(No Model.)

G. A. HORNE.

EJECTOR MECHANISM FOR BREAKDOWN GUNS.

No. 572,755. Patented Dec. 8, 1896.

Fig. 1.

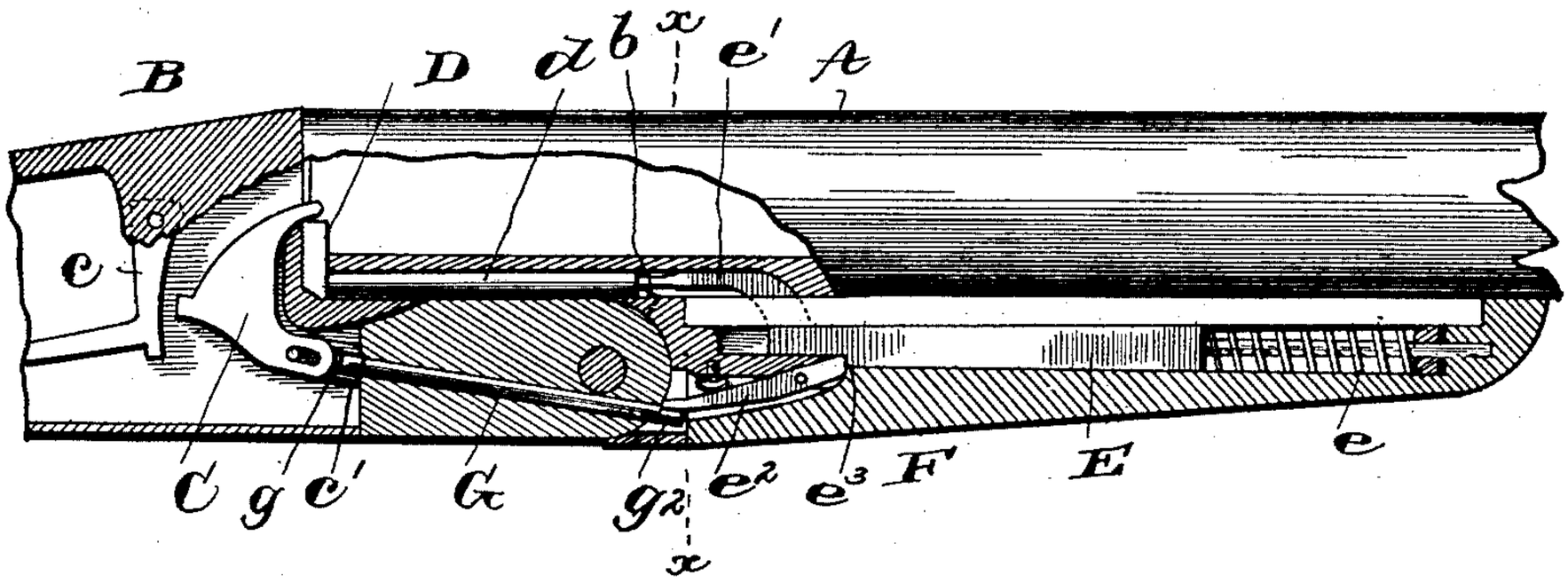


Fig. 2.

