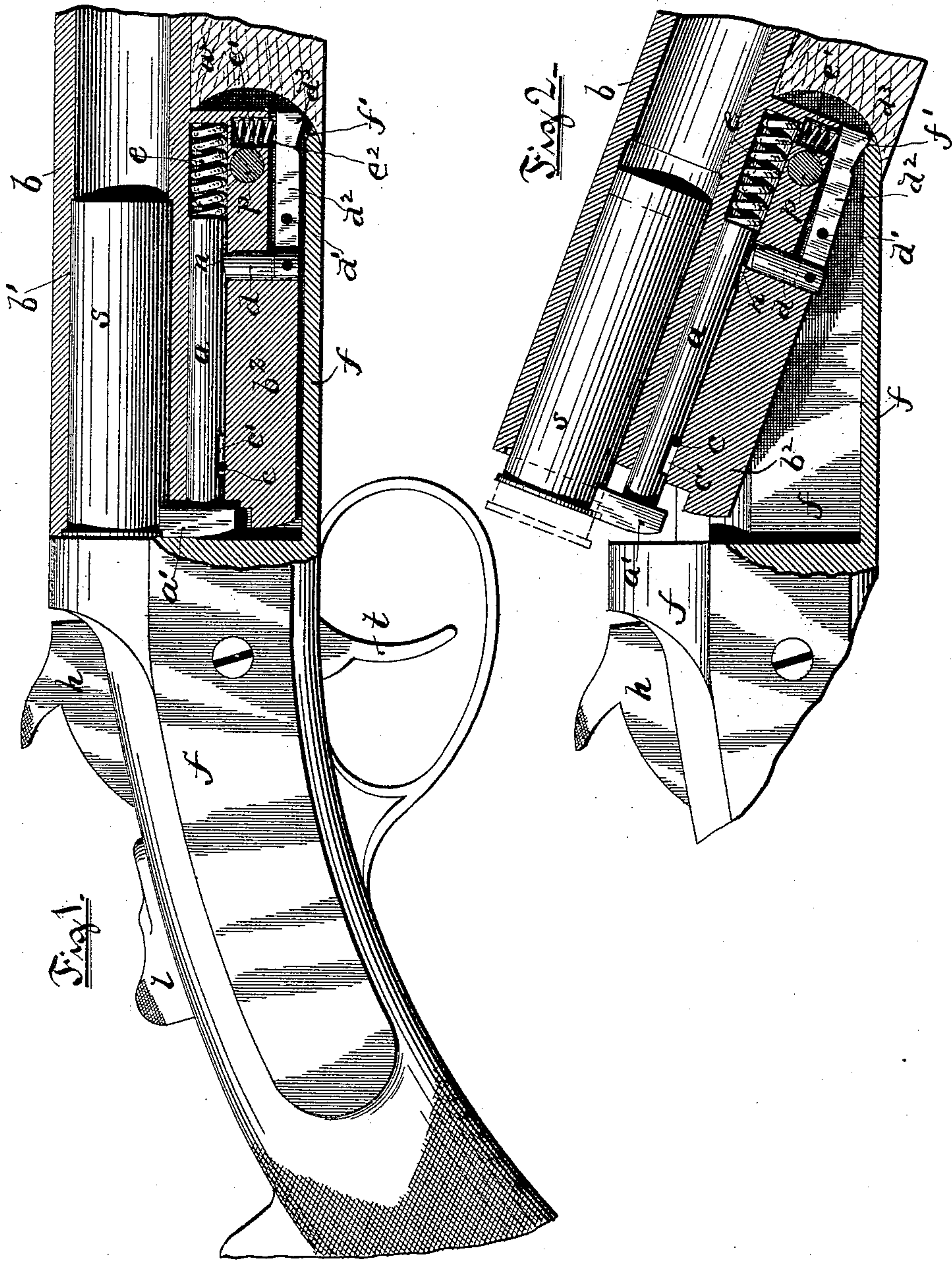


(No Model.)

W. C. DAVENPORT.
SHELL EJECTOR FOR BREAKDOWN GUNS.

No. 526,690.

Patented Oct. 2, 1894.



Witnesses.

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SHELL-EJECTOR FOR BREAKDOWN GUNS.

SPECIFICATION forming part of Letters Patent No-526,690, dated October 2, 1894.

Application filed May 12, 1894. Serial No. 510,988. (No model.)

To all whom it may concern:

Be it known that I, WALTON C. DAVENPORT, a citizen of the United States, residing at Norwich, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Shell-Ejectors for Firearms; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Shell-ejectors as usually constructed are so arranged that the shell is acted upon simultaneously with the opening of the gun, whether the latter be of the "break-down" type or of the class in which breech-blocks are employed. In such former constructions the shell-ejecting devices have as a rule been substantially positive in their action; that is the act of moving the breech-frame or the breech-block downwardly, as in opening the gun, forces the ejector-pin rearwardly, thereby dislodging and ejecting the empty shell. Sometimes, however, the ejectors have been further provided with springs adapted to accelerate the movement of the shell as it leaves the barrel.

