

(No Model.)

2 Sheets—Sheet 1.

A. DICKERMAN.

BREECH LOADING FIRE ARM.

No. 354,890.

Patented Dec. 28, 1886.

Fig. 1

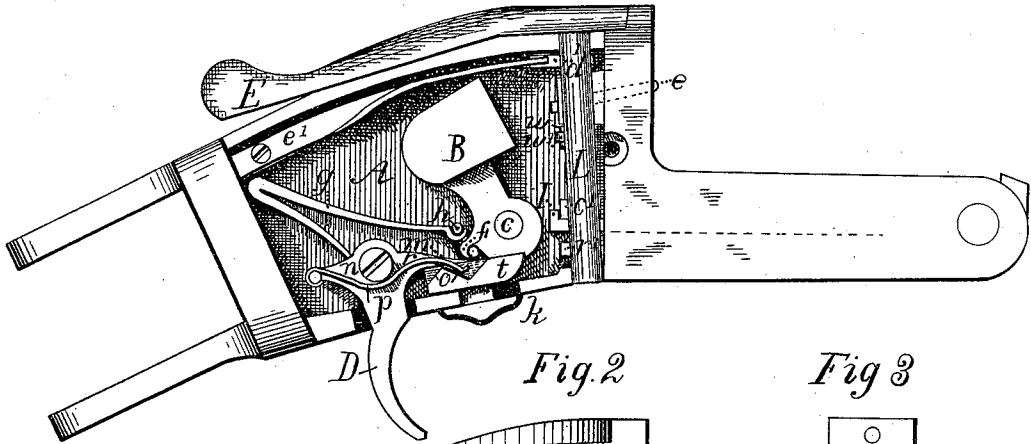


Fig. 2

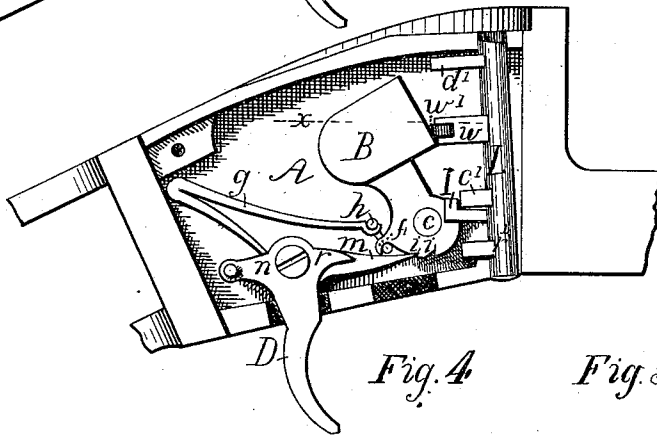


Fig. 3

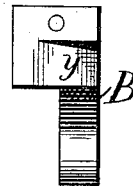


Fig. 4

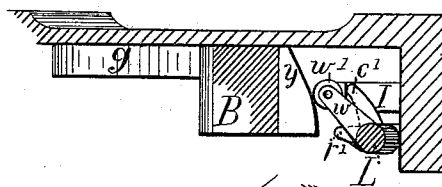


Fig. 5

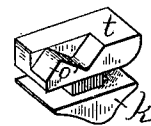
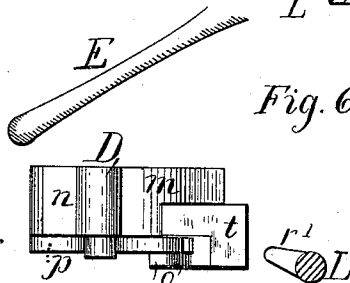


Fig. 6



WITNESSES:

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INVENTOR

Amos Dickerman.

