No. 720,775. PATENTED FEB. 17, 1903.

F. A. BECKWITH.

FIREARM.

APPLICATION FILED MAR. 15, 1902.

NO MODEL.

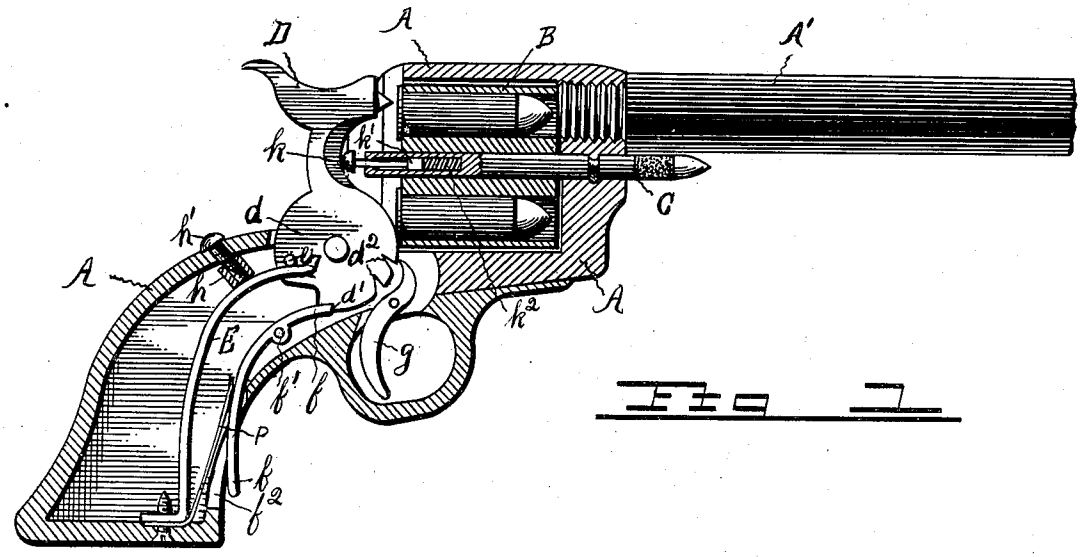


Fig. 1

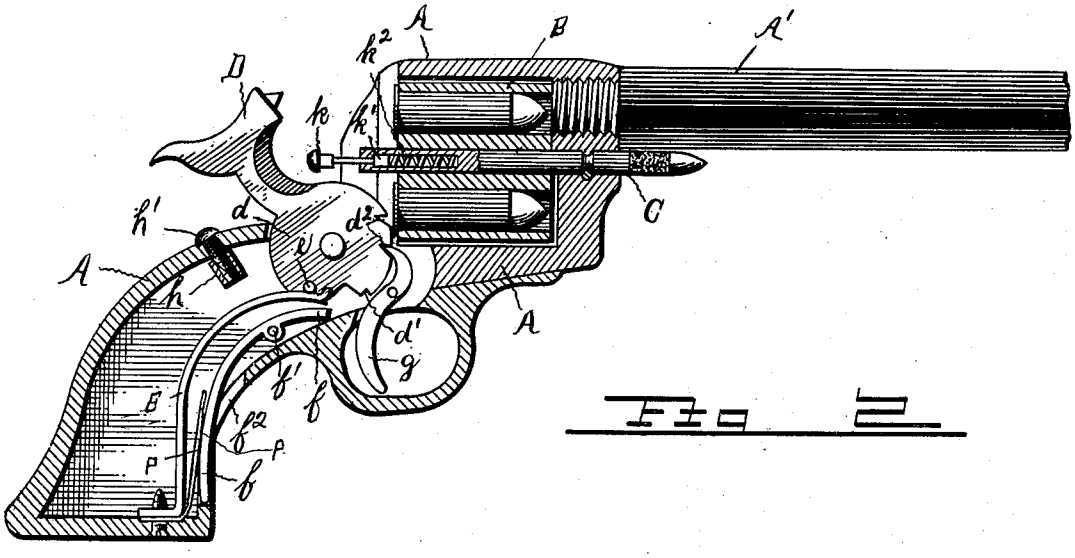


Fig. 2

Witnesses

Jno. W. Maupin.

L. L. Black.

Inventor

Frank A. Beckwith

per Lehmann & Dalton

Attorneys

UNITED STATES PATENT OFFICE.

FRANK A. BECKWITH, OF EVANSTON, WYOMING.

FIREARM.

SPECIFICATION forming part of Letters Patent No. 720,775, dated February 17, 1903.

Application filed March 15, 1902. Serial No. 98,424. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. BECKWITH, a citizen of the United States, residing at Evanston, in the county of Ninta and State of Wyoming, have invented certain new and useful Improvements in Firearms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to various firearms, the object being to improve certain details of construction in devices of this class and provide a safety device to prevent inadvertent discharge of the arm unless the conditions are such as to insure that the arm is being properly handled.

Another object is to provide means to relieve the hammer of the pressure of the mainspring after it has reached a certain point in its downward course and provide the cylinder-pin with a rebounding catch-pin which holds the hammer disengaged from the cylinder, so that the arm may be carried with the hammer down without danger of the firing-pin coming in contact with the primer; and the invention further consists in the peculiar construction, combination, and arrangement of parts, as will be more fully described hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation and partial central longitudinal section, the hammer being shown as down with the safety-catch engaged by the hub of the hammer. Fig. 2 is a similar view to Fig. 1, but showing the hammer cocked and the safety-catch in a position to permit the discharge of the arm when the trigger is pulled.

Like characters of reference indicate corresponding parts in the different views.

