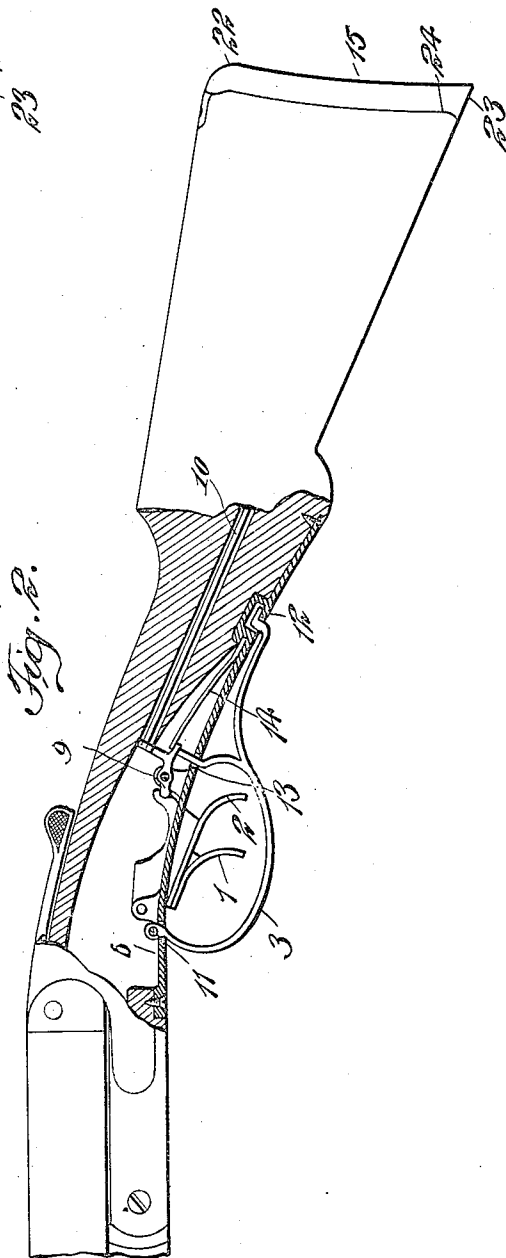
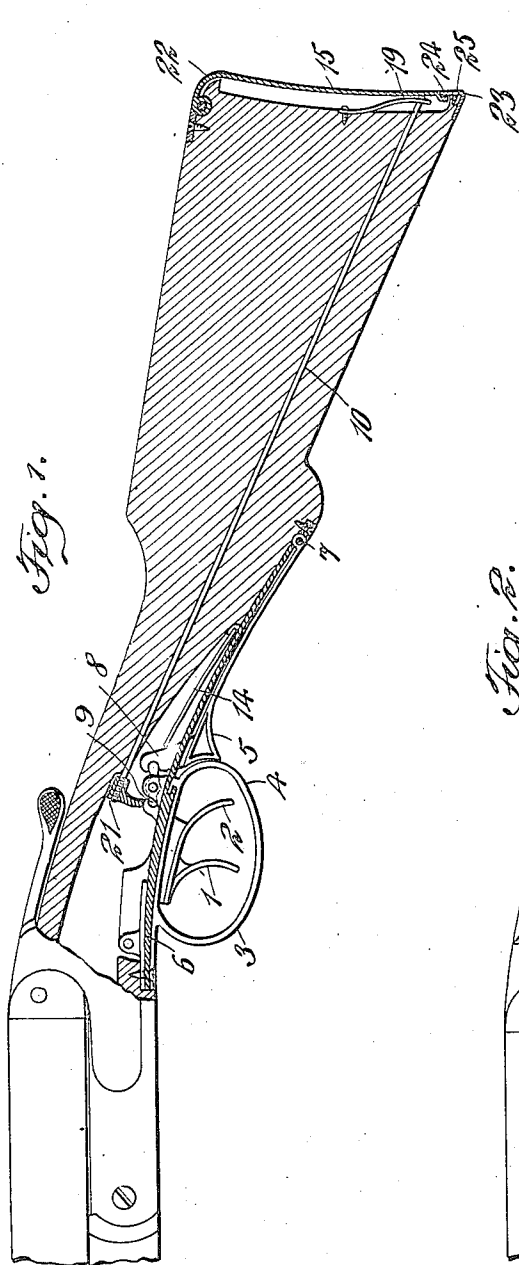


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SAFETY GUN.
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1,063,921.

