Dec. 17, 1957 F. B. HENRY 2,816,788

LOCK GUARD

Filed July 31, 1953

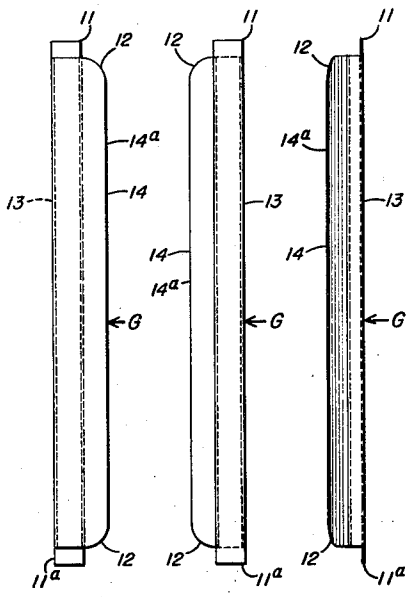


FIG. 1

FIG. 2

FIG. 3

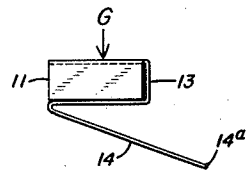


FIG. 4

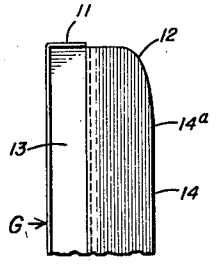


FIG. 5

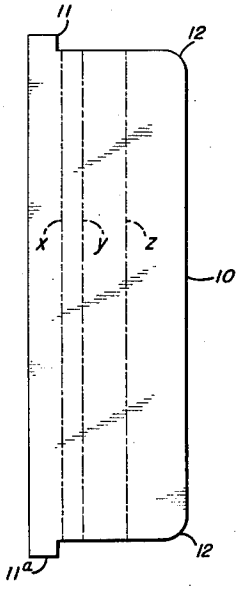


FIG. 6

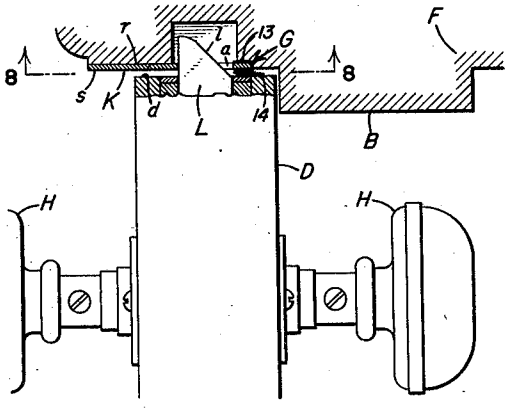


FIG. 7

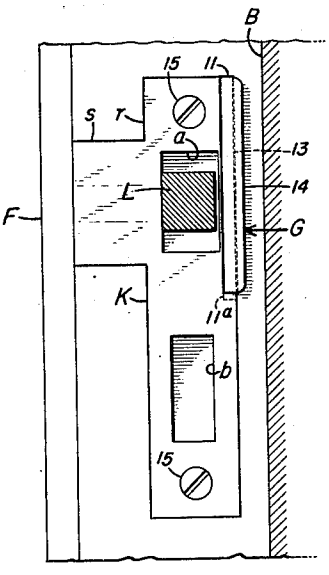
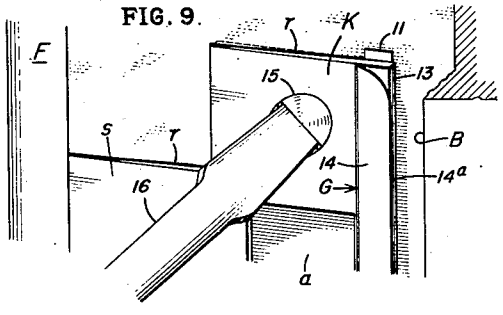


FIG. 8

FIG. 9.



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LOCK GUARD

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3 Claims. (Cl. 292—346)

The present invention relates to an improved protective guard device for spring-latches or snap-locks used in connection with doors and the like.