In the drawings, A designates the frame of the firearm; A′, the barrel; B, the cylinder; C, the cylinder-pin; and D the hammer. All these parts are common to all firearms, and I will now describe the improved parts which enable me to accomplish the objects above pointed out.

The mainspring E is secured to front strap of the handle and its free end engages the pin *e* in the hub *d* of the hammer. The periphery of the hub *d* is provided with a notch *d′*, which is adapted to be engaged by the end of a safety-lever *f*, pivotally mounted in the handle at *f′* and having its lower end projected through an opening f^2 in the front face of the handle. The lower end of this safety-lever will be normally held projected through the opening f^2 by a spring P, and thus the upper end will be raised and in the course followed by the notch *d′* in the periphery of the hub *d*, so that should the hammer be inadvertently released by the trigger by dropping to the ground or other accident the upper end of the lever *f* will engage the notch *d′* and arrest the downward course of the hammer, so that it will not be allowed to contact with the cartridge. This position of the hammer and the safety-lever is shown in Fig. 1. When, however, the arm is being properly handled and it is desired to discharge the same, the projected end of the lever *f* will naturally be thrown inward by some of the fingers of the hand of the shooter, since it is in a convenient position to be grasped thereby, and the upper end of the lever, being thrown downward to the position shown in Fig. 2, is now out of the path of the notch *d′*, which will be allowed to pass the end of the safety-lever and the hammer to engage the cartridge.

The hub *d* of the hammer is provided with the usual full and half cock notch d^2, to be engaged by the trigger *g* in the usual manner.

In the upper wall of the handle there is mounted an adjustable plug *h*, engaged by a screw-threaded stud *h′*, which may be manipulated from the exterior of the handle. This plug *h* is engaged by the free end of the mainspring E when the hammer is released to discharge the revolver and releases the former of the pressure of the mainspring after it has reached a certain point in its flight, the momentum of the hammer being sufficient to discharge the revolver. In Fig. 1 the mainspring is shown as engaged with the plug *h* and the hammer in a position when it is relieved of the pressure of the mainspring, but held disengaged from the cartridge by the rebounding catch-pin *k*, mounted in the

end of the cylinder-pin C. This rebounding catch-pin consists of a shank portion, the end of which is provided with a head k', reciprocally mounted in the bored end of the cylinder-pin, and is normally held projected outwardly by means of a coil-spring k^2.

Presuming the parts to be in the position shown in Fig. 2, with the safety-lever f restrained from movement, so that its lower end will by means of the spring P fall through the opening f^2, and the revolver is dropped or the trigger by some accident is disengaged from the hub of the hammer, the hammer of course would immediately be thrown forward to discharge the revolver, but its movement will be arrested by the end of the safety-lever f engaging with the notch d' in the hammer and the firing-pin will be prevented from engaging the cartridge. When it is desired to carry the revolver with the hammer down, the rebounding catch-pin k will engage the hammer and hold it from contact with the cylinder and the cartridge, as the pressure of the mainspring has been released from the hammer by means of the plug h. When, however, it is desired to discharge the projectile, the handle of the revolver being grasped by the shooter will cause the projected end of the safety-lever f to be forced inward and its upper end downward out of the path of the notch d', and when the trigger is pulled the mainspring will immediately throw the hammer forward. The strength of the mainspring gives the hammer such a velocity as to overcome the tension on the little coil-spring k^2 in the end of the cylinder-pin, and the safety catch-pin does not in the least retard the movement of the hammer. The hammer in its rapid flight will continue its forward movement after the free end of the mainspring has engaged the plug h. The plug h is adjustable and can be entirely removed by unscrewing the stud h', and this may be found necessary when a charge requiring greater force to explode it is used.

The fundamental features of the invention involved in the novel construction and arrangement of parts are necessarily susceptible to a wide range of modification without departing from the spirit or scope of the invention or sacrificing any of the advantages thereof, as the improvement is applicable to various makes of firearms—such as Colt, Winchester, and Marlin rifles—and, in fact, to any arm in which it might be possible to introduce the safety-lever without interfering with the other operating mechanism. Thus it will be understood that I do not wish to limit myself to the construction illustrated in the drawings, wherein my improvement is applied to the ordinary revolver.

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

1. The combination with the mainspring and the hammer having a notch formed in the hub thereof, of a lever pivoted in the handle and adapted to have its upper end normally projected in the path of the notch to arrest the forward movement of the hammer, a stop for limiting the movement of the mainspring, and a pin normally held projected from the end of the cylinder-pin to hold the hammer from engagement with the cartridge.

2. A firearm having a hammer and a mainspring, a plug fitted in the upper wall of the handle to receive the pressure of the mainspring after the hammer has reached a certain point in its forward movement, combined with a rebounding catch-pin mounted in the end of the cylinder-pin to hold the hammer disengaged from the cartridge when it is relieved of the pressure of the mainspring, substantially as set forth.

3. In a firearm of the class described, the handle having a slot and a lever pivoted therein, one end of which is adapted to normally lie projected through said slot, the hammer having a notch formed in its hub to be engaged by the upper end of the lever when the latter is projected through the slot, combined with a plug fitted in the upper wall of the handle to relieve the hammer of the pressure of the mainspring and a rebounding catch-pin mounted in the end of the cylinder-pin to hold the hammer from engagement with the cartridge when the former is relieved of the pressure of the mainspring, substantially as described.

4. A firearm having a plug mounted in the upper wall of its handle and adapted to be engaged by the mainspring to relieve the hammer of the pressure of said spring, combined with a rebounding pin mounted in the cylinder-pin and adapted to be engaged by the hammer to hold the latter from engagement with the cartridge.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK A. BECKWITH.

Witnesses:
FRED WILLIAM BECKWITH,
LEONARD PORTER ALGER.