N. PIEPER.

FIREARM.

APPLICATION FILED NOV. 23, 1908.

927,070. Patented July 6, 1909.

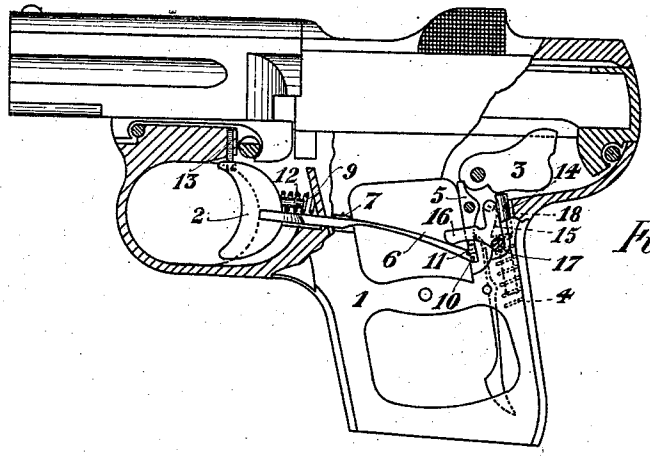


Fig. 1.

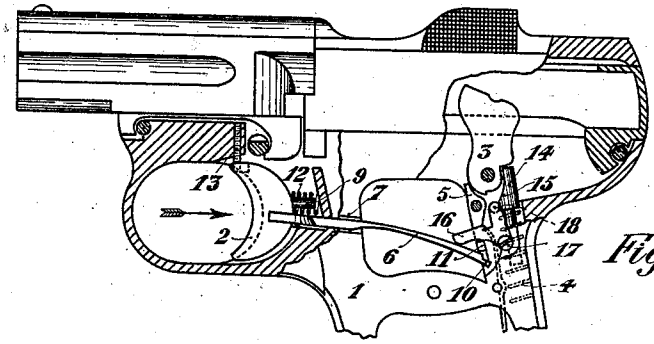


Fig. 2.

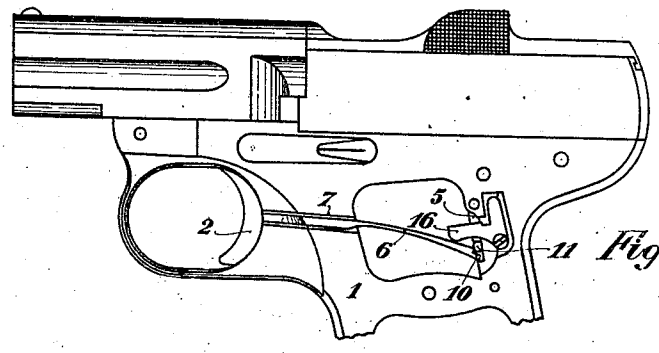


Fig. 3.

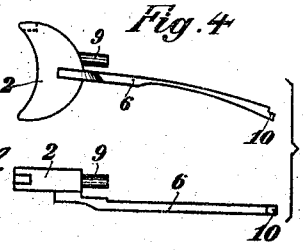


Fig. 4.

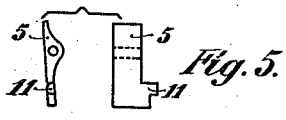


Fig. 5.

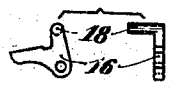


Fig. 6.

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UNITED STATES PATENT OFFICE.

NICOLAS PIEPER, OF LIEGE, BELGIUM.

FIREARM.

No. 927,070. Specification of Letters Patent. Patented July 6, 1909.

Application filed November 23, 1908. Serial No. 464,015.

To all whom it may concern:

Be it known that I, NICOLAS PIEPER, subject of the King of Belgium, and residing at Liege, Belgium, have invented certain new and useful Improvements in Firearms; and I hereby 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.

This invention has reference to automatic fire-arms of that type in which the connection between the trigger and the sear of the lock is made by a limb or stirrup and has for its object to provide improved mechanism, which effects, in a positive manner, the disengagement between the sear and its operating or connecting bar on the hammer being thrown forward, thereby preventing the untimely or inadvertent discharge of the whole of the cartridges contained in the magazine should the pressure of the finger on the trigger be maintained after a shot has been fired.

The said invention is particularly applicable to automatic pistols in which the lock comprises a hammer and a spiral main-spring located in the rear part of the frame or body of the arm.

