F. J. LEE.

DOOR CATCH.

APPLICATION FILED MAY 19, 1911.

1,021,611. Patented Mar. 26, 1912.

Fig. 1.

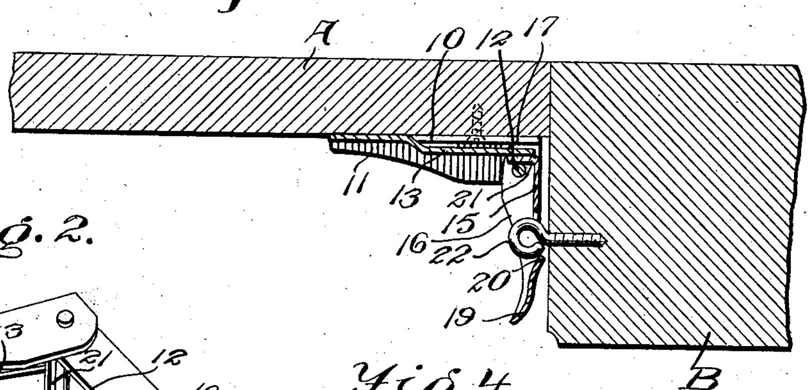


Fig. 2.

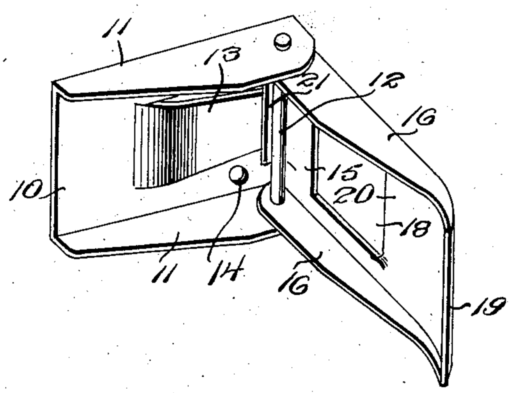


Fig. 4.

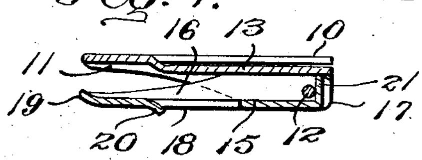


Fig. 5.

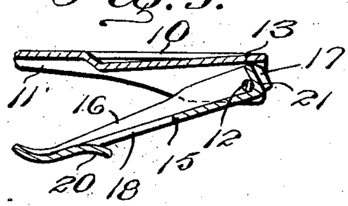
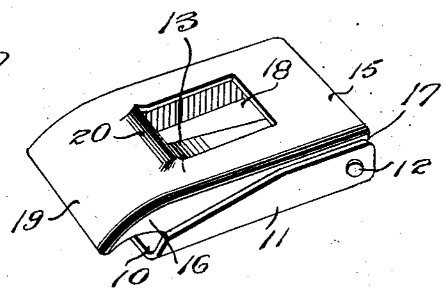


Fig. 3.



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UNITED STATES PATENT OFFICE.

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DOOR-CATCH.

1,021,611. Specification of Letters Patent. Patented Mar. 26, 1912.

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To all whom it may concern:

Be it known that I, FREDERICK J. LEE, citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Door-Catches, of which the following is a specification.

This invention relates to an improved door catch.

An object of the invention is to provide a simple, inexpensive and quickly operated device for holding a door closed in lieu of the various hooks and latches now commonly employed which require considerable time to operate in securing and releasing the door.

Another object of the invention is to provide a comparatively small catch which is applicable to doors without cutting away parts of the door or recessing the same, and which occupies but small space and therefore does not detract from the general appearance of the door.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a horizontal section through the improved door catch as applied to a door and its casing, showing the catch locked; Fig. 2 is a detail perspective view of the catch open; Fig. 3 is a detail perspective view of the catch closed; Fig. 4 is a horizontal section through the catch closed; and, Fig. 5 is a similar view showing the catch partly open.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing, 10 designates a base plate having outstanding lateral flanges 11 provided with registering openings at their inner ends receiving a pin 12. A spring tongue 13 is struck up longitudinally from the base plate 10, the base portion of the tongue 13 being of greater width than its free end. Screw-receiving openings 14 are formed through the plate 10 adjacent to its inner end and at the opposite sides of the tongue 13.

