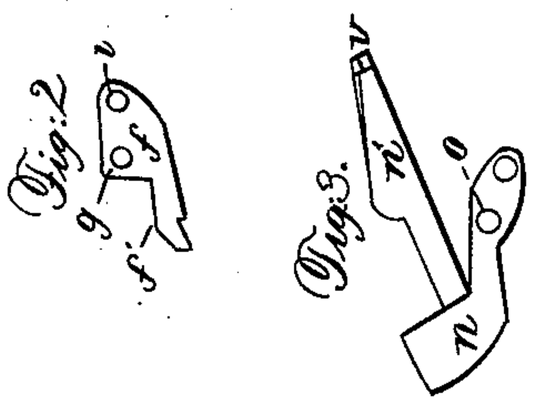
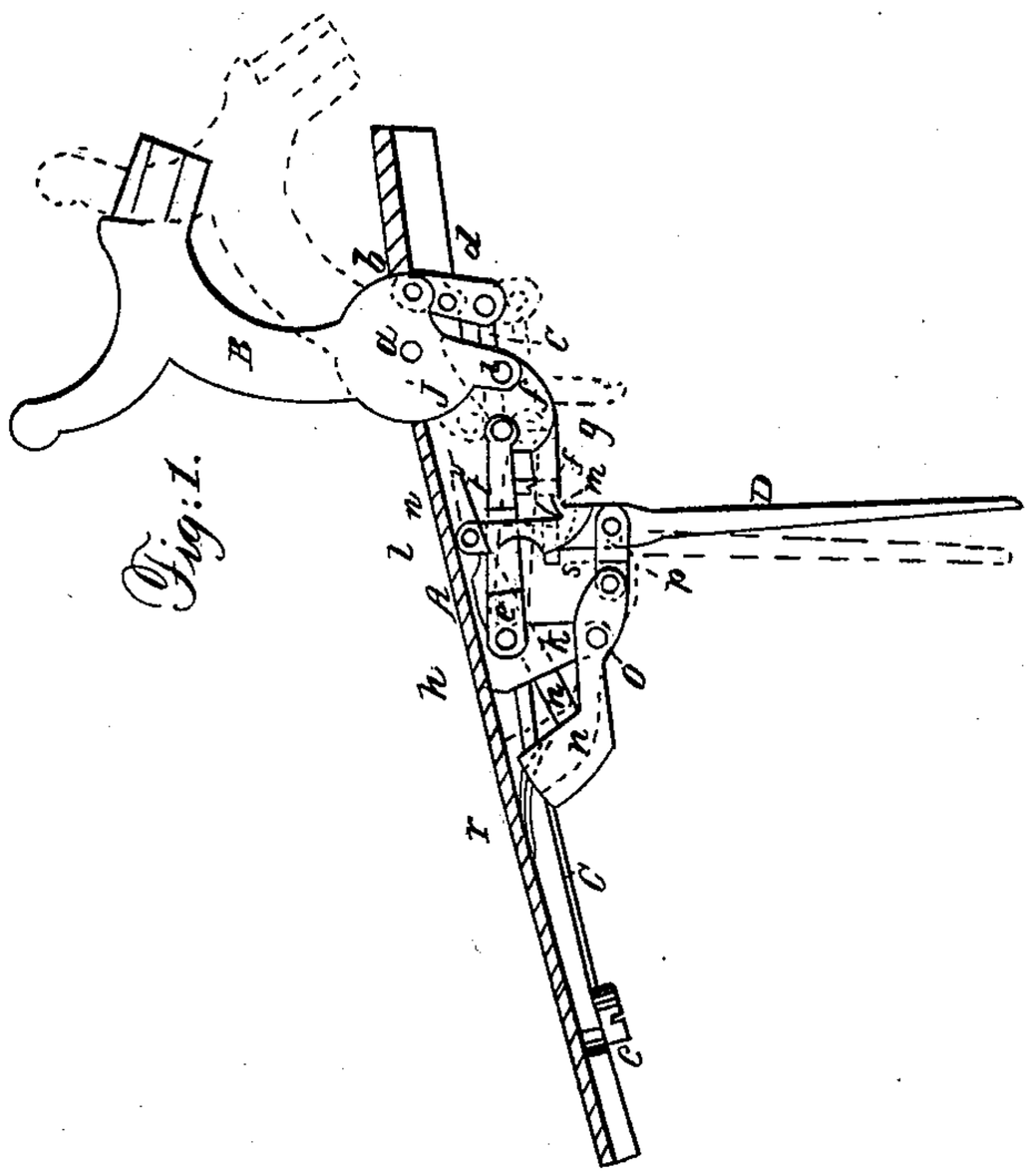
M. TROMLY.

Gun-Lock.

No. 18,418. Patented Oct. 13, 1857.





UNITED STATES PATENT OFFICE.

MICHAEL TROMLY, OF MOUNT VERNON, ILLINOIS.

