Jan. 21, 1969 T. C. FOOTE ET AL 3,422,560

ADJUSTABLE GUN TRIGGER LOCKS

Filed May 25, 1966 Sheet 1 of 2

Fig. 1

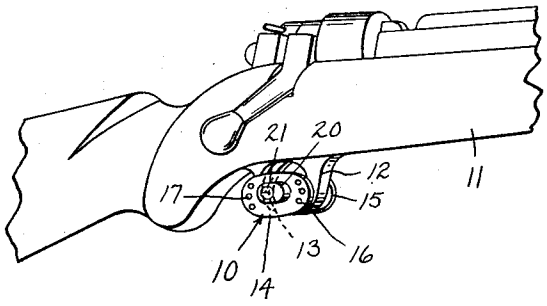


Fig. 2

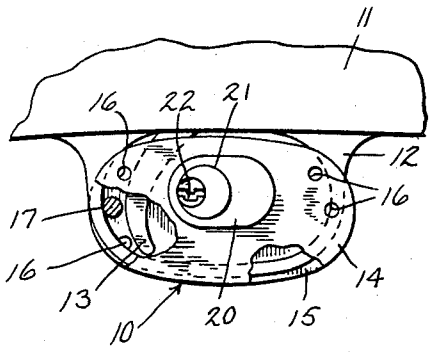


Fig. 3

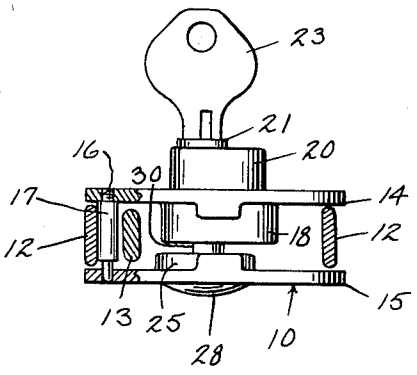
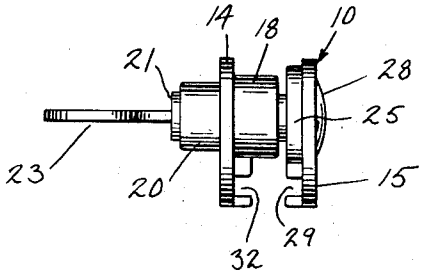


Fig. 4



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Fig. 5

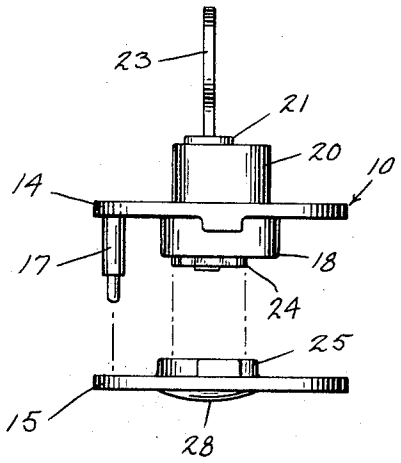


Fig. 6

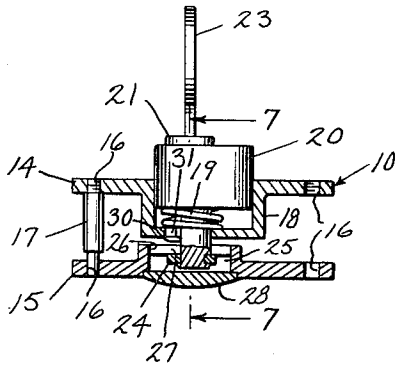
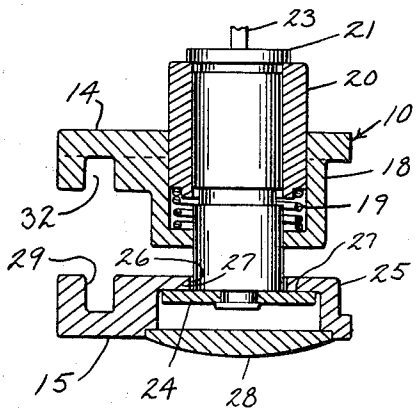


Fig. 7



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ADJUSTABLE GUN TRIGGER LOCKS

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ABSTRACT OF THE DISCLOSURE

A gun trigger lock having a pair of opposed plates to engage and cover opposite faces of a gun trigger guard with a key controlled, spring loaded cylinder lock extending transversely into the trigger guard and releasably connecting intermediate portions of said plates. An interchangeable transverse pin of a selected diameter releasably connects the rear portions of said plates and extends through the trigger guard, the gun trigger being confined between said pin and the lock.

