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CATCH PLATE FOR KNOB LATCHES

Filed Aug. 30, 1927

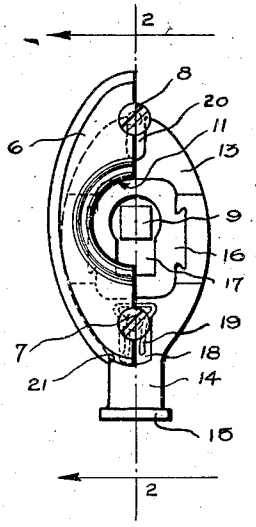


FIG-1

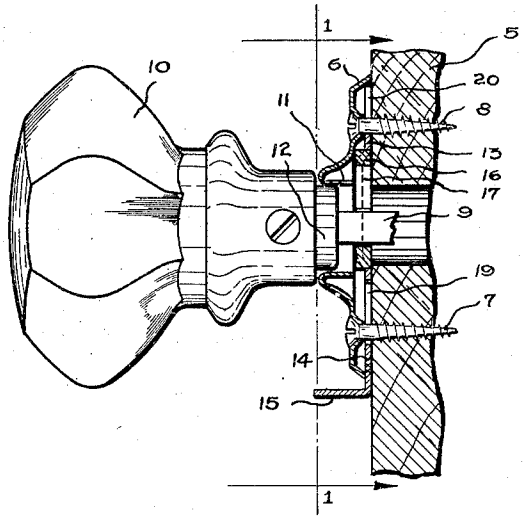


FIG-2

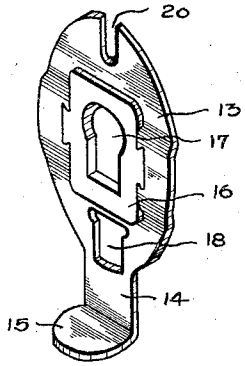


FIG-3

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UNITED STATES PATENT OFFICE

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CATCH PLATE FOR KNOB LATCHES

Application filed August 30, 1927. Serial No. 216,378.

Our invention relates to improvements in auxiliary catches for knob shanks and the object of our invention is to provide simple and efficient means operable from one side of a door fastening the shank of a knob latch so that it can not be turned to retract the bolt, the catch plate means being inaccessible to persons on the other side, usually the outside, of the door.

Another object is to provide a device of this nature that is adapted for use in connection with a knob latch of standard construction without altering the parts of the standard knob latch.

More specific objects are to provide a catch plate that is adapted to be operatively disposed between an escutcheon plate of the form commonly called a knob rose, and the door, said catch plate being guided on the screws that hold the knob rose and having a detent spring cooperating with one of said screws for yieldingly holding the catch plate in either the catch or the released position and said catch plate having a slotted portion adapted to engage with and catch the knob shank and further having a finger piece extending outwardly from the knob rose plate by which it may be moved.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawings.

In the drawings Figure 1 is a view in elevation on broken line 1—1 of Figure 2, showing catch plate means constructed in accordance with our invention, one half of the knob rose plate being removed.

Figure 2 is a sectional view on broken line 2—2 of Figure 1, parts being shown in elevation.

Figure 3 is a detached perspective view of a catch plate constructed in accordance with the invention.

Like reference numerals designate like parts throughout the several views.

The device is especially well adapted for use in connection with the knob latches on the doors of bath rooms and similar places where it is desired to fasten the door against persons on the outside while the room is occupied and to leave the door unfastened when the room is not occupied.

In the drawings, 5 designates a door and 6 a knob rose plate secured to said door by screws 7 and 8. A knob shank 9, usually substantially square in cross section, extends crosswise through the door and a knob 10 is secured to the knob shank 9 for turning the same to retract the usual latch bolt, not shown, and permit the door to be opened. The knob rose 6 has a bearing 11 for the reception of a hub 12 on the knob 10 and said knob rose is of substantially dish shape with its dished side turned toward the door. All of the previously described parts are of the usual standard construction.

In accordance with our invention we provide an oval shaped catch plate 13 of smaller size than the knob rose 6, and having a narrower neck 14 on its lower end that terminates in an outwardly bent finger piece 15. A block 16 of hardened metal is rigidly secured within a suitable opening in the central portion of the catch plate 13 and a keyhole shaped slot 17 is provided in the hardened block 16. An opening 18 is provided in the catch plate 13 below the block 16 and a flat spring 19 somewhat the shape of an inverted letter U is secured within the opening 18, said spring straddling the lower screw 7 and serving as a detent to yieldingly hold the catch plate either in the lowered or released position shown in Fig. 1 or in the raised or fastening position shown in Fig. 2. The spring 19 is omitted in Fig. 3. It will be noted that the spring 19 has an enlarged or widened upper end and that the lower ends of said spring are curved away from each other. An elongated notch 20 in the upper end of the catch plate 13 fits over the upper screw 8 and guides the upper end of said plate 13.

A notch 21 at the bottom end of the knob rose 6 affords clearance for the neck 14 of the catch plate and cooperates in guiding said catch plate.

In installing this lock, the knob shank 9 is passed through the keyhole shaped slot 17, the lower screw 7 extends through the opening 18 and between the two leaves of the spring 19 and the upper screw 8 extends

through the notch 20 in the upper end of the catch plate 13. The catch plate is thus slidably disposed within the knob rose 6 between said knob rose and the door.

When the catch plate 13 is moved downwardly into the position shown in Fig. 1 the knob shank will pass through the circular portion of the keyhole slot 17 and is free to turn in the usual operation of the latch. When the catch plate is raised into the position shown in Fig. 2 the narrower portion of the keyhole slot 17 will fit over the knob shank 9 and prevent the same from being turned thus making it impossible to retract the latch bolt and open the door. The finger piece 15 is conveniently grasped by the fingers when the hand is placed on the door knob.

In case of emergency, it is possible, by first removing the outside knob of a door, to push the shank 9 inwardly clear of the latch retracting mechanism so that said latch retracting mechanism may be operated by an instrument, as a screw driver, inserted from the outside and the door opened.

This catch plate device is simple and cheap in construction, easy to install, efficient and reliable in operation and does not detract from the general appearance of the latch bolt.

Obviously changes in the form of construction of the device may be made within the scope and spirit of the following claims.

We claim:

1. The combination with a door latch having a substantially square rotatable knob shank provided with knobs and arranged to extend through a knob rose plate that is secured by screws to a door, of a catch plate slidable between the knob rose plate and the door and guided for movement on said screws, said clatch plate having a keyhole slot therein through which said knob shank extends and a finger piece on said catch plate extending outwardly from said knob rose plate.

2. The combination with a door latch including as a part of its mounting a dished knob rose plate secured to a door by screws, of a catch plate slidable between the knob rose plate and the door, said catch plate having a slot through which a securing screw of the knob rose plate extends, and a detent spring in said slot engaging said screw for yieldingly holding said catch plate in a fastening or a released position.

3. The apparatus as claimed in claim 2 in which the knob rose plate has two securing screws arranged one above another and the catch plate has a guide notch adapted to fit over the screw opposite to the one with which said detent spring cooperates.

4. A catch plate for use in connection with a knob latch comprising an oval body portion, having a centrally arranged keyhole shaped slot and provided above said slot with a guide notch and below said slot with a larger opening, a detent spring secured in said larger opening, a downwardly extending neck on the bottom end of said body portion and an outwardly projecting finger piece on the lower end of said neck.

Seattle, Washington, August 25th, 1927.

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