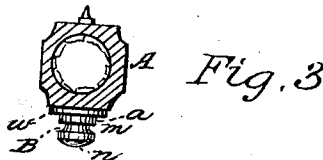
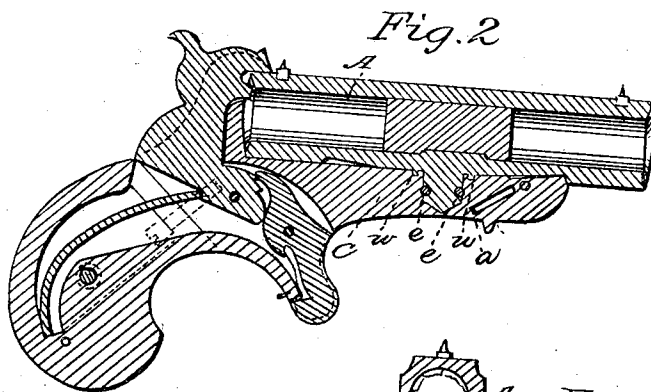
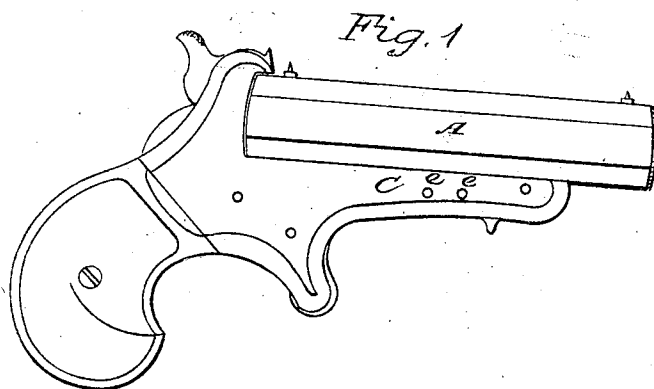


E. S. RENWICK.  
Breech-Loading Fire-Arm.

No. 102,434.

Patented April 26, 1870.



Witnesses:  
W. L. Bennett }  
Rathbone Jr. }

Inventor:  
E. S. Renwick

# United States Patent Office.

EDWARD S. RENWICK, OF NEW YORK, N. Y.

Letters Patent No. 102,434, dated April 26, 1870.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, EDWARD S. RENWICK, of the city, county, and State of New York, have invented new and useful Improvements in Fire-Arms; and that the following is a full, clear, and exact description and specification of my said invention.

My invention has reference to that class of fire-arms in which the barrel is constructed to swing upon the stock or lock-frame, so as to be turned out of and into the line of firing; and

My invention consists of the combination of the barrel of the fire-arm with a grooved pivot projecting therefrom, a stock or lock-frame having a cylindrical socket, to receive said pivot and prevent its lateral movement in every direction, and one or more pins extending transversely to the axis of the pivot, to prevent its withdrawal from the said cylindrical socket; also, of the combination of the said barrel, stock or lock-frame, grooved pivot and pin, with an enlarged ring-bearing, to sustain a portion of the strain during firing.

The advantages of these combinations are that the pivot may be forged solidly onto the barrel, and that no movable head or cap for the pivot is required to hold the barrel to the stock.

The stock also need not be bored through for the reception of the pivot, and the application of the movable head to it. Moreover, in this combination, the lateral strains upon the pivot in every direction are borne by the lock-frame or stock, while the transverse pin or pins are not subjected to them.

My invention consists further of the combination of the said barrel, grooved pivot, lock-frame, having a cylindrical stock and transverse pin, with a ring-bearing that relieves the pivot of more or less of the lateral strain, and the pin or pins that hold it are relieved of the greater part of the strain incident to firing.

My improvements are represented in the accompanying drawing, as applied to a "double-header" pistol—

Figure 1 representing a side view of the pistol,  
Figure 2 representing a longitudinal section of it, and

Figure 3 representing a transverse section of the barrel detached from the stock.

The barrel A of the pistol so represented is constructed with the pivot B forged in one piece with it, and this pivot is grooved circumferentially, as seen at *m*, fig. 3.

The lock-frame C is bored partly through, to receive the pivot B, and is drilled transversely, to admit two pins, *e e*, which project into the ring-groove of the pivot, and hold the pivot in place.

The head *n* of the pivot (beyond the groove) may thus be of no greater diameter than the body *a* of the pivot; consequently, there is no necessity for boring the lock-frame through, so as to permit an enlarged head to be inserted at the side opposite the barrel, and the under side of the lock-frame may be perfectly smooth, and unbroken by the protrusion of the head of the pivot.

The pivot B is surrounded by the enlarged bearing *w*, which consists of a ring-flange projecting from the barrel into a ring-groove formed in the upper side of the lock-frame C. This bearing, being of large diameter and close to the barrel, bears the greater part of the strain of firing, and, consequently, relieves the pivot and the pins that hold it of strain, to which they would be otherwise subjected.

The invention is applicable to fire-arms whose barrels are not reversible end for end upon the stock, and one or two transverse pins may be used, as found expedient.

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

The combination of the barrel, stock, grooved pivot, transverse pin, and ring-bearing, substantially as before set forth.

In testimony whereof I have hereto set my hand this 4th day of October, A. D. 1864.

E. S. RENWICK.

Witnesses:

JOHN RATHBONE, Jr.,  
A. SHEDLOCK.