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SAFETY DEVICE FOR FIREARMS.

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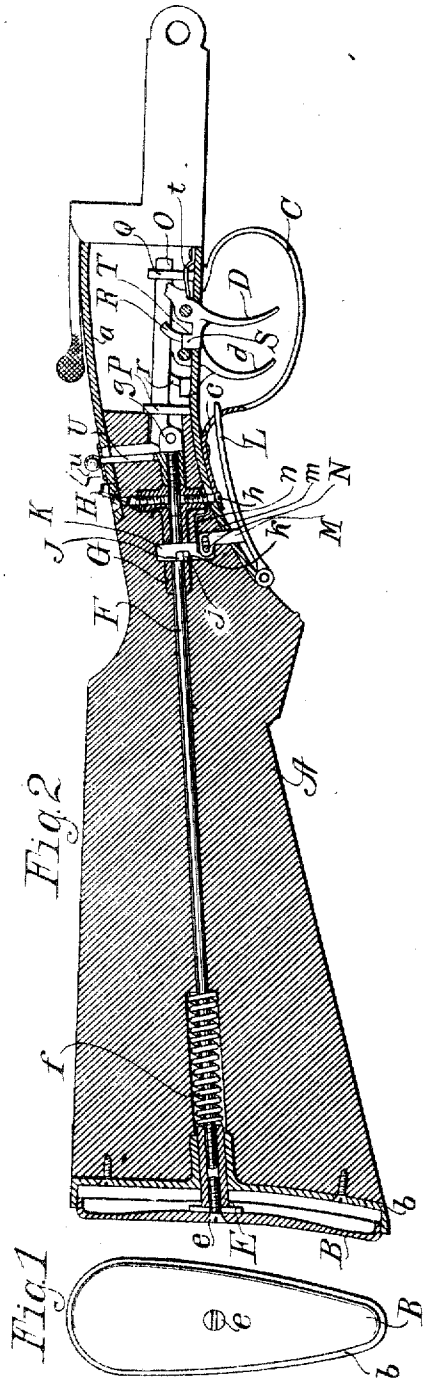


Fig. 1

Fig. 2

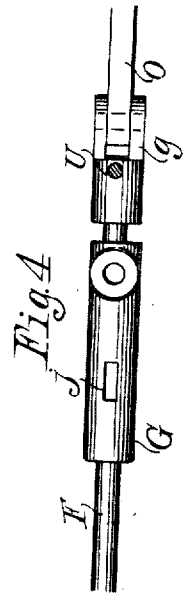


Fig. 4

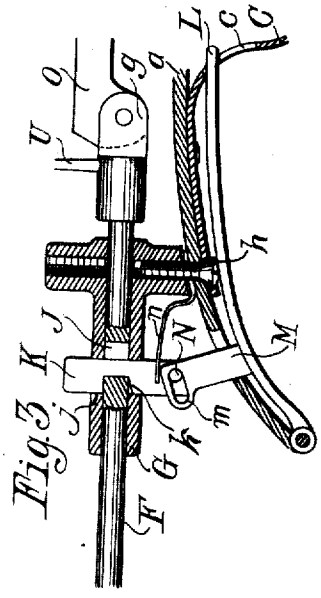


Fig. 3

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SAFETY DEVICE FOR FIREARMS.

1,204,426. Specification of Letters Patent. Patented Nov. 14, 1916.

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To all whom it may concern:

Be it known that we, ARTHUR H. GLADWIN and JOHN A. WILSON, citizens of the United States, residing at Alma, in the county of Gratiot and State of Michigan, have invented certain new and useful Improvements in Safety Devices for Firearms, of which the following is a specification.

This invention relates to safety devices for fire arms, which are intended to prevent the premature or accidental discharge of a weapon by reason of its being dropped or carelessly handled.

This invention belongs directly in that class of such devices each of which includes a movable shoulder plate connected with contrivances arranged to act upon the trigger or triggers of the gun, those connections being locked to hold the triggers, and released to free them by means of a member pressed upon by the hand when grasping the gunstock. Several operations must be considered and intentionally undertaken before the piece may be discharged by the user.

The object of this invention is the production of a safety device of the nature stated wherein three operations must be taken in mind and conducted, and wherein the mechanical parts involved are believed to be of special construction and arrangement, cheap to manufacture, very durable, easily put together, and particularly effective for the purposes set forth.

Of the accompanying drawings, Figure 1 is a rear face view of the shoulder plate. Fig. 2 represents a longitudinal section of the butt of a gun disclosing all parts of this invention assembled, and showing certain parts in section. Fig. 3 is a side view, partly in vertical section, showing the parts for locking and releasing the shoulder plate rod. Fig. 4 is a top view of the rod and rod guide, and the junction of the head of the rod and the bar for locking the triggers.

Throughout the description and drawings, the same letter is employed to refer to the same part.

Considering the drawings, the butt or gunstock A has the customary lock casing *a*. To bear against the shoulder there is provided the movable plate B, which may be moved back and forth in a container or guiding dished seat *b* that is secured to the end of the gunstock as shown in Fig. 2. The gun has the usual trigger guard C, and is provided with triggers D and *d*.

