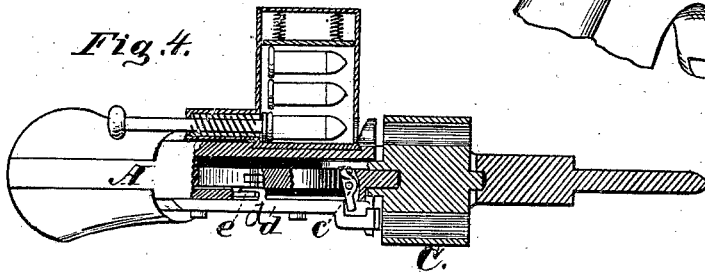
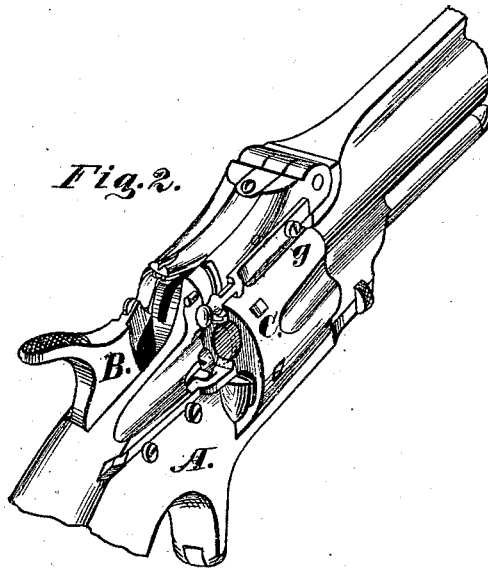
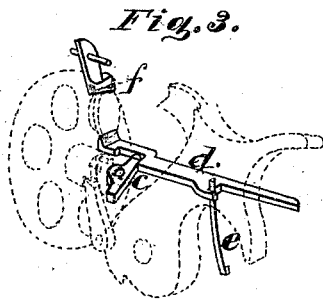
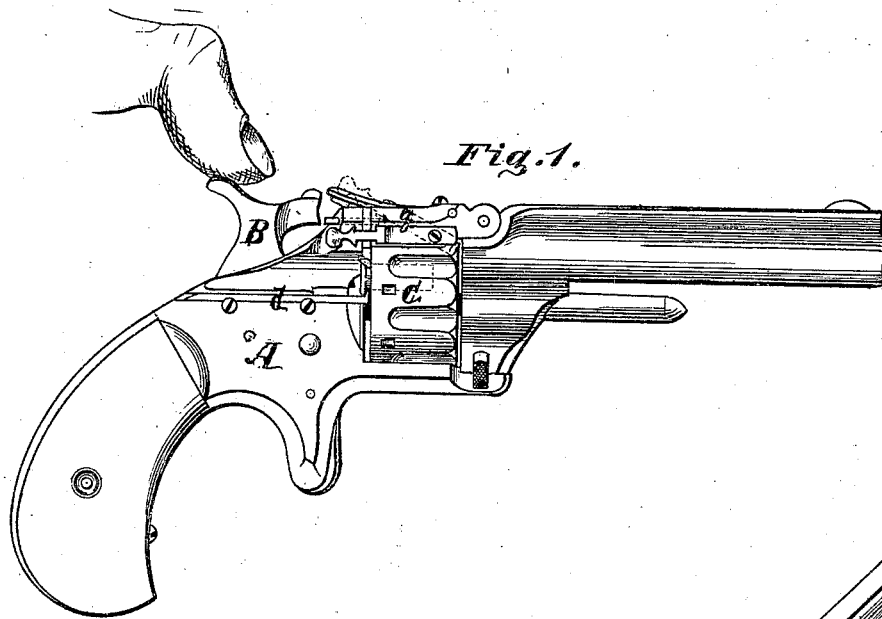


C. S. WELLS.

Cartridge Ejector for Revolving Fire-Arms.

No. 133,732.

Patented Dec. 10, 1872.



*Witnesses:*  
*W. S. Penning*  
*J. A. Eldridge*

*Inventor:*  
*Charles S. Wells.*

# UNITED STATES PATENT OFFICE.

CHARLES S. WELLS, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN CARTRIDGE-EJECTORS FOR REVOLVING FIRE-ARMS.

Specification forming part of Letters Patent No. 133,732, dated December 10, 1872.

