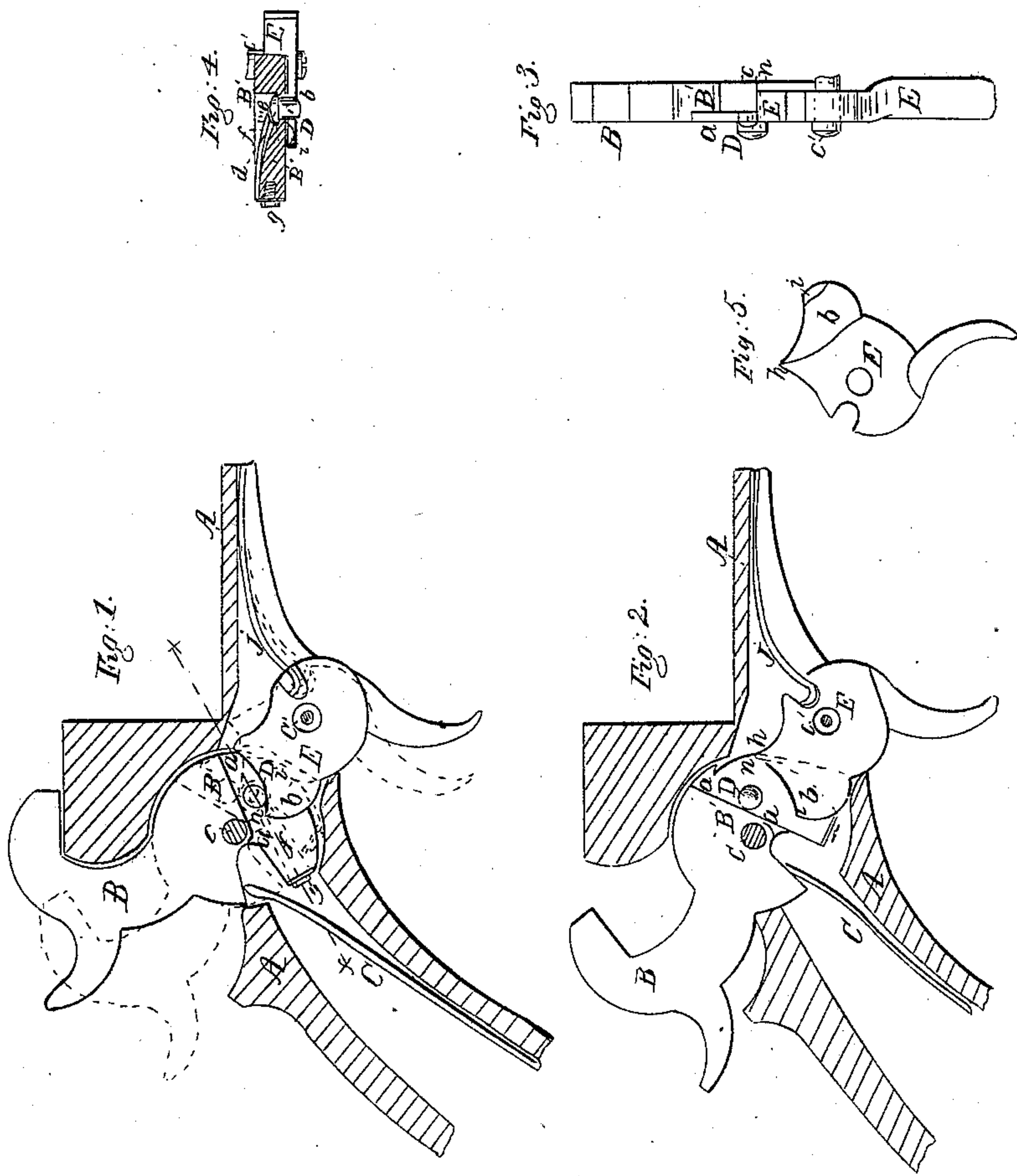


E. T. STARR.

Gun-Lock.

No. 51,629.

Patented Dec. 19, 1865.



Witnesses:  
*Henry J. Brown*  
*W. Coombs*

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# UNITED STATES PATENT OFFICE.

EBEN T. STARR, OF NEW YORK, N. Y.

## IMPROVEMENT IN GUN-LOCKS.

Specification forming part of Letters Patent No. 51,629, dated December 19, 1865

*To all whom it may concern:*

Be it known that I, EBEN T. STARR, of the city, county, and State of New York, have invented a new and useful Improvement in the Locks of Revolving and other Repeating Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 represent vertical longitudinal sections of part of the frame of a pistol and side views of the lock, representing the parts of the latter in different positions. Fig. 3 is a front view of the parts of the lock. Fig. 4 is a transverse section in the plane indicated by the line *x x* in Fig. 1. Fig. 5 is a view of the opposite side of the trigger to that shown in Figs. 1 and 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to the locks of what are known as "self-cocking," "revolving," or "repeating" fire-arms—that is to say, revolving or repeating fire-arms the hammers of which are drawn back for rapidly repeating firing through the agency of the trigger or of a lever under the stock.

