

No. 697,516.

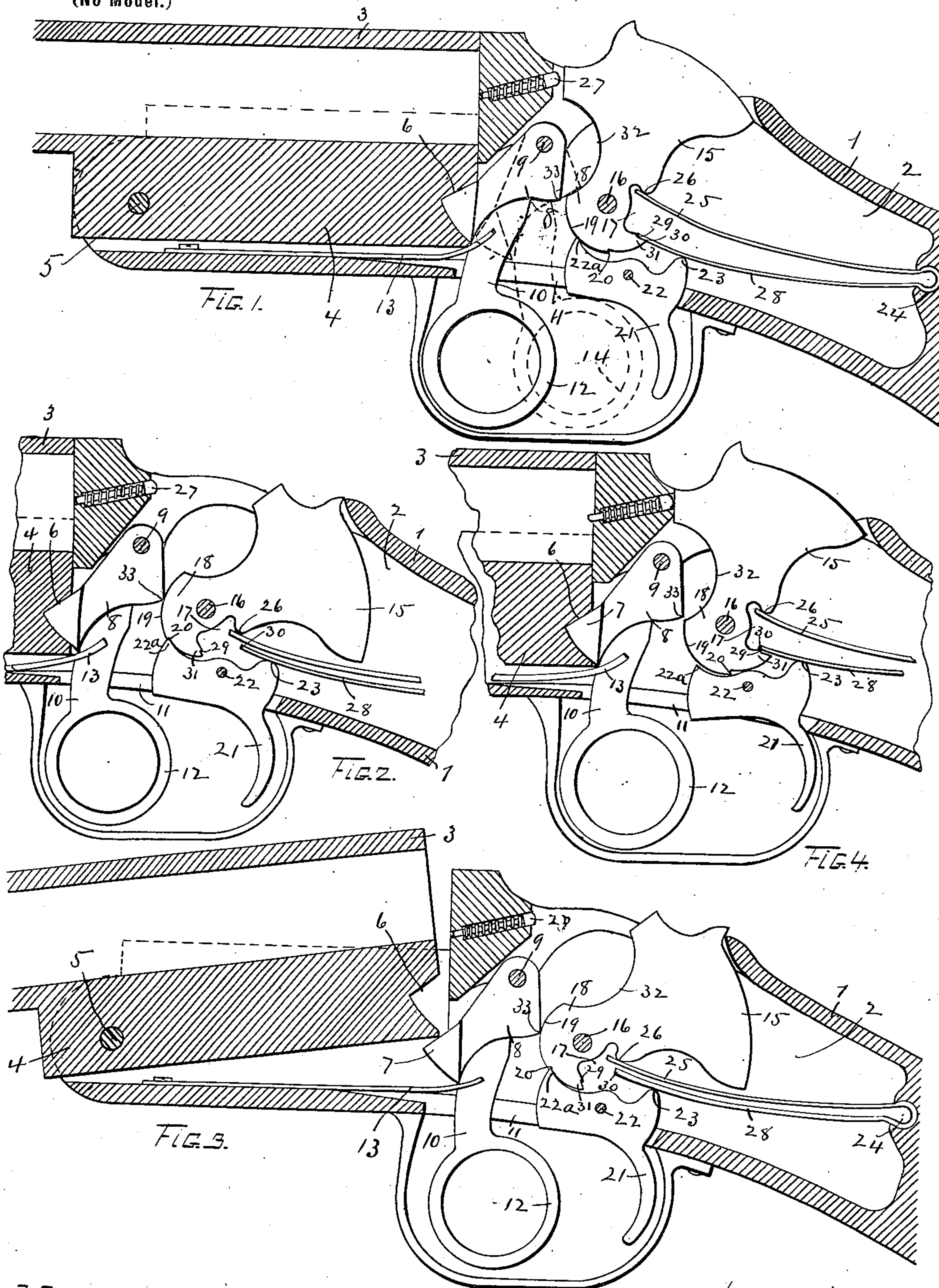
Patented Apr. 15, 1902.

O. F. MOSSBERG.

FIREARM LOCK.

(Application filed Nov. 4, 1898.)

(No Model.)



