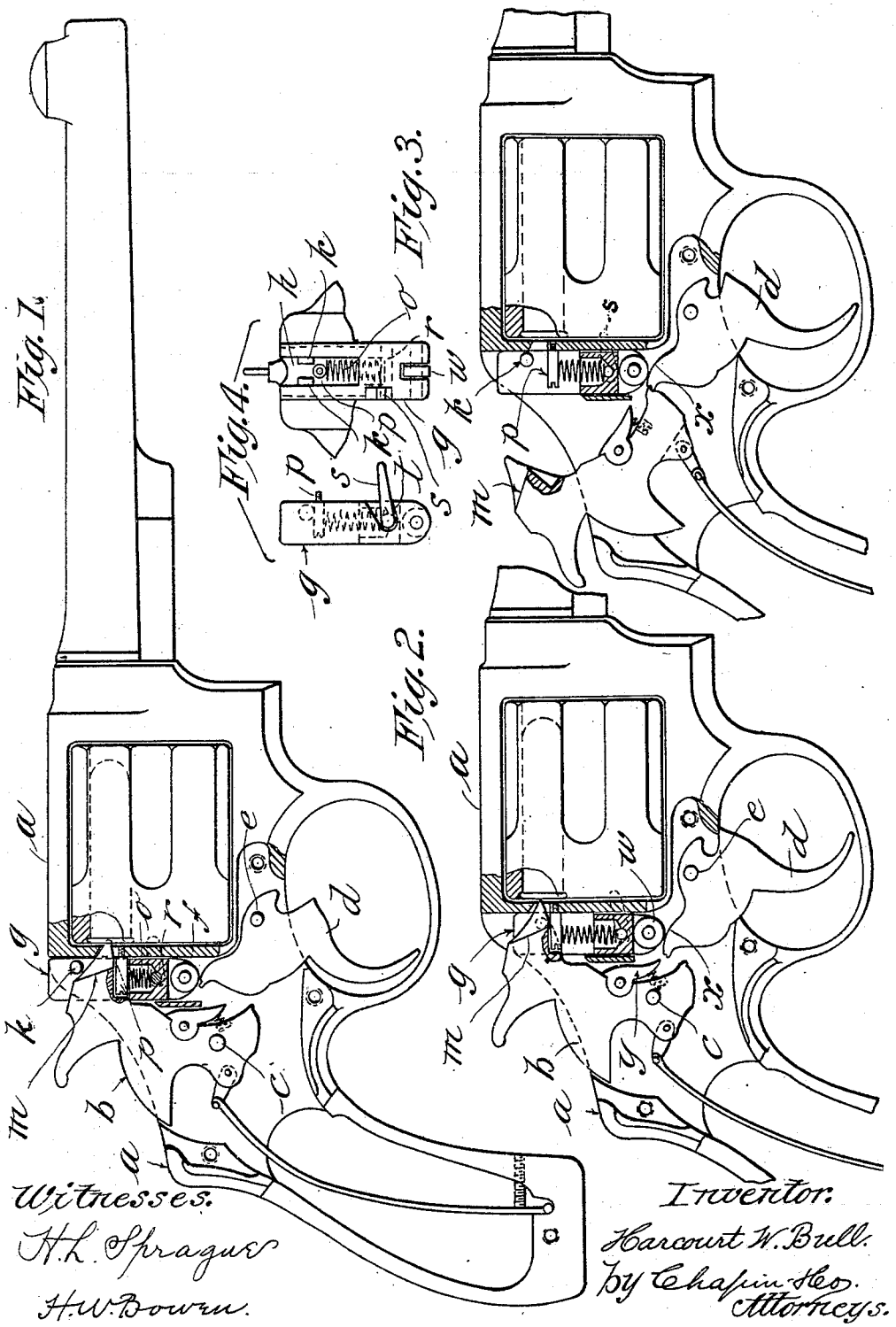
No. 855,227. PATENTED MAY 28, 1907.

H. W. BULL.

HAMMER RETRACTING DEVICE.

APPLICATION FILED DEC. 5, 1906.



THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HARCOURT W. BULL, OF SPRINGFIELD, MASSACHUSETTS.

HAMMER-RETRACTING DEVICE.

No. 855,227. Specification of Letters Patent. Patented May 28, 1907.

Application filed December 5, 1906. Serial No. 346,407.

To all whom it may concern:

Be it known that I, HARCOURT W. BULL, 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 Hammer-Retracting Devices, of which the following is a specification.

This invention relates to improvements in firearms and has special reference to revolver construction, the object of the invention, broadly stated, being to provide means to retract the hammer after the fall thereof and block the hammer in a retracted position to the end that accidental discharge of the arm by means of a blow on the hammer is rendered impossible; a further object of the invention lies in the provision of a hand mounted on the hammer-retracting device to effect the rotation of the cylinder upon the movement of said device in one direction.

Having these ends in view, the invention consists specifically in the provision of a block mounted between the recoil-plate and the hammer and vertically slidable relative thereto and provided with a spring to hold it in operative relation to the trigger, the latter serving to move the block in one direction and its spring serving to move it in the opposite direction, said spring constituting also a trigger spring, the hand being mounted on said block.