This invention relates to improvements in adjustable gun trigger locks.

There have been many prior attempts, in the nature of safety devices, caps, and locking devices to block the loading of firearms. Additionally, safety locks and clamps positioned in or around the gun frames to prevent accidental discharge have been proposed, but all of these prior attempts have proven to be impractical, clumsy, and inconvenient in use. The problem has been magnified by the great variety and styles of guns and rifles produced by many different manufacturers resulting in non-uniform location of and variations in the shapes, contours and sizes of trigger guards. Cosequently, while a safety device, cap, or lock will fit one particular make and size of gun, it will not fit or cannot be used in connection with other makes or styles of guns.

The basic purpose of a gun trigger lock is to prevent the unauthorized use of the gun, to prevent the accidental discharge of a loaded gun by a child or adult stranger, and to prevent unauthorized use of stolen guns. A practical and acceptable trigger lock, therefore, should give adequate protection, be easily adaptable and adjustable, and fit practically all rifles and shotguns regardless of their trigger guard contours.

With the foregoing in mind it is, therefore, a primary object of the present invention to provide an adjustable gun trigger lock which meets all of the foregoing requirements, and which not only clamps to the gun trigger guard, but actually covers the entire trigger opening, blocking the trigger itself from the rear, the entire device being locked to the trigger guard through a pin-tumbler cylinder mechanism.

A further object of the present invention is to provide a unique type of adjustable gun trigger lock adapted for use on single trigger rifles and shotguns, and which is, moreover, simple, secure and attractive in appearance.

A more specific object of the invention is to provide an adjustable gun trigger lock having a plurality of guide holes, a registering pair of which are adapted to receive a selected trigger blocking pin which when the trigger lock is applied locates snugly behind the gun trigger and, as the trigger guard is enclosed by the lock, accidental movement of the trigger is prevented.

Another specific object of the invention is to provide a gun lock that is adjustable to variously located gun triggers and includes a blocking pin of a selected size accommodated snugly in the trigger guard space rearwardly of the trigger to thereby prevent any actuation of the gun trigger.

Another object of the invention is to provide in a gun trigger lock a two-piece spring-loaded cylinder lock wherein the spring tension makes it possible to firmly hold the back plate of the lock, whereby the lock can be used on different sizes and kinds of single triggered guns, the spring tension also permitting the entire unit to be securely locked to gun trigger guards of different breadths.

A further object of the invention is to provide an improved gun trigger lock that can be releasably locked to a rifle or shotgun trigger guard through a key operated mechanism, the entire lock enclosing the trigger and trigger guard of the gun to prevent accidental discharge while in no manner interfering with the storage, handling, or carrying of the gun, whether or not it is loaded.

Another specific object of the invention is to provide a gun trigger lock which incorporates a spring-loaded cylinder mechanism and latch that fits into a latching pocket under spring pressure, whereby the entire lock unit is securely locked to a gun trigger guard, with the spring pressure preventing it from moving, rattling, or scuffing the finish of the trigger guard.

A further object is to provide an improved gun trigger lock that includes a pair of laterally separated sideplates, a latch, latch pocket, internal pin, and locking mechanism, all of which fit and clamp into the trigger guard of a gun in a manner so that the trigger lock cannot be cut off or removed when in its locked position on a gun trigger guard.

Still another object is to provide a key operated, spring loaded gun trigger lock which affords protection against access to the gun trigger by children or unauthorized persons, the gun trigger lock, nevertheless, being susceptible of easy removal from the gun when desired by the owner, or in case of emergency by using the proper key.

A further object of the invention is to provide an adjustable gun trigger lock which is easily applied to or removed from the trigger guard of a gun or rifle, which prevents unauthorized operation of the gun trigger, which is adjustable to fit trigger guards of various breadths and contours regardless of the trigger location within the trigger guard, which is strong and durable and effective in use, and which is well adapted for the purposes described.

