

E. C. KIRK.
 Lock for Fire-Arms.

No. 53,306

Patented Mar. 20, 1866.

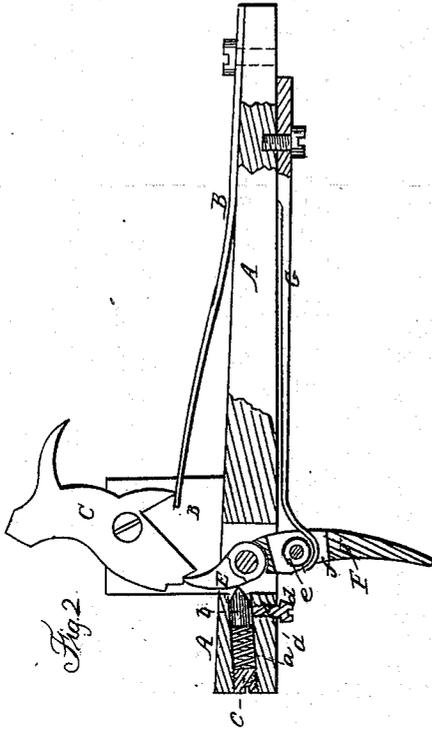


Fig. 2.

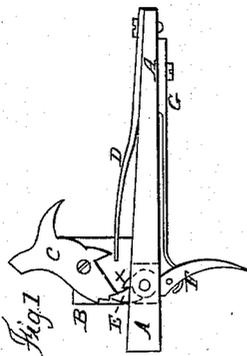


Fig. 1.

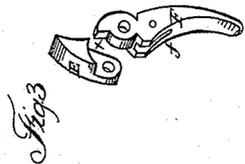


Fig. 3.

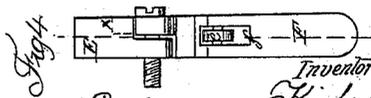


Fig. 4.

Witnesses:

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 David A. Burr
 per H. H. Young

UNITED STATES PATENT OFFICE.

E. CLARENCE KIRK, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN GUN-LOCKS.

Specification forming part of Letters Patent No. 53,306, dated March 20, 1866.

To all whom it may concern:

Be it known that I, E. CLARENCE KIRK, of the city and county of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Locks for Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of a portion of a gun-lock, showing my improved trigger arrangement complete in all its parts. Fig. 2 is a central longitudinal vertical section through the lower portion of a lock-plate on an enlarged scale. Fig. 3 is a perspective view of my improved trigger, detached, showing the swinging catch separate from the lower part of the trigger. Fig. 4 is a front elevation of the trigger complete.

Similar letters indicate like parts in all of the figures.

The nature of my invention consists in the employment of a spiral spring and pin and lower regulating-screw, in combination with a slotted trigger, provided with a roller and upper swinging catch for adjusting with mathematical precision the fineness of touch required to disengage the trigger-catch, and thereby release its hold on the hammer or tumbler, as the case may be.

My improvements relate in a special manner to the peculiar combination and arrangement of mechanism designed to operate the trigger-catch and to determine the forward movement of the upper portion of the trigger, to the end that the same may be made, if desired, the finest hair-trigger, and at the same time admit of such an adjustment as will in all respects perform the offices of an ordinary trigger attached to shot-guns and sporting-rifles.

In the accompanying drawings, A represents the lower portion of a lock-frame, and B a part of the side plate thereof. C is the hammer, operated by the ordinary longitudinal spring D.

In the front face of the bottom plate, A, is drilled or cast a hole to receive a spiral spring, *a*, and pin *b*. The forward end of said hole is provided with a female screw, which receives the thread of the screw *c*. The inner end of

screw *c*, when in position, as shown in Fig. 2 of the drawings, sustains the pressure of the spiral spring *a*, which is employed to press the pointed end of pin *b* against the swinging catch E. The pressure of the pin *b* on the swinging catch is regulated by the adjustment of set-screw *d*. Thus the power required to be applied to the end of the trigger in order to release the swinging catch from the hold it may have on the tumbler or notch in the hammer, is determined by the combined action of the above-described spiral spring *a*, pin *b*, and screws *c* and *d*.

My improved trigger consists of two separate parts, E and F, as clearly shown in Fig. 3 of the drawings. To govern the pressure exerted by the upper portion, *x*, of trigger F on the lower portion of the swinging catch E, I employ a roller, *e*, having its bearings in the sides of the slot *f*, as shown clearly in Fig. 4 of the accompanying drawings. The rear end of the spring G may be secured in the ordinary way to the lower part of the lock-frame, but the forward end of said spring passes through the slot *f*, and is so curved as to overlap the roller *e* (in the position shown clearly in Fig. 2 of the drawings) in such a manner as that the pressure of said spring on the roller *e* will assist in governing and controlling the forward movement of the upper end, *x*, of the trigger F. Thus it will be seen that the counteracting pressure of spiral spring *a* on the swinging catch serves to increase or decrease (according to the adjustment of the screw *d*) the power required to be applied to trigger F in order to release the catch, from the fact that the pressure of spring G on the roller *e* is in conformity with the angle at which the trigger F may be moved to by action of the swinging catch through the agency of pin *b*.

The above-described combination is in every respect simple and effectual, and may be applied to any of the ordinary gun-locks now in use at, comparatively speaking, a trifling cost.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The spiral spring *a*, pin *b*, and screws *c*

and *d*, in combination with the swinging catch E, substantially in the manner and for the purpose herein set forth.

2. The construction and arrangement of roller *e* and slot *f*, in combination with the curved forward end of spring G and trigger F, substantially in the manner and for the purpose herein set forth.

The foregoing specification of my improvements in locks for fire-arms signed by me this 29th day of December, A D. 1866.

E. CLARENCE KIRK.

In presence of—

FRED. B. HOFFMAN,

C. C. ACKERMAN.