LOCK FOR FIREARMS.

Specification of Letters Patent No. 18,418, dated October 13, 1857.

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 Improved Lock for Firearms; 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—

Figure 1 represents a longitudinal view of a lock constructed according to my invention; the lockplate being shown in section, but all the working parts entire. Figs. 2 and 3 are side views, of two of the pieces of the lock detached.

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

This invention consists in a certain construction of the locks of firearms, which enables the same trigger to be used either as an ordinary trigger or as a hair-trigger, and which affords greater security against accidental discharge in the use of the hair-trigger than the hair trigger arrangements at present in use.

A, is the lockplate to which all the working parts of the lock are attached, formed to fit to the top of the stock.

B is the hammer, passing through a slot (*b*) in the lockplate and working on a pin *a*, which passes transversely through the slot *b*.

C, is the main spring, attached at one end to the lock-plate by a screw *c*, and connected at the other end by a stirrup *d*, to the tumbler *j*, of the hammer, the latter connection being made in front of the pin *a*.

e, *f*, *g*, is a toggle consisting of two links *e*, and *f*, connected by a joint pin *g*. The link *e*, which is the longest, is connected by a pin *h*, with a rigid lug *k*, on the under side of the lockplate, some distance in rear of the tumbler *j;* and the link *f*, (which is shown by itself in Fig. 2,) is connected by a pin *i*, with the bottom of the tumbler, which is extended downward for the purpose. The latter link *f*, is extended in the form of a claw f^1.

D, is the trigger which consists of a nearly straight lever hanging on a fixed pin *l*, close under the lockplate, between the pin *h*, and the tumbler. It is slotted for the link *e*, of the toggle to pass through, and is formed with a notch *m*, in front, in which the point of the claw f^1, is received, when the hammer is cocked.

n, is a three-armed lever working on a pin *o*, that is held in the lug *k;* and *p*, is a short link connecting the lever *n*, with the trigger.

r, is a small spring attached to the lockplate and pressing on the rear end of the bent lever *n*, thereby exerting a tendency to straighten the joint between said lever and the link *p*, and thus to force forward the trigger so that the notch *m*, may retain the claw f^1, when the hammer is cocked.

s, is a regulating screw, screwing through the trigger above the notch *m*, for the purpose of regulating the distance which the claw f^1, is allowed to pass into the said notch, or setting the trigger to act with more or less delicacy of touch as an ordinary trigger.

t, is a screw in the link *e*, to stop the claw f^1, rising high enough to allow the joint pin *g*, of the toggle, to pass the line of culmination between the centers of the pins *h*, *i*, when the trigger is to be used as an ordinary trigger.

The operation of the lock with the trigger used as an ordinary trigger is as follows: When the hammer is down, the toggle *a f g*, is bent almost at a right angle, and the claw f^1, of the link *f*, points downward as shown in red outline in Fig. 1; but as the hammer is raised to cock it, (the cocking being effected in the same manner as with a common gun-lock by pulling the hammer,) the joint of the toggle comes nearly to a straight condition and the claw f^1 is thrown back till it rises as far above the notch *m*, as is permitted by the screw *t*, which serves as a stop to it; said claw pushing back the trigger slightly to pass into notch *m*. The trigger is, however, forced forward by the action of the spring *r*, to catch the claw as soon as it passes the edge of the notch, and the hammer is held cocked (as represented in black outline) till the trigger is pulled to set free the claw f^1, and let the hammer fall. To set the lock so as to make the trigger operate as a hair trigger, the screw *t* is screwed up high enough to allow the joint pin *g*, of the toggle, when the hammer is brought up to the position of full cock, to pass just above the line of culmination

between the pins *h*, and *i*, in which condition of the joint the hammer cannot fall without bending the toggle still more in the same direction, but the further bending of the toggle is prevented by the screw *t*, serving as a stop to prevent the further rise of the claw f^1. By pulling the trigger very slightly while the lock is in this condition with the hammer cocked, the link *p*, is caused to move the lever *n*, so that the projection *v*, of the third arm n^1, of the said lever *n*, is caused to press upon the top of the link *e*, of the toggle, and depress the joint of said toggle below the line of culmination between *h*, and *i*; and the instant the joint passes this line, the action of the spring upon the toggle is reversed, and the toggle is allowed to bend freely downward, thus permitting the hammer to fall. This makes a very safe hair-trigger.

I do not claim the employment of a toggle-joint connection, applied to a hair-trigger. But

What I claim as my invention, and desire to be secured by Letters-Patent, is:—

The combination of the tumbler *j*, toggle *e f g*, trigger D, link *p*, lever *n*, spring *r*, screw *t*, and claw f^1, or its equivalent, whether used as a hair-trigger arrangement without the use of a notch *m*, in the trigger, or with the notch *m*, as an ordinary trigger, substantially as herein described.

MICHAEL TROMLY.

Witnesses:
NOAH JOHNSTON,
N. C. PACE.