

(No Model.)

F. A. HOLLENBECK.
BREAKDOWN GUN.

No. 523,527.

Patented July 24, 1894.

Fig. 1.

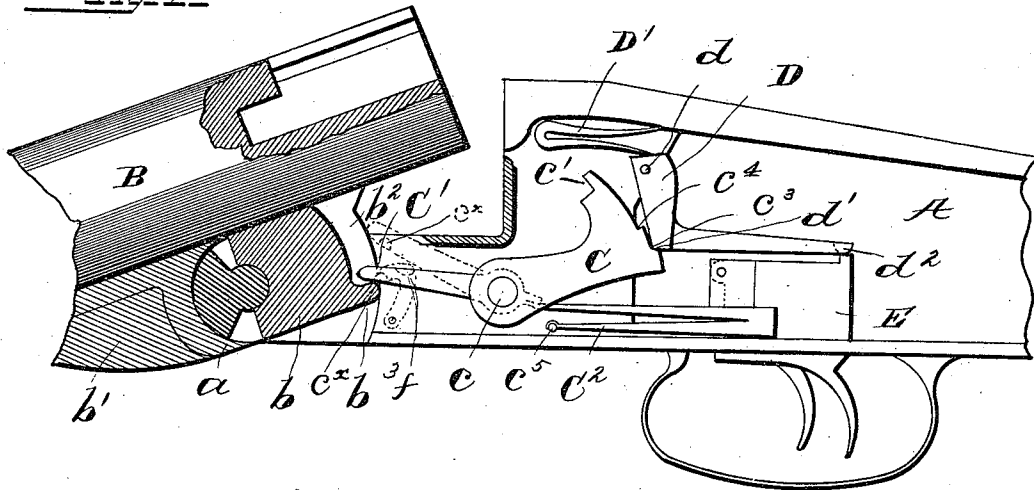


Fig. 2.

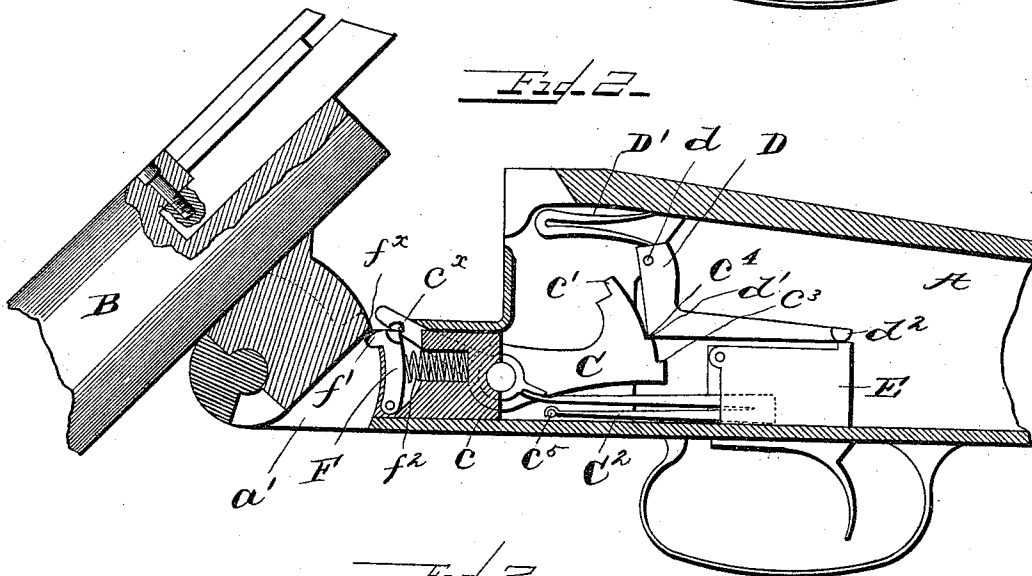
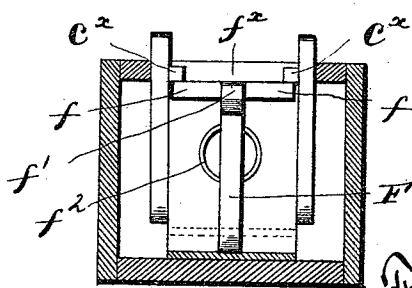


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK A. HOLLENBECK, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE
SYRACUSE ARMS COMPANY, OF SAME PLACE.

BREAKDOWN GUN.

SPECIFICATION forming part of Letters Patent No. 523,527, dated July 24, 1894.

