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LOCK FOR BREAKDOWN GUNS. APPLICATION FILED JULY 18, 1901. RENEWED MAY 10, 1905. 2 SHEETS-SHEET 1. witnesses. J.M. Fronter J. DG. Willson.

No. 793,875.

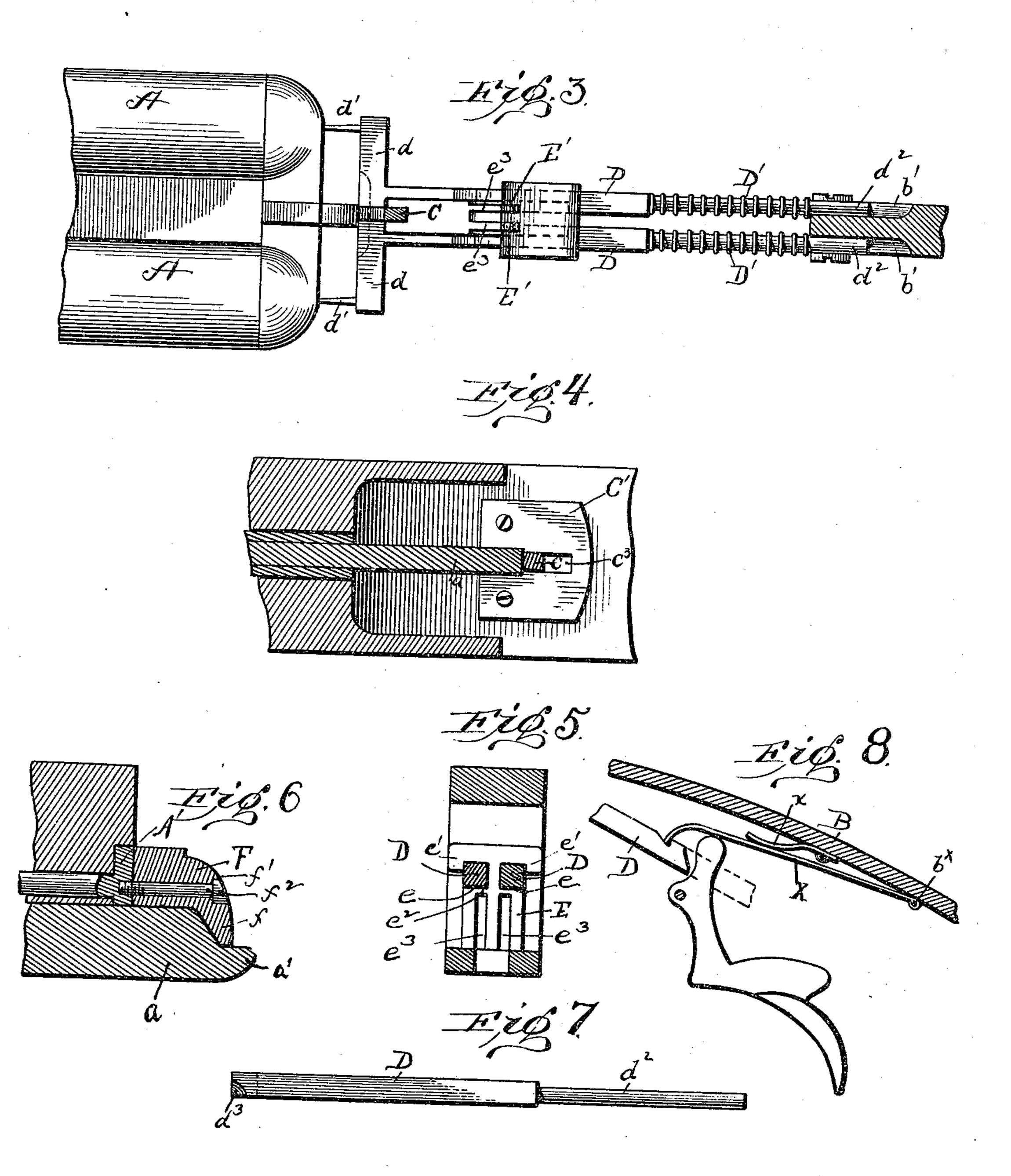
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SHEETS-SHEET 2



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United States Patent Office.

JOSEPH T. GODBOUT, OF WORCESTER, MASSACHUSETTS.

LOCK FOR BREAKDOWN GUNS.

SPECIFICATION forming part of Letters Patent No. 793,875, dated July 4, 1905.

Application filed July 18, 1901. Renewed May 10, 1905. Serial No. 259,826.

To all whom it may concern:

Be it known that I, Joseph T. Godbout, a citizen of the United States of America, and a resident of the city and county of Worcester, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Locks for Breakdown Guns, of which the following is a specification.