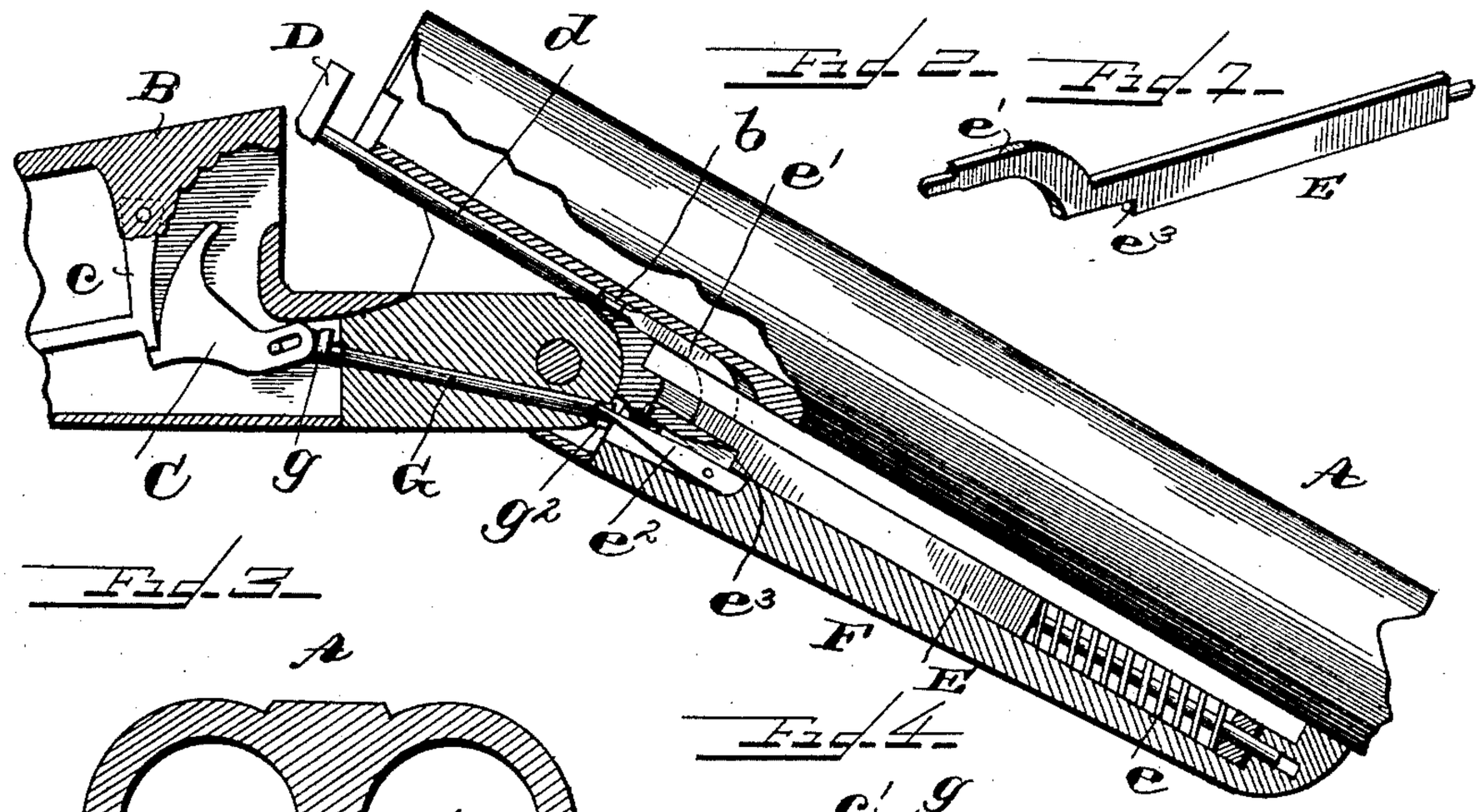


Fig. 7.

Fig. 3.

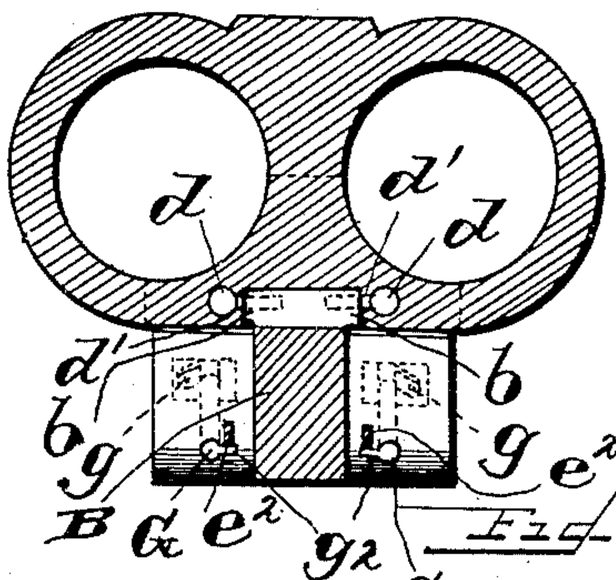


Fig. 4.

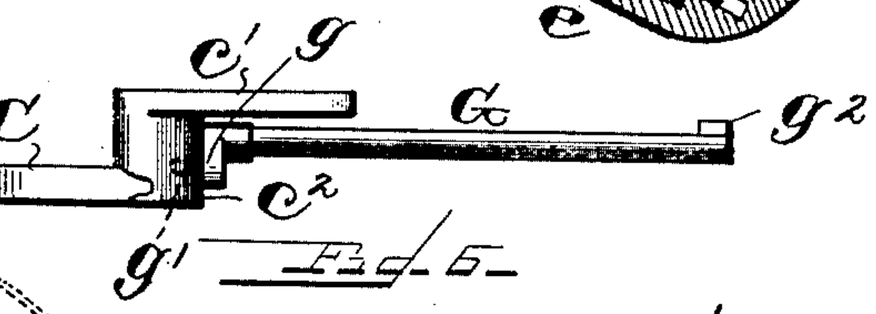


Fig. 5.

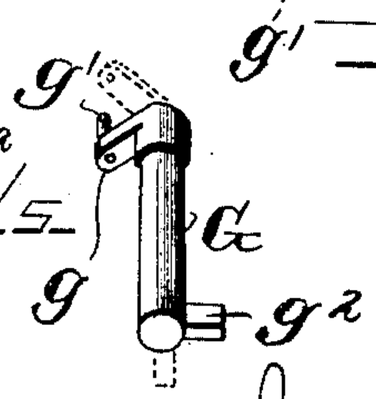
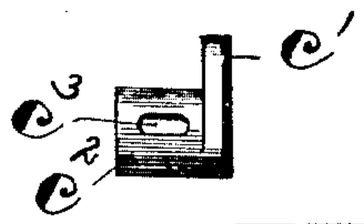


Fig. 6.



