C. H. BALLARD.

Cartridge Ejector.

No. 63,605. Patented April 9, 1867.

Fig. 3.

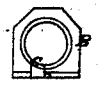


Fig. 1.

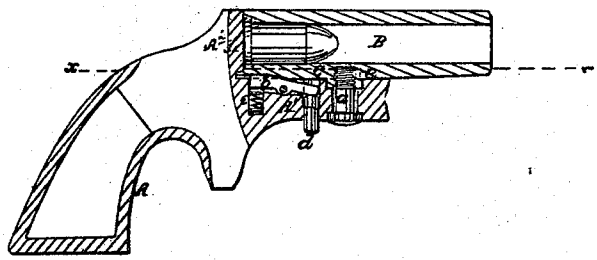
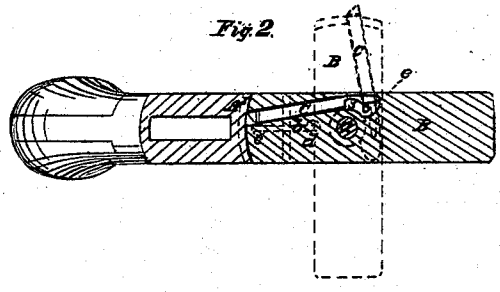


Fig. 2.



Witnesses,

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C. H. BALLARD, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 63,605, *dated April* 9, 1867.

IMPROVEMENT IN CARTRIDGE-EJECTOR FOR 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, C. H. BALLARD, of Worcester, in the county of Worcester, and State of Massachusetts, have invented a certain new and useful Improvement in Cartridge-Shell Extractors to Breech-Loading Fire-Arms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a longitudinal vertical section of a breech-loading pistol, in part, with my improvement applied thereto.

Figure 2 is a horizontal section of the same, taken as denoted by the line *x x* in fig. 1; and

Figure 3, a rear end view of the barrel.

Like letters indicate corresponding parts throughout the several figures.

This improvement relates to that description of breech-loaders the rear end of the barrel of which is opened for the reception of fixed ammunition by a horizontal movement of the barrel upon a pivot situated at some distance forward of the breech; and the nature of my invention consists in a peculiar construction of the shell-extractor or mode of operating the same by the swinging action of the barrel, said extractor having a sliding motion given it in and along the barrel, when the latter is clear of the breech, by the action of it through a notch at its forward end on a pin or stop attached to the frame or stock of the arm.

Referring to the accompanying drawing, A A^1 A^2 is the metal frame of the stock of a pocket pistol, the portion A^1 extending under the barrel, and the portion A^2 forming the breech. The barrel B is pivoted by a pin, *a*, to the part A^1 of the frame. The rear end of the barrel is countersunk to receive the flanged head of the cartridge. A lever, *b*, acted on by a spring, *c*, serves, by shooting into a notch or groove in the barrel, to lock the latter to its place when it is swung so as to close the breech, while a sliding pin or stud, *d*, arranged to act on the opposite end of the lever, answers for the finger to unlock the barrel when required to swing it. Attached to the portion A^1 of the frame is a pin or projection, *e*, arranged to occupy a side position beyond the pin *a*, relatively to the barrel and preferably a little in advance of the pin *a*. The shell-extractor C is arranged to lie within a longitudinal groove in the under face of the barrel, and should be so situated as that while its back end, which has the usual lip for extracting the shell, is fairly covered by the breech when closed, its front end will be clear of the swivel or pin on which the barrel swings. A notch, *s*, substantially as represented in fig. 2, is cut on the inside edge of the forward end of the extractor. This notch so gears the extractor with the stationary pin or projection *e* as that on swinging the barrel to open the breech the barrel carries the extractor with it, free from any action of the pin *e*, till the barrel is clear of the breech, after which, and as the barrel assumes the position represented for it in red lines, fig. 2, the inner end of the notch *s* is brought in contact with the pin *e*, and the extractor forced outwards in the rear to withdraw the shell of the discharged cartridge. A like but reversed action takes place in swinging to the barrel to close the breech by the forward portion of the notch *s* acting on the pin *e* to draw inwards the extractor before the breech is closed. The outward end of the extractor is bevelled in such manner that in case it is not drawn entirely within the level of the end of the barrel before reaching the breech block it will be forced in by coming in contact therewith.

What I claim herein as new and useful, and desire to secure by Letters Patent, is—

The shell-extractor, consisting of one piece *c*, notched at its one end, substantially as specified, to gear with a fixed pin or stop *e*, and having its other end bevelled, to cause it to protrude and recede by the swinging motion of the barrel on its pivot *a*, substantially as specified.

C. H. BALLARD.

Witnesses:

E. B. STODDARD,

CLARENDON HARRIS.