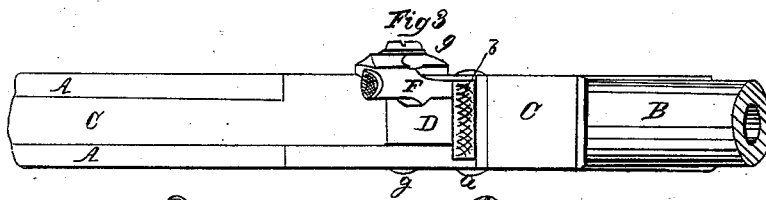
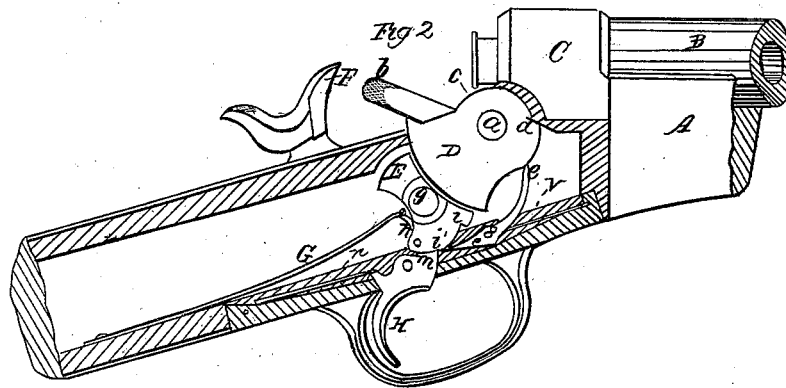
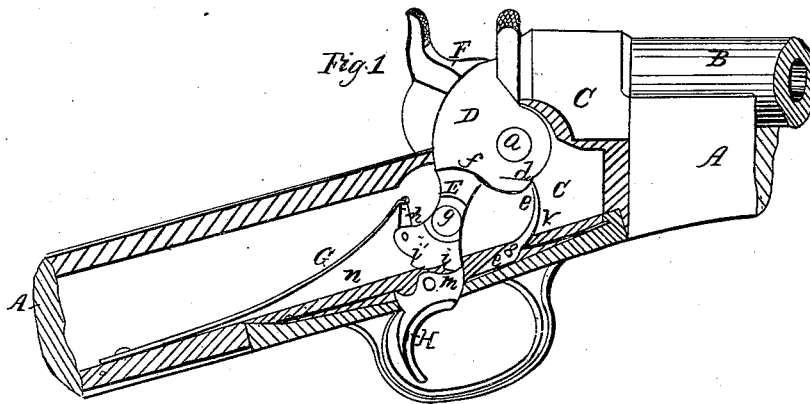


J. RIDER.

Breech-Loading Fire-Arm.

No. 45,797.

Patented Jan. 3, 1865



Witnesses
A. Moore
J. B. Patten } *Joseph Rider*
" } *By atty A. Blount*

UNITED STATES PATENT OFFICE.

JOSEPH RIDER, OF NEWARK, OHIO, ASSIGNOR TO HIMSELF AND E. REMINGTON & SONS, OF ILION, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 45,797, dated January 3, 1865.

To all whom it may concern:

Be it known that I, JOSEPH RIDER, of Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Breech-Loading Fire-Arms; and I do hereby declare that the following is 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 the arm as will illustrate the invention, a portion being shown in section to show the construction and operation of the swinging breech-piece and tumbler connected to the hammer, and both breech-piece and hammer as down against the end of the barrel or cartridge. Fig. 2 represents a similar side view with the hammer "on the cock" and the breech-piece swung back to open the rear of the barrel, as for inserting the cartridge. Fig. 3 represents a top view of the arm. Figs. 4 and 5 represent modifications of the hammer, as will be hereinafter explained.

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

I am aware that a tumbler connected to and operated by a separate and independent lever, and having no dependent connection with the hammer, has been used with a swinging breech to lock and unlock it, as the case may be; but such an arrangement, besides requiring an additional piece—viz., the lever to operate the tumbler—makes the arm inconvenient to handle in action, and otherwise objectionable in cost and complication.

My invention consists in placing the tumbler on the hammer-shaft and operating it by the hammer instead of by an independent lever or other mechanism, and this when used in combination with a hinged breech-piece that swings in rear of the barrel to open and close its bore.

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, B the barrel, and C

the lock and breech-piece frame. The breech-piece D is hung in the frame, as at *a*, so as to swing back and forth to open and close the bore of the barrel. It is furnished with a thumb-piece, *b*, to open and close it by a pin, *c*, for partially retracting the cartridge and empty case, a depression, *d*, for the sear-guard *e* to take into, and a curved portion, *f*, for the tumbler E to move into or against to lock it when up against the end of the barrel; and in addition to the above there is an opening through which the point of the hammer F may strike to explode the cartridge or to communicate fire to the charge in the gun. The tumbler E has upon it journals *g*, one of which should project far enough beyond the frame C to receive the hammer F, which is so secured to it as to turn the tumbler with it. To the tumbler E the mainspring G is attached by a link, *h*, and it is furnished with the usual half and whole cock notches, *i i'*, into which the sear *m* may take. The sear, which is formed on the trigger H, is kept in proper position by the spring *n*. The sear-guard *e* is pivoted at *o* and controlled by a spring, *r*. This sear-guard performs two duties. First, it throws the breech-piece against the barrel when at or near the last of its swinging motion; but mainly it locks the sear when the hammer is on the full-cock and the breech-piece throw back, so that accidentally touching the trigger will not allow either to fly up, as will be seen at Fig. 2. If it should be desirable to set the hammer farther back, so that it could not be placed immediately on the journal of the tumbler, then a simple link or slide can be used to connect the hammer with the tumbler, so that it would still be moved by moving the hammer, and accomplish the same purpose without any change of principle, the object being to operate the tumbler by the hammer instead of by an independent lever or other device.

In the drawings I have shown the hammer as placed on the left-hand side of the gun. It may be as readily placed on the right-hand side, and either of the hammers F' F'' be used, the former for striking a pin to explode the cartridge, or a nipple, and the latter for pass-

ing through a slot in the breech-piece to strike the cartridge itself at its center, or at its rim or flange.

What I claim is—

1. The combination of the hammer, tumbler, and swinging breech-piece, operating together as and for the purpose substantially as described and represented.

2. In combination with the tumbler, breech-piece, and sear, the sear-guard *e*, operating therewith as and for the purpose substantially as described and represented.

JOSEPH RIDER.

Witnesses:

A. B. STOUGHTON,
HAVER FENDRICH.