Witnesses.

G. A. Tauberschmidt

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By J. Whitaker & Prevost Attys

UNITED STATES PATENT OFFICE.

GEORGE A. HORNE, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE SYRACUSE ARMS COMPANY, OF SAME PLACE.

EJECTOR MECHANISM FOR BREAKDOWN GUNS.

SPECIFICATION forming part of Letters Patent No. 572,755, dated December 8, 1896.

Application filed May 25, 1896. Serial No. 592,935. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. HORNE, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Ejector Mechanism for Breech-Loading Guns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to breech-loading firearms; and it consists in a new form of construction for ejecting the empty cartridge-shells from the barrels after firing.

My invention is comprised in certain improved constructions and novel combinations of parts in said invention and is disclosed in the following description and claims.

In the drawings, Figure 1 is a partial sectional view showing the parts in position immediately after firing the gun. Fig. 2 is a similar section showing the parts in position after breaking the gun. Fig. 3 is a transverse section of the gun on line $x\,x$, Fig. 1. Figs. 4, 5, 6, and 7 are detail views of devices constituting parts of my invention.

In the figures of drawings, A designates the barrels of the gun, and B the breech-block.

C is the hammer, c the sear for the hammer, and c' the cocking-arm of the hammer.

D is the extractor, of which there are two, one for each barrel. While these are shown as of the form which I employ, they may be of any preferred form. Each extractor is secured to a rod or bar d, which is mounted and slides in the ordinary manner. Each of the rods d has an inwardly-extending projection d', (see Fig. 3,) and the rounded forward end of the frame has a lug b on each side of the slot, which receives the barrel-lug to engage with the projections d' to start or extract the cartridge or cartridge-shells.

In the fore-end F are placed the ejectors E, which are fitted to slide in the recesses in which they are placed. A spring e is suitably located to force each ejector quickly and strongly rearward of the barrel at the proper time. Each ejector has an upwardly-extending end e' in line with the rod or bar d of its corresponding extractor. A spring pawl or detent e^2 is provided to engage the shoulder e^3 of each ejector when the extractors are forced forward by the closing of the gun. In this position the springs e are compressed and the detents hold the ejectors in this position until the detents are turned to release them. In my improved construction these detents are actuated by the rock-shafts G, journaled in the forwardly-extending portion of the frame. The hub c^2 of the hammer is provided with the horizontally-disposed slot c^3, and the rock-shaft G is provided at its end adjacent to the hammer with the arm g, having the pin g', which engages the slot c^3 in the hub of the hammer. Each rock-shaft G is provided at its forward end with an inwardly-extending lug or projection g^2. This lug g^2 and the arm g are disposed in such relation to each other that when the hammer is in its cocked position the lug g^2 is in the position shown in dotted lines in Fig. 5, and when the hammer is in the fired position the lug is in the position shown in full lines in the same figure. When the lug is in this position, it is immediately beneath the rearward ends of the detents e^2.

The operation of the parts is as follows: As soon as the barrels are released and their forward ends begin to move downwardly the lugs b engage the projections d' and the extractors are moved slightly rearward away from the ejectors, starting the cartridge-shells and drawing them slightly out of the barrels. If the hammers are in the fired position, the further movement of the barrels brings the rearward ends of the detents e^2 into contact with the lugs g^2, moving the forward ends of the detents downward, releasing the ejectors, which are forced rearwardly by the springs e, and give a sharp quick impulse to the extractors, ejecting the shells from the barrels. The further movement of the barrels cocks the hammers and the closing of the gun replaces the parts in their former position. Should either or both of the hammers be in the cocked position, the lugs g^2 will be in the position shown in dotted lines in Fig. 5 and the detents e^2 will not be moved and the shells will have only the usual movement outward given by the extractors in common constructions, as the ejectors will

not be released, but remain in their usual forward position within the fore-arm.

Instead of the two lugs *b* I may employ a single one located centrally of the rounded end of the frame projecting into a slot in the barrel-lug; but I prefer the construction shown.

I am aware that it has been proposed to actuate ejectors similar in form to my own from the hammer by rods sliding longitudinally of the butt. In such cases springs are employed and the construction otherwise made more complex. By the use of the revoluble rod the construction is cheapened and simplified and an ejector secured which is efficient in its action and not liable to get out of order.

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

1. In a breech-loading firearm the combination with the hammer, of an extractor, an ejector and a rock-shaft operatively connected with the hammer for releasing the ejector, substantially as described.

2. The combination with the hammer, of the extractor, means for moving the extractor to start the cartridge-shells, the ejector, the detent for engaging with said ejector, and the rock-shaft having an arm engaging the hub of the hammer and a projection on its opposite end for engaging the ejector-detent, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE A. HORNE.

Witnesses:

E. A. WEISBURG,

J. D. KINGSBURY.