M. TROMLY.

Gun-Lock.

No. 24,768. Patented July 12. 1859

Fig. 1.

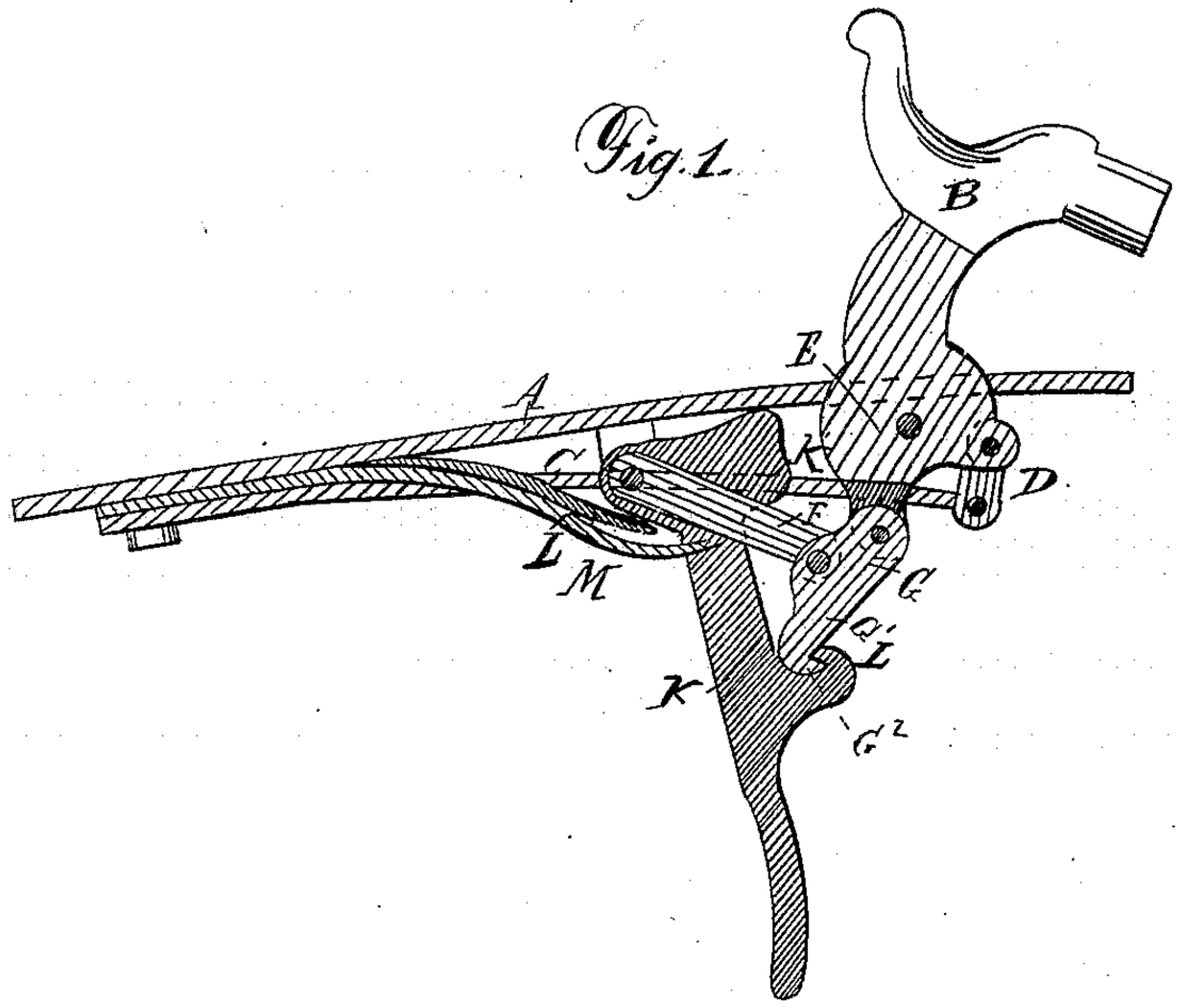
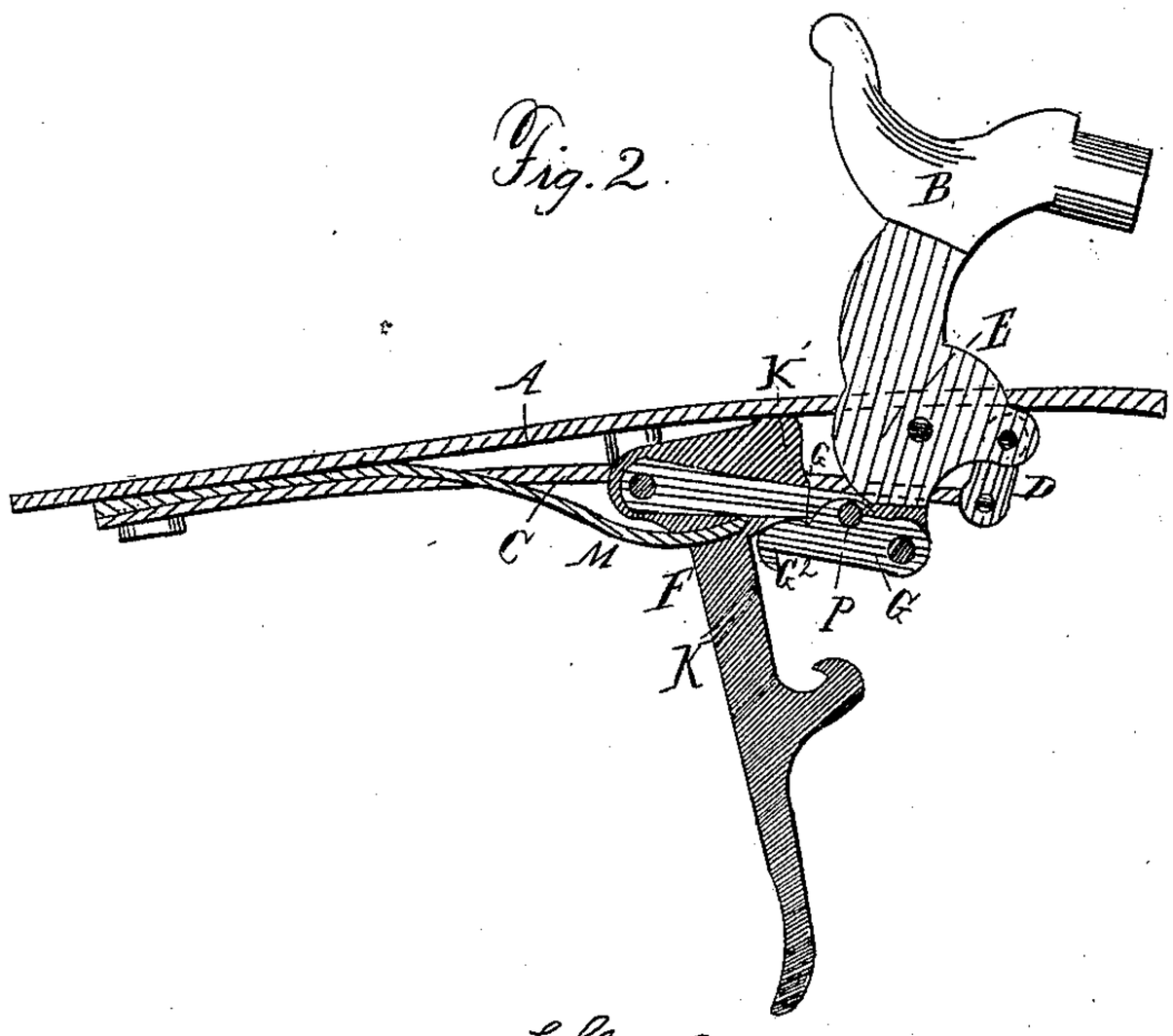