*To all whom it may concern:*

Be it known that I, CHARLES S. WELLS, of New Haven, county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Cartridge-Extractors for Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation, showing my invention as applied to a revolving fire-arm; Fig. 2 is a perspective view of the same; Fig. 3 is a perspective view of the extracting mechanism in full lines and contiguous parts in dotted lines; and Fig. 4 is a horizontal section through the arm just above, and showing the hook and its operating-lever and a magazine arranged on the left side of the arm.

Like letters indicate corresponding parts.

The object of my invention is to provide simple and efficient mechanism whereby cartridges may be started and ejected from breech-loading fire-arms, and particularly from that kind called revolving fire-arms, which is the kind here illustrated; and to this end my invention consists in the novel combination of parts particularly hereinafter described.

A represents the frame in which the lock mechanism is located; B, the hammer; and C, the cylinder, all substantially of the usual construction. In the right-hand side of the frame a groove is made, in which is fitted a slide, *d*, provided at its forward end with a hook, as shown. The slide *d* is also provided with an inwardly-projecting lug or hook, against which a small spring, *e*, presses to return said slide to its forward position when the same is released from the pressure of the hammer. Just in front of the hammer is pivoted in the frame a short vibrating arm or lever, *c*, one end of which engages with a notch in the slide *d*, and imparts to said slide a sudden and rapid motion backward when the other end is struck by the falling hammer in the act of firing. In the upper part of the frame is pivoted a transversely-arranged wedge-shaped piece, *f*, called a starter. Said starter is placed so that its sharp edge lies close to the rear end of the cylinder, and has a spring-piece, *g*, resting against it when in operation, which presses the starter *g* in behind the flange of the cartridge-shells

as the cylinder revolves, and, on account of its wedging, starts the shell by positive force as the cylinder moves forward under the impulse of its pawl in the act of cocking the arm, the shell being loosened in its seat by the starter *f* in the act of cocking the arm, and, rotating the cylinder, it is carried so that its flange comes just behind the hook on the slide *d*, which, in the act of firing, receives a sudden impulse from the hammer through the medium of the vibrating arm *c*, and thereby throws the cartridge-shell clear of the piece. The cylinder being full of cartridges, the spring *g* should be raised away from the starter until one cartridge has been fired, in which case no shells will be withdrawn, but that next the extracting-hook will freely pass in front of the same. After one fire the spring *g* should be put in position, resting in a notch or depression in the edge of the starter, after which, at every fire, an exploded shell will be withdrawn and ejected clear of the arm, so that there is no delay or separate operation to get rid of the exploded shells, as is usually the case with revolving fire-arms.

This invention can be applied to arms already made, and new ones could be made cheaper and more durable than heretofore, as no break-down hinge and catches will be required, the cartridges being inserted and withdrawn from the rear without either removal or exposure of the breech end of the cylinder.

In Fig. 4 I have represented a magazine or pannier such as may be used in connection with this kind of arm; but I prefer one in which the cartridges are held in a tube and automatically fed to and forced into the chambers in a cylinder; as, however, the application of such is obvious, no specific description thereof is herein given. The cartridge being loosened by the starter as the cylinder revolves, there is very little resistance to check the force of the blow of the hammer.

It is obvious that the slide and hook may be made to operate with good results without the starter by increasing the power of the main-spring; but the best results are obtained by combining a starter and ejector, as shown.

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

1. The slide provided with its hook, when

combined with the oscillating lever and hammer or striker, as described.

2. The combination of the extractor and an oscillating lever arranged as shown, whereby a sudden and rapid movement is imparted thereto and the shell ejected by a blow from the hammer in the act of firing, as set forth.

3. In a revolving fire-arm, the starter for loosening the cartridge-shells, substantially as set forth.

4. In combination with the starter, the adjustable spring-stay for holding said starter and forcing it to engage with the flange of the shell, as set forth.

5. The combination and arrangement of the pivoted starter and spring-stay, constructed as shown, whereby the starter may be forced into or released from engagement with the cartridge, as specified.

6. The combination, in a fire-arm, substantially as set forth, of a starter and ejector, whereby the cartridges are first loosened by positive force and then ejected by a sudden and rapid movement, as specified.

CHARLES S. WELLS.

Witnesses:

SAML. F. JONES,  
WM. G. ALLEN.