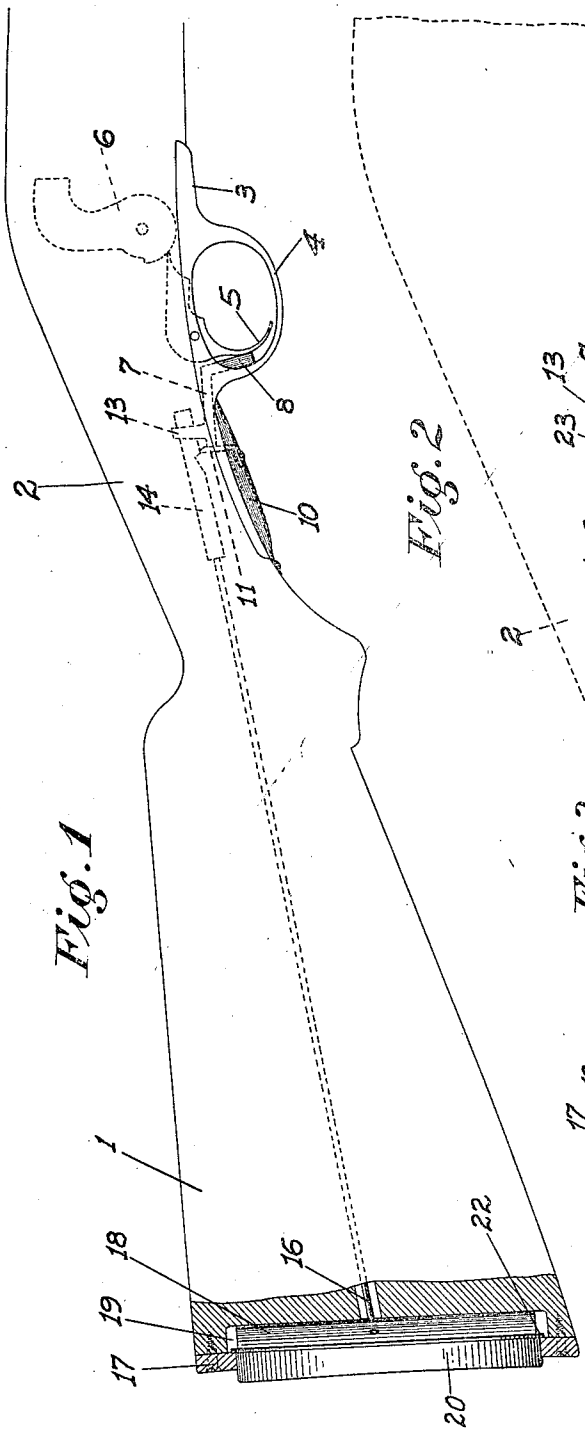
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SAFETY DEVICE FOR FIREARMS.

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To all whom it may concern:

Be it known that I, BENJAMIN F. SCHMIDT, a citizen of the United States, residing at Exeter, in the county of Tulare and State of California, have invented certain new and useful Improvements in Safety Devices for Firearms; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this application.

This invention relates to improvements in safety devices for firearms to prevent the same being accidentally discharged, and is particularly adapted to be applied to rifles, shotguns and the like.

I am aware that most modern firearms of this character are provided with some sort of a safety device for locking the trigger against being pulled until the safety device is released. This is usually accomplished however by a finger member which projects at some suitable point on the firearm and is adapted to be turned or pressed down by the person using the gun. This feature then renders it liable to be also released unintentionally when some object brushes against the same, as for instance when a party is hunting and traveling through a heavy growth of underbrush, etc. It is then an easy matter for the trigger of the gun to be also accidentally pulled, which accounts for the numerous accidental shootings which occur in hunting parties, etc.

The principal object of my invention therefore is to provide a means for releasing the safety device of the firearm which will do so only when the gun is held in operative position against the shoulder of the person about to shoot, and which is therefore automatic in its action, and renders accidental discharge of the gun impossible.

In the accompanying drawings I have shown a safety device of my own applied to a firearm in place of the ones now generally supplied, but the releasing means therefor may be also operatively connected to release such present safety means automatically instead of using the finger to do so.

A further object of my invention is to provide a simple and inexpensive device, and yet one which will be extremely efficient for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

On the drawings, similar characters of reference indicate corresponding parts in the several views, in which:—

Figure 1 is an outline of the stock and grip portion of a firearm, showing my improved safety and releasing devices installed therein.

Fig. 2 is an enlarged view of the safety device, with the stock-grip and trigger guard of the gun outlined in connection therewith.

Fig. 3 is a cross section taken on a line 3—3 of Fig. 2.

Fig. 4 is a cross section through the butt-plate of the gun.

Referring now more particularly to the figures of reference on the drawings, the numeral 1 denotes the stock of the firearm, 2 the stock-grip portion thereof, and 3 the guard plate having the usual trigger guard 4 mounted thereunder. The usual trigger 5 is pivoted to the plate 3 and adapted to actuate the usual hammer 6.

Slidably mounted in the plate 3 for horizontal movement relative thereto is a bar 7, having an arm 8 extending downwardly from the forward end thereof and adapted to bear against the portion of the trigger 5 projecting into the trigger guard 4. A spring 9 mounted in the guard 4 normally holds the arm 8 against the trigger.

