(No Model.) 2 Sheets—Sheet 1.

# W. MASON.

## LOCK FOR FIRE ARMS.

No. 248,190. Patented Oct. 11, 1881.

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fig. 1.

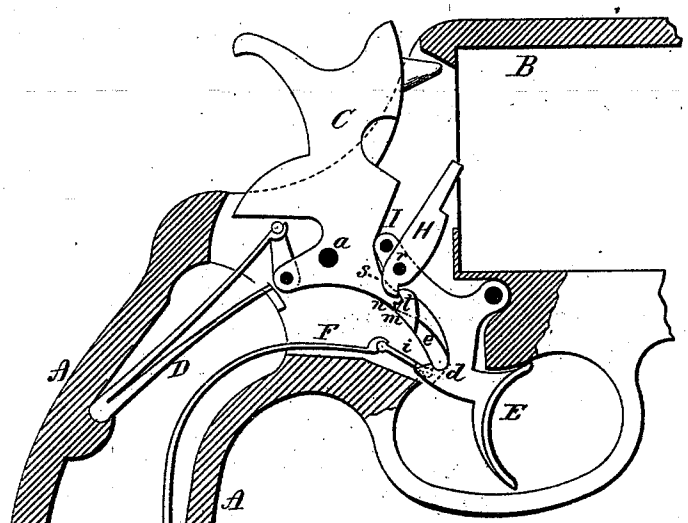



fig. 5




fig. 3




fig. 2

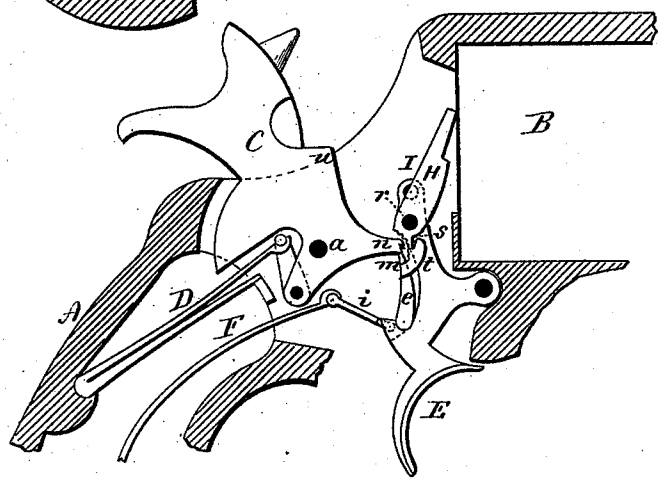
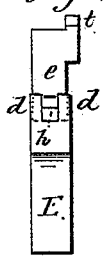



fig. 4




Witnesses.

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(No Model.) 2 Sheets—Sheet 2.

# W. MASON.

## LOCK FOR FIRE ARMS.

No. 248,190. Patented Oct. 11, 1881.

*fig. 6*

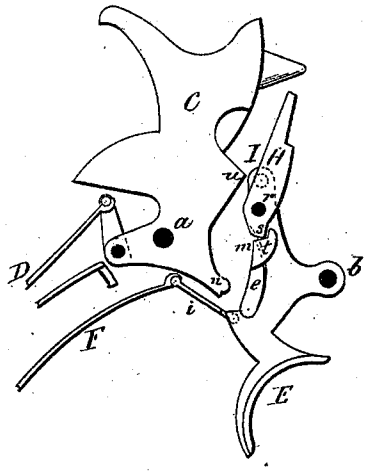
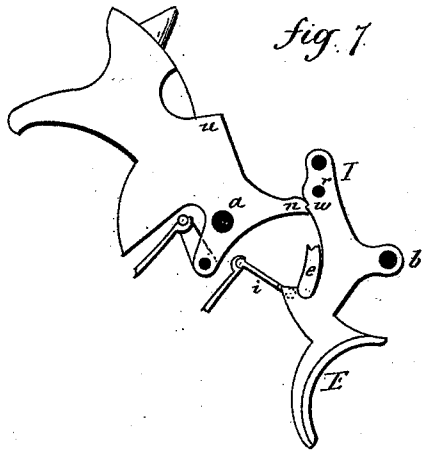



*fig. 7*




Witnesses
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# UNITED STATES PATENT OFFICE.

WILLIAM MASON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE COLTS PATENT FIRE-ARMS MANUFACTURING COMPANY, OF SAME PLACE.

## LOCK FOR FIRE-ARMS.

SPECIFICATION forming part of Letters Patent No. 248,190, dated October 11, 1881.

Application filed June 13, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WM. MASON, of Hartford, in the county of Hartford and State of Connecticut, have invented new Improvements in Revolvers; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a sectional side view, the parts in their normal condition; Fig. 2, the parts in the position of cocked by the trigger; Figs. 3, 4, 5, and 7, detached views; Fig. 6, side view of the parts in position immediately after discharge and before the trigger is released.

This invention relates to an improvement in revolvers, with special reference to the lock mechanism and to that class which is constructed so that the hammer may be thrown back and discharged by a single pull of the trigger, or be cocked by hand and then released by the trigger; and the invention consists in the construction as hereinafter described, and particularly recited in the claims.

A represents the frame, constructed to receive the lock mechanism and with a cylinder-recess, B, in substantially the usual manner; C, the hammer, hung upon a pivot, *a*, provided with the mainspring D, also in substantially the usual manner.