It consists in constructing the trigger, the lever for drawing back the hammer, and the sear in one piece—or, in other words, making one piece serve the three purposes of a trigger, a lever for drawing back the hammer, and a sear.

It also consists in certain novel means of combining the hammer with a trigger or a lever which serves the purpose of drawing it back, whereby the hammer is enabled to be both drawn back and let off by the said trigger or lever for rapidly repeated firing, but permitted to be cocked and let off in the common way, when desired.

To enable others skilled in the art to make and apply my invention, I will proceed to describe it with reference to the drawings.

A is the frame of the arm. B is the hammer, working on a pin, *c*, secured in the frame, and having its tumbler B' of the usual form, except that a recess, *a*, is formed entirely across one side, below the pin *c*, to receive a projection, *b*, which is formed upon the corresponding side of the rear portion of the piece E, which serves

as the trigger, the sear, and a lever for drawing back the hammer.

C is the mainspring, applied substantially in the usual manner.

D is a short pin, fitted to work easily in a hole drilled transversely through the tumbler B', below and forward of the pin *c*. This pin is made with a head, *d*, at one end, as shown in Fig. 4, and a rounded point at the other, and inserted from the opposite side of the tumbler to that in which the recess *a* is formed, and this head is received within a recess, *e*, provided in the tumbler on the opposite side to the recess *a*. The said recess *e* also receives a spring, *f*, which is secured to the tumbler by a screw, *g*, and which presses upon the head *d* in such manner as to cause the protrusion of the rounded point of the pin *d* into the recess *a* when it is not pressed back in the opposite direction by other means, as will be hereinafter described. The object of making the pin D with a head, *d*, is to keep it in the tumbler in putting the lock together and taking it apart.

The piece E, which constitutes the trigger, the lever for drawing back the hammer, and the sear, works upon a pin, *c'*, like an ordinary trigger, and only differs essentially from triggers which commonly have the sear *h* made in the same piece in having formed upon it, in rear of the sear *h*, the flat projection *b*, which, when the head of the hammer is down or forward, as shown in Fig. 1 in black outline, (and there is no back pressure of the finger on the lower part of the trigger,) occupies a position just below the pin D. The trigger-spring *j* is applied in front of the trigger, and operates, in the usual manner, to throw forward the lower part of the trigger, upon which the finger acts. The extremity of the projection *b* is beveled on the side next the tumbler, as shown at *i* in Figs. 4 and 5, and in dotted outline in Figs. 1 and 2.

The operation of drawing back the hammer by means of the piece E, or, as it may be termed, the "trigger," is as follows: When the hammer is down or forward, as shown in Fig. 1 in black outline, the drawing back of the trigger by the finger brings the upper edge of the projection *b* into operation on the under side of the parallel portion of the pin D, beyond its rounded point, and so throws the hammer back, as shown in red outline in Fig. 1; but as the hammer arrives near the cocked position the



bevel *i* of the said projection is brought opposite to the pin D, and, by a wedge-like action on the rounded end thereof, pushes the said pin toward the opposite side of the tumbler until the full-cock notch *n* of the tumbler has passed the sear *h*, when the rounded extremity of the pin no longer has any bearing on the said projection, and the hammer is let off, and its striking movement is produced by the mainspring. On relieving the trigger of the pressure of the finger it reassumes the position shown in Fig. 1 in black outline, and the upper edge of the projection *b*, passing below the pin D, allows the latter to be pushed out over it by the spring *f*, so that it will be again operated upon, in the manner above described, to draw back the hammer by drawing back the lower part of the trigger. In this way the operation of firing may be repeated as rapidly as the trigger can be worked by the finger.

When it is desired to cock the hammer in the ordinary way, by direct application of the thumb, for taking a more deliberate and precise aim than is possible in operating it by the trigger, the pin D offers no obstacle, as in the cocking movement the pin D moves upward

away from the projection *b*, as shown in Fig. 1, which represents it at full-cock and the trigger free; and the said pin D offers no obstacle to the striking of the hammer, as it does not require to drop below the upper edge of the projection.

The point of the pin D instead of being rounded might be beveled in a suitable manner to operate in the same way.

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

1. The construction of the trigger, the lever for drawing back the hammer, and the sear in one piece, or, in other words, making a single piece serve the three purposes of a trigger, a lever for drawing back the hammer, and a sear, substantially as herein specified.

2. The employment, for the purposes specified, of a pin, D, applied to work in a hole drilled transversely through the tumbler, substantially as herein set forth.

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Witnesses:

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