

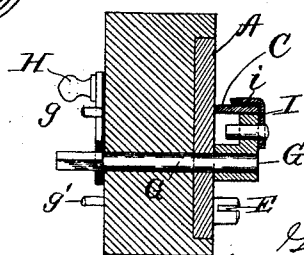
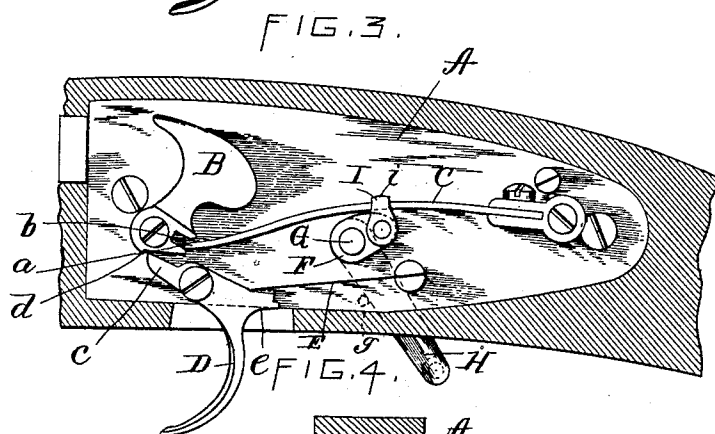
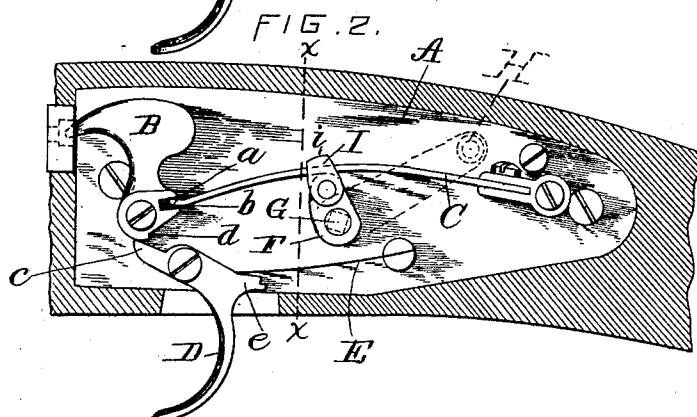
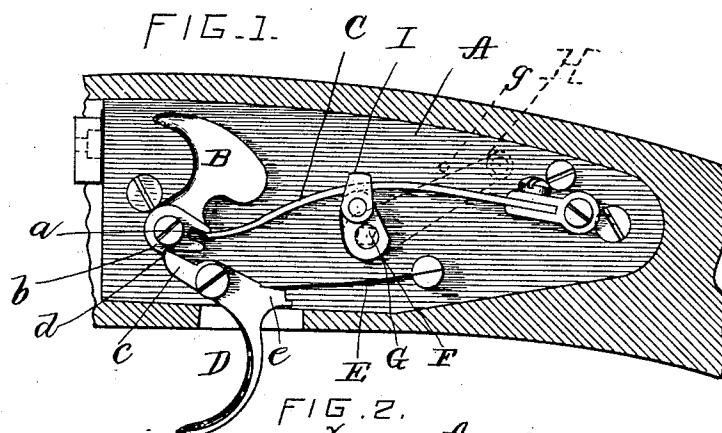
(No Model.)

G. W. McCLINTOCK.
LOCK FOR FIRE ARMS.

2 Sheets—Sheet 1.

No. 430,397.

Patented June 17, 1890.



WITNESSES:
A. D. Harrison
K. E. Brown

INVENTOR:
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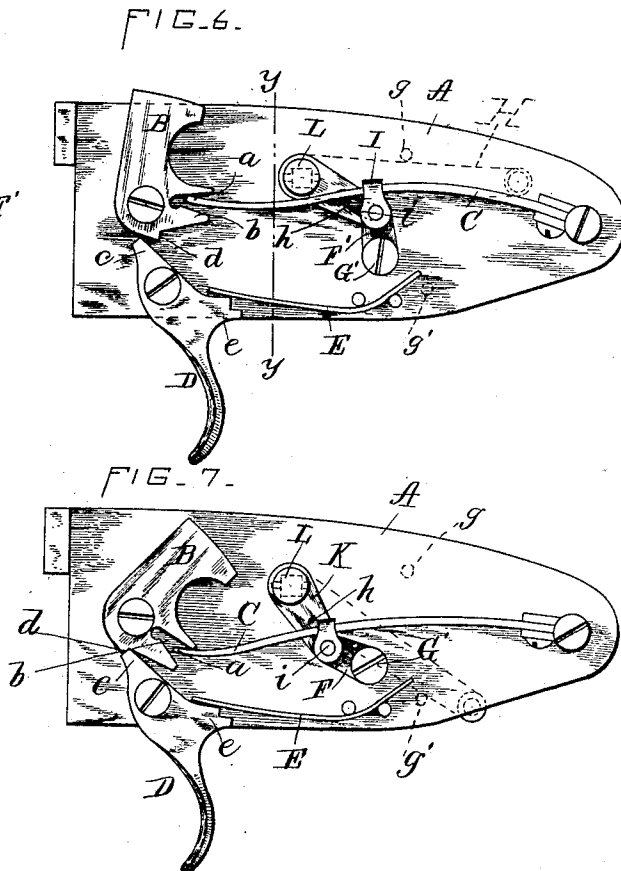
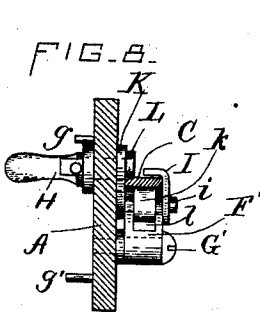
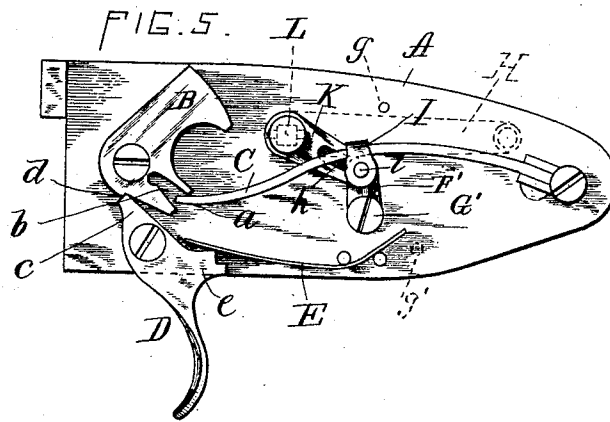
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2 Sheets—Sheet 2.

G. W. McCLINTOCK.
LOCK FOR FIRE ARMS.

No. 430,397.

Patented June 17, 1890



WITNESSES.
A. D. Harrison.
H. E. Brown.

INVENTOR
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UNITED STATES PATENT OFFICE.

GEORGE W. MCCLINTOCK, OF QUINCY, ASSIGNOR OF ONE-HALF TO MELLEN
N. BRAY, OF BROOKLINE, MASSACHUSETTS.

LOCK FOR FIRE-ARMS.

SPECIFICATION forming part of Letters Patent No. 430,397, dated June 17, 1890.

Application filed July 11, 1889. Serial No. 317,183. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MCCLINTOCK, of Quincy, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Locks for Fire-Arms, of which the following is a specification.

My invention relates to locks for fire-arms; and my improvements consist, substantially, in mechanism for causing the tension of the mainspring (which engages with the hammer) by pressure upon said spring between its ends, and also a trigger for locking the hammer in a cocked condition and unlocking the same, and thus releasing the tension of the mainspring, so that it will force the hammer forward.

My improvements also consist in certain details of construction, as more particularly hereinafter described.

In the accompanying drawings, forming a part of this specification, Figure 1 is an elevation of my improved lock, showing the positions of the parts after the tension has been applied to the mainspring between its ends. Fig. 2 is a similar view showing the positions of the parts after the tension on the mainspring has been applied and after the hammer has been released from the sear on the trigger, or after the trigger has been pulled. Fig. 3 shows the positions of the parts after the hammer has been drawn back to lock it to the sear of the trigger, and Fig. 4 is a cross-section taken through the line *xx* of Fig. 2 and looking backward. Figs. 5, 6, and 7 show a slightly-modified construction illustrating similar positions of the parts to Figs. 1, 2, and 3, respectively; and Fig. 8 is a cross-section on the line *yy* of Fig. 6 and looking backward.

Similar letters represent like parts in all the figures.

A is the plate upon which the mechanism of the lock is supported.

B is the hammer, which is pivoted to the plate A near its front end; and C is the mainspring, which is pivoted near the end of said plate and with its free and forward end *a* engaging with a recess *b* in the lower end of the hammer.

D is the trigger, which is pivoted below the

hammer B, and which has a projecting arm *c*, adapted to engage in a small notch *d* of the hammer, constituting the sear of the same, and which can lock the hammer in a cocked position.

E is a tension-spring, which bears against the top of the rear arm *e* of the trigger, thus tending always to keep the arm *c* raised and in contact with the lower end of the hammer B.

F is an eccentric or cam, which is fixed upon a shaft G, passing through the plate A, and in such a position under the spring C and between its ends that when said spring is relaxed in its lowermost position it will lightly bear or almost bear upon the portion of the periphery of said cam nearest its axis G. (See Figs. 3 and 7.) The shaft G is provided with a lever or crank handle H, which is keyed to said shaft on the opposite side of the plate or stock to the rest of the mechanism. A small two-armed yoke I is loosely pivoted to that part of the eccentric E farthest from the axis G, and one of its arms *f* passes over the spring C. The latter is thus inclosed between the eccentric F and the arm *f* of the yoke. By raising or lowering the handle H the cam F will be turned on its axis and the spring C will either be raised or lowered. Pins or projections *g g'* may be employed to limit the play of the handle H up and down, respectively.

The several parts are adapted to operate in the following manner: The handle H is first lowered until it has attained the position shown in Fig. 3, or until it has been stopped by the pin *g'*, and by said lowering of the handle the mainspring C will be drawn down by the yoke I on or near that portion of the periphery of the cam F nearest its axis G, and the hammer B will also at the same time be drawn down or back with the spring C until said hammer has been locked by the sear *c* on the trigger D. The positions of the parts will then be as shown in Fig. 3. The handle H is then pulled up until it is stopped by the pin *g*, and by said raising of the hammer the cam F will operate and bear upon the under surface of the spring C, raising it between its ends by the eccentric portion of said cam and causing the tension of said spring. The posi-

tion of the parts will then be as shown in Fig. 1. When the trigger D is pulled back, it will release its sear *c* from the notch *d* of the hammer B, and the spring C will then suddenly be relaxed from its tension in a raised position, and will force the hammer forward, as shown in Fig. 2. The handle H is then lowered and the parts will again resume the positions shown in Fig. 3, when the operation may be repeated.

Referring to Figs. 5, 6, 7, and 8, a short fixed shaft or journal-bearing G is used to support the eccentric E', which is loosely journaled upon said shaft. A crank K, fixed to a movable shaft or journal L, above the spring C, has a longitudinal slot *n*, extending to near its free end, and the pivotal pin *i*, which supports the yoke I, extends through the cam F into the slot *h*. The handle H is fixed upon the outer end of the shaft L. A roller *k* is journaled on the pivotal pin *i* in a slot *l* in the cam F.

The operation of the parts will be substantially the same as that described with relation to Figs. 1, 2, 3, and 4, the only difference being that the cam F' will be operated by the handle H through the intermediation of the crank K, its slot *h*, and the pin *i* on said cam, instead of being operated directly by the handle H. The object of the slot *h* is to allow all the play necessary for the pin *i* and the cam and yoke. If it be desired to raise and push forward the hammer B slowly and with very little force before it has been locked by its sear *c*, or before the tension on the spring is given, it can readily be done by simply raising the handle. After the sear has locked the hammer the latter can be released and raised by the handle H by previously pulling back the trigger, and thus releasing the hammer from its sear. If it is desired to raise and push forward the hammer slowly and with very little force after the tension on the spring has been given, said tension is first relaxed by lowering the handle, then drawing back the trigger, and finally raising the handle again.

I claim—

1. An improved lock for fire-arms, consisting of the hammer and a mainspring situated back of said hammer and engaging with the same, in combination with a movable piece situated between the ends of the mainspring, and means for pressing said piece against the spring between its ends to cause tension of the same, substantially as and for the purpose described.

2. An improved lock for fire-arms, consist-

ing of the hammer and a mainspring situated back of said hammer and engaging with the same, in combination with an eccentric situated between the ends of the mainspring, and means for rotating said eccentric to press it against the spring between its ends, whereby the tension of the spring will be caused, substantially as and for the purpose described.

3. In combination with the hammer and a mainspring situated back of said hammer and engaging with the same, a movable eccentric pivoted between the ends of the spring and having a yoke pivoted to its projecting or cam portion, said yoke and cam inclosing the mainspring between them, and means for rotating said eccentric, all substantially as and for the purpose described.

4. In combination with the hammer and a pivoted mainspring situated back of said hammer and engaging with the same, a movable eccentric pivoted between the ends of the spring and having a yoke pivoted to its projecting or cam portion, and said eccentric and yoke inclosing the mainspring between them, and means for rotating said eccentric, all substantially as and for the purpose described.

5. In combination with the hammer and the mainspring situated back of said hammer and engaging with the same, the movable eccentric pivoted between the ends of the spring, its yoke pivoted to its cam portion, and the spring-trigger engaging in a notch of the hammer, all substantially as shown and described.

6. In combination with the hammer and the mainspring situated back of said hammer and engaging with the same, the movable eccentric and its yoke pivoted between the ends of the spring, the crank K, loosely attached to said eccentric, and means for operating said crank, all substantially as shown and described.

7. In combination with the hammer and the mainspring situated back of said hammer and engaging with the same, the crank K, having the slot *h*, the eccentric and yoke inclosing said spring and having the pin *i*, said pin engaging with the slot *h*, and means for operating said crank, all substantially as shown and described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 29th day of June, A. D. 1889.

GEO. W. McCLINTOCK.

Witnesses:

C. F. BROWN,
A. D. HARRISON.