In Fig. 2 the connection E shown is attached to the plate B by the screw *e*, and the connection joins the plate and the rod F that passes movably in an inclined direction through the gunstock A. A return spring *f* acts upon the rod and holds the shoulder plate yieldingly in its outer position illustrated in Fig. 2. The inner end of the rod is movably directed by the guide G, also inclined, and, beyond and to the right of the guide G the rod terminates in a head *g*. The screws H and *h* from the exterior above and below the gunstock fasten the guide in place.

As best disclosed in Fig. 3, the rod F has the vertical longitudinal slot J and the guide has a like slot *j* that will register with the slot in the rod. That arrangement permits the locking plate or bolt K to pass movably in the slots and through the guide and rod. The bolt K has a recess *k* constructed to allow the rod to enter when the bolt is raised and the rod is moved forward. In Fig. 3 the rod is shown in its forward position and in engagement with the recess *k* of the bolt. The office of the bolt K is to lock and release the rod F. For those purposes there is provided a grip lever L, pivotally connected with the gunstock and externally placed thereupon. The lever L has a post M erected upon it, and the post is provided with a transverse slot *m* near its upper end. The slot *m* engages a pin N that projects from the side of the bolt K, and the movements of the lever L are by those devices transmitted to the bolt. The lever L is held in its lower position, and the bolt K is drawn downwardly by the spring *n* which is connected to the lock casing and bears upon the rounded top or corner of the post M. To avoid having the free end of the grip lever L catch in the hands or sleeve, its extremity is passed through a slot *c* in the trigger guard C, and the extent of the slot limits the movement of the lever and, consequently, that of the bolt K.

Again considering Figs. 2 and 4, it will be noted that the head *g* of the rod F is pivotally connected with the trigger lock bar O, and the bar is arranged to move horizontally in the guide posts P and Q. The bar O is provided with the projecting lugs R and *r*. The description of one will

answer for both. The lug R is usually curved but has a flat lower end, and, when the rod is in its backward or outer position as set out in Fig. 2, it covers or rests directly above the upwardly extending portion of the trigger D. The upwardly extending portion is designated by the letter S, and, if the trigger D were pressed backward by the finger its movement would be arrested by the contact of the part S with the lug R. But, it is thought to be clear from the drawing that, if the locking bar O is moved forward, the lug is removed from above the portion S of the trigger D, and the trigger may be pressed backward, the lug occupying the recess T. After the gun is fired and taken from the shoulder, the trigger D is returned to the position shown in Fig. 2 by a suitable spring such as the spring *t*. It is not intended to limit this invention to the particular form of locking bar and lugs or triggers herein illustrated, which may readily be modified and still operate similarly.

While it is intended that this invention shall be brought to the shoulder to move the rod, when the rod is released by the movement of the bolt K, the gun may be fired from the hip by grasping the grip lever and thereby releasing the rod F, and then, with the thumb of the same hand pressing forward the staff U by means of its external head *u*, shown in Fig. 2. The staff U is connected with the head *y* of the rod, and may move the rod if force is applied as stated.

It is believed that the operation of this invention may be discerned readily from an examination of the drawings. When the hand seizes the grip of the gun, the lever L is pressed in toward the gunstock. The movement raises the bolt K and brings the recess *k* into position to receive the rod F. The gun being brought to the shoulder, pressure upon the shoulder plate B moves the rod forward, and removes the lug R and its fellow *r* from their positions in the way of the movements of the triggers, and either or both barrels of the gun may be discharged. Without those operations, three in number, the gun cannot be discharged in any way excepting by the actuation of the rod F by means of the staff U as already set forth.

Having now described this invention and explained the mode of its operation, what we claim is:—

1. In a safety device for fire arms, the combination with a gunstock, of a movable shoulder plate, a rod connected with the said movable plate and passing movably through the said gunstock, means for guiding the inner end of the rod, a return spring acting upon the rod, the said rod and the said guiding means having longitudinal slots arranged to register with each other, a locking bolt movable in the said slots and having a recess constructed to receive the rod when the rod is moved forwardly, a grip lever pivotally connected with the said gunstock and arranged externally thereupon, means for transmitting the movements of the lever to the said bolt, a trigger, and means actuated by the movements of the rod for securing and releasing the trigger.

2. In a safety device for firearms, the combination with a gunstock, of a movable shoulder plate, an inclined rod passing movably through the said gunstock and connected with the said shoulder plate, inclined means for guiding the inner end of the rod, a return spring acting upon the rod, the said rod and the said guiding means having longitudinal slots arranged to register with each other forming a vertical opening through the said guide and rod, a locking bolt movable vertically in the said slots and having a recess constructed to receive the rod when the rod is moved forwardly, a grip lever pivotally connected with the said gunstock and arranged externally thereupon, means for transmitting the movements of the said lever to the said bolt, a trigger, and means pivotally connected with the said rod and movable horizontally for securing and releasing the trigger.

3. In a safety device for firearms, the combination with a gunstock, of a movable shoulder plate, a rod connected with the said movable plate and passing movably through the said gunstock, a return spring arranged to move the rod and plate, a locking device arranged to act upon the rod, a grip lever pivotally connected with the rod-locking device and with the said gunstock and arranged externally upon the gunstock, a trigger, a guard having an upwardly extending slot, the free end of the said lever being movably arranged in the said slot in the trigger guard, and means actuated by the movements of the said rod for securing and releasing the trigger.

In testimony whereof we affix our signatures.

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