

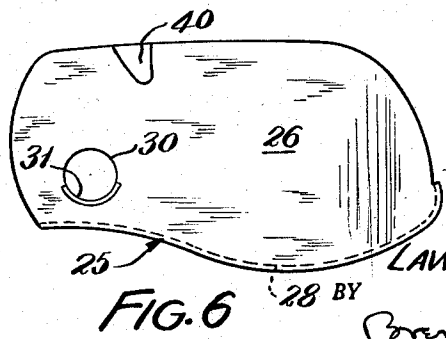
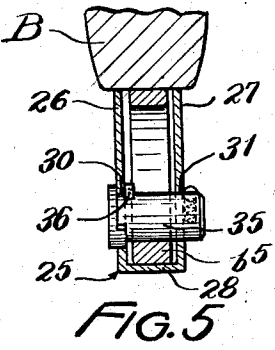
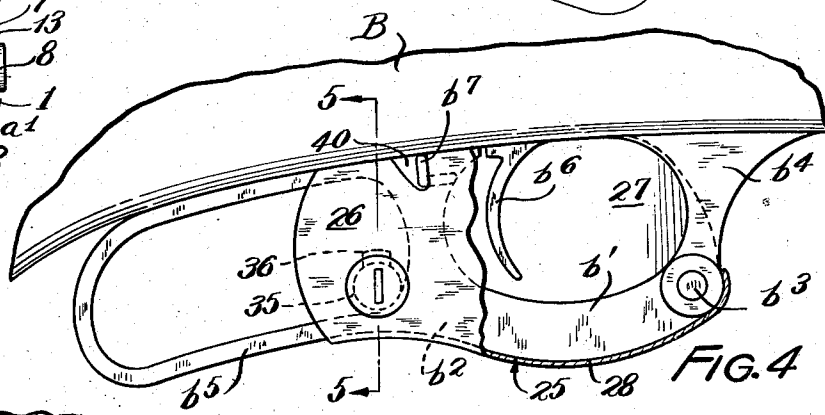
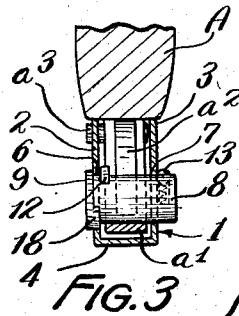
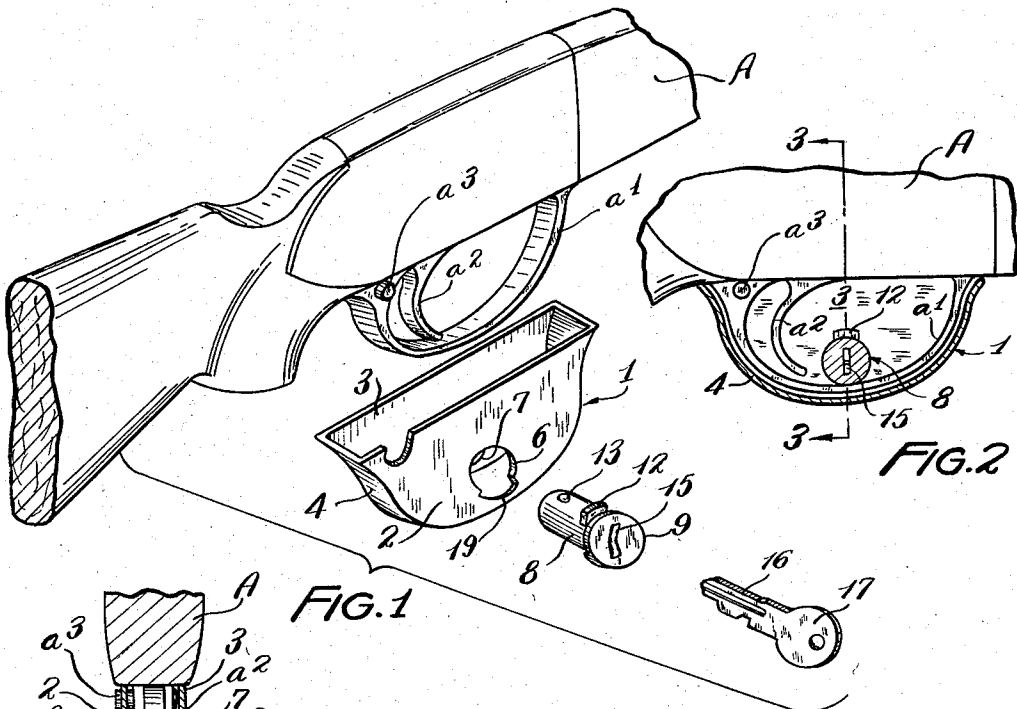
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SAFETY CAP FOR TRIGGER GUARDS OF FIREARMS