With the above and other objects in view, the invention consists of the improved adjustable gun trigger lock, and its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawings in which the same reference characters indicate the same parts in all of the views:

FIG. 1 is a fragmentary view of a portion of a gun showing the improved key-actuated adjustable gun trigger lock applied to the gun trigger guard in blocking relation to the gun trigger;

FIG. 2 is an enlarged fragmentary face view of the gun trigger guard and the adjacent portion of the gun with the trigger lock applied thereto, parts being broken away and in section to show structural details;

FIG. 3 is an inverted plan view of the trigger lock as applied to a gun trigger guard and trigger with portions broken away and shown in section;

FIG. 4 is a front end view of the trigger lock in its locked condition;

FIG. 5 is an inverted plan view of the trigger guard in its open or spread condition;

FIG. 6 is an inverted plan view, in section, of the trigger lock in its secured-together operative condition with the latch locked; and

FIG. 7 is an enlarged fragmentary sectional view taken approximately along the line 7—7 of FIG. 6.

Referring now to the drawings, and particularly to FIGS. 1, 2 and 3 thereof, it will appear that a preferred embodiment of the improved adjustable gun trigger lock is designated generally by the numeral **10**. This trigger lock is especially adapted for use in connection with the triggers of various types of guns and rifles, but because of its characteristics it is not intended for use with pistols. A conventional gun is indicated by the numeral **11** and the same has a trigger guard **12** depending from a portion thereof, as shown. According to the present invention the gun trigger lock **10** is, when applied to the gun trigger guard **12**, adapted to enclose the same and cover the gun trigger **13**, as is best shown in FIGS. 1, 2 and 3 rendering the gun trigger inaccessible for unauthorized operation.

The gun trigger lock **10** includes a front face plate **14** and a separate, but complementary, rear plate **15**. Both of the plates **14** and **15**, which are adapted to be laterally spaced apart to adjustably conform to the breadth of the gun trigger guard **12**, are of similar ovate shape and the end portions of the respective plates are formed with series of registering apertures **16** arranged in arcuate formation. To ultimately connect the plates **14** and **15** together in enclosing relation to the trigger guard **12**, a pin **17** is utilized, the outer shouldered threaded end of the pin **17** being threaded into one of the threaded openings **16** in the front wall plate **14** adjacent the lefthand end of the plate relative to FIGS. 1, 2 and 3, while the other reduced end of the pin **17** is adapted to engage in one of the apertures **16** in the inner or rear plate **15** which is in coincidence with the aperture in the front wall plate **14** into which the threaded reduced end of the pin **17** was selectively inserted. At this point it should be stated that a pair of pins **17** of different diameters (as to their main body portions) may be provided with the assemblage, and to adapt the gun trigger lock to a particular gun trigger location within its trigger guard, a pin of a suitable diameter is utilized. The selection of a particular pair of registering apertures **16** for the selected pin **17** is related to the spacing of the trigger **13** within the rear end portion of the trigger guard **12**, it being essential in the assembled and mounted condition of the trigger lock that the transverse connecting pin **17** be located between the trigger **13** and the inner face of the rear end of the trigger guard **12** in a manner so as to most effectively occupy the space between said elements. The length of a pin **17** is such that the trigger lock assemblage **10**, when applied to a trigger guard **12**, will snugly accommodate the latter.

The inner face of the front plate **14** of the trigger lock assemblage is formed with an inwardly projecting cup or socket **18** of ovate form which, within its inner end, houses a coiled spring **19** resiliently engaging the inner end portion of a cylinder shell **20**, also of ovate formation, and which reciprocatably projects into the socket **18**. The cylinder shell **20**, in turn, has secured therewithin a conventional lock plug **21**, shown most clearly in FIGS. 6 and 7, and which is provided with a slot **22** to receive a special notched actuating key **23**. The key, when turned within the cylinder shell, imparts turning movement to the lock plug to thereby turn a latch **24** (see FIGS. 6 and 7) carried fast by the inner end of the lock plug **21**.

The rear plate **15** of the lock assemblage is formed with a forwardly projecting pocketed boss **25** having an entrance opening **26** therein of a length sufficient to receive the latch **24** when the latter is in the releasing position of the latch and shaped to correspond to the shape of the latter. However, when, by means of the key **23**, the lock plug is turned through a 90° angle from its unlocked position, the opposite ends of the latch **24**, when the device is assembled and applied, lodge under shoulders **27** on opposite sides of the mouth of the pocketed boss **25**, which serve to prevent unauthorized separation of the lock plates **14** and **15** and consequent removal of the lock assemblage from the trigger guard, all as will hereinafter appear. The rear end of the pocket **25** is covered by a decorative cap **28**.

