

(No Model.)

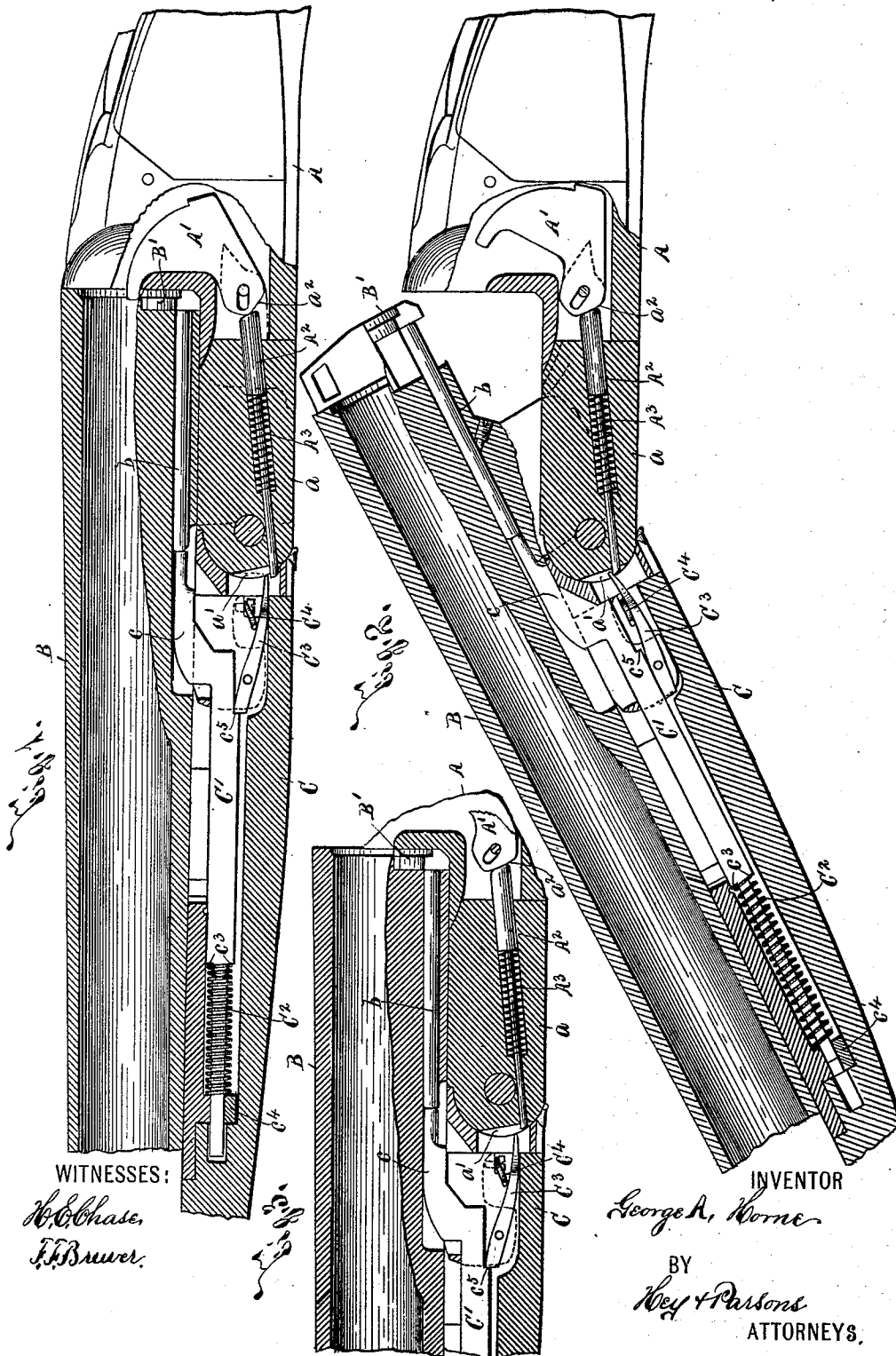
2 Sheets—Sheet 1.

G. A. HORNE.

EJECTOR MECHANISM FOR BREAKDOWN FIREARMS.

No. 568,760.

Patented Oct. 6, 1896.



WITNESSES:

H. C. Chase,
J. F. Brewer.

INVENTOR

George A. Horner

BY

Key & Parsons.

ATTORNEYS,

(No Model.)

2 Sheets—Sheet 2.

G. A. HORNE.

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Fig. 4.