It is well known that thousands of robberies are committed each year by sneak thieves who force door-locks by using a latch forcing implement in the form of a flexible celluloid strip or a piece of flexible shim steel which they insert between the distal edge of the door and the stop or buck-strip and the door-jamb at the snap lock. Since doors are usually hinged to swing inwardly, the beveled end of the spring-latch or snap-lock faces outwardly of the door and may be contacted by such inserted implement and caused to retract from its keeper, thus allowing the door to be opened if the door is not deadlocked as by a "dead" or "night" bolt, or the like, commonly known. In practice, householders, occupants of apartments and of hotel rooms often rely entirely upon the spring-latches or snap-locks for locking their doors; and chambermaids often forget to deadlock the doors, by using their keys, when they leave a room.

The object of the present invention is the provision of an extremely simple and a most inexpensive protective guard that may be applied by anyone to the striker plate or keeper of a snap-lock or spring-latch of door locks and which is designed to be applied in place by gripping the keeper-plate without entirely removing the keeper-plate yet effectively providing an obstructing wall between the jamb and edge of a door to the insertion of a latch opening implement, such as a strip of celluloid or shim steel or the like.

A further object of the invention is the provision of a lock-guard of the character just described and adapted for use with a keeper-plate securable into a recess provided in the jamb and is provided with selectively bendable portions which prevent the guard from being slid or forced out of protecting position when the keeper-plate is secured in its recess whereby the guard may be used on either the right or left side of the door jamb or door frame without the necessity of providing right and left guards.

The invention resides in the sundry details of improved construction and the arrangement of parts described herein and shown in the accompanying drawings, which latter form part of this specification by reference.

From the following description, the invention and its detailed construction and the manner of its use will be readily understood and the novel features will be pointed out in the appended claims.

In the said drawings, which illustrate the best embodiment of the invention as at present devised—

Figure 1 is a front elevation of the improved protective lock-guard of the present invention as oriented in Figure 8;

Figure 2 is a rear elevation of the said lock-guard;

Figure 3 is a right elevation of said lock-guard as viewed from the right of Figure 1;

Figure 4 is an enlarged top plan of said lock-guard as shown in Figure 1, but with the top spur bent horizontally to form a retaining flange;

Figure 5 is an enlarged fragmentary left elevation of said lock-guard as viewed from the left of Figure 1, but with the top spur bent horizontally to form a retaining flange;

Figure 6 is an elevation of a metal blank from which said lock-guard is formed by bending it along the dot-dash lines;

Figure 7 is a horizontal sectional view taken through a door, its jamb and the latch assembly of the door lock and showing the lock-guard in place;

Figure 8 is a sectional view taken substantially on line 8—8 of Figure 7 and showing in elevation the lock-guard as held in protective position by the lock-keeper and the relative position of the lock-guard with respect to the latch detent; and

Figure 9 is a fragmentary perspective view of a door-jamb and showing the lock-guard applied to the keeper and the manner in which it is secured in place and in which the retaining flange is formed during the installation of the keeper.

Referring in detail to the drawings, in which like characters of reference denote similar and like parts throughout the several views, D indicates a door (Fig. 7) hung to swing in relation to a door frame F equipped with the usual stop-strip or buck B, as the case may be, to limit its swinging motion in one direction. The door is equipped with the usual locking means which comprise handle knobs H on both sides of the door interconnected (in a manner not shown) with a latching detent L to retract the same from its normally biased projecting position shown in Fig. 7. The lock-mechanism may be contained within a recess within the distal edge *d* of the door, as shown, or may be applied to the inner surfaces of the door, as is commonly done with certain types of locks, but, in either case, the latching detent L cooperates with and extends through an aperture *a* in a keeper plate K secured to the door frame or door jamb F or is positioned on the opposing face of the frame, as shown.

The latch detent L is beveled, as at *l*, to engage a striker-plate *s*, usually part of the keeper K, when the door is swung to closed position, thus exerting a force upon the beveled surface *l* to depress the latch detent L against its normal bias and allowing the door to close against the stop member B, at which time the latch-detent registers with and projects through the keeper-opening *a* thus locking the door in its closed position.

The lock mechanism may be one of several types. One of the prevalent types enables the latch detent L to be retracted from the keeper opening *a* by the turning of the hand knobs H on either side of the door and, when the latch-detent has been set to locking (by means not shown), the latch-detent L cannot be retracted by the handle unless a key is used to retract the detent. The lock mechanism may also be equipped with a positively actuated bolt which may be key actuated and which may engage in an opening *b* in the keeper for positively or "dead locking" the door. As the locking device is no part of this invention, it is believed the above description will suffice to indicate the use and utility of the present invention and only that portion of the lock or latching mechanism is shown which is pertinent to this invention.