Patented June 3, 1913.

2 SHEETS—SHEET 1.



WITNESSES

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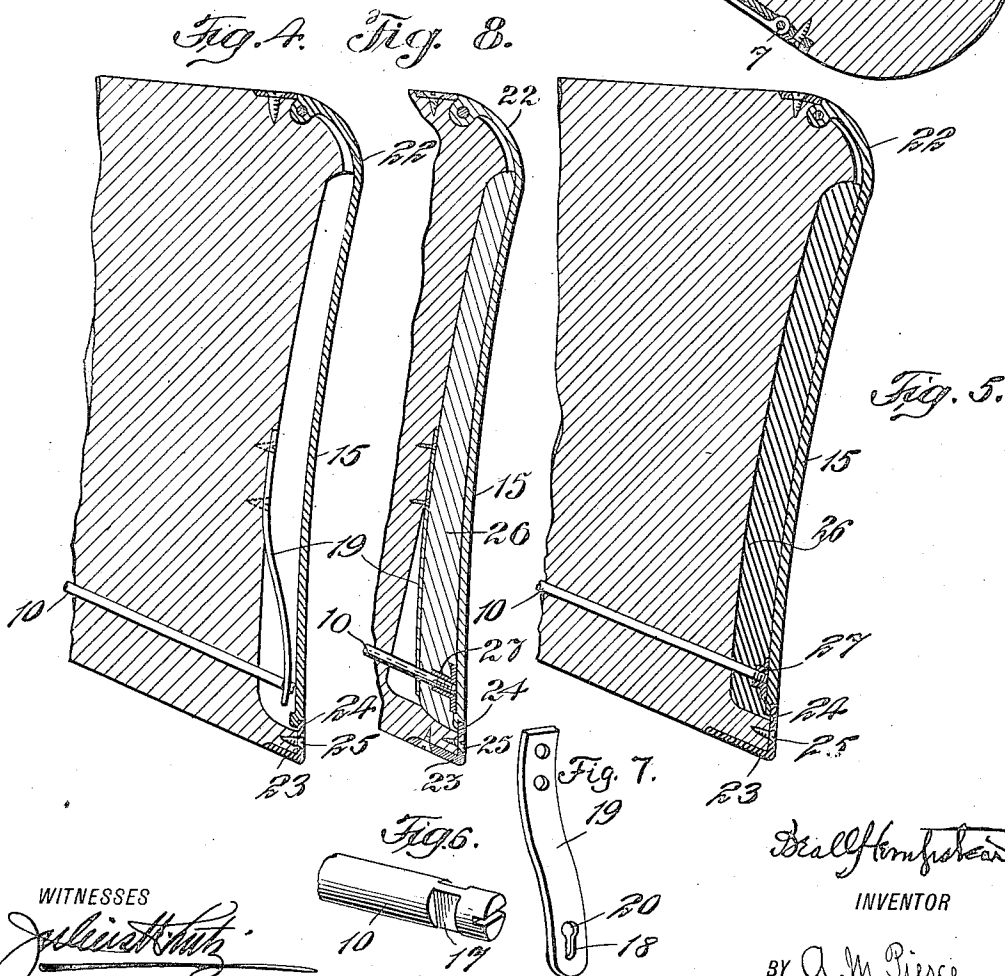
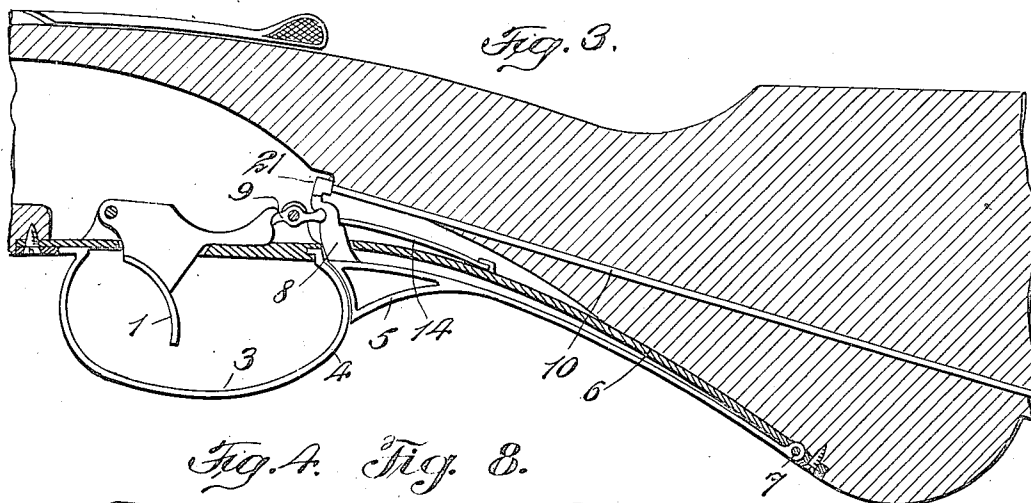
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SAFETY GUN.