Fig. 2.



Witnesses

Edward M. McAfee

Michael Fromly

UNITED STATES PATENT OFFICE.

MICHAEL TROMLY, OF MOUNT VERNON, ILLINOIS.

IMPROVEMENT IN LOCKS FOR FIRE-ARMS.

Specification forming part of Letters Patent No. **24,768,** dated July 12, 1859.

To all whom it may concern:

Be it known that I, MICHAEL TROMLY, of Mount Vernon, in the county of Jefferson and State of Illinois, have invented a new and useful Improvement in Locks for 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, making part of this specification.

Figure 1 is a side elevation of a lock constructed after my improved plan, the lock-plate being represented in section and the hammer at half-cock. Fig. 2 is a similar view of the same, with the hammer represented at full-cock.

Similar letters in the figures refer to corresponding parts.

This improved lock contains many of the features embraced in the lock patented by me on the 13th day of October, 1857, and its construction is such as to make it impossible for the hammer to descend when placed at half-cock without being previously raised to a full-cock, thereby guarding against accidental discharge when in this position, and to enable the trigger to discharge the hammer with more ease than heretofore.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The lock-plate A of this improved lock, the hammer B, mainspring C, stirrup D for connecting it to the tumbler E of the hammer, and link F of the toggle-joint connection are subtantially similar in construction, arrangement, and operation to the same parts described in my patent before mentioned, and need not therefore be further described. The other link, G, of the toggle is made somewhat similar to the corresponding link of my former lock, with this difference that the claw G′ extends downward therefrom at a more obtuse angle to the line of culmination of the toggle, is rounded at its end, and is formed into a claw-hook, G^2, at this part, of an acute-angular shape exactly corresponding with another hook, I, formed in a reverse position on the front part of the trigger K in such relation to the claw-hook G^2 as to enable the two to become connected together when the hammer is at half-cock, as represented in Fig. 1. The upper flat end of the trigger is extended to the front and the rear, the latter part being rounded and suspended between rigid lugs on the same pin with and beside the end of the link F, while the front part, K′, is extended upward to the lock-plate A, against which its upper edge is constantly held, when the trigger is not pulled, by a spring, L, its lower edge being slightly curved and rounded at the corners to enable it to move freely over the upper curved surface of the claw G′ of the link G when necessary.

The operation of this improved lock is as follows: When the hammer B is down, the toggle is at an acute angle with the claw G′, pointing downward and forward. Upon raising the hammer B the said claw G′ is moved to the rear, and its rounded end comes in contact with the corresponding rounded part of the hook I of the trigger K, which forces the trigger on its pin to the rear, the spring L yielding to allow this movement, until the point of the two hooks G^2 I meet, when the spring L instantly throws the trigger K forward to its former position and causes the two hooks to engage or lock with each other, and thus secure the hammer at half-cock, from which position it will be impossible to discharge it without continuing to raise the hammer to full-cock, no matter what may be the shock or force exerted on the hammer, trigger, or other parts of the lock. Upon continuing to raise the hammer the toggle is brought above the line of culmination of the said toggle, the spring M forcing it upward when it reaches that line, and the curved surface of the claw G′ of the link G is brought against the lower curved edge of the upper widened end, K′, of the trigger K, as represented in Fig. 2, the pin *p*, connecting the two links F G, being represented in the said figure above the position necessary to sustain them in order to make the object they accomplish more manifest. By pulling the trigger K, the curved lower edge of its front widened part, K′, moves over the curved surface of the claw G′ and gradually forces the toggle below the line of culmination, when of course the hammer is caused to descend by the force of the mainspring C. The movement of the curved projecting edge of the trigger K over the curved surface of the claw

G′ the distance necessary to force the toggle below the line of culmination is gradual, and the power necessary to be exerted on the trigger to discharge the hammer is not, therefore, so likely to affect the nerve of the person pulling the said trigger, and to thus distract his aim, as in the ordinary lock.

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

1. The combination of the hooks G^2 I, or their equivalents, respectively formed on the claw G′ of the link G and the trigger K, substantially as described.

2. Widening the upper end of the trigger K so as to form a projection, K′, in front, whose lower curved edge shall operate on the curved surface of the claw G′, in the manner and for the purpose set forth.

MICHAEL TROMLY.

Witnesses:

T. SLOO CASY,

EDWARD MCATEE.