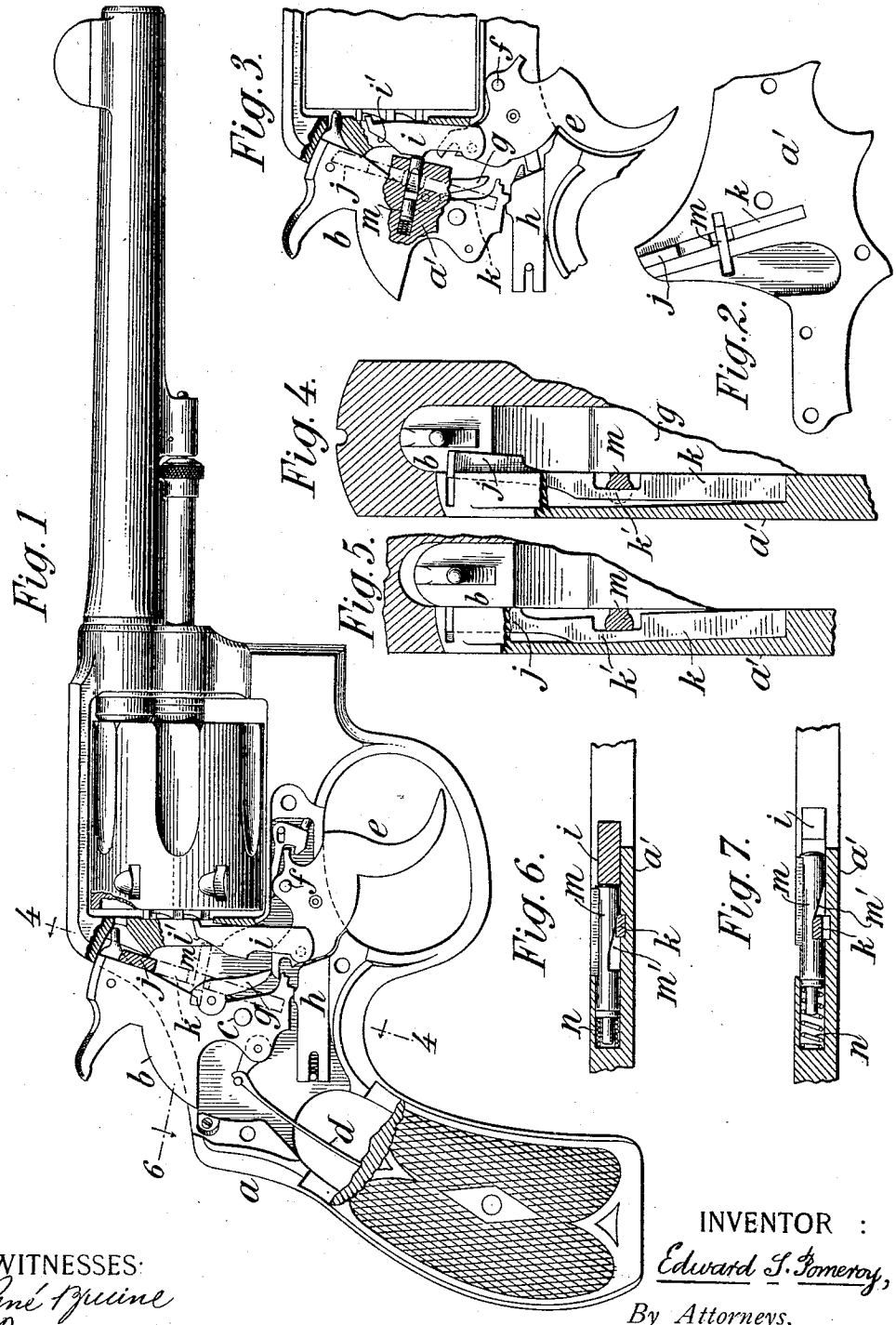
E. S. POMEROY.

FIREARM.

APPLICATION FILED MAY 8, 1914.

1,122,635.

Patented Dec. 29, 1914.



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FIREARM.

1,122,635. Specification of Letters Patent. Patented Dec. 29, 1914.

Application filed May 8, 1914. Serial No. 837,111.

To all whom it may concern:

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

This invention relates particularly to revolvers of the self-cocking type, its object being to provide a safety device to prevent the hammer being accidentally brought into contact with the primer of a cartridge, as might happen from receiving a blow against the hammer. To this end a positive lock or chock-piece is provided which is pressed laterally by a spring, so that upon the rebound or partial retraction of the hammer after firing, it enters in front of the hammer, filling the space between the hammer and frame, so that it offers an obstacle to the further forward movement of the hammer until retracted by the cocking movement.

The invention also provides for pressing the hand forward.

The accompanying drawings show the preferred embodiment of the invention.

Figure 1 is a side elevation of the arm with its cheek plate removed and some portions broken away to show the construction; Fig. 2 is an elevation of the inner face of the cheek plate and the parts carried thereby; Fig. 3 is a fragment of Fig. 1 showing the parts in the firing position and before the release of the trigger; Fig. 4 is a fragmentary transverse section on a larger scale taken in the oblique plane of the line 4—4 in Fig. 1 and looking backward; Fig. 5 is a similar view to Fig. 4 showing the parts in unlocked position ready for firing; Figs. 6 and 7 are views in the oblique plane of the line 6—6 in Fig. 1 showing respectively the unlocked and the locked positions.

Referring to the drawings, *a* is the frame, *b* is the hammer pivoted as usual at *c*, *d* is the main spring, and *e* the trigger pivoted as usual at *f*. The hammer is shown provided with the usual cocking lever or pawl *g*. There is also shown the wedge block *h* for retracting the hammer upon the release of the trigger, which however forms no necessary part of the present invention. The hand *i* is pivoted to the trigger as usual, and has as usual a beveled rear face *i'*. Other parts are shown which have no necessary reference to the present invention, and hence need not be referred to.

It is understood that in arms of this class the hammer in firing moves forward beyond its normal position of rest, its position at the instant of firing being shown in Fig. 3; and it then retracts to the normal position shown in Fig. 1. This retracting or rebounding movement may be variously brought about according to the particular mechanism which is provided for this purpose. In the particular arm shown the wedge block *h* which at the instant of firing occupies the position shown in Fig. 3, is moved forwardly upon the release of the trigger to the position shown in Fig. 1, and in so moving engages the tail or foot of the hammer and presses it up so as to retract the hammer to the extent shown. Other means are also known for accomplishing this movement, the particular means shown forming no part of the present invention.

Referring to the present invention, the safety lock comprises a laterally movable block *j* which after the retraction of the hammer enters between the front face of the hammer and the rear face of the frame, and positively prevents any forward movement of the hammer. This block *j* is mounted on a spring arm *k* which is seated in a groove in the usual detachable cheek plate *a'*, its location therein being shown in Fig. 2 and in the transverse sections Figs. 4 and 5, its lower end being fast in the groove, and its upper portion free to move laterally therein. Such lateral motion is imparted to it by means of a sliding pin *m* shown best in Figs. 6 and 7, which moves in a transverse groove in the cheek plate crossing the groove containing the spring *k*. This pin *m* has an inclined or wedging face *m'* which engages within a notched portion *k'* of the spring, so that as the pin is pressed back against the stress of its spring *n* this wedging face presses outwardly against the spring *k* and moves it from the locked position shown in Fig. 4 to the unlocked position shown in Fig. 5. The end or head of the pin *m* bears against the rear face of the hand *i*, as shown in Figs. 3 and 6, so that its spring *n* serves both for restoring the pin *m* and for pressing the hand *i* into engagement with the cylinder ratchets. As the hand is moved up or down by the move-

ment of the trigger *e*, its rear face moves against the head of the pin *m*, and the wedge portion *i'* of this face has a cam action against the pin, whereby as the hand rises the pin is pressed rearwardly, and as the hand descends the pin is released and permitted to move forwardly. The movement thus imparted to the pin is in turn communicated to the spring *k*, and hence moves the safety block *j* into or out of the safety position.

In Fig. 3 a fragment of the cheek plate is shown at *a'* in order to provide the housing for the pin *m*. In this figure and in Fig. 1 the position of the spring *k* is shown in dotted lines.

In the operation of cocking, the ascent of the hand presses back the pin *m* and this in turn presses back the spring arm *k* and laterally retracts the safety block *j* bringing it out of the path of the hammer; hence as the hammer descends it moves freely to its striking position for firing the arm; then upon the release of the trigger the descent of the hand *i* permits the pin *m* to move forward, and the wedging incline on the pin moving to the position shown in Fig. 7, releases the spring arm *k*, and the latter moves inward as shown in Fig. 4, thereby introducing the safety block *j* in front of the hammer.

The new mechanism provided by this invention is wholly within the frame or breech case, and is carried entirely by the cheek plate *a'*. The usual spring for pressing the hand to its work is no longer necessary, its function being performed by the spring *n*.

The safety device provided by this invention is very simple and effective, affords an absolute protection against the discharge of the arm by any blow on the hammer when in the position of rest, and lends itself aptly to the standard construction of the type of arm shown.

It must not be inferred from the particularity as to detail with which the preferred embodiment of the invention is described, that the invention is limited thereto, since it is in fact susceptible of a considerable range of variation in structural detail.

I claim as my invention:—

1. In a firearm, a hammer, a trigger, a laterally movable lock adapted to enter in front of the hammer, a spring arm carrying such lock, said lock and arm within the breech case, a hand connected to the trigger and having a cam face, and a movable part engaging such cam face and moved thereby in direction transverse to the movement of the lock, and adapted to communicate movement to such spring arm to move the lock to safety or free position.

2. In a firearm, a hammer, a trigger, a laterally movable lock adapted to enter in front of the hammer, a spring arm carrying such lock, a hand connected to the trigger and having a cam face, and a spring pressed movable part engaging such cam face and moved thereby in direction transverse to the movement of such lock, pressing forward against the hand, and engaging such spring arm to communicate movement thereto to move the lock to safety or free position.

3. In a firearm, a hammer, a trigger, a laterally movable lock adapted to enter in front of the hammer, a spring arm carrying such lock, a hand connected to the trigger and having a cam face, and a sliding pin engaging such cam face and having an incline engaging such spring arm.

4. In a firearm, a hammer, a trigger, a laterally movable lock adapted to enter in front of the hammer, a hand connected to the trigger and having a cam face, and a spring pressed pin engaging such cam face, acting to press the hand forward and receiving movement from said cam face, and adapted to communicate motion therefrom to said lock.

5. In a firearm, a hammer, a trigger, a laterally movable lock adapted to enter in front of the hammer, a spring arm carrying such lock, a hand connected to the trigger and having a cam face, and a movable part engaging such cam face and moved thereby to communicate movement to such spring arm to move the lock to safety or free position, and a cheek plate, the said spring arm and movable part being housed in such plate.

6. In a firearm, a hammer, a trigger, a hand connected to the trigger, a spring-pressed pin engaging the rear face of the hand and acting to press it forward, and a cheek-plate in which said spring-pressed pin is housed.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

EDWARD S. POMEROY.

Witnesses:
E. A. KINNEY,
F. C. MARSH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."