The securing member of the catch comprises a plate 15 having lateral inturned flanges 16 apertured at their inner ends for the reception of the pin 12, the flanges 16 lying within the flanges 11. The lateral flanges 16 have straight inner end edges providing stops 17 extending in at right angles to the plate 15 and resting snugly against the inner face of the plate 10 when the plates 10 and 15 are at right angles to one another. The plate 15 is provided with a central longitudinal slot 18. The outer end of the plate 15 is given a slight inward curve to provide a lip 19, the same merging at its inner end into an outwardly pressed retaining shoulder 20 forming the outer marginal edge of the slot 18. The inner edge of the plate 15 is bent inwardly at substantially right angles beneath the pin 12 to provide a tension flange 21 engaging against the spring tongue 13 to yieldingly hold the securing member in either an open or closed position. The stops 17 limit the outward swinging movement of the securing member when it is at right angles to the base plate 10, and the outer face of the tension flange 21 bears flat against the tongue 13 to yieldingly hold the plate 15 open. This position of the catch is disclosed to advantage in Fig. 1.

When the catch is closed or unlocked, as is disclosed in Fig. 4, the edge of the tension flange 21 bears against the spring tongue 13 inwardly of the pivotal pin 12 and yieldingly holds the securing plate 15 against the base plate 10. As the securing member is partly open the tension flange 21 moves outwardly beneath the pin 12 and operates in the capacity of a cam depressing the spring 13 to increase the tension of the same against the securing member, as is disclosed in Fig. 5, in order to spring the latter in either direction about the pivotal pin 12.

In connection with the above described securing member, a suitable keeper 22 is employed, the same preferably being a common screw-eye, for engagement through the slot 18 and against the retaining shoulder 20.

The base plate 10 is suitably secured against the lock-stile of a door A adjacent to its outer edge and against its inner side so that when the door is closed the securing plate 15 lies flat against the jamb B when the scuring plate is open. The screw-eye or keeper 22 is positioned in the jamb in registration with the slot 18 of the plate 15 to engage its head against the retaining shoulder 20 should a pressure be exerted to open the door. When the door is open, the securing member is adapted to be closed and when the door is closed, the plate 15 is

swung out against the jamb B and over the keeper 22 to hold the door closed. To open the door it is only necessary to swing the plate 15 in away from the keeper 22 when the door is free and may be pushed open. The tension flange 21 moves over the spring tongue 13 and yieldingly holds the securing plate in either an open or a closed position, as the tension flange 21 acts in the capacity of a cam the outer edge of which serves as the eccentric portion. The lip 19 serves the purpose not only as a finger grasp to swing the securing member, but also as a guide for engagement with the jamb B and the head of the screw-eye or keeper 22 to prevent the binding of the plate 15 against the jamb or the keeper and the consequent breakage of the catch when the securing member is inadvertently left open. The tongue 13 springs the plate 15 to its extreme open and closed positions dependent upon the location of the flange 21 against the spring tongue 13.

It will be understood that various arrangements may be had with respect to the members of this catch in order to position the same against the outside of the door, or in any other desired position. It will be noted that the members of this improved catch may be made from sheet metal stamped and curved to the desired form, and that the same will provide a relatively strong device capable of holding the door closed.

Having thus described the invention, what is claimed is:

1. A door catch comprising a base-plate, a spring thereon outstanding from the base-plate, and a securing plate formed with side flanges by which it is pivotally connected to the base-plate, the pivotal ends of said side flanges being adapted to bear against the base-plate in the open relation of the parts to limit the opening movement of the securing plate, and the securing plate being also formed, between said flanges with a stop flange adapted to rest against the tongue to hold the securing plate in its extreme open or closed position.

2. A door-catch comprising a base-plate, a spring tongue outstanding from the base-plate, the base-plate being formed with side-flanges, and a securing plate formed with side-flanges by which it is pivotally connected to the side-flanges of the base-plate, the securing plate being formed for engagement with a keeper and having at its inner end a stop flange bearing against said tongue to hold the securing plate in its extreme open or closed position.

3. A door holding device comprising a base plate having a spring tongue struck out from its inner end, and a securing plate hinged upon the base plate and having a stop flange upon its inner end resting against the spring tongue to yieldingly hold the securing plate in an open or closed position, said securing plate having a central slot therein provided with an outwardly bulged outer marginal edge designed for engagement with a keeper.

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

FREDERICK J. LEE. [L. S.]

Witnesses:
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