(No Model.)

G. W. MOULTON.

DOOR CHECK.

No. 447,839. Patented Mar. 10, 1891.

Fig. 1.

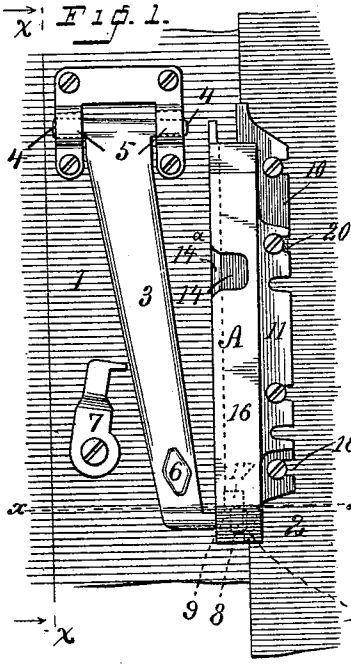


Fig. 5.

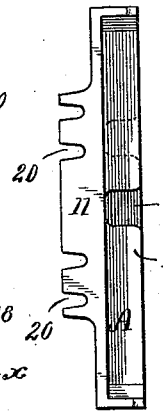


Fig. 4.

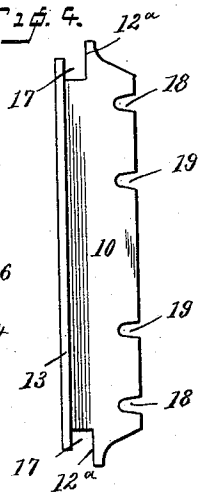


Fig. 2.

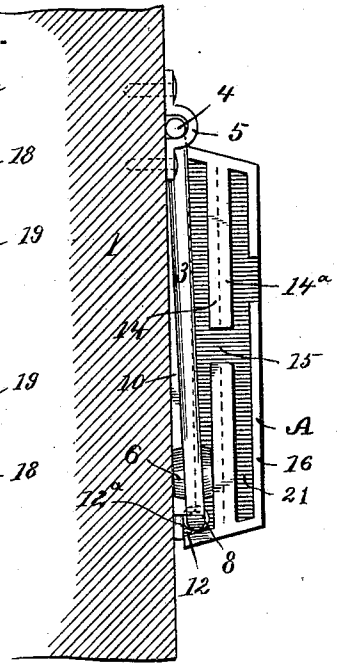


Fig. 3.

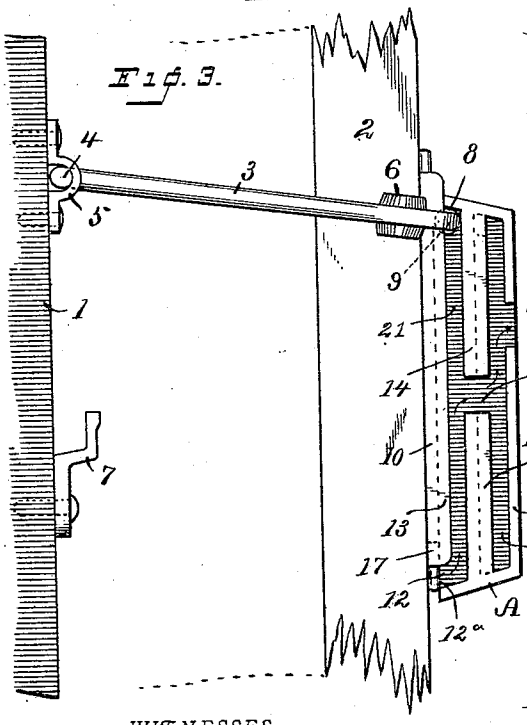


Fig. 6.

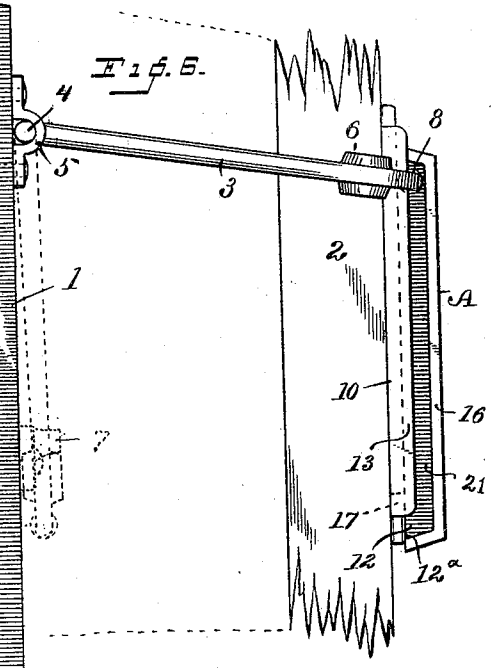
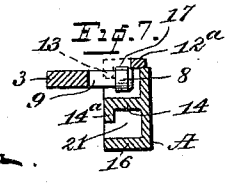


Fig. 7.



WITNESSES

C. M. Newman,

Arley J. Munson.

INVENTOR

George W. Moulton

By A. M. Wooster

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE W. MOULTON, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF TO WILBUR E. NICHOLS, OF SAME PLACE.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 447,839, dated March 10, 1891.

Application filed November 24, 1890. Serial No. 372,463. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MOULTON, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Self-Locking Door-Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an automatic door holder or