1,063,921.

2 SHEETS—SHEET 2.



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SAFETY-GUN.

1,063,921.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed November 11, 1908. Serial No. 462,039.

To all whom it may concern:

Be it known that I, BEALL HEMPSTEAD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety-Guns, of which the following is a specification, reference being had therein to the accompanying drawing.

10 My invention relates especially to the construction and arrangement of shoulder guns, and has for its object the provision of a safety gun wherein the trigger or triggers are so locked as to prevent any possibility
15 of the gun being fired until the butt is pressed against the shoulder, the trigger-guard grasped, and the trigger pulled.

To attain the desired end, my invention consists in certain novel and useful combinations or arrangements of parts, and peculiarities of construction and operation, all of which will be hereinafter first fully described and then pointed out in the claims.

In the drawings, Figure 1 is a side elevation and partial longitudinal section of a gun embodying my invention. Figs. 2 and 3 are like views of modified forms thereof. Fig. 4 is an enlarged vertical, sectional view of the butt of the gun, and Fig. 5 is a like view of a modified construction thereof. Fig. 6 is a perspective view of the locking rod, and Fig. 7 is a perspective view of the spring connected to said rod. Fig. 8 is a modification of the construction shown in
35 Figs. 5 and 6.

Like numerals of reference, wherever they occur, indicate corresponding parts in all the figures.

In the line of shoulder guns as at present
40 constructed all such guns may be accidentally discharged, whenever the gun is at the firing point and the trigger is accidentally moved; and so with the hammerless gun, the hammers are always at the firing point, and
45 as for quick shooting with the old hammer gun, it is carried with the hammers at the firing point, accidents are frequent, and the design of the present invention is to provide a gun in which the triggers are automatically
50 locked so that before the gun can be discharged the handle of the gun must be gripped, the butt of the gun pressed to the shoulder and the trigger pulled, a combination of movements which could not accidentally take place.

As at present designed, guns usually de-

pend upon human agency to keep them safe. The hammerless gun for instance, has a button to be moved by the hand to lock the triggers, but the shooter forgets, and as a consequence accidents happen. The same may be said of the hammer gun. Whether it is being carried in the hunt, or the butt of the gun is on the ground as the shooter is resting and thinks the hammers of his gun are on the safety notch of the lock when frequently they are not, and so too often accidents happen.

As stated, the object of the present invention is to provide a gun which under all conditions automatically locks the triggers; whether the butt of the gun is resting on the ground or not, or whether the handle of the gun is gripped in the act of carrying; in neither case are the triggers unlocked, but both pressure at the handle of the gun in combination with pressure at the butt of the gun is required before the triggers can operate, which combined movements are only exerted in the act of firing.

