a b* is at nearly a right angle to the other portion thereof. In the lug G there is a long longitudinal slot, *d*,

and at the rear end of said slot a depression, *e*, or vertical slot communicating with it. The lug G fits in between the side pieces of the frame C, and two pins, *f g*, shouldered, as at *h*, and screw-threaded, as *i*, are passed through the frame and through the slot in the lug, and thus firmly and truly hold the barrel to the frame. The shoulders *h* take against the opposite sides of the frame or enter recesses in said side pieces, so that they cannot be drawn so tightly together as by any possibility to clamp the lug, so that it could not freely move between them. The screw-threads *i* are to hold the pins in place and prevent their dropping out. When the barrel is drawn down and back, as shown in black lines in Fig. 2, the pins *f g* occupy the positions therein shown in the longitudinal slot *d*; but when the barrel is run forward and tipped up, as shown by the red lines in Fig. 2, then the pin *f* occupies the recess *e*, while the other pin, *g*, is still in the longitudinal slot *d*, but toward the rear end of it. A single pin would not make a sufficiently firm connection between the barrel and frame or stock, as it would not give accurate and undeviating lateral support to the barrel, and two pins or supports in a longitudinal groove or slot alone would not admit of the barrel tipping up at the rear. The uniting of the lug to the frame by the two pins as described above avoids any necessity of ways, guides, or grooves on or in the frame for the barrel to move on and by, and thus cheapens and simplifies the construction.

H is the hammer of the gun. I make the face *j* of the hammer upon its side rather than upon its end, so that it will present an inclined plane to the shoulder or end of the pin *k*, by which I explode the cartridge, said pin being struck and driven against the cartridge by the hammer. This pin or bolt *k* is fitted in a recess in the stock, and has a small point or portion, *m*, projecting from its recess, which is driven against the cartridge, and this point *m*, as more distinctly shown in Fig. 3, is so far to one side of the bore of the gun as to strike the cartridge, but to leave abundant solid metal behind the cartridge to take the recoil force upon.

*n* is a spring-catch that catches against the flange of the cartridge when the cartridge is placed in and the chamber closed; and when the gun is discharged and is to be reloaded the

spring *n* holds the cartridge-case in place, while the barrel is moved forward far enough to release it or allow it to drop out.

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

Securing the barrel to the frame by the combined use of the slot and recess in the lug of

the barrel, and the two pins passing through the frame, and the slot or slot and recess, substantially as and for the purpose set forth.

GEO. J. RICHARDSON.

Witnesses:

JAMES McCAHN,  
PATRICK NOLAN.