In the drawings forming part of this application,—Figure 1 is a side elevation of the revolver (from which the side plate has been removed,) to which the invention has been applied, certain parts being shown in section to more clearly illustrate their construction. This view shows the relation of the hammer, the trigger, and the retracting device at the moment of firing. Fig. 2 is a similar view of that part of the arm to which the invention is applied showing the position of the hammer, the trigger, and the retracting device after the latter has been actuated by its spring to retract the hammer and to restore the trigger to its normal position. Fig. 3 is a view similar to Fig. 2 showing the hammer in cocked position, as when cocked by the thumb. Fig. 4 shows two views of the retracting device,—that on the left being a side elevation, as seen in Fig. 1, and the other being a rear elevation,—these two views showing very clearly the location of the spring and its relation to the hand and showing also the projections thereon which bear on the beveled forward edge of the hammer.

Referring to these drawings, *a* indicates the frame of the firearm in which is mounted the hammer *b* on the pivot-pin *c*, the trigger being indicated by *d* and its pivot-pin by *e*. The recoil-plate is indicated by *f* and between the two sides of the frame, just back of the recoil-plate and bearing on the latter, is a vertically slidable retracting device in the form of a rectangular block *g*, as shown in Fig. 4, the upper end thereof being milled through from front to rear to provide a space indicated by *h* to receive the nose of the hammer when it falls. Extending into this space *h* are two oppositely placed projections *k* (preferably circular in cross section) and between the ends of which the nose of the hammer extends when in firing position; these two projections being arranged to bear on the beveled surface *m* on each side of said nose of the hammer, said beveled portions being so inclined that if the nose of the hammer be resting on the primer of a cartridge and the retracting device *g* be forced downwardly from the position shown in Fig. 1, the projections *k* bearing on these inclined surfaces will thrust the hammer to the rear away from the cylinder and at the limit of the downward movement of the retracting device (that is to say when these projections reach the position shown in Fig. 2) they will constitute a positive block interposed between the hammer and the recoil-plate.

In the solid portion of the block *g* below the space *h* a hole is drilled to receive a spring *o* which extends for a certain distance into the space *h*, its upper end having a bearing against an abutment in the form of a pin *p* screwed or otherwise secured in the recoil-plate *f* and extending into the space *h*.

Extending transversely through the block *g* and intersecting the lower end of the hole in which the spring *o* rests, a hole is drilled to receive the short stud *r* to which the hand *s* is secured, the upper end of said stud *r* being flattened off as shown in Figs. 2 and 3 to provide a flat base for the lower end of the spring *o*. The tension of this spring bearing on said flat surface is sufficiently strong to hold the hand *s* in a position substantially at right angles to the block *g*, as shown in the left-hand view of Fig. 4, the hand being let into a recess *t* in the side of the block to bring its outer surface flush with the side of the latter. This recess is of sufficient width

to permit the hand to swing up and ride over the cylinder-ratchet when the block *g* is moved downwardly, and the bearing of the spring *o* on the flattened upper side of the stud *r* will hold the hand in its normal position, that is with its point yieldingly held against the end of the cylinder, the lower edge of the hand resting on the lower border of the recess whereby a point of support for the hand is provided during its operative movement upward to rotate the cylinder.

The lower end of the block *g* carries a roller *w* constituting a rolling bearing for the upper end of the trigger *d*, as shown in the various figures, that part of the trigger bearing on said roll being rounded, as at *x*, whereby the upward movement of the block which is effected by a pull on the trigger may be easy and as free from friction as possible.

When operated as a self-cocking arm, the nose of the trigger engages the sear or cocking dog *y* in the usual manner and as the trigger is retracted the curved portion thereof adjacent the nose sweeps under the block *g* and comes to a bearing on the roll *w* moving upward the block simultaneously with the backward swing of the hammer, and thus when the latter is released by the continued movement of the trigger, the nose of the latter holds the block *g* in its elevated position carrying the projections *k* far enough upward so that the inclined surfaces *m* of the hammer will not come in contact therewith when the hammer falls, thus permitting the nose of the hammer to reach the primer of the cartridge in the usual manner. This position of the parts is shown clearly in Fig. 1, and it will be noted that in this position the spring *o* is fully compressed between the bottom of the cavity in the block *g* and the abutment *p*.

Upon the release of the trigger the spring *o* will therefore swing it back to the position shown in Fig. 2 carrying the projections *k* during its downward movement against the inclined faces *m* of the hammer forcing the latter backward and interposing a solid blocking between the hammer and the primer of the cartridge which might otherwise be ignited by an accidental blow on the hammer.

When the hammer is cocked by hand, the position of the block *g* will be the same practically as shown in Fig. 1, except that the block will not attain the point of its highest elevation until the pull on the trigger releases the hammer whereupon a still farther movement of the hammer will elevate the block to the position shown in Fig. 1. It is thus seen that whether the hammer is cocked by hand or by the trigger movement the action of the block *g* is the same.

What I claim, is:—

1. In a revolver, a hammer, a slidable block located between the hammer and barrel, a trigger engaging the block, means on the block for engaging the face of the hammer to retract the same, and means located within the block for controlling its movements.

2. In a revolver, a hammer, a slidable block located between the hammer and barrel, a trigger engaging the block, means on the block for engaging the face of the hammer to retract the same, and means comprising a spring carried by the block, one end of which engages a fixed abutment on the recoil-plate for controlling its movements.

3. In a revolver, a trigger, a hammer, a block between the latter and the recoil-plate slidable in the plane of movement of the hammer, a portion, of said block being cut away to permit the hammer to swing by it, and means on another portion of the block to engage the hammer to move it in one direction, said trigger having an operative engagement with the block to move the latter and the hammer in the opposite direction.

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Witnesses:
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