Witnesses:
Samuel T. Hobbs.
McPrice

Inventor:
OSCAR F. MOSSBERG.
By Rufus B. Fowler
Attorney.

UNITED STATES PATENT OFFICE.

OSCAR F. MOSSBERG, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR TO MARY ELIZABETH JOHNSON, OF FITCHBURG, MASSACHUSETTS, EXECUTRIX OF IVER JOHNSON, DECEASED.

FIREARM-LOCK.

SPECIFICATION forming part of Letters Patent No. 697,516, dated April 15, 1902.

Application filed November 4, 1898. Serial No. 695,428. (No model.)

To all whom it may concern:

Be it known that I, OSCAR F. MOSSBERG, a citizen of the United States, and a resident of Fitchburg, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Firearms, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figures 1, 2, 3, and 4 represent in central sectional view so much of a gun as is necessary to show the locking mechanism and the latch by which the gun-barrel is held in position for firing, with the lock-operating mechanism and the barrel-latch shown in full but in different positions in the several figures. Fig. 1 shows the barrel-latch engaging and holding the barrel in position for firing, with the lock-operation mechanism in its normal position. Fig. 2 shows the barrel-latch engaging the barrel with the hammer cocked. Fig. 3 shows the hammer cocked and the barrel broken down; and Fig. 4 represents the barrel engaged by the barrel-latch, with the hammer resting against the firing-pin.

My present invention relates to the lock mechanism and to the latching mechanism by which the barrel of a break-down gun is locked in normal position for firing; and it has for its objects to simplify the construction of the lock and to provide a simple barrel-latching mechanism which shall be rendered inoperative whenever the hammer is cocked; and I attain these objects by the mechanism hereinafter described; and my invention consists in the construction and arrangement of parts as set forth in the annexed claims.

Referring to the accompanying drawings, 1 denotes the metal frame inclosing the lock mechanism and supporting the barrel, provided with a chamber 2 to receive the operating mechanism of the lock and the barrel-latching device.

3 denotes the barrel, provided on its under side with a short longitudinal rib 4, inclosed in a groove in the frame 1, to which it is attached by a pivot 5. The rear end of the longitudinal rib 4 is provided with a triangular notch 6 to receive a corresponding projection 7 on a barrel-latch 8, which is pivoted at 9

within the lock-chamber 2 and is provided with a tailpiece 10, which extends through a slot in the frame 1 and terminates in a ring 12, adapted to be seized by the finger for the purpose of withdrawing the barrel-latch from the triangular notch 6 and releasing the barrel. The latch 8 is held in engagement with the notch 6 of the barrel by a blade-spring 13, which is attached at one end to the frame, with its free end pressing against the barrel-latch 8.

In order to break down the gun, the latch is drawn back into the position indicated by the broken lines 14, Fig. 1, thereby withdrawing the barrel-latch from the end 6 and releasing the barrel, so that it can be tilted on its pivot 5, as shown in Fig. 3, with the tension of the blade-spring 13 exerted to carry the barrel-latch 8 into engagement with the notch 6 when the barrel is returned to its normal position.

The lock mechanism comprises three parts only—a hammer, a trigger, and an actuating-spring. The hammer 15 is pivoted in the frame at 16 and provided on its rear edge with a recess 17 to receive the ends of the hammer and trigger springs and having a tumbler 18 with a curved surface 19, provided with a notch 20 to be engaged by the trigger in order to hold the hammer when cocked. The trigger 21 is pivoted at 22 and is provided at its forward end with a tooth 22^a, adapted to engage the notch 20 of the hammer, and at its rear side with a projection 23 to receive the pressure of the trigger-spring. The actuating-springs consist of a single piece of steel bent upon itself at the center and held in a recess 24, one end forming a hammer-spring 25, bearing against the hammer at 26 to rock the hammer and carry it against the firing-pin 27 of the gun, and the other end forming a trigger-spring 28, bearing against the projection 23 to rock the trigger and hold the tooth 22^a against the curved surface 19 of the hammer-tumbler, so that it will engage the notch 20 and hold the hammer when it is cocked. The hammer is also provided with a projection 31, having a shoulder 29, adapted to abut against the end 30 of the trigger-spring 28 and hold the hammer out of contact with the firing-pin 27. When the ham-