In my present invention the improvement relates to break-down guns, that is guns in which the barrels are capable of being tilted for the insertion and removal of shells.

The invention resides essentially in the employment of a spring-resisted ejector-rod combined with a spring-catch interlocking with the rod, arranged whereby the act of opening the gun, as in tilting the barrel, withdraws the catch from the ejector, thereby releasing the latter and permitting the spring to eject the shell from the barrel, all as will be more fully hereinafter set forth and claimed.

By means of my improvement the ejector is maintained in the normal or locked position by the catch while the gun is being opened and until the lower side of the bore of the barrel passes the top of the frame at which instant the catch is withdrawn, thereby freeing the ejector, when the force of the spring carries the latter rearwardly to its limit, thus forcibly ejecting the shell from the barrel.

The act of closing the gun returns the ejector to the normal position, the catch at the same time automatically engaging therewith and locking it in position, the function of the catch being analogous to that of the trigger-action of the gun.

In the accompanying sheet of drawings, Figure 1 is a side elevation, in partial section, of a break-down gun embodying my improved shell-ejector; the parts being in the normal position, and Fig. 2 is a similar view, showing the barrel tilted, the ejector being in the act of discharging the shell therefrom.

In the drawings I have represented a break-down gun in which the barrel, breech-frame, hammer, &c., are constructed, arranged and adapted for operation substantially as common to guns of this class—that is the barrel *b* is counterbored at the rear end *b'* to receive the shell *s*; the barrel being provided on its under side with a lug *b²*, in which latter the shell-ejecting device is mounted. The breech-frame *f* is arranged to receive the barrel-lug, hammer *h*, trigger *t*, the top-snap lever *l*, for operating the bolt, and the usual adjunctive devices. The forewood *w* is secured to the barrel as common, its rear end being fitted round the semi-circular front end of the breech-frame. The barrel is secured to the frame by means of a removable pin or screw-key *p* passing transversely through the frame and the barrel-lug; the pin forming a fulcrum or pivot on which the barrel is tilted.

The ejector-rod *a* is mounted to move endwise in a seat formed parallel with and below the barrel's axis; a spring *e* being interposed between the front end of the rod and the corresponding end of the seat. The opposite end of the rod is enlarged to form a head *a'*, the latter being adapted to engage the shell *s* in the usual manner. The rod *a* is provided with an elongated slot *c'* engaging with a fixed stop-pin *c*, the latter serving to prevent the rod from turning axially and also to limit its rearward movement, as clearly shown in Fig. 2. At or near the front end of the ejector-rod the lug *b²* is drilled to receive the vertical catch-member *d* arranged to interlock with a notch *n* cut in the under side of the rod. The lug is recessed longitudinally at the bottom side and is provided with the tripping-lever *d²* fulcrumed at *d'* to the

lug and also jointed to the catch d . A spring e' is seated in a hole e^2 formed in the lug, its function being to maintain the catch in contact with the ejector-rod. The outer or free end d^3 of the lever d^2 is adapted to engage the adjacent beveled surface f' of the breech-frame.

From the foregoing description it will be apparent that upon tilting the barrel, as in opening the gun, the catch is withdrawn from the notch n at substantially the same instant that the tripping-lever contacts with the frame f' , as shown in Fig. 2. The pressure of the thus released spring e then forces the rod a to its limit, thus forcibly ejecting the shell from the barrel. The act of closing the gun returns the spring-resisted rod a to the normal position, the catch d automatically springing into the notch n when the two coincide, or at substantially the same time that the barrel is locked in position.

I would state that I prefer to so arrange the said parts d^3 and f' that they practically contact with each other at the instant the lower side of the bore of the barrel rises above the top of the frame in opening the gun.

By means of my improvement the barrel with the forewood attached thereto may be easily and quickly removed from the frame by simply withdrawing the pivot-pin or key p , first withdrawing the locking-bolt through the medium of the top-snap lever l . The shell-ejecting device is simple in construction, not liable to become inoperative and is mounted wholly in the barrel-lug.

I claim as my invention—

1. In a breech-loading fire-arm of the break-down type, the shell-ejecting device substantially as hereinbefore described, the same consisting of the spring-resisted notched ejector-rod adapted to engage the shell, the movable restraining member d in normal engagement with the notched portion of said rod, a tripping-lever jointed to said member d having its opposite or free end extending forward of the main joint-pin p and arranged to contact with the breech-frame to release said member d from the ejector-rod upon tilting the barrel, and a spring for insuring the engagement of the member d with the ejector-rod.

2. In combination, with the gun-frame, the barrel pivotally secured thereto and the usual adjunctive devices for operating the gun, the spring-resisted ejector-rod a provided with a notch n on its underside, the vertically movable catch member in normal engagement with said notch, the tripping-lever d^2 jointed to the lower end of said catch having its forward end extending beyond the barrel pivot, a spring for depressing said end portion of the tripping-lever, and having the latter member adapted to contact with the gun-frame upon tilting the barrel, substantially as hereinbefore described and for the purpose set forth.

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

WALTON C. DAVENPORT.

Witnesses:

CHAS. F. THAYER,
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