My invention relates to improvements in guns, and more particularly to the lock mechanism of breech-loading guns of the so-called

"hammerless" type.

My objects are to provide a convenient mechanism for cocking the piece, a simple and efficient mechanism for holding the breech closed, an improved hammer-support, and a reliable and efficient safety mechanism.

To these ends and also to improve generally upon devices of the nature indicated my invention consists in the various matters here-

inafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a portion of a gun with the stock removed to more clearly show the 25 lock mechanism, the breech being shown closed. Fig. 2 is a corresponding view with the stock in position and the breech open. Fig. 3 is a top plan view; partly in section, on the line 3 3 of Fig. 1. Fig. 4 is a top plan view, 30 partly in section, on the line 4 4 of Fig. 1. Fig. 5 is a rear elevation of the hammer-support with the hammers and portions of the lock-frame shown in section. Fig. 6 is a fragmentary view, chiefly in sectional elevation, 35 showing the shell-ejector extension. Fig. 7 is a side elevation of one of the hammers, said view showing the inner side of the hammer; and Fig. 8 is a fragmentary detail illustrating a modified form of sear.

Referring now more particularly to the drawings, A represents the barrels, and B indicates the frame, said frame having the lock-containing opening extending entirely through it in order to provide for easily milling the same. Rigidly connected to the under side of the barrels and in the center thereof is a latch-plate a, having a rearwardly-projecting nose a', which when the breech is closed rests in a recess c in the front face of a latch C, pivoted to the upper portion of the

frame B, the wall of the latch above said recess engaging the upper face of said nose and holding the breech securely closed. Upon this latch is a rearwardly-extending and downwardly-curved finger c', which is engaged by 55 a flat spring C', the latch being thus yieldingly held in locking position, whereby backward movement of the latch operates, through the finger c', to raise said spring and release the plate a, the spring serving to return the latch 60 to locking position as soon as pressure upon the latch is removed. To permit the latch to be operated, it has a trigger extension c^2 , which projects through an elongated opening in the frame B and lies in a kerf b in the forward 65 end of the usual trigger-guard B'. The spring C' is merely a plate of spring metal, centrally slotted, as at C³, to receive the latch and permit the necessary pivotal movement of the same, said plate being secured to the lower 7° inner wall of the frame B, as illustrated in Fig. 4.

The breech being closed, as illustrated in Fig. 1, it is obvious that to open the same it is only necessary to press upon the trigger 75 extension c^2 , when the latch C will be withdrawn and the gun can be broken. As soon as the finger is removed from said extension c^2 the flat spring returns the latch C to its normal position, and as the breech is closed the nose a' first forces the latch backwardly and then falls into the recess c, the said spring then again forcing the latch into locking position and the breech being locked.

The hammers D have straight bars square 85 in cross-section, the forward ends of these bars extending outwardly to produce the heads d, which carry the usual firing-pins d', while upon the rear of the bars are reduced stems d^2 , which enter suitable recesses b' in 90 the frame B, coiled springs D' encircling said stems and bearing between the frame B and the body portions of the hammer-bars. The upper faces of the hammer-bars are provided with the usual notches for engagement by 95 the sears, and, for a purpose to be more fully hereinafter described, the inner lower faces of the hammer-heads are beveled or hollowed out, as shown at d^3 , Fig. 7.

The hammers are supported by a post or 100

upright E, suitably secured to the lower inner face of the frame B. This post has longitudinal side channels e, which receive the hammer-bars, side lugs e' extending down-5 wardly from the top of the post and holding said hammer-bars against displacement. Extending upwardly from the lower face of the post and separated from the channels e by a wall e^z , but extending entirely through said 10 post vertically in front of said wall, are longitudinal kerfs e^3 , said kerfs extending entirely through the post longitudinally and receiving the triggers E', which are suitably pivoted to the post, as at e^4 . This post E is 15 easily and cheaply made and fastened in position and firmly supports the hammers and triggers.

The cocking of the hammers is effected by means of an extension-plate F, carried by the 2c barrels, said extension being in the present instance attached to the shell-ejector A'. This extension projects rearwardly from the shellejector and has a downwardly-extending nose f, the outer upper corner of the extension 25 being curved, as shown at f'. The exten-

sion-plate lies in the center of the shell-ejector and overlaps the inner faces of the hammer-heads, said plate lying below the hammers, as shown in Fig. 1, when the breech is 30 closed to permit the cut-away portions d^3 of the hammers to lie over the said plate when the piece is fired. In this closed position the plate F lies upon the plate a, with the nose a'projecting behind it, so that the latch C can 35 operate to hold the breech closed. As the breech is opened, however, the plate F is projected, with the shell-ejector, in a wellknown manner, and the cam-face f' of the

plate engaging the beveled portions of the 40 hammers said hammers are forced into cocked position and engaged by the sears in an obvious manner.