As above stated, it frequently occurs that the occupants of houses, hotel rooms and the like do not "dead-lock" their doors, when they leave a house or a room, and depend entirely upon the setting of the latch-detent L to lock the door. Because this detent is equipped with a beveled or oblique face *l* to automatically depress or retract the latch-detent L with closing the door and since most swinging doors are hung to swing inwardly of the house or of the room, by necessity the beveled face *l* of the latch de-

tent L faces to the outside. Unauthorized persons, seeking to open the door with stealth, have found that a strip of flexible celluloid or thin flexible steel strip can be employed to force the latch detent L to a retracted position to clear the opening *a* so that the door may be opened quietly and without giving alarm, the flexible implement used following the crack between the stop-strip or buck B and the door and between the door frame or jamb F and the distal edge of the door.

The lock-guard G of the present invention may be formed from a blank **10** of sheet metal of a thickness corresponding to about 26 or 28 gauge and having the elongated rectangular form shown in Fig. 6. Two opposite corners at opposite ends of the blank are each formed with a projecting spur or extension **11** and **11a**, respectively, extending in opposite directions as a continuation of a longitudinal edge of the blank for a distance of about 3/32". The other corners of the rectangular blank are preferably rounded, as at **12**, to relieve them of projecting points. The blank is bent longitudinally upon itself along the three spaced and parallel dotted lines *x*, *y* and *z*, the portions outwardly of the lines *x* and *y* being extended in the same direction to provide a channel-shaped formation **13** of a width substantially that of the thickness of the keeper plate K so that one edge of the keeper plate may be inserted into and embraced by said channel with a frictional gripping contact and the marginal portion outwardly of the line *z* being extended in a direction generally opposite to the adjacent wall of the channel **13** to provide a guard lip **14** projecting obliquely at an acute angle with respect to said adjacent wall of the channel portion **13**.

The lock-guard G, thus formed, may be applied by inserting one edge of the keeper plate K, as shown in Fig. 9, into the channel **13** so as to fully embrace said edge of the keeper plate with one end of the channel flush with the top edge of the keeper plate and the spur **11** projecting above the top of the keeper plate, as shown in Fig. 9. When so applied, the lock-guard G will extend for a distance below the latch detent receiving opening *a* in the keeper-plate K and, when the keeper-plate is applied to the door frame or jamb in the usual manner, the lock-guard is secured in place.

In applying keeper-plates K to wooden door frames, a morticed recess *r* is chiseled into the wood of a shape and of a depth sufficient to receive the thickness of the keeper-plate and its striker-plate *s*; and, in metal door frames, a similar recess *r* is usually stamped into the metal for this purpose. Consequently, with the guard positioned on the keeper, as shown in Fig. 9, the spur **11** at the top of the keeper will be bent over upon the top of the keeper, when the usual screws **15** are driven "home" by a screw-driver **16** during the installation of the keeper. The spur **11**, thus being bent at right angles over the top of the keeper, forms a retaining flange that prevents the guard from moving or being moved downwardly of the keeper out of its protecting position; and, after the keeper has been secured in its recess in the door frame, the guard G cannot be forced upwardly of the keeper by reason of the fact that it abuts the top wall of said recess *r*.

With the lock-guard G thus in position, as shown particularly in Figs. 7 and 8, the guard-lip **14** lies obliquely in the path of the distal edge *d* of the door and will yield inwardly under the pressure of the door, upon the door being closed, and its free end extremity **14a** will yieldably and tightly impinge against the surface of the distal end of the door along the length of the lip and afford an obstructing wall to the insertion of any implement, such as those above described, for forcing the latch-detent L against its bias to its retracted position. It will be observed that by reason of the pressing contact of the free extremity **14a** of the lip against the distal edge of the door (Fig. 7), any flexible implement attempted to be inserted could not be guided under the edge **14a**. Furthermore, if the door or the door frame should shrink the angularity of the yieldable guard lip **14** may be increased by bending to compensate for the increased space between the frame and the distal edge of the door and thus keep the edge **14a** of said lip in a position to always contact or impinge against the distal end of the door.