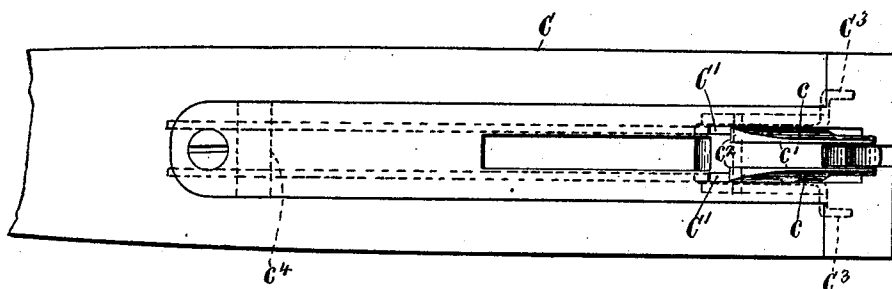


Fig. 5.

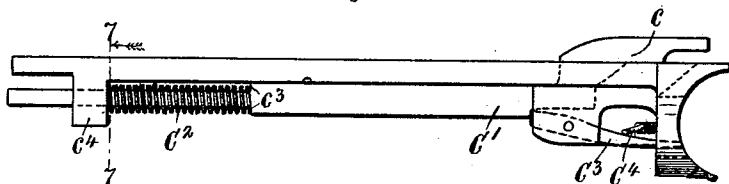


Fig. 6.

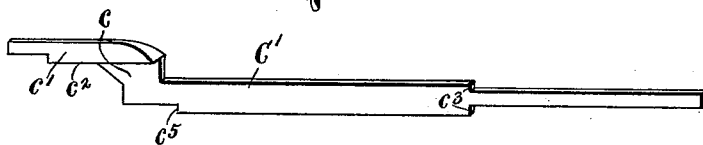
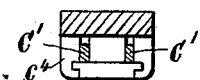


Fig. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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

EJECTOR MECHANISM FOR BREAKDOWN FIREARMS.

SPECIFICATION forming part of Letters Patent No. 568,760, dated October 6, 1896.

Application filed May 26, 1896. Serial No. 593,112. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. HORNE, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Firearms, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in
10 breech-loading firearms, and has for its object the production of a simple and practical device for ejecting discharged cartridge-shells; and to this end it consists, essentially, in the construction and arrangement of the
15 component parts of the firearm, all as hereinafter fully described, and pointed out in the claims.

In describing this invention reference is had to the accompanying drawings, forming
20 a part of this specification, in which like letters indicate corresponding parts in all the views.

Figures 1 and 2 are longitudinal vertical sections, partly in elevation, of portions of a
25 firearm constructed in accordance with my invention, the barrels being shown as dropped at Fig. 2. Fig. 3 is a longitudinal vertical section, partly in elevation, of portions of my improved firearm, the trip being shown in its inoperative position. Fig. 4 is a top plan of
30 the rear extremity of the detached fore-end and the parts carried thereby. Fig. 5 is an elevation of the detached fore-end strap and the parts supported thereby. Fig. 6 is an isometric view of one of the detached ejec-
35 tors; and Fig. 7 is a vertical section taken on line 7 7, Fig. 5.

A represents the frame, B the barrel, and
40 C the fore-end, of my improved gun, all of which parts may be of any desirable form, size, and construction. The frame A is provided with a front extension or arm *a*, having its front face formed with a substantially upright slot *a'*. A hammer *A'*, provided
45 with a suitable cam *a*², is pivoted within the frame A, and is actuated by suitable cocking mechanism and a mainspring, unnecessary to herein illustrate and describe. A reciprocating trip *A*² is guided in the arm or extension
50 *a*, and is held in its normal position by a spring *A*³, with its rear end engaged with the

cam *a*² and its front end projecting within the slot *a'* and arranged at the rear of the front face of the extension or arm *a*. As the hammer *A'* is elevated by its mainspring (not illus- 55
trated) the cam *a*² forces the trip *A*² lengthwise against the action of its spring *A*³ and causes the front end of said trip to project slightly beyond the front face of the extension or arm *a* into position to engage a piv- 60
oted detent, presently described.

The barrel and fore-end are suitably secured together, and are hinged to the frame A, and an extractor *B'* and an ejector *C'* are respectively supported by said barrel and 65
fore-end and are reciprocally movable in substantially parallel planes. The extractor *B'* is of any desirable construction and is provided with a rod *b*, and the rear end of the ejector *C'* is provided with an upwardly-pro- 70
jecting offset or arm *c*, having a lateral extension *c'*, Fig. 6, engaged with the extractor-rod *b* and movable in the guide for said rod. The extension *c'* is usually formed at its base with a shoulder *c*², which is movable along 75
the top face of the fore-end and is engaged therewith for guiding the ejector and preventing downward movement of its rear end.