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SAFETY CAP FOR TRIGGER GUARDS OF FIREARMS

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3 Claims. (Cl. 42-70)

This invention relates to that class of safety devices that consist of caps or housings for application to the trigger guards of firearms so as to enclose the guards and which are equipped with means for locking them to the guards.

The primary purpose of my invention is to provide an exceedingly simple and correspondingly inexpensive safety device of the aforesaid class that is convenient of application to and removal from a trigger guard and that, when applied, will maintain a substantially fixed position with respect to the guard.

A more specific object is to provide a trigger guard that consists of but two major parts, namely, a cap or housing that fits rather closely the trigger guard of a firearm, and a lock cylinder of substantially conventional type that is adapted to be projected through aligned apertures in opposed walls of the cap or housing within the enclosure of the trigger guard and in close proximity to the bottom thereof so that the presence of the lock cylinder will prevent appreciable movement of the cap or housing with respect to the guard. Another and related object is to provide simple means for preventing rotation of the lock cylinder with respect to the cap or housing, such as would permit the tumblers of the lock to engage the guard and be retracted thereby and thus render the lock ineffective.

A further and related object is to so locate the lock cylinder with respect to the areas of contact between the guard and the cap or housing that engagement of the lock cylinder with the trigger of the firearm will be positively prevented.

Another object of the invention is to provide the lock cylinder with retaining means which, in its present preferred form, consists of a spring loaded plunger or ball, for temporarily holding the lock cylinder to the cap or housing while extracting the key.

A further object is to provide a safety device of the class first above mentioned that, with respect to certain guns, insures that the gun is "on safety" when the device is applied thereto.

The invention is applicable to different kinds of firearms incorporating trigger guards, the housing being designed to fit the trigger guard of a particular gun, or group of guns characterized by trigger guards of substantially the same size and shape. Also, the device may be made for use with firearms having fixed trigger guards, or for use with lever action guns wherein the trigger guard is a part of the lever.

The objects and advantages above enumerated with others that will appear as this description proceeds, are attained in the embodiments of the invention illustrated in the accompanying drawing wherein like parts are designated by like reference characters throughout the several views.

In the drawing,

Fig. 1 is a perspective view including a part of a gun in the region of the trigger guard; the cap or housing that constitutes one of the major parts of my invention;

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the substantially conventional lock cylinder that forms the other major part, and a key for the lock cylinder;

Fig. 2 is a side elevational view showing the safety device locked to the trigger guard of the gun, the housing and lock cylinder being shown as cut in section on a plane immediately inside the near wall of the housing;

Fig. 3 is a transverse section on the line 3-3 of Fig. 2, the lock cylinder being shown in elevation;

Fig. 4 is a fragmentary side elevational view of a lever action gun, showing my safety device, partially in section, applied thereto;

Fig. 5 is a sectional detail on the line 5-5 of Fig. 4, and

Fig. 6 is a side elevational view of the housing designed for use with a lever action gun.

