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D. J. BUCHANAN.

REVOLVER LOCK.

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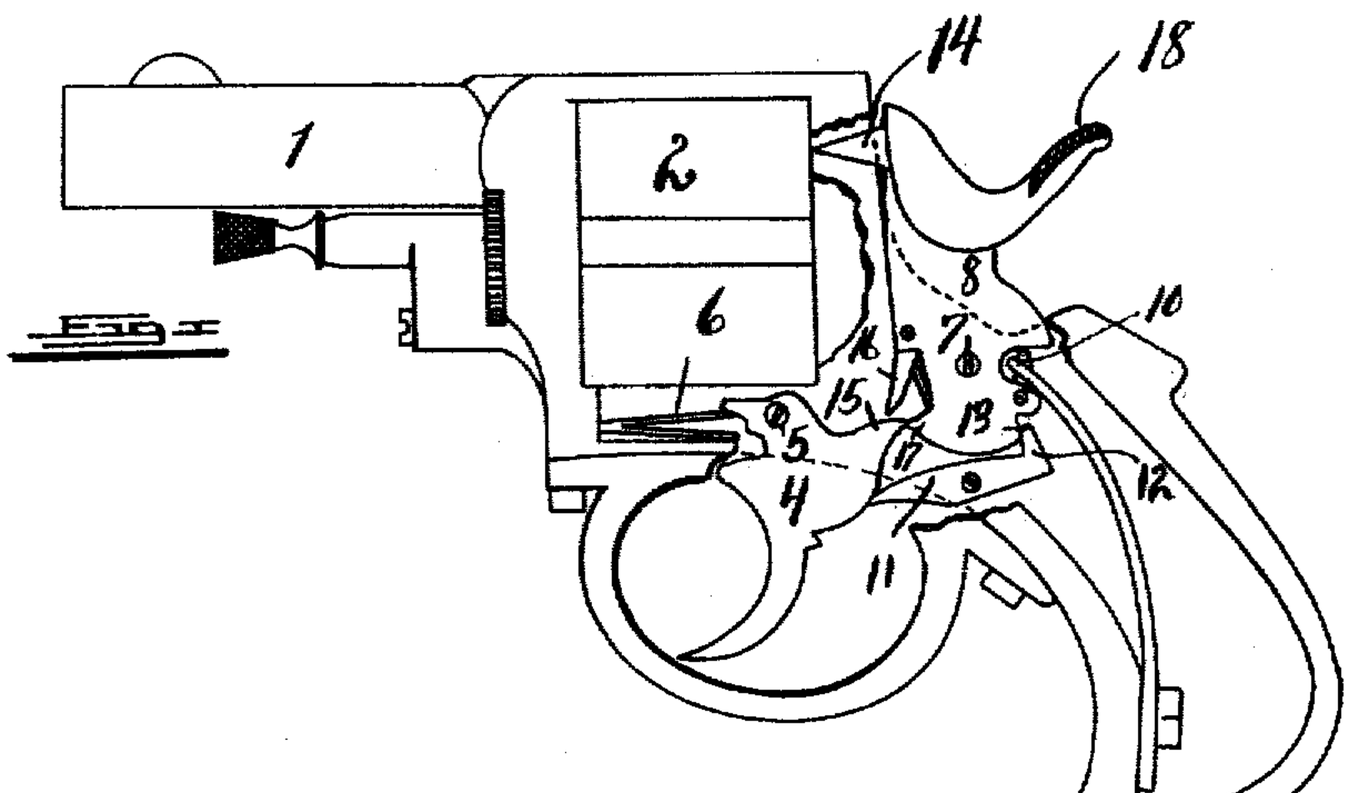

Fig 1.

Fig 2.

Fig 3.

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REVOLVER-LOCK.

No. 814,017. Specification of Letters Patent. Patented March 6, 1906.

Application filed July 11, 1904. Serial No. 216,978.

To all whom it may concern:

Be it known that I, DUNCAN J. BUCHANAN, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Revolvers; 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 figures of reference marked thereon, which form a part of this specification.

This invention relates to safety-hammer mechanism for revolvers; and it consists in the construction and arrangement of parts hereinafter more fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for preventing the hammer from being cocked, as in a single-acting revolver, without first pulling slightly upon the trigger, the arrangement being such as to render the firing mechanism self-acting at all times, producing a safety-hammer revolver which is self-cocking or may be cocked by the thumb.

The above object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a fragmentary view in elevation of a revolver, showing the firing mechanism thereof involving my invention, said mechanism appearing in its normal position. Fig. 2 is a similar view showing the position of said mechanism in the act of firing. Fig. 3 is a detail in elevation, showing by dotted lines the movement of the trigger necessary to release the hammer to enable said hammer to be cocked by the thumb.

In revolvers of the character herein shown, as ordinarily made, the hammer may be cocked by drawing backward thereon independently of the operation of the trigger, the position of the parts being such as to leave the hammer free to swing backwardly upon its pivot, so that should the projecting thumb-piece of the hammer strike an object so as to cause the hammer to rise the revolver might be accidentally discharged. The arrangement shown herein is such that the hammer is locked each time after the revolver is fired, so that it cannot be raised by a blow or the application of pressure to the thumb-piece thereof, rendering the revolver as safe in that respect as is a hammerless.

Referring to the characters of reference, 1 designates the barrel of the revolver, 2 the cylinder-chamber from which the cylinder has been omitted, and 3 the handle, all of which parts are common.

Within the hollow handle of the revolver is located the firing mechanism, which consists of a trigger 4, which is pivoted at 5 and is engaged by the spring 6, which returns it after each operation of firing. Also pivoted in the handle at 7 is the hammer 8, which is engaged by a spring 9 through the medium of the stirrup 10 in the ordinary manner. Pivoted in the handle below the hammer is a dog 11, which engages the trigger at one end and is provided with a hook 12 at the opposite end, adapted upon the return of the trigger after the operation of firing to engage the shoulder 13 of the hammer and move said hammer backwardly sufficient to retract the firing-pin 14 from engagement with the shell in the cylinder, which feature is also in common use. Upon the trigger is a rearwardly-extending projection 15, adapted to engage the pivoted spring-actuated finger of the hammer when the trigger is pulled to raise the hammer, as shown in Fig. 2, said hammer being forced down through the action of the spring 9 to fire the revolver when said projection 15 passes from engagement with said finger—an arrangement common in self-acting revolvers. Upon the release of the trigger after firing the spring 6 will return it to its normal position, so as to cause the projection 15 thereof to abut against the forward end of the projection 17 on the hammer, whereby said hammer is locked from movement on its pivot against the application of pressure to the thumb-piece 18 thereof, preventing said hammer being raised by a pressure upon said thumb-piece until the trigger has been moved sufficiently to carry the projection 15 thereon from engagement with the projection 17 of the hammer, as shown by dotted lines in Fig. 3, when by applying pressure to the thumb-piece of the hammer said hammer may be cocked in the ordinary manner, owing to the fact that its projection 17 will then engage under the projection 15 of the trigger as the hammer swings on its pivot, thereby causing the trigger to swing therewith as the hammer is cocked. This ar-

rangement renders the revolver single-acting, as well as self-acting, enabling it to be cocked by the hammer when desired, yet rendering it impossible to cock the revolver by an accidental pressure upon the hammer and obviating any accidental firing thereof, for when the parts are in their normal position, as shown in Fig. 1, the hammer is absolutely locked against being cocked through the application of any pressure thereto until the trigger has been moved sufficiently to carry its projection 15 from abutting engagement with the projection 17 of the hammer, yet enabling the revolver to be fired by pulling upon the trigger, as ordinary self-acting revolvers.

It will be seen on referring to Fig. 1 that when the parts are in their normal position the abutting engagement of the projections 15 and 17 upon the trigger and hammer, respectively, is such that any attempt to cock the hammer will throw the projection 17 thereof directly against the projection 15 of the trigger in line with the pivotal point 5 of the trigger, whereby the hammer becomes securely locked, the spring 6 of the trigger assisting in preventing a movement thereof by any pressure of the hammer against its projection 15. This arrangement, as will be seen, renders the revolver as safe as a hammerless, making an accidental discharge of the revolver through an inadvertent raising of the hammer impossible. It will be noted by comparison with all revolvers containing a similar firing mechanism that the projection 17 of the hammer normally lies under the projection 15 of the trigger instead of abutting against the same, as in my structure, whereby in the ordinary type of revolver the hammer may at all times be cocked by pressure upon the thumb-piece thereof.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a safety firing mechanism for hammer-revolvers, the combination with the parts comprising the pivoted trigger and hammer, of connecting members between said parts whereby either part may be moved by a movement of the other of said parts, said connecting members automatically locking the hammer when down against being raised by the application of pressure to its thumb-piece, but allowing the hammer to be raised through a movement of the trigger.

2. In a safety firing mechanism for hammer-revolvers, the combination of the parts comprising the pivoted trigger and hammer, each being provided with a projecting engageable member, through the medium of which each of said parts may be moved by a movement of the other part, said projecting members normally engaging each other to lock the hammer against being directly raised.

3. In a safety-hammer revolver, the combination of the parts comprising the pivoted trigger and hammer, having thereon engaging members which normally lock the hammer against being raised by a direct application of pressure, said locking members being adapted to be unlocked to release the hammer by a movement of the trigger.

4. In a safety-hammer revolver, the combination of the parts consisting of a pivoted hammer having thereon a projecting member, a pivoted trigger also having a projecting member adapted to normally abut against the projecting member of the hammer to lock the hammer against movement upon its pivot by the application of pressure to the head thereof.

5. In a safety-hammer revolver, the combination of the pivoted hammer having an engaging projection, of the pivoted trigger carrying an engaging projection normally extending into the path of, and abutting against said projection on the hammer to lock the hammer against movement by the application of pressure to the head thereof, said locking projection on the trigger being adapted to be moved from the path of the projection on the hammer by a movement of the trigger upon its pivot, and connecting means between the trigger and hammer for raising the hammer by a movement of the trigger.

In testimony whereof I sign this specification in the presence of two witnesses.

DUNCAN J. BUCHANAN.

Witnesses:
E. S. WHEELER,
I. G. HOWLETT.