In practice the angularity of the lip **14**, with respect to the channel **13**, should be about 20° and the length of the lock guard may be 2½" in length. Of course, this length may be increased or diminished as requirements dictate for use with any particular type of lock. It should be explained that a latch detent L, with a beveled face *l*, cannot be forced by an implement, such as flexible strip material, to its retracted position from an angle either above or below the lock guard, particularly when the guard G is of a proportionate length as shown in Fig. 8, as the celluloid or thin steel shim implement must be inserted squarely against the beveled surface of the latch detent in order to retract the same.

The lock guard G may be employed with either a left-hand placed striker plate *s* (as shown) or with a right-hand placed striker-plate. If the striker-plate is a right-hand set striker-plate (i. e., the reverse of that shown in the drawings), it is only necessary to turn the guard upside down and apply it to the left-hand edge of the keeper-plate K in which event the spur **11a** will then be uppermost and will be bent over to form the retaining flange in the manner shown in Figure 9.

From the above it will be manifest that the objects of the invention have been obtained in the provision of a very simple, inexpensive and positive lock guard that may be applied to keeper plates now in use with the minimum of effort and by unskilled persons while, at the same time, affording a maximum of protection against the unlawful forcing of latch-detent locks by the use of flexible strips of material.

Having thus described the invention and the manner in which the same may be performed, it is to be understood that the invention is not to be limited to the exact construction herein shown and described as the same is susceptible of various modifications and that the invention is to be limited only by the spirit and scope of the appended claims.

That which is claimed, as new, is:

1. A protective guard for use with door-locks having a latch detent normally biased to latching position and said detent having a beveled face for cooperating with a striker portion on one side edge of an apertured keeper-plate, securable in a fitting recess provided in a door jamb, to depress said detent against its bias and to engage into said aperture to lock a door in its closed position; said guard comprising an elongated metal strip bent upon itself along three substantially parallel lines, the bending along two adjacent lines forming a channel portion insertable in gripping contact over and about one side edge of said keeper-plate, when the keeper-plate is out of its normally secured position, and which is clamped in position when said keeper-plate is secured in its detent cooperating position on the door jamb, the bending along the other of said lines forming a lip extending from a longitudinal edge of said channel portion for a distance at least co-extensive with said aperture in said keeper-plate and projecting outwardly and obliquely therefrom in the direction of the closing movement of the door with its free edge directed toward the distal edge of the door, the opposite ends of the channel portion having bendable extensions thereon, one of which being adapted to project beyond an end edge of said keeper-plate, whereby, when the keeper-plate is secured in position in its recess, said projecting extension is bent over the end of said keeper-plate thus holding said guard against being slid out of protecting position and whereby said lip provides an interrupting wall within the crevice between the distal edge of the door and said jamb obstructing access through said crevice to the beveled face of the latch-detent.

2. A protective guard for use with door locks having a

latch detent normally biased to latching position and said detent having a beveled face for cooperation with an apertured keeper to engage into said aperture of the keeper to lock a door in its closed position, said keeper being securable in a fitting recess in a door jamb; said guard comprising an elongated channel member adapted to fittedly grip over and around a side edge portion of said keeper for a distance at least co-extensive with said aperture, bendable extensions on the ends of said channel member and positioned for one to extend beyond an end and to be bent over said end of the keeper when the latter is secured in position, a lip extending from a longitudinal edge of a side wall of said channel member for a distance at least co-extensive with said aperture in said keeper and projecting outwardly and obliquely therefrom in the direction of the closing movement of the door with its free edge directed toward the distal edge of the door, when the latter is in closed position, whereby to provide an interrupting wall within the crevice between the distal edge of the door and its jamb obstructing access through said crevice to the beveled face of the latch-detent.

3. A protective door-lock guard comprising an elongated channel member adapted to fittedly grip and embrace opposite sides of a side edge portion of a lock keeper-plate, a lip projecting from the longitudinal edge of one side wall of said channel member and extending outwardly at an acute angle with respect to said wall, and a projection extending from each end of the other side wall of said channel member, said projections being adapted to be selectively bent at right angles over adjoining of the ends of said channel, whereby at least one of said projections may extend beyond an end edge of the keeper-plate and be bent into abutting position therewith when said plate is secured in place in a fitting recess in the door jamb.

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