

UNITED STATES PATENT OFFICE.

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FIREARM.

No. 818,721.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH H. WESSON, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Firearms, of which the following is a specification.

This invention relates to firearms, the object thereof being to provide an improved construction of so-called "rebounding" mechanism for the hammer, but in this case more properly termed a "retracting" device for the hammer, inasmuch as the movement is positive, the object particularly being to effect the interposition between the hammer and the frame of a solid blocking-piece actuated by the return of the trigger to normal position after firing; and having these ends in view the invention consists in a wedge-block carried by the hammer and intermediate means between the latter and the trigger and lying in the path of movement of a part of the latter whereby as the trigger returns to normal position after the cocking action it will engage said means and actuate said wedge-block to retract the hammer.

The invention is fully illustrated in the drawings, in which—

Figure 1 is a side elevation of a revolver with certain parts broken away to show the application of the invention in its relation to the hammer and trigger, the hammer being in a retracted position. Fig. 2 is a view similar to Fig. 1, but showing the parts in a different position, the hammer being raised as in the act of firing. Fig. 3 is a view similar to the others, but showing the hammer down as at the moment of firing and before the pressure on the trigger has been released, whereby the actuation of the wedge-block is effected.

Like letters of reference refer to like parts in the various figures.

a is the frame of the arm, in which the hammer *b* is pivotally supported, as at *c*, in the usual manner.

d is the mainspring.

e is the trigger pivoted in the frame at *f*.

g is the trigger-spring, the trigger-arm *h* being pivoted in the frame to bear by one end on the trigger, the trigger-spring acting on the opposite end thereof, all arranged in suitable manner to yieldingly hold the trigger in its forward position shown in Fig. 1. On the hammer is the usual cocking-lever *j*.

The hammer-retracting mechanism which forms the subject of the present application consists in a sliding member *m*, preferably let into a depression milled in the side of the hammer, the forward end of this member being formed in the shape of a wedge, as indicated at *o*, located in the front face of the upper end of the hammer, a suitable spring *p* (shown only in dotted lines) being applied to this "sliding wedge-block" (by which term it will be hereinafter referred to as a whole) to force it into the frame when free to do so and flush with said front face of the hammer.

On the pivot-pin *c* of the hammer the lever *q* is loosely supported, which lever is also let into a depression to bring it flush with the side of the hammer, and one end of this lever bears on the inner end of the sliding wedge-block, and the opposite end extends forwardly into a position to intercept the path of movement of the projection *r* on the trigger, which engages the cocking-lever *j* as the trigger swings forwardly after retraction.

The foregoing description of the location of the wedge-block *o* shows that in its retracted position—that is, when it is forced inwardly, as in Fig. 3—the forward edge of the wedge portion *o* will be flush with the face of the upper forward end of the hammer, and therefore when the hammer falls this forward edge of the wedge-block will lie close to the beveled face *t* on the frame against which the hammer brings up in firing position, and hence when the wedge-block is actuated by the trigger-spring and is forced in between this face and the hammer the latter will be carried back to the position shown in Fig. 1, and because of the relatively slight bevel on the wedge-block no pressure to which the hammer could be subjected to force it toward the cylinder would be effective to do so, for the reason that when the wedge-block is in the position shown in said figure (which is its operative position) there is always applied to the end thereof to hold it in place the pressure of the trigger-spring acting, as shown in said figure, through the arm *h*, which depresses the rear edge of the trigger and holds the projection *r* thereon against the forward end of the lever *q*, whereby the other end of this lever is forced against the wedge-block.

It will be observed by referring to Fig. 3 that when the trigger is retracted far enough to cause it to slip off the cocking-lever *j* and allow the hammer to fall it also moves out of

contact with the forward end of said lever *g*, and therefore leaves the spring *p* free to act on the wedge-block to draw the latter back flush with the face of the hammer, to the end that when the latter falls the nose on the latter may reach the primer of the cartridge.

Referring to Fig. 2, it will be seen that while at the moment the hammer is released the beveled edge of the wedge-block extends beyond the face of the hammer; this is only momentary and is due to the fact that the extreme backward throw of the hammer brings the forward end of the lever *g* into contact with the trigger; but as soon as the hammer is tripped the spring *p* will retract the wedge-block before the hammer reaches the limit of its downward movement, this inward movement of the wedge-block serving to swing the forward end of the lever *g* upward into position to be engaged by the part *r* of the trigger as the latter swings back to normal position in the manner described.

Of course the devices for retracting the hammer would be operated in precisely the same manner as herein described if the hammer were cocked by hand to effect the engagement of the full-cock notch *w* and the edge of the projection *r* on the trigger.

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

1. In a firearm, a frame, a hammer pivotally mounted therein, a trigger, a wedge-block slidably mounted on the hammer, and a pivoted lever extending between the inner end of the wedge-block and a part of the trigger whereby the movement of the trigger toward its normal position after the firing operation will swing said lever to move said wedge-block to a position between the forward edge of the hammer and the frame to retract the hammer.

2. In a firearm, a hammer, a wedge-block slidably mounted thereon and extending to the face of the hammer, a spring between the hammer and the wedge-block to hold the latter normally flush with said hammer-face, and means actuated by a movement of the parts after the firing operation to force said wedge-block beyond the face of the hammer against a suitable abutment to retract the hammer from its firing position.

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Witnesses:

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