The ejector is actuated by a suitable spring *C*², preferably interposed between a shoulder 80
*c*³, formed on the ejector, and a depending bearing *c*⁴, provided upon the fore-end strap for guiding the front end of the ejector. The operation of said spring is normally prevented by a pivoted detent *C*³, actuated by a spring 85
*C*⁴, and having one end engaged with a shoulder *c*⁵, formed upon the rear end of the ejector. The opposite end of the pivoted detent *C*³ is normally arranged substantially flush or co-
incident with the rear face of the fore-end 90
and directly above the position assumed by the front end of the trip *A*² when the latter is caused to project beyond the front face of the extension or arm *a*. Consequently, when the barrel is dropped after the front end of 95
the trip is in said position the rear end of the pivoted detent is engaged and elevated by said trip, and the front end of the pivoted detent releases the ejector when the barrel is sufficiently depressed. During this move- 100
ment of the barrel and the pivoted detent the rear end of said detent engages with the front

end of the trip, swings into the slot a' , and thereby insures engagement of the pivoted detent and the trip, even though the trip is gradually moving backwardly, owing to the
5 cocking of the hammer A' and the operation of the spring A^3 .

The parts of my improved firearm are obviously few in number and simple in construction, and are readily manufactured and
10 assembled. It will be obvious, however, that said gun is preferably provided with two barrels, hammers, trips, extractors, ejectors, and pivoted detents, although, for the purpose of simplifying the description of my invention,
15 I have only described the construction and operation of one of each of said parts.

The operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying
20 drawings.

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

1. In a breech-loading firearm, the combination with a movable extractor, and a hammer; of a reciprocating ejector movable in a plane substantially parallel with the extractor, and formed with an upwardly-extending offset or arm at its rear end having its upper
25 extremity extended laterally beyond the inner longitudinal side of the underlying portion of the ejector and engaged with the front end of the extractor, a pivoted detent for preventing movement of the ejector, and a reciprocating trip interposed between the hammer and the detent for forcing said detent
30 from operative position, substantially as and for the purpose described.

2. In a breech-loading firearm, the combination with a movable extractor, a hammer, and a fore-end; of a reciprocating ejector having an upwardly-extending offset or arm at its rear end engaged with the extractor, and provided with a lateral shoulder engaged with
40 the top face of the fore-end, and movable along said face, a pivoted detent for preventing movement of the ejector, and a reciprocating trip interposed between the hammer and the detent for forcing said detent from
45 operative position, substantially as and for the purpose specified.

3. In a breech-loading firearm, the combination with a frame having a front arm or extension provided with a substantially upright slot in its front face, a movable extractor, a hammer and a fore-end; of an
55 ejector engaged with the extractor, a detent pivoted to the fore-end for preventing movement of the ejector and having its rear end normally arranged substantially flush or coincident with the rear face of the fore-end and movable into the slot in the front face of
60 said arm or extension, a reciprocating trip

interposed between the hammer and the detent and having its front end movable into
65 engagement with the rear end of the detent and means for automatically returning the trip to its normal position, substantially as and for the purpose set forth.

4. In a breech-loading firearm, the combination with a frame having a front arm or extension provided with a substantially upright slot in its front face, a movable extractor, a hammer and a fore-end; of a reciprocating ejector engaged with the extractor,
70 and provided with a lateral shoulder engaged with the top face of the fore-end and movable along said face, a detent pivoted to the fore-end for preventing movement of the ejector and having its rear end normally arranged substantially flush or coincident with
75 the rear face of the fore-end and movable into the slot in the front face of said arm or extension, a reciprocating trip interposed between the hammer and the detent, and having its front end movable into engagement
80 with the rear end of the detent, and means for automatically returning the trip to its normal position, substantially as and for the purpose described.

5. In a breech-loading firearm, the combination with a frame having a front arm or extension provided with a substantially upright slot in its front face, a fore-end, a reciprocally-movable extractor, and a hammer;
85 of a reciprocating ejector formed with an upwardly-extending offset or arm at its rear end having its upper extremity extended laterally beyond the longitudinal side of the underlying portion of the ejector and engaged
90 with the front end of the extractor, said extension of the offset or arm being provided with a lateral shoulder engaged with the top face of the fore-end and movable along said
95 face, a detent pivoted to the fore-end for preventing movement of the ejector and having its rear end normally arranged substantially flush or coincident with the rear face of the fore-end and movable into the slot in the front face of said arm or extension, a reciprocating trip interposed between the hammer and the detent, and having its front end movable into engagement with the rear end of the detent, and a spring for automatically returning the trip to its normal position, substantially as and for the purpose specified.
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In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 21st
120 day of May, 1896.

GEORGE A. HORNE.

Witnesses:

E. A. WEISBURG,
K. H. THEOBALD.