To mount the improved adjustable gun trigger lock assemblage **10** onto the trigger guard **12** of a gun or rifle, the rear plate **15** of the trigger lock, separated from its components, is manually held against the remote side of the trigger guard **12**, with the lower edge of the latter being accommodated within a groove **29** (see FIG. 4) formed by spaced protuberances on a face of the rear plate **15** below a marginal portion of the boss **25**. Next, the proper key **23** for the lock is inserted into the slot **22** in the lock plug **21** and the key is turned a quarter of a revolution in a clockwise direction relative to FIG. 2, turning movement of the lock plug **21** by the key being limited by engagement of a flattened surface **30** on the plug **21** with a shouldered stop **31** formed in the base of the socket **18**. With this manipulation the latch **24** will be alignable with the entrance opening **26** in the pocketed boss **25**. The front plate **14** of the assemblage should next be brought against the front surface of the trigger guard **12** with the inner reduced end of the pin **17** entering one of the series of apertures **16** in the rear plate **15** which registers with the aperture in the front plate into which the pin is threaded. A lower edge portion of the trigger guard **12** will then seat in a groove **32** formed on the lower inner face portion of the front plate **14** below the cup or socket **18**. Inasmuch as the grooves **29** and **32** are aligned, the cup or socket will be positioned within the gun trigger guard **12**, slightly forwardly of the trigger **13**. The preselected transverse blocking pin **17** assumes a position slightly rearwardly of the trigger **13**. The cylinder shell **20**, being reciprocatable against the spring **19**, may be depressed by pushing inwardly on the key **23** and lock plug **21**, and this moves the latch **24** deeply within the pocket **25** of the rear plate **15**. Next, by turning the key **23** a quarter of a revolution in a reverse direction, the latch **24** will be crosswise to the entrance opening or slot **26** and will thereby be retained within the pocket **25** by engagement of the ends of the latch with the shoulders **27**, as shown in FIG. 7. The key may then be removed and it will be evident that the entire assemblage is securely locked to the trigger guard. The spring **19**, exerting a force against the cylinder shell **20**, will prevent rattling or such movement of the parts as would scuff or mar the finish of the gun trigger guard. The yielding reciprocation of the shell **20** afforded by the spring **19** also adapts the trigger lock to gun trigger guards of varying breadths, within certain limits.

The front and rear plates **14** and **15** of the gun trigger lock assemblage correspond in shape to the general outline or contour of a gun trigger guard **12**. When the gun trigger lock is applied to a gun trigger guard and the trigger **13** therewithin the same are completely confined within the space between the connected plates **14** and **15**. It will also be observed that the cup or socket **18** occupies a substantial space within the trigger guard forwardly of the trigger, while the transverse pin **17**, extending across the rear of the gun trigger lock, blocks access to the trigger. Consequently, when the gun trigger lock is in its applied position on a gun trigger guard, access to the gun trigger is effectively prevented so that the gun may not be shot unauthorizedly. Due to the spring mounting of the cylinder shell and the parts carried thereby the latch **24** may be readily projected into its pocketed boss **25** and, by turning movement effected by the key, the latch is caused to engage within the pocketed boss against the shoulders therein. This spring loading of the parts referred to also adapts the device to firm mounting on gun trigger guards of varying breadths. By providing a gun trigger lock having a key-controlled pin-tumbler cylinder mechanism, no one, except the possessor of the key, can gain access to the lock. The lock assemblage, when mounted, is so compact and snugly applied that it in no manner interferes with the storage or handling or carrying of the gun.

From the foregoing description it will be seen that the improved gun trigger lock is readily adaptable to trigger guards of various types of guns and rifles and prevents unauthorized operation of the gun trigger. The lock assemblage is easy to apply or release, is adjustable, and is well adapted for the purposes described.

What is claimed as the invention is:

1. In combination with a gun trigger guard spacedly surrounding a gun trigger, a trigger locking device releasably and transversely adjustably enclosing said trigger guard and including a pair of laterally spaced apart plates, one of which carries an inwardly projecting transverse spring loaded lock assembly with a latch on its inner end, and the other of which is formed with an inwardly projecting latch socket boss into which the latch resiliently, releasably and adjustably extends, the rear portion of each plate being formed with a series of spaced apart guide holes with the holes of one plate registering with those of the other plate, and a transverse connection between the rear end portions of said plates selectively mounted in a pair of registering plate holes, the gun trigger being confined between said transverse connection and the lock assembly.

2. The combination recited in claim 1 wherein the transverse connection is an interchangeable pin of a selected diameter.

3. The combination recited in claim 1 wherein the lock assembly includes a key controlled cylinder mechanism.

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