In the form of the invention illustrated in Figs. 1 to 3, an open top cap or housing, designated generally by the reference numeral 1, is made of a size and shape to fit over the trigger guard a' of a firearm or gun A in such manner as to be held against appreciable movement in a direction endwise of the gun. The housing 1 is made up of substantially parallel side walls 2 and 3 that are joined together and spaced apart by an edge wall 4. The side walls 2 and 3 are provided, respectively, with apertures 6 and 7, and through these apertures is adapted to be projected a lock cylinder 8 that is provided with a flange or head 9. This lock cylinder is of substantially conventional type and includes a tumbler 12 that is spaced from the head or flange 9 a distance very slightly greater than the thickness of the wall 2. Near its end remote from the head 9, the lock cylinder is provided with a detent 13 which may consist of a spring loaded plunger or ball of well known character. The lock cylinder is provided with the usual axial key slot 15 for the reception of the bit 16 of a key 17 so that when the key is inserted into the key slot it will retract the tumbler 12 so that the end surface of the tumbler coincides substantially with the cylindrical surface of the lock cylinder.

The apertures 6 and 7 are so located with respect to the wall 4 of the cap or housing 1 that, when the device is attached to a gun, the lock cylinder will be situated within and closely adjacent the bottom of the trigger guard a' , and far enough away from the trigger a'' to insure against contact of the lock cylinder therewith. In order to prevent such rotation of the lock cylinder 8 with respect to the housing as would permit engagement of the tumbler 12 with the guard a' and possible retraction of the tumbler by reason thereof, the head 9 is formed on its inner side with a segmental part 18 that is received by a correspondingly shaped notch 19 that forms a radial offset portion of the aperture 6. The detent 13 tends to hold the lock cylinder against withdrawal at the time the key is being removed from the key slot.

Where the gun or firearm is provided with the type of safety device designated a^3 , the side wall 2 of the housing is provided with a notch 20 for the accommodation of such device when the latter is in safety position. Otherwise the device protrudes a distance beyond the opposite side of the guard and interferes with the attachment of the housing to the trigger guard due to the fact that the wall 3 of the housing has no notch corresponding to the one designated 20.

The invention, as illustrated in Figs. 4 to 6, is designed for use with lever action guns. A fragment of a gun of this type, designated B, is shown in Fig. 4. The trigger guard b' is constituted of a part of a lever b^2 that is pivoted at b^3 to a hanger b^4 ; and the free or distal end of the lever is in the form of a loop b^5 . The trigger of the firearm or gun is designated b^6 , and the so-called "safety," usual in such guns, is denoted b^7 .

The cap or housing 25, shown in side elevation in

Fig. 6, is made up of side walls 26 and 27, that are connected together and spaced apart along their lower edges, by an edge wall 28. The forward end of the wall 28 hooks about the pivotally connected end of the lever b^2 . The edge wall 28 follows closely the contour of the underside of the lever and encloses the inner end of the loop b^5 . The respective walls 26 and 27 are provided with apertures 30 and 31 for the reception of the lock cylinder 35, which may be identical with the lock cylinder 8 of the previously described form of the invention. The tumbler of this lock cylinder is designated 36. The upper edge of the wall 26 of the cap or housing 25 is notched at 40 for the accommodation of the safety device b^7 , when the latter is in "safety" position.

The apertures 30 and 31 are so located with respect to the housing 25 that the lock cylinder is confined within a niche formed by the lower front portion of the loop b^5 so as to hold the housing securely in place on the lever. It will be understood from what has been said, as well as from the illustration, that the lock cylinder 35, like the lock cylinder 8, is held against turning with respect to the housing. Therefore, there is no danger of the tumbler 36 engaging and being retracted by an adjacent part of the lever, which, if permitted, would render the lock ineffective.

Thus it will be seen that my invention provides a very simple and inexpensive, yet thoroughly reliable, safety device of the class first above mentioned, and one that is especially convenient of application to and removal from the trigger guard of a gun.