Original application filed July 25, 1892, Serial No. 441,209. Divided and this application filed June 10, 1893. Serial No. 477,180. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. HOLLENBECK, 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 Breech-Loading Hammerless 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 invention is an improvement in hammerless breech loading fire arms and consists in the novel features hereinafter described, reference being had to the accompanying drawings which illustrate one form in which I have contemplated embodying my invention and the said invention is fully disclosed in the following description and claims.

This application is a division of my former application for Letters Patent of the United States filed by me July 25, 1892, and given Serial No. 441,209.

The object of my invention is to provide a construction for holding the cocking arms of the hammers in elevated position, in case the sears should release the hammers while the barrels are separated from the stock, thus enabling the barrels to be replaced in engagement with the stock, so that the cocking shoulders, with which the barrels are provided, may be brought into operative relation with the cocking arms. To this end I provide a device which upon the removal of the barrels, will be moved into position to prevent the fall of the cocking arms, and upon reassembling the parts said device will be engaged by a part connected with the barrels, and will be moved out of operative position to allow the cocking arms to engage the cocking shoulders.

Referring to the drawings Figure 1 is a side elevation partly in section of a portion of a gun embodying my invention. Fig. 2 is a view similar to Fig. 1 showing the parts in different relative positions. Fig. 3 is an enlarged sectional view on line $x-x$ of Fig. 2, showing in detail the device for securing the cocking arms of the hammers in elevated positions when the barrels are separated from the stock.

In the said drawings reference being had to the letters marked thereon, A represents the stock portion of the gun and B the barrels of ordinary construction provided with the stock engaging lug b as usual.

The stock portion A is provided with a pivot pin or bolt a which is engaged by lug b of the barrels and b' is the fore end of ordinary construction.

The stock A is provided with a suitable lock casing in which is supported the pivot pin c of the hammers C C which are constructed preferably as shown. In the drawings each hammer is shown provided with the firing projection c' , and the upper face or edge of each hammer is provided preferably with two locking notches c^3 , c^4 which are engaged by the sear when the hammers are forced backward into cocking position. Each hammer is provided with a forwardly extending cocking arm C' which engages a recess b^2 in the side of the lug b , and said lug is provided below said recesses b^2 with solid portions b^3 which I term cocking shoulders, which operatively engage the forward ends of the cocking arms C' as clearly shown in Figs. 1 and 2.

In order that the arms C' may properly engage the lug b and yet that the hammers may have their firing projections in line with the barrels, I prefer to locate the cocking arms C' each upon the inside of its hammer C and in a different plane from the hammer and the two parts may be formed in one piece or in two pieces suitably united. When the gun is broken and the barrels lowered, the cocking shoulders will operatively engage the under sides of the cocking arms and raise them, thereby depressing the hammers C C.

C² is the main spring (there being one for each hammer), engaging a fixed pin or resistance at c^5 and having its opposite end operatively combined with the hammer for actuating the same.

D represents one of the sears, there being one for each hammer, which is pivoted to the lock casing at d and has a shoulder d' adapted to engage one of the notches c^3 , c^4 in the hammer. Each sear has a rearwardly extending arm which is engaged by one of the triggers E and a spring D' engages the upper portion

of the sear and holds it in operative position. When the hammers are cocked by lowering the barrels as before stated, the sear will engage the first notch c^3 of the hammer. When
 5 however, it is desired to separate the barrel from the stock, the fore end will be removed and the barrels further depressed until the sear engages the second notch c^4 . In order
 10 to allow the barrel to be properly placed in engagement again with the stock so that the lug b will resume its operative relation with the cocking arms $C' C'$ of the hammers, I provide
 15 a construction for engaging the said cocking arm, when the barrel is removed from the stock and holding the same positively, thus preventing the hammer from being
 20 dropped even should the triggers be intentionally or accidentally moved to release the sears.
 25 In the forward part of the frame a pawl or catch is pivoted, the said pawl consisting of a vertical stem F having its upper end provided with laterally extending arms $f f$, best
 30 seen in Fig. 3. This pawl is pivoted in the lower part of the frame in a suitable recess and has a forwardly extending nose or projection f' , see Figs. 2 and 3, which projects
 35 into the recess a' of the frame, when the barrel lug is removed therefrom and engages a solid portion of the lug b intermediate the recesses b^2 when the lug is in operative position
 40 in said recess a' as indicated in Fig. 1. The nose f' of the pawl has a curved or beveled face f^x which I term a cam face, for engaging the barrel lug when the parts are assembled or I may provide the lower corner of the
 45 lug with a cam face to engage said nose if preferred. In rear of the stem F of the pawl the frame is provided with a recess in which
 50 is located a spring f^2 which engages and presses the pawl forward.