In the drawings, 1 and 2 are the ordinary triggers of a gun, 3 the trigger guard. In Figs. 1 and 3 it is shown as in two parts, 4 and 5. The part 4 is firmly secured to the trigger plate 6, while part 5 is movable, it being pivoted to the trigger plate at 7, and this movable part constitutes a portion of the handle or grip lever of the gun, and has its movable end fitting close to the stationary section of the trigger guard. This lever or grip section has an extension or inward projecting lug 8, which actuates a locking device 9, and this device engages the triggers until pressure is exerted on the grip lever part when the gun is grasped to be fired, but said grip lever part is immovable until the gun is pressed to the shoulder when a rod 10 unlocks the grip part 5, so that it can move 9, and which immediately engages the triggers at their ends.

As above described, the trigger guard is in two parts, but if preferred it may be made of one piece to act both as a covering for the triggers and at the same time as the movable grip lever for actuating the trigger locking mechanism. This construction is shown in Fig. 2, in which the one piece trigger guard is pivoted at 11 to the trigger plate 6, and at its reverse or movable end it is also secured to the trigger plate by a hook 12, so as to allow inward movement of the end, the trigger plate itself being firmly secured to the

stock of the gun by suitable screws. With a one piece trigger guard in operating the trigger locking device 9, a plunger 13 is used in place of the lug 8, as described for the two section guard, the plunger being an inward extension from the trigger guard. 14 is a spring arranged to bring the device to a lock of the triggers after pressure has been removed from the grip part of the guard at the handle of the gun.

In the one piece trigger guard, the locking rod 10 acts directly on the trigger locking device 9 itself and the device is operative with either high or low pivot triggers. As a second feature of the device it should be mentioned that its long end must be the heaviest so as to bring the device to a lock even if the spring should break.

The locking rod 10 may be solid or a tube for lightness. The said rod is actuated by the butt plate 15 of the gun so as to provide that feature of safety which requires pressure on the butt piece in combination with pressure on the grip lever at the handle of the gun before it can be fired, and this pressure on the butt plate may be exerted by the shoulder, or by hand if firing from the hip should ever be desired.

In unlocking the triggers, the movement of the grip lever at the handle of the gun in combination with pressure at the butt is, by suitable springs, made automatic. The return motion of the grip lever is effected by spring 14, its free end pressing upon the extension 8 from the grip lever 5, Figs. 1 and 3, and this extension, as previously referred to, operates the locking device 9 which acts direct upon the triggers. In the one piece trigger guard it acts direct on 9 as shown in Fig. 2.

The rod 10 is notched at 17 on opposite sides and which together form the neck on the rod to work in a slot 18 of a spring 19, and which slot has a circular opening 20 to admit the adjustment of the rod, and with the sliding of the spring, it brings the neck within the narrow portion of the slot, and as the rod itself cannot pass through, it is thus firmly secured to the spring, and the spring is secured to the butt of the stock by screws. With this spring may be used a rubber cushion to be hereinafter referred to. In the construction of the locking rod it may have a screw end 21 of Figs. 1 and 3, or said end may be solid with the rod, as in Fig. 2. In the first instance and before the spring is adjusted to the rod, the rod would be inserted at the butt of the gun and pressed in until it met the screw end, this end having been inserted at the opening in the stock where the trigger plate is to be fitted, and with the meeting of the two the rod by means of its thread construction adjusts with the screw end, the rod at its butt plate end being slotted so that with