The plate F can manifestly be made integral with the shell-ejector; but in order to adapt 45 the present structure to a gun having a shellejector of the common type the said plate can be made separately and then secured to the shell-ejector by means of a headed screw f^2 , extending longitudinally through said plate 50 and entering a suitable socket in the shellejector, the head of the screw (which lies in the cam-face of the plate) being shaped to conform to the surface of said cam.

The sears G (shown in Fig. 1) are of the 55 usual type, being spring-plates secured to the frame B at b^2 and having their free ends bent to suitably engage the notches in the hammerbars. The portion of the sear upon which the trigger works is, however, preferably 60 made flat and straight, as shown at g, and immediately above this portion is a safetyslide G', having a thumb-piece g' projecting above the frame B and a head g^2 , which when the slide is in rear or "safety" position lies 65 upon the portion g of the sear over the trig- $\frac{1}{2}$

ger end, and thus locks the sear against movement to release the hammer. When the said slide is pushed into forward position, the head g^{z} lies clear of the sear, (which projects downwardly from the forward end of the straight 70 portion g, and the piece can then be fired.

As a modification the sear illustrated in Fig. 8 can be employed. Here a piece of rigid metal X takes the place of the springplate G, said metal plate being hinged to the 75 frame B, as at b^{\times} , and being forced into engaging position by means of a plate-spring x, secured to the frame and bearing upon the plate X, as shown.

Having thus described my invention, what 80 I claim as new, and desire to secure by Letters Patent, is—

1. In a gun, a barrel, a locking-latch pivoted to the upper part of the breech-frame and having a finger projecting therefrom, a plate-85 spring secured to the frame of the gun and having a slot receiving said latch, said spring engaging said finger to hold the latch normally in latching position.

2. In a gun, a barrel-locking latch having a 90 finger projecting therefrom, and a plate-spring having a slot receiving said latch, said plate secured to the gun-frame and having its body portion resting upon said finger, whereby the latch is normally held in latching position, 95

substantially as described.

3. In a gun, a barrel, a locking-latch pivoted to the upper part of the frame and having a rearwardly and downwardly extending curved finger, a plate-spring secured to the frame of 100 the gun and having a slot receiving said latch, and engaging the curved portion of said finger whereby the latch is yieldingly held in locking position.

4. In a gun, a barrel, a locking-latch pivoted 105 to the upper part of the frame and having a rearwardly and downwardly extending curved finger, a plate-spring secured to the frame of the gun and having a slot receiving said latch, and engaging the curved portion of said finger 110 whereby the latch is yieldingly held in locking position, said frame having an elongated opening through which an extension on the finger extension of said latch projects, and a trigger-guard having a kerf in which said ex- 115 tension lies.

5. In a gun, a supporting-post secured to the lower tang and having longitudinal side channels and side lugs and upwardly-extending longitudinal kerfs with a wall separating 120 the same from said channels, said kerfs extending entirely through said post longitudinally, triggers pivoted to said post and received in said kerfs a latch-plate, firing-pins supported by the said post and slidingly sup- 125 ported in said channels and cooperating with said side lugs, and an extension-plate carried by the barrels and lapping the front ends of the firing-pins.

6. In a gun, a supporting-post secured to 130

the lower tang and having longitudinal side channels and downwardly-extending side lugs and upwardly-extending longitudinal kerfs with a wall separating the same from said chan-5 nels, said kerfs extending entirely through said post longitudinally, triggers pivoted to said post and received in said kerfs a latch-plate, firing-pins supported by the said post and slidingly supported in said channels and coöper-10 ating with said side lugs, and an extensionplate carried by the barrels and lapping the front ends of the firing-pins, and lying over the latch-plate said extension-plate having a curved upper corner which engages and cocks 15 the firing-pins when the barrels are broken down.

7. In a gun, a barrel, a locking-latch pivoted

a finger projecting therefrom, a plate-spring secured to the frame of the gun and having a 20 slot receiving said latch, said spring engaging said finger to hold the latch normally in latching position, and an extension-plate carried by the barrels and lying upon said plate-spring, and having a cam-face, said plate lapping the 25 front faces of the firing-pins and lying below the firing-pins when the breech is closed.

Signed by me at Worcester, Massachusetts,

this 15th day of June, 1901.

JOSEPH T. GODBOUT.

Witnesses:

ALDUS C. HIGGINS, GALES P. MOORE.