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ATTORNEY

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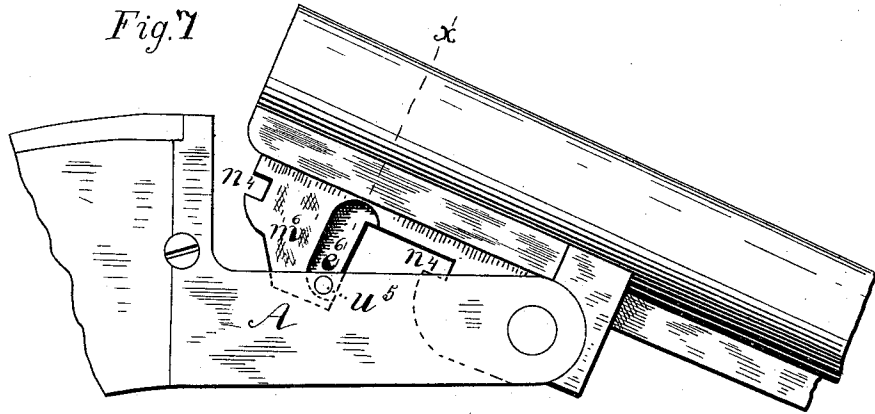


Fig. 8

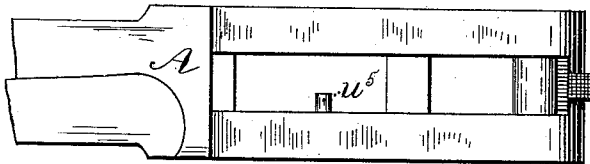
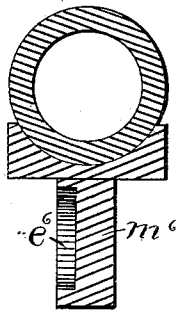


Fig. 9



WITNESSES:

George L. Barnes
Charles K. Leiner.

INVENTOR

Amos Dickerman
BY *Julius Travis.*
ATTORNEY

UNITED STATES PATENT OFFICE.

AMOS DICKERMAN, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO CORNELIUS PIERPONT, OF SAME PLACE.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 354,890, dated December 28, 1886.

Application filed June 30, 1866. Serial No. 966,743. (No model.)

To all whom it may concern:

Be it known that I, AMOS DICKERMAN, a citizen of the United States, residing in New Haven and State of Connecticut, have invented a new and useful Improvement in Breech-Loading Fire-Arms, of which the following is a specification.

My invention relates to that class of breech-loading fire-arms in which the hammer is inclosed with the firing mechanism and operated by an external lever which disengages the barrel from the breech-block.

The improvement consists in the novel construction and arrangement of the hammer and safety-plate and their operating-cams, and in the means for limiting the swing of the barrel, as hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a side view of the breech-block or receiver of my improved fire-arm with its cover or cap-plate removed, and Fig. 2 is a view of the same without the safety-plate, and showing the cam-shaft thrown back. Fig. 3 is a front or face view of the hammer. Fig. 4 is a horizontal section on the line *x*, Fig. 2. Fig. 5 is a view of the safety-plate, and Fig. 6 is a plan view of the trigger and safety-plate. Fig. 7 shows part of the breech-block with the barrel swung open therefrom. Fig. 8 is a plan view of the part of the breech-block in which the barrel is hinged; and Fig. 9 shows a transverse section of the barrel on the line *x*, Fig. 7.

Referring to the drawings, A designates the breech-block or receiver, which is recessed in the usual manner to form a case for the reception of the hammer and other parts of the lock. The hammer B is pivoted upon a stud or pin, C, secured in the side of the case or receiver, and is adapted to oscillate or swing lengthwise thereof, with the striking part or head uppermost and in line with the firing-pin *e*. The hammer is actuated by a looped mainspring, *g*, arranged in the rear part of the receiver, with the upper and longer arm connected by a link, *u*, with a double forked or divided spur or hook, *f*, on the rear side of the hammer, near the pivot C. The trigger notches or bents *i* are formed in the lower edge of the hammer, directly beneath the pivot. The trigger D is pivoted to the side of the receiver under the mainspring,

and has a rear arm, *n*, upon which the lower or short arm of the mainspring bears, thus serving both as trigger-spring and hammer-spring. The trigger has a projecting arm or pointed spur, *m*, which extends forward under the hammer, and is adapted to spring into the trigger-bents *i*, operated by the force of the mainspring.