the usual appliances it may be turned in the manner of an ordinary screw. In locking the trigger this screw end or hook end of the locking rod may operate on the trigger locking device as in Fig. 2 or on the grip lever extension 8, Fig. 3, or it may operate directly on the triggers as shown in Fig. 1 of the drawing, in which last mentioned case the triggers are to be cut away on top at the locking end as shown in said figure. This construction is necessary in order to permit the swing of the trigger when the locking or screw end of the rod is moved by pressure on the butt piece of the gun. It will be observed that in the first case the trigger device is locked, while in the second the extension from the grip lever is locked and this in turn locks the device which engages the triggers, and in Fig. 1 the trigger is locked direct. In either case the result is the same, for in the first mentioned case, if pressure at the butt of the gun unlocks the trigger device at one point, the triggers are still locked by the device which operates at another. And so in the second case; where the extension from the grip lever is unlocked by movement of the rod, the triggers are still locked in that there has been no simultaneous movement of the grip lever to act upon the trigger device referred to. The same may be said of Fig. 1 and in the last mentioned case, although there should be movements of the locking rod, releasing the triggers on top, they are still locked by the device which engages them at the end, and they continue to be locked until movement of the grip lever moves this device. In other words, pressure alone at the butt of the gun will not unlock the triggers, nor will pressure at the handle of the gun unlock them, but in order to fire the gun, there must be a combined pressure at both points and at the same time, which no accident could produce. In the figures as given the trigger locking mechanism 9 operates by circular movement, but is equally effective with horizontal movements, the actuating grip lever and locking rod operating in the manner described.

By having the locking end made separate from the rod as set forth, it reduces to a minimum the opening in the stock, for in unlocking the trigger it could move within the fraction of an inch beyond the space cut away for the swing of the trigger and for the rest, boring of the stock would require only just enough to allow for the free movement of the rod itself. In other words, the boring would be that of the diameter of the rod. It however, is not designed to limit the invention to this manner of construction, for what is termed the "screw end" of the rod, instead of adjusting by thread, it may be welded to the rod, and in this case the boring in the

stock throughout would be the diameter of the trigger locking end of the rod, so as to admit insertion of the end from the direction of the butt of the stock, this construction being possible from the arrangement of the rod spring as described, for although the boring in the stock would be of greater diameter than that of the rod, the spring in its manner of adjustment would hold the rod straight, and keep it in the required position for locking the triggers. This solid hook end as referred to, is shown particularly in Fig. 2 of the drawing, and which figure also shows the opening through the stock for the insertion of the rod, this boring in diameter being that of the length of the hook end, and as explained the hook end rod is passed in through the butt of the stock while with the screw end, as previously referred to, it is inserted at the opening at the handle of the gun where the stock is cut away for fitting in the trigger plate, and when this end is in the proper and required position for locking the triggers, the rod is then turned so that its thread end will take hold, the rod being turned as a screw for this purpose.

In further explanation of the butt piece of the gun, while it may be in one piece, the preferable construction is to have the toe separate and distinct and independently secured to the stock of the gun. This construction is designed to prevent movement of the rod, which locks the trigger device, or locks the grip lever, or locks the triggers direct when the sportsman is resting and the butt of the gun is pressed on the ground. With the butt plate in one piece, this action would press up the rod, and unlock the triggers. When the butt plate is in two parts as contemplated in the present invention, there would be no movement at the heel of the plate or pivot point, and with the toe of the plate made stationary, it would also prevent movement there, and as the pivot section would thus be prevented from moving there could be no movement of the locking rod. In case however, of rough ground or where the butt of the gun was placed crosswise of a log, or in other like instances, there might be movement of the rod, but with the double locking of the trigger as in the present invention, unlocking of the trigger from pressure on the butt, does not constitute an opportunity for accidental discharge of the gun, for the triggers are still locked by the grip lever at the handle of the gun; and as explained, in order to fire it there must be pressure at the butt of the gun, and at the same time pressure on the grip lever at the handle of the gun, such a combination of movements as can only take place in the intentional act of firing. This two piece butt plate is shown in enlarged form in Fig. 4, 22 being the piv-

oted section of the butt plate, and constituting the shoulder or rod section.

23 is the stationary section in the butt, constituting a toe piece and this section overlaps the free end of the pivoted section at 24 and this stationary section or toe piece is firmly secured to the stock by screws 25.