Each cocking arm C' is provided on its inner side with a projection or lug c^x as shown in Figs. 2 and 3; the said lugs or projections
 45 being so located that when the cocking arms are raised above the laterally extending arms $f f$ of the pawl and the pawl is thrown forward by its spring f^2 , the said arms $f f$ will
 50 be moved beneath the lugs $c^x c^x$ of the cocking arms and will hold them in an elevated position.

In Fig. 1 I have shown the position of the parts as they would appear when the gun is broken to load. It will be seen that the cocking
 55 arms are raised by the cocking shoulders b^3 of the lug b and the hammers are cocked and held in cocked position by the sear engaging the notches c^3 of the hammers. In this position the lug b will prevent the spring
 60 actuated pawl from moving forward and the arms $f f$ of said pawl will therefore not engage the lugs $c^x c^x$ of the cocking arm.

c^2 represents the position of the parts when the fore end is removed and the barrels are
 65 further depressed prior to removing them when in engagement with the stock. The sear in this case will engage the second notch c^4

of the hammer and as soon as the lug b has moved far enough to disengage the nose f' of the spring actuated pawl said pawl will be
 70 thrown forward by its spring bringing the arms $f f$ beneath the lugs $c^x c^x$ of the cocking arms and positively preventing the cocking arms from descending. It is obvious that I
 75 may dispense with the second notch c^4 in each of the hammers as the spring actuated pawl will in any case positively prevent the falling of the cocking arms, while the barrels are removed from engagement with the stock.

In assembling the parts of the gun, the lug b is placed in engagement with the pivot a and the outer end of the barrel will be raised, thereby causing the lower edge of the lug to engage the cam face of the spring actuated
 80 retaining pawl and pressing it inward thus allowing the cocking shoulders to pass beneath the cocking arms before the cocking arms are permitted to fall thus placing the parts in operative relation again. It will thus be seen
 85 that the spring actuated pawl constitutes an automatic retaining device which insures the parts being properly assembled after the barrels have been removed from the stock.

I do not desire to be limited to the exact details of construction herein shown and described as variations may be made therein
 90 without departing from the spirit of my invention.

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

1. In a fire arm, the combination with the barrels having the cocking shoulders, of the hammers provided with cocking arms, and the spring pawl for preventing the fall of
 100 said arms, having a part engaging a part connected with the barrels and holding the spring pawl out of operative relation with said arms when the parts of the gun are assembled, substantially as described.

2. In a fire arm the combination with the barrels provided with cocking shoulders, of the hammers and their cocking arms and the spring pawl having parts engaging the cocking
 110 arms when the parts of the gun are separated and a part engaging the barrel lug and holding said pawl out of operative position when the parts of the gun are assembled, substantially as described.

3. In a fire arm the combination with the barrels having a lug provided with cocking shoulders, of the hammers, the cocking arms adapted to be engaged by said shoulders, the
 115 spring actuated pawl having a cam portion adapted to engage the barrel lug and portions adapted to support said cocking arms, when the lug is moved out of engagement with said cam portion, substantially as described.

4. In a fire arm the combination with the barrels having the cocking shoulders, of the hammers and their cocking arms and a movable device for holding the cocking arms in
 120 position to permit the removal and return of the barrels, said device having a part engaging a part connected with the barrels and

holding said device out of operative relation with the cocking arms when the parts of the gun are assembled, substantially as described.

5 In a fire arm the combination with the barrels having the cocking shoulders, the hammers and cocking arms, of the sears, the parts engaged by said sears having a cock-
10 ing notch and a supplemental notch to enable the sears to hold the hammers in position to permit the removal and return of the barrels, and a device for engaging said cock-
ing arms and holding them in such position, independently of said sears, substantially as described.

15 6. In a fire arm the combination with the barrels having a lug provided with cocking shoulders, of the hammers, the cocking arms

adapted to be engaged by said shoulders and provided each with a laterally projecting lug, the spring actuated pawl having portions en- 20
gaging the lugs on said cocking arms to permit the removal and return of the barrels, said pawl having a part engaging the barrel lug and holding said pawl out of operative
25 relation with the lugs on said cocking arms when the parts of the gun are assembled, substantially as described.

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

FRANK A. HOLLENBECK.

Witnesses:

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L. P. WHITAKER.