The trigger-arm *m* is about half as wide as the space in the receiver-case, and rests against the back wall thereof, and the lower part of the hammer is formed of corresponding width, as shown in Fig. 3. A projecting lip or ledge, *r*, is formed on the front side of the trigger integral with the arm *m*, and a safety-plate, *t*, is fitted to rest upon the lower wall of the case and slide under the projecting ledge *r*, as shown in Fig. 1, thereby locking the trigger and preventing the gun from being fired while in such position.

The safety-plate has a rectangular neck, which extends downward through the receiver-wall and is joined to an external flange or knob, *k*, by which the safety-plate may be pushed forward by means of the finger which pulls the trigger.

The safety-plate, with its neck and knob, are formed in one piece, which is placed in the case when the cover is removed, and held in position by the cover when it is screwed down upon the case. Two inclines, *o*, are formed in the safety-plate on the side adjacent to the receiver-cover, and a spring, *p*, is secured at one end to the trigger and adapted to bear at its opposite end upon the inclines on the plate. The forward incline is made of such an angle that the pressure of the spring upon it draws the plate backward, and the rear incline is made so steep that the spring, when acting thereon, will hold the plate forward. The plate is made of sufficient thickness to exactly fill the space between the ledge and the bottom wall of the case when the hammer is cocked, the trigger-bents being so formed that the arm *m* is at its highest point at such position.

L represents the vertical cam-shaft journaled in the case, which carries the cams for operating the lock mechanism.

I represents the bolt which locks the barrel

and breech-lock, and is disengaged by the action of the cam or arm *C'* when the cam-shaft is thrown back, as shown in Fig. 2.

The cam-shaft is operated by means of the external lever, *E*, upon the upper side of the breech-block. The hammer is cocked by cam or arm *w* on the cam-shaft just below the firing-pin. The face of the hammer where the cam engages it is beveled, as shown at *y* in Figs. 3 and 4, to insure an easy lift of the hammer, and the friction of the cam on the hammer is reduced by a suitable friction-roll, *w'*. A cam, *r'*, is carried at the rear end of the cam-shaft, and is adapted to throw the safety-plate backward until the highest part of the inclines *o* passes under the end of the spring *p*. The shaft carries a cam, *d'*, at its upper end, engaged by a spring, *e'*, which returns the cam-shaft to its forward position automatically after the gun has been cocked.

Fig. 7 shows the barrel of the gun hinged to the breech-block and swung open. The tongue or part *m⁶*, which has the bolt-notches *n⁶*, is formed with a countersink or recess, *e⁶*, in one side, and a pin, *w⁶*, is inserted through the side of the breech-block, with its end received in the recess. The pin limits the movement of the barrel when its breech end is swung upward to insert the cartridge. The recess may be milled into the tongue *m⁶*, which is not thereby materially weakened.

In operation, as the cam-shaft is turned backward to the position shown in Fig. 2 the cam *w* cocks the hammer, the cam *C'* withdraws the barrel-bolt *l* and disengages the barrel to permit the insertion of the cartridge, and the cam *r'* throws the safety-plate *t* backward until the spring *p* rests upon the forward incline, *o*. The spring then draws the plate under the ledge *r* at the instant that the trigger-arm *m* springs into the rear bent, *i*, on the hammer. When the lever *E* is released, the spring *e'* returns the cam-shaft to place. In this position the gun is cocked, but cannot be fired until the safety-plate is pressed forward from under the trigger-ledge, which action may be performed by the finger which operates the trigger.

I claim as new, and desire to secure by Letters Patent—

In combination with the trigger and the trigger-locking plate provided with the inclines *o o*, substantially as described, the spring carried by the trigger and having its end so situated as to engage the inclines on the plate, substantially as and for the purpose described.

AMOS DICKERMAN.

-Witnesses:

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JONATHAN W. POND.