In the accompanying drawings, Figure 1 is an elevation, partially in section, of a pistol embodying the invention, the same being shown with the hammer cocked and the sear-connecting bar in engagement with the trigger. Fig. 2 is a similar view, but shows the positions assumed by the parts on the trigger being pulled; the hammer being thrown forward and the connecting limb disengaged from the sear. Fig. 3 is an elevation of the same mechanism. Fig. 4 shows, separately, and in elevation and plan, the trigger and its connecting limb. Fig. 5 shows, separately, in side and front elevations, the sear of the same pistol, while Fig. 6 shows similar views of the lever by which the disengagement of the connecting bar is effected.

Referring to the construction shown in Figs. 1 and 2, 4 5 and 6, the pistol consists essentially of a frame or body 1, carrying the barrel and breech-slide, and having pivoted, at its fore part, the trigger 2, while the rear portion of said body is fitted with the hammer 3, the main or firing spring 4 and the sear 5. The connecting limb 6 acts as its own spring, being either made in a piece with the trigger 2 (Fig. 4) or rigidly fixed to the latter, while its rearward end is provided with a notch or recess 10 which engages the lateral projection 11 of the sear 5, and which is constantly maintained against said projection by the spring action of the limb. The groove 7, in which the spring limb 6 has its sliding movement, is formed from the outside in the lateral face of the body in such a manner that no mortising work is required and that the spring may be introduced sidewise into its place in the said body. The trigger 2 is provided at the rear, with a small rod 9 which is surrounded by a spring 12 whose tendency is to force the trigger in the forward direction to an extent which is limited by a small screw 13 attached to the upper part of the body in the path of the said trigger. The firing spring 4 acts on the hammer through the medium of a plunger 14 whose guide rod or stem is surrounded by the said spring, while its head is cut away obliquely at the front to provide an inclined surface at 15.

The disengaging action is produced by the cranked lever 16 (Fig. 6) which is pivoted in the body so as to rock about an axis 17. One arm of this disengaging lever has its bearing on the upper edge of the connecting limb 6, while the other arm carries a pin or projection 18, which is made to bear against the inclined head 15 of the firing-spring plunger 14, by the action of the spring part of the connecting limb. By virtue of this arrangement, when the hammer 3 is cocked, the plunger head 14 is maintained, by the compressed firing spring, in the depressed position shown in Fig. 1, in such a manner that the stud 18 on the one arm of the disengaging lever 16 lies at the top of the inclined plane 15, while the other arm lies in such a raised position relative to the limb 6 as to admit of the notch 10 of the latter part engaging with the sear projection 11. On the other hand, when the hammer is released and swings to discharge the arm, the plunger is raised, its inclined plane 15 acts upon and rocks the disengaging lever so that the horizontal arm of the latter makes a downward angular movement and so bends or deflects the spring or flexible end of the connecting limb into a position in which it cannot possibly reëngage with the sear until the hammer has been again cocked.

It is obvious that the mechanism in which the disengaging action is obtained from the hammer or firing spring is also applicable to other arms having locks similar to those

above described but differing in their general arrangement.

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

1. In a firearm of the character described, the combination with a firing hammer, a sear, a trigger, a connecting limb adapted to be actuated by the trigger to disengage the sear, and hammer, and a spring for impelling the hammer forward when released by the sear, of a pivotally mounted disengaging piece supported independently of the hammer and adapted to be rocked by the action of said spring and to vary the relative positions of the connecting limb and sear, whereby the latter will reëngage and detain the hammer in its rearward position even if the trigger is not released.

2. In a firearm of the character described, the combination with a firing hammer, a sear, a trigger, a connecting limb adapted to be actuated by the trigger to disengage the sear and hammer, and a spring for impelling the hammer forward when released by the sear, of a pivotally mounted bell crank having one arm extending into engagement with a portion of the connecting limb and another arm arranged to receive pressure exerted by the hammer spring, whereby when the hammer is moved forward by said spring the connecting limb will be disengaged from the sear, substantially as and for the purpose described.

3. In a firearm of the character described, the combination with a firing hammer, a sear, a trigger, and a connecting limb adapted to be actuated by the trigger to disengage the sear and hammer, of a spring pressed plunger engaging the hammer and acting to move it forward, and an adjustable disengaging piece having a member extending into the path of said plunger and a member adapted, as said piece is rocked by the plunger, to vary the relative positions of the sear and connecting limb to permit the sear to reengage the hammer before the trigger is released.

4. In a firearm of the character described, the combination with a firing hammer, a sear, a trigger, and a connecting limb adapted to be actuated by the trigger to disengage the sear and hammer, of a spring pressed plunger engaging the hammer and acting to move it forward, and an adjustable disengaging piece having a member bearing against a cam surface on said plunger, whereby it will be moved from one position to another as the hammer moves forward, and adapted to vary the relative positions of the sear and connecting piece by such movement, substantially as and for the purpose described.

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

NICOLAS PIEPER.

Witnesses:

H. A. JOHNSON,

HENRI BARBE.