R. D. HAY.

Gun Lock.

No. 109,514. Patented Nov. 22, 1870

Fig. 1.

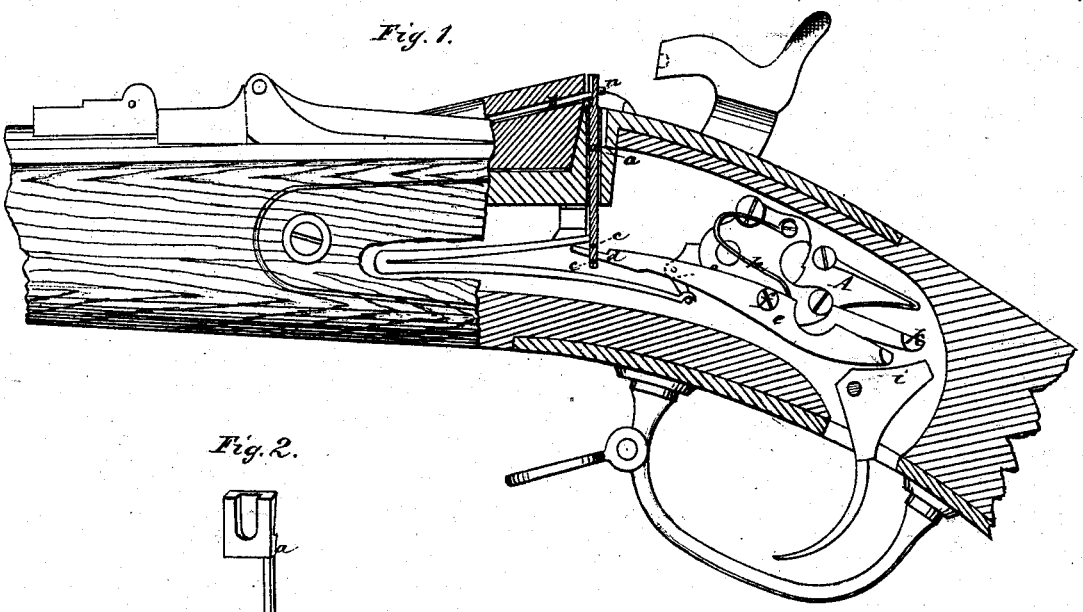
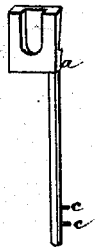


Fig. 2.



Witnesses:

H. J. Stretch

Thos. D. D. Curacao

Inventor:

Randall D. Hay.

Per Munn & Co

Attorneys.

United States Patent Office.

RANDALL D. HAY, OF CROOKED CREEK, NORTH CAROLINA.

Letters Patent No. 109,514, dated November 22, 1870.

IMPROVEMENT IN GUN-LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, RANDALL D. HAY, of Crooked Creek, in the county of Stokes and State of North Carolina, have invented a new and improved Safety-Guard for Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a sectional elevation.

Figure 2 is a side elevation of the guard.

This invention has for its object to prevent the premature discharge of fire-arms and the accidents continually resulting from this cause.

The invention consists in a guard that automatically interposes itself between the hammer and nipple of an ordinary muzzle-loader, or between the firing-pin and the metallic cartridge in needle breech-loaders, or between any two parts in a fire-arm, whatsoever they may be, which, by striking together, produce an explosion of the charge, such interposition taking place whenever said parts are separated; the said guard being automatically withdrawn by the operation of the trigger from between the nipple and the hammer, considered as types of the aforesaid parts, previous to the falling of the latter upon the former in the process of discharging the piece; the said guard being retractible in no other way than by means of the trigger, and being always on the nipple, so as to prevent the communication of the spark to the charge whenever the hammer accidentally falls; the said guard also serving as a latch to hold the breech-block, in breech-loading guns, in place.

In the drawing—

a is the guard, the same consisting of a steel-pin, and placed in a vertical chamber formed in the breech for its reception, said guard having flanges at its sides near its upper end, which flanges project past at each side, and protect the nipple *b;* said guard being also provided with two pins, *c c*, that extend from one side, near its lower end, between which pins is placed an arm, *d*, that projects from the front end of a lever, *e*, that is pivoted at *f* to one side of the breech-chamber A, near the bottom of the same.

A spring, *h*, attached at one end to the side of the chamber A, above the lever *e*, bears at its other end upon the upper side of the said lever at a point in rear of the fulcrum *f* of the same, and thus tends to keep the front arm of the lever *e* constantly elevated, which tendency causes the guard *a* to slip over the nipple *b* whenever the hammer is raised, the upper end of the guard *a* being always pressed against the lower side of the hammer when the latter is resting on the nipple or cap.

Hence, if the hammer is let fall before cocking, or is accidentally disengaged from the discharging mechanism at half or full cock, it strikes the guard instead of the cap, and produces no premature explosion.

The rear end of the lever *e* bears upon the upper concave surface of the trigger *i*.

When the trigger is pulled it first elevates the rear end of the lever *e* far enough to withdraw the guard *a* from over the nipple.

It then strikes the dog *k*, and causes it to liberate the hammer by the usual mechanism.

Before the hammer reaches the cap, the guard *a* is entirely withdrawn from over it, and no obstacle is interposed to the discharge of the piece.

As soon as the trigger flies back to the proper position for the next discharge, the rear arm of the lever *e* descends, and the guard *a* rises into contact with the under side of the hammer, ready to slip over the nipple again as soon as the hammer is sufficiently raised.

From the foregoing description, it should be clear that the guard *a* operates perfectly as a safety device, being always on the nipple when it is needed there, and off the nipple when it should be elsewhere.

In order to prevent the guard from being withdrawn from between the breech-block and hammer by forcibly pulling the trigger, the guard is formed with a small conical projection, *n*, on the rear side of its upper part, and a corresponding recess is formed in the face of the hammer, which recess is occupied by the projection *n* when the hammer is in contact with the guard.

A groove is formed in the breech for the projection *n* to travel through as the guard is drawn downward.

The guard *a* may also be made to operate as a latch to hold the breech-block of a breech-loading fire-arm in place, preventing the lifting of the latter until such time as the guard is withdrawn by the trigger.

Having thus described my invention,

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

The guard *a*, sliding within the breech, and combined with the spring-lever *e* and trigger *i*, in the manner and for the purpose described.

RANDALL D. HAY.

Witnesses:

Z. S. ALLEY,

S. B. ZIGLAR.