The cap or housing, in each form of the invention, may be die cast or molded of suitable material, such as aluminum, or a suitable metal alloy, or an appropriate plastic compound; or it may be die formed or fabricated from sheet material, such as aluminum of proper thickness, and suitably finished, in color if desired, according to prevailing practice.

In applying the device to a gun, the cap or housing, with the lock cylinder removed therefrom, is first engaged upwardly over the trigger guard. The lock cylinder, with the key inserted in the key slot thereof so as to retract the tumbler, is then projected through the apertures in the opposed walls of the cap or housing. The lock cylinder is releasably held in this position by the detent, so that the key may be removed without having to manually hold the lock cylinder in place while removing the key. When the key is withdrawn from the lock, the tumbler 12 will be projected and, by engagement with the adjacent side wall of the cap or housing, prevent removal of the lock cylinder.

When it is desired to remove the housing, the key is inserted into the key slot, which renders the lock ineffective, and then, by pressing on the end of the lock cylinder remote from the head thereof, the lock cylinder may be dislodged and withdrawn, whereupon the cap or housing will drop from the trigger guard.

Having thus described my invention, what I claim is:

1. A safety device of the class described comprising an open top thin wall housing including a first side wall and a second side wall, an edge wall connecting the side walls, the housing conforming in shape approximately to the trigger guard of a firearm and being of a size to

rather closely fit said guard, the side walls having axially aligned apertures, and a lock cylinder adapted to be projected through the aperture of the first side wall and thence through the aperture of the second side wall so as to be supported therein at axially spaced locations, the lock cylinder being provided with a part for engagement with one of the side walls for limiting the projected movement of the lock cylinder, said lock cylinder including a tumbler that is closely adjacent the inner surface of the first side wall when said part engages said one of the side walls, the apertures being so located with respect to the edge wall of the housing that the lock cylinder will be closely adjacent the inner side of the trigger guard, the lock cylinder and housing having parts that cooperate for restricting rotation of the lock cylinder with respect to the housing so that said tumbler is prevented from contacting the trigger guard.

2. A safety device of the class described comprising the combination of elements set forth in claim 1, and, in addition thereto, a detent carried by the lock cylinder and cooperating with a part of the housing for holding the lock cylinder against withdrawal from said apertures when a key is being withdrawn from the lock cylinder.

3. A device of the class described for use with a firearm of the lever action type characterized by a combined trigger guard and lever that is pivotally connected to the firearm forwardly of the trigger guard, the distal end portion of the lever being of a shape to constitute a loop, said device comprising an open top housing adapted to be engaged upwardly about the lever and including opposed side walls covering the opposite sides of the trigger guard and an edge wall that connects the side walls along the underside of the housing and extends upwardly at its forward end and about the pivoted end of the lever, the side walls being thin and having axially aligned apertures, and a lock cylinder adapted to be projected through and have bearing at axially spaced locations in said apertures and provided with a part for engagement with one of the side walls for limiting the projected movement of the lock cylinder, said lock cylinder including a tumbler that is closely adjacent the inner surface of the side wall having the aperture through which the lock cylinder is first projected, the apertures being so located with respect to the housing that the lock cylinder will be confined within the lower forward end portion of the aforesaid loop whereby when the housing is attached to the lever it is held against endwise movement with respect thereto, the lock cylinder and housing having parts that cooperate to restrict rotation of the lock cylinder with respect to the housing so that said tumbler is prevented from contacting adjacent parts of the loop.

References Cited in the file of this patent

UNITED STATES PATENTS

2,478,892	Bistoff	Aug. 16, 1949
2,501,254	Beaver	Mar. 21, 1950
2,664,658	Bjorklund	Jan. 5, 1954
2,742,726	Feller	Apr. 24, 1956

FOREIGN PATENTS

494,611	Belgium	July 17, 1950
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