A spring plate 10 is secured at its rear end to the stock grip 2 of the gun, and extends forward to a point adjacent the guard 4, and is adapted for vertical movement relative to the guard-plate 3. A stop-plate 11 extends upward from said plate 10, the rear end of the bar 7 normally abutting against the same. A rectangular orifice 12 is provided in the plate 11, of a size sufficient to permit of the passage of the bar 7 therethrough, but normally positioned below the plane of the same to a certain extent.

A guide member 13 is formed integral with the arm 7 and projects above the same, the forward end of a horizontal releasing bar 14 being slidably mounted for horizontal movement therein. This bar is provided with a V-shaped incision 15 on its under side, adapted to receive the plate 11

therein, the latter normally resting against the flat under side of the bar 14 immediately forward of the incision 15 therein.

A rod 16 is connected to the rear end of the bar 14, and extends back through the stock of the gun to a point adjacent the butt-plate 17 thereof, at which point it is flexibly connected to one leaf of a hinge 18 positioned vertically in a hollowed out portion 19 provided in the stock 1 immediately forward of the butt-plate 17. The forward leaf of the hinge 18 is secured to the material of the stock forward of the recess 19, but the rear leaf is free, and is adapted to bear against a shoulder plate 20 slidably mounted in the butt-plate 17. The rod 16 is connected to the rear one of the leaves of the hinge 18, the leaves thereof being normally held apart by a spring 21 positioned therebetween, so that the shoulder plate 20 is always pressed outwardly through the butt-plate, being prevented from displacement relative to the butt-plate by means of a flange 22 thereon normally abutting against the inner edge of the plate 17.

I have here shown and described the shoulder plate 20 as being slidable in the butt-plate, but if desired or found advantageous, the entire butt-plate itself may be slidable on the stock, and operatively connected to the rod 16 in the same manner as shown.

The operation of the device is as follows;—

When the hammer 6 is cocked and the trigger 5 is in position to fire the gun by a slight pull thereon, the arm 8, as previously stated, is pressed thereagainst by the spring 9. The arm 7 connected thereto, cannot move toward the rear, owing to the fact that it abuts against the stop-plate 11. It is evident, however, that when the hand of the user grips the portion 2 of the gun, an upward pressure will be exerted on the plate 10 to which the member 11 is secured. This upward movement cannot normally take place however, the top of the plate 11 bearing against the under side of the bar 14, which is not adapted for upward movement. As soon as the gun is placed to the shoulder to sight and fire the gun, a pressure in a forward direction will be exerted on the shoulder plate 20. This causes the rod 16 to move forward, carrying the bar 14 with it, and thus positioning the recess 15 therein directly above the member 11. As soon as this takes place, the member 11 is free to have a limited vertical movement, which is sufficient to place the orifice 12 therein in alinement with the bar 7, which can then slide therethrough and allow the trigger 5 to be pulled to discharge the gun.

As soon as the gun is lowered from the shoulder, and the pressure of the user thereon relaxed, the action of the various springs will force the bar 7 out of the orifice 12, which will permit the plate 11 to return to its normal lowered position, and the bar 14 to move back so that the slot or recess 15 therein is again out of alinement with the plate 11.

In order that there may be no possible binding of the parts, should one spring act quicker than the other, the plate 11 is cam shaped along its upper forward edge as at 23, so that the forward edge of the recess 15 may aid in pushing the plate 11 down.

The hinge 18 is preferably very stiff, so that uneven pressure on the shoulder plate 20 will still effect the necessary movement of the rod 16.

From the foregoing description it will readily be seen that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred embodiment of my invention, still in practice such deviations from such detail may be made as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:—

1. A safety device for firearms comprising a bar slidably mounted in the guard-plate of the firearm and having an arm thereon adapted to impinge against the finger portion of the trigger, a stop plate positioned across the rear end of the bar and provided with an orifice for the passage of the bar therethrough but normally positioned below the plane thereof, a spring grip-plate connected to the trigger-guard plate on the under side of the same and adapted for limited vertical movement, the stop plate being mounted thereon, means whereby the gripping plate is normally held against upward movement, and means whereby the same may be released, such latter means being automatically operable from the butt-plate of the firearm when the same is held in operative position against the shoulder, and pressure exerted thereagainst.

2. A safety device for firearms comprising a bar slidably mounted in the trigger guard-plate of the firearm and having an arm thereon adapted to impinge against the finger portion of the trigger, a stop-plate positioned across the rear end of the bar and provided with an orifice for the passage of the bar therethrough but normally positioned below the plane thereof, a spring gripping-plate connected to the under side of the guard-plate and adapted for limited vertical movement, the stop plate being mounted thereon, means whereby the gripping plate is normally held against upward

movement, and means whereby the same is released when firing the firearm, such means including a locking bar slidably mounted above the stop-plate, the latter normally impinging against the under side of the bar, the bar being provided with a recess adapted to be positioned in the path of the stop-plate with a forward movement of the bar, and a rod extending from the said bar to the butt plate of the firearm, the butt-plate being horizontally slidable relative to the stock and being spring mounted therein.

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

BENJAMIN F. SCHMIDT.

Witnesses:
VIRADINE WARNER,
BERNARD PRIVAT.