In addition to the foregoing, it should be stated that for assisting the spring 19 which moves the rod 10, it is the design of the present invention to use a rubber cushion so as to insure the necessary movements of the rod in case the spring should break. This cushion is shown in 26 of Fig. 5. If however, it should be desired to move the rod without the intervention of a spring, this could be accomplished through the use of a washer or disk 27, adjusted to the rod and upon which the rubber cushion beneath directly acts, this washer or disk being adjusted to the rod by slot arrangement in the manner previously described for securing the spring to the rod, or this washer or disk may be constructed with a neck so as to fasten to the rod by screw thread adjustment.

In the foregoing specification, there is described a grip lever in two parts—Fig. 1—and a grip lever of one piece—Fig. 2; for purposes of the present application, I elect to limit the claims to the one piece grip lever, and

Having fully described my said invention, what I claim as new and desire to secure by Letters Patent is set forth in the following:

1. In a gun of the character herein described the combination with the triggers of a pivoted locking lever therefor, constituting the trigger guard, and forming a part of the handle of the gun with grip end of the lever movable within the stock and having a central inward projecting arm for actuating said trigger locking-lever and moving inward for that purpose—substantially as shown and described.

2. In a gun of the character herein described the combination with the triggers, of a pivoted lever constituting the trigger guard, and forming a part of the handle of the gun, with grip end of the lever movable within the stock, and having a central inward projecting arm for operating trigger locking mechanism, consisting of a lever pivoted to a lug or extension of the trigger plate and impinging against the trigger ends, the said lever operating in a vertical plane to lock the trigger by gravity in case of breakage of the operating spring—substantially as shown and described.

3. In a gun of the character herein described the combination with the triggers of a pivoted lever constituting the trigger guard and forming a part of the handle of the gun, with grip end of the lever mov-

able within the stock, and having a central inward projecting arm for operating said trigger locking lever, which is pivoted to a lug or extension on the trigger plate, the said plate having lugs for attachment of the trigger guard grip lever, the triggers, trigger locking lever and operating spring and having a cavity for the inward movement of the trigger guard—substantially as shown and described.

4. In a gun of the character herein described the combination with the triggers and a pivoted locking lever therefor, constituting the trigger guard and forming a part of the handle of the gun, with grip end of the lever movable within the stock and having a central inward projecting arm for operating said trigger locking lever and acting in combination with a notched trigger locking rod, slotted spring, rubber pad with screw disk adjustment to the rod, the said rod acting upon the trigger locking lever—substantially as shown and described.

5. In a gun of the character herein described the combination with the triggers of a continuous guard grip lever with movable end passing within the stock of the gun, a vertical acting trigger locking lever, an actuating spring, a trigger plate with lugs for the trigger guard, grip lever, triggers, trigger locking lever and actuating spring in combination with notched trigger locking rod, slotted spring and rubber pad, and having disk adjustment with the rod the said rod moving to unlock by pivoted shoulder section of the butt of the gun—substantially as shown and described.

6. In a gun of the character herein described the combination with the triggers of a continuous guard grip lever, a vertical

operating trigger locking lever, an actuating spring, a notched trigger locking rod, a slotted spring and rubber pad with disk adjustment to the rod and a sectional butt of the gun, the upper section secured to the gun by binding screws, and the said section having a downward projecting lug or extension for attachment of the shoulder section by internal pivot of the shoulder section, a bottom section attached to the stock of the gun by screws and with check end for the shoulder section, resilient means for actuating the section, consisting of spring and rubber pad acting in combination, the said shoulder section having a continuous flange to cover the pad—substantially as shown and described.

7. In a gun of the character herein described the combination with the triggers and a pivoted locking lever therefor, constituting the trigger guard and forming a part of the handle of the gun with movable end passing within the stock and having a central arm for operating said trigger locking lever, pivoted to a lug or extension of the trigger plate in a flanged sectional butt of the gun, the shoulder section of which is connected by internal pivot and actuated by resilient means consisting of slotted spring and rubber pad in combination with notched trigger locking rod connected with screw neck disk—substantially as shown and described.

In testimony whereof I hereto affix my signature in presence of two witnesses.

BEALL HEMPSTEAD.

Witnesses:

J. S. O'NEALE,

P. EDW. J. FIELD.