N° 18,582 A.D. 1892

Date of Application, 17th Oct., 1892
Complete Specification Left, 13th Jan., 1893—Accepted, 18th Feb., 1893

PROVISIONAL SPECIFICATION.

Improved Automatic Safety Appliance for Gun and like Locks.

We WILLIAM MOORE AND GREY LIMITED, Gunmakers, and WILLIAM HARRIS, Manager, all of 43 Old Bond Street in the County of London do hereby declare the nature of this invention to be as follows :—

The object of our invention is to provide for the locks of guns and like small arms an improved automatic safety appliance for the purpose of absolutely obviating the possibility of operation of any lock and consequent discharge of the weapon, by "jarring off" or otherwise accidentally, until and unless the trigger designed to operate that lock has been sufficiently drawn back to effect its intended purpose.

In gun locks as ordinarily constructed the scears are only held in engagement with the bents of the tumblers by the scear springs or the scear spring ends of the main springs, and it is found that the effect of the discharge of one barrel is liable to jar off the other lock and so accidentally discharge the other barrel, and in the same way any sudden concussion may jar off both locks.

To prevent such accidental discharges, sundry automatic "intercepting" bolts and arrangements have been used, but these necessitate the use of two scears to each lock or other more or less complex mechanism entailing considerable cutting away of the wood of the stock and thereby weakening same, as well as various other disadvantages. In other systems of blocking the scears or actuating the interceptors it is necessary that two portions of the trigger blade should be carefully regulated, and owing to wear and tear and so forth there is found to be difficulty and uncertainty in ensuring uniform constant and true action thereof.

According to our invention we provide a very simple and effective appliance by which the nose of the scear, when the lock is at "full cock," is held locked into the bent of the tumbler and can only be disengaged therefrom by the pull upon the trigger, and then only the scear is free to be actuated in the usual manner by the trigger blade, one part of which only actuates both the safety appliance and the scear.

The locking appliance consists of a lever fixed to the lock plate and having a catch so arranged that when at full cock it engages the body of the scear and effectually prevents it rising. The said catch lever may be of suitable resiliency in itself or it may be rigid and spring-pressed. Its free end is extended and so arranged as to constitute a guard or shield to that part of the scear usually operated directly by the trigger blade, so that in operation the blade must first engage the extension or shield and so disengage the safety catch before it can operate the scear and liberate the tumbler: on re-cocking the lock the above mentioned resiliency or spring action permits the safety catch to automatically return to locked position.

Dated this 17th day of October 1892.

J. C. CHAPMAN,
Agent.

[*Price* 8*d*.]

COMPLETE SPECIFICATION.

Improved Automatic Safety Appliance for Gun and like Locks.

We, WILLIAM MOORE AND GREY, LIMITED, Gunmakers, and WILLIAM HARRIS, Manager, all of 43, Old Bond Street, in the County of London, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

The object of our invention is to provide for the locks of guns and like small arms an improved automatic safety appliance for the purpose of absolutely obviating the possibility of operation of any lock and consequent discharge of the weapon by "jarring off" or otherwise accidentally until and unless the trigger designed to operate that lock has been sufficiently drawn back to effect its intended purpose.

In gun locks as ordinarily constructed the scears are only held in engagement with the bents of the tumblers by the scear springs or the scear spring ends of the main springs, and it is found that the effect of the discharge of one barrel is liable to jar off the other lock and so accidentally discharge the other barrel, and in the same way any sudden concussion may jar off both locks.

To prevent such accidental discharges sundry automatic "intercepting" bolts and arrangements have been used, but these necessitate the use of two scears to each lock, or other more or less complex mechanism, entailing considerable cutting away of the wood of the stock and thereby weakening same, as well as various other disadvantages. In other systems of blocking the scears or actuating the interceptors it is necessary that two portions of the trigger blade should be carefully regulated, and owing to wear and tear and so forth there is found to be difficulty and uncertainty in ensuring uniform, constant, and true action thereof.

According to our invention we provide a very simple and effective appliance by the use of which when the lock is at "full cock" the nose of the scear is held locked into the bent of the tumbler. The appliance cannot by accident, concussion, or otherwise leave its hold upon the scear, but can only be disengaged therefrom by the pull upon the trigger, and then only the scear is free to be actuated in the usual manner by the trigger blade, one part or point of which only actuates almost simultaneously both the safety appliance and the scear.

We will fully describe our invention in reference to the accompanying drawings in which similar letters refer to similar parts.