mer is in its normal position, or that of rebound from the firing-pin, the shoulder 29 serves to lock the hammer and hold it out of contact with the firing-pin, for the reason
 5 that the shoulder 29 when in contact with the end of the spring 28 lies below the axis of the hammer, so that an attempt to rock the hammer toward the firing-pin would carry it toward the end of the spring 28. In lock mechanisms where a spring has been employed to rebound the hammer the hammer has been held by a retaining-sear engaging a notch on the hammer. In my hammer-holding mechanism I dispense with the sear and hold the
 15 hammer at a rebound by the trigger-spring. When the hammer is cocked, the spring 25 is depressed, and the spring 28 holds the trigger in engagement with the notch 20 of the hammer, as shown in Figs. 1 and 2.

20 To discharge the gun, the trigger 21 is rocked to withdraw its tooth from the notch 20, and the end 30 of the trigger-spring 28 will be raised by the projection 23 on the trigger above the path of the shoulder 29, allowing the hammer-spring 25 to carry the
 25 hammer against the firing-pin. When the trigger is released, the trigger-spring 28 is lowered against the projection 31 of the hammer, causing the hammer to be raised out of contact with the firing-pin, with the shoulder
 30 29 held against the end 30 of the trigger-spring by the hammer-spring 25.

The hammer 15 is cut away at 32 to allow the projecting corner 33 of the barrel-latch 8
 35 to pass when the latch is withdrawn from the notch 6 in order to release the barrel; but when the hammer is cocked the curved surface 19 is brought into the path of the projecting corner 33, thereby locking the latch
 40 8 and preventing the release of the barrel when the hammer is cocked, and when the barrel is broken down, as shown in Fig. 3, with the hammer cocked the barrel is prevented from being returned into the firing
 45 position by the contact of the corner 34 of the rib 4 against the latch 8, which is locked in its forward position by the hammer-tumbler 18.

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

50 1. The combination with a pivoted hammer provided with a notch to receive the trigger, a pivoted trigger adapted to engage said notch and hold the hammer in a cocked position and a hammer-spring by which said hammer is

actuated, of a trigger-spring bearing against 55 said trigger and a projection on said hammer arranged to receive the pressure of said trigger-spring, said projection having a shoulder arranged to abut against the end of said trigger-spring, said projection and said shoulder 60 lying normally below the axis of said hammer, whereby the hammer is held out of contact with the firing-pin by the contact of said shoulder and said trigger-spring, substantially as described. 65

2. The combination of a pivoted hammer provided with a notch 20 to receive a trigger and a recess 17 to receive the ends of a hammer and a trigger spring, a hammer-spring and a trigger-spring, said hammer having a 70 bearing-surface 26 to receive the pressure of said hammer-spring, and a projection 31 to receive the pressure of the trigger-spring, said projection having a shoulder 29 arranged to abut against the end of the trigger-spring, 75 said projection and said shoulder lying normally below the axis of the hammer, whereby the hammer is held out of contact with the firing-pin by the contact of said shoulder and said trigger-spring, and a pivoted trigger having a projection 23 bearing against said trigger-spring and a tooth 22^a engaging the notch in said hammer, substantially as described. 80

3. The combination with the frame of a firearm and a barrel hinged thereto and having 85 a notch to receive a latch, of a latch pivoted at its upper end and having a downwardly-projecting tailpiece 10 extending through a slot in the frame, a spring by which said latch is held in said notch, a pivoted hammer provided with a notch 32 to receive said latch 90 and a concentric surface 19 by which said latch is locked in position, said hammer having a recess 17 to receive the hammer and trigger springs, a hammer-spring 25 and the 95 trigger-spring 28 entering said recess, a projection 31 to receive the pressure of the trigger-spring, said projection having a shoulder 29 arranged to abut against the end of the trigger-spring, said projection and said shoulder 100 der lying normally below the axis of the hammer, substantially as described.

Dated this 24th day of October, 1898.

OSCAR F. MOSSBERG.

Witnesses:

RUFUS B. FOWLER,
 ELIZABETH GRAY.