E is the trigger, hung upon a pivot, *b*, in the frame, and so as to swing freely thereon. On the back of the trigger is a seat, *d*, in which sets a dog, *e*. This dog is shown detached, in perspective, in Fig. 3. It is constructed with shoulders *f* to rest in the seat *d*, and below these shoulders is a hook-shaped projection, *h*, which lies in a recess in the trigger, between the bearings for the dog, as seen in Fig. 4. The hook *h*, opening to the rear, forms a seat at the lower end for a strut, *i*, on which a spring, F, bears. The action of the spring on the dog tends to throw its nose *m* to the rear, and also, through the bearings of the dog on the trigger, tends to throw the trigger forward, as seen in Fig. 4, to its normal position. The nose *m* of the dog, when the trigger is pulled, will engage with an arm, *n*, on the hammer, forward of the pivot, and so that by pulling upon the trigger that arm *n* of the hammer will be raised and the hammer correspondingly thrown to the rear until the hammer escapes from the dog.

H is the pawl for rotating the cylinder. It is hung to the upper arm of the trigger, as at *r*. As the trigger is pulled from the position seen in Fig. 1 to that seen in Fig. 2, the pawl follows the cylinder in the usual manner, working in the ratchet thereon, and as it rises it turns on its pivot *r*. Below the pivot *r* a shoulder, *s*, is made on the pawl H, which works against a corresponding shoulder, *t*, on the dog *e*, whereby the swinging movement of the pawl H is imparted to the dog *e*—that is to say, as the shoulder *s* of the pawl advances toward the cylinder it turns the upper end or nose of the dog *e* in the same direction, so that as soon as the hammer has been thrown back by the pull upon the trigger to the position of full-cock, as seen in Fig. 2, the nose of the dog *e* has been forced so far forward as to escape from the arm *n* of the hammer, and thereby permit the hammer to fly forward, by the force of the mainspring, to the firing position, as seen in Fig. 6. In this movement the spring F, bearing upon the dog, and through the dog upon the pawl H below its pivot, serves to force the nose of the pawl forward into contact with the ratchet in the cylinder, and yet yield as the pawl and trigger return from the position in Fig. 6 to that in Fig. 1, so as to pass the next tooth on the ratchet, and thus the spring also serves indirectly as the pawl spring. As soon as the trigger is released after firing, the upper arm I of the trigger strikes the body of the hammer at a point, *u*, above the pivot. This end I of the trigger is fitted with an anti-friction roll to work against the surface of the hammer from the point *u* downward. The shape of that surface—from the point *u* downward—is such relatively to the pivot *b* of the trigger that as the arm I descends by the force of the trigger-spring F it will press the hammer backward to the position seen in Fig. 1, so as to take it away from the firing-pin (or, if not a firing-pin, the point of the nose of the hammer back from its most forward position) and out of the path of the head of the next advancing cartridge, and so that the pressure of the hammer in its normal condition will be entirely removed from the cartridge in the cyl-

inder. Thus the spring F performs its fourth office—viz., to retreat the hammer after firing.

On the side of the upper arm of the trigger, next the hammer, is a shoulder, *w*, a little above the nose of the dog *e*, and when the hammer is drawn back by the thumb in the usual manner, the arm *n* will be engaged by the said shoulder *w*, as seen in Fig. 7, to be released therefrom by the pulling of the trigger, also in the usual manner.

The forcing back of the hammer by the return of the trigger, as described, is performed independent of the dog and pawl, and hence may be employed in a lock in which neither a pawl nor dog is required, nor in which the pawl is operated in the usual or other independent manner.

The pawl and dog may be used in connection with the trigger, as described, without the self-cocking property—that is to say, arranged so that the same trigger-spring will, through the dog, serve as the spring for the pawl.

The self-cocking devices—to wit, the trigger and dog—may be employed without the pawls or without the hand-cocking arrangement. In this case the same trigger-spring serves as a spring for the dog. In this arrangement the dog works as a spring-latch, to yield as it passes down over the arm *n* of the hammer. Then, when below, the arm springs back to engage it.

I am aware that locks for revolvers and other fire-arms have been made so that the hammer may be cocked and released by the trigger, or cocked by hand and engage the trigger so as to stand at full-cock. I therefore do not wish to be understood as broadly claiming such construction.

I am also aware that a trigger has been constructed to operate as a sear to engage the hammer when set at full-cock, combined with a stirrup, by which the hammer may be cocked by pulling the trigger. I therefore do not claim such construction; but

What I do claim is—

1. The combination of the trigger E, constructed with a seat, *d*, on its rear, the dog *e*, constructed with shoulders to rest in said seat on the trigger, and with a projection, *h*, rearward from its bearing on the trigger, the spring F, arranged to bear upon the said projection *h* on the dog, and the hammer constructed with an arm forward of its pivot, with which the said dog will engage, substantially as described.

2. The combination of the trigger E, constructed with a seat, *d*, on its rear, the dog *e*, constructed with shoulders to rest in said seat on the trigger, and with a projection, *h*, rearward from its bearing on the trigger, the spring F, arranged to bear upon the said projection *h* on the dog, and the hammer constructed with an arm forward of its pivot, with which the said dog will engage, the said trigger also constructed with a shoulder, *w*, above the nose of the dog, and the hammer with a corresponding notch above the point where the dog engages the hammer, substantially as and for the purpose described.

3. The combination of the trigger and hammer with the dog *e*, seated on the trigger, and the trigger-spring arranged to operate both the trigger and the dog, the upper arm of the trigger arranged to bear upon the body of the hammer above its pivot, so as to force the hammer backward as the trigger is released, substantially as described.

4. The combination of the trigger and hammer with the dog *e*, seated on the trigger, the cylinder-pawl hung to the trigger above the dog and in connection therewith, and the trigger-spring, arranged to operate the trigger, the dog, and the pawl, substantially as described.

WILLIAM MASON.

Witnesses:
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SAM. WALKER.