Fig. 1 is an internal elevation of a right lock at "full cock;"

Fig. 2 is a back end elevation of Fig. 1, the trigger and its blade being shown dotted;

Fig. 3 is an enlarged perspective view illustrating our invention, the parts being in the positions assumed when the lock is at "full cock;"

Figs. 4 and 5 are the same views as Figs. 1 and 2 and illustrate an adaptation of part of our invention to a lock where an ordinary intercepting lever is employed.

In the figures the old parts illustrated for reference in explanation are as follows. P is the lock plate, H the hammer and *h* the bent thereof. M is the main spring acting on the hammer. S is the scear lever centred at s^1, the nose of which engages the bent *h* of the hammer, and *s* is the operating arm or part of the scear upon which the trigger T acts through its blade *t*; and *m* is the scear spring, all arranged in the usual manner.

The automatic safety locking appliance consists of a lever A the upper end of which is suitably attached to the lock plate P above the scear lever S behind its centering s^1, and which has on its inner side a catch C so arranged that when at "full cock" as illustrated it engages the upper part of the body of the scear S and effectually prevents it from rising. The said lever A may be made of metal of suitable resiliency in itself to admit of its withdrawal and return to normal locking position after each action, or it may be rigid as shown and normally pressed

downwards and outwards by a spring such as *a*, in which case it is pivotted at its upper end to the lock plate as illustrated at a^1. Its lower or free end below the catch C is extended and directed in such manner as to be directly operated by the trigger blade *t* on the first motion thereof to disengage the catch C from and free the scear S before the continued lift of the same blade *t* operates the scear arm *s* to liberate the hammer H. For this purpose the extended part might obviously be a simple arm placed alongside of and parallel to the arm *s* but projecting and normally lying with its lower surface at a level slightly below that of the arm *s*; but an objection to this is that two points of the upper surface of the blade *t* must be arranged and regulated to operate first the extension and then the arm *s*; this therefore is not the best means in our knowledge to accomplish our object since it is desirable and one aim of our invention that one point only on the upper surface of the blade *t* shall be used for both the above purposes. To effect this we arrange the extension of the lever A to cover or encircle the lower part of the scear arm *s* and thus constitute a guard or shield B thereto as illustrated in all the figures so that in operation the blade *t* must first engage the shield B and so disengage the safety catch C from the scear S before it can operate the scear itself and liberate the tumbler or hammer H; on recocking the lock the above-mentioned resiliency of the lever A or the equivalent action of the spring *a* permits or causes the safety catch C of lever A to automatically return to the position illustrated in which it engages and locks the scear.

The above described shield B intervening at all times between the scear arm *s* and the trigger blade *t* is an important part of our invention and may readily be adapted to locks wherein a second scear or intercepting lever is applied. For example, in Figs. 4 and 5, K is an intercepting lever arranged to take against the tumbler stop *k* and prevent operation thereof should the scear arm *s* be from any cause accidentally lifted. In such an arrangement heretofore the two operating arms of the scear S and lever K have always been arranged parallel and close together, but independent of one another. According to our improvement we extend the operating arm of the intercepting lever K below the scear arm *s* and curve it so as to form a shield or guard to same as above described, and thus we prevent the possibility of actuating the scear without pulling the trigger.

Having now particularly described and ascertained the nature of this invention and in what manner the same is to be performed, we declare that what we claim is :—

(1) The improved automatic safety appliance for gun and like locks which consists in the arrangement in combination with the usual scear lever S and its arm *s* of a spring return lever A having a catch C adapted when the lock is at "full cock" to engage and hold down the scear S in engagement with the bent of the hammer, and having a shield-like extension B intervening between said scear arm *s* and the trigger blade *t*, substantially as and for the purpose hereinabove described and illustrated.

(2) In a gun or like lock the arrangement in combination with the scear and the automatic safety appliance of an extension of the latter arranged to form a shield or guard B to the scear arm *s* always intervening between the same and the trigger blade whereby the scear cannot become liberated from engagement with the tumbler unless and until the trigger has been drawn, and whereby also one part or point only of the trigger blade serves to operate both the parts, substantially as hereinabove set forth.

Dated this 12th day of January 1893.

For the Applicants,

J. C. CHAPMAN,

70, Chancery Lane, London, W.C., Chartered Patent Agent.

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MOORE & GREY [LD.] & *another's* COMPLETE SPECIFICATION. (1 SHEET.)

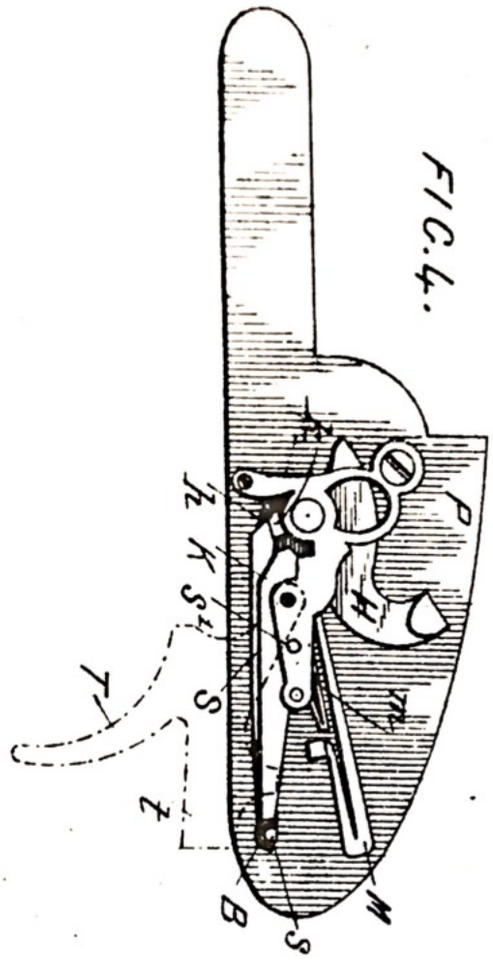

FIG. 4.

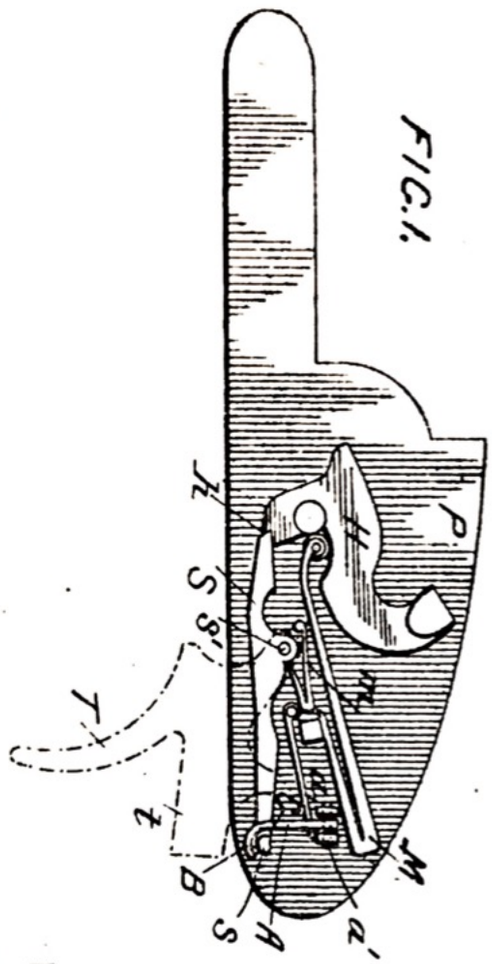

FIG. 1.

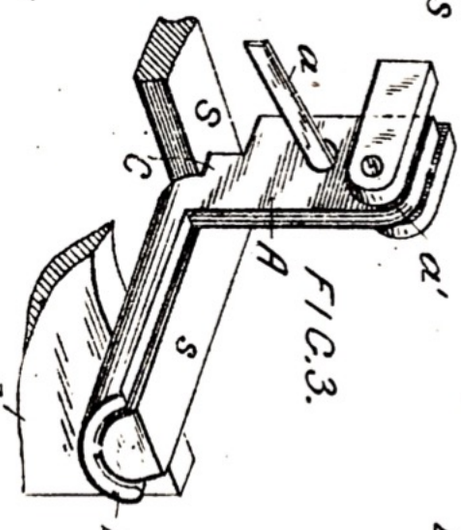

FIG. 3.

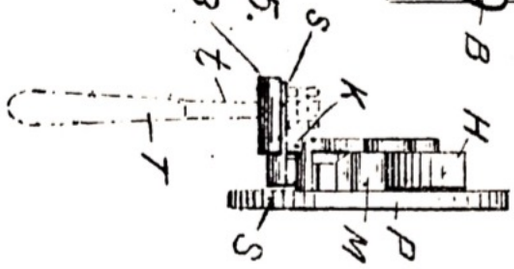

FIG. 5.

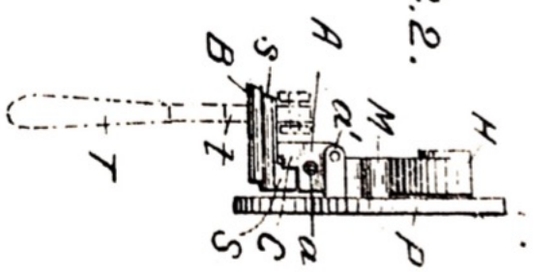

FIG. 2.

[This Drawing is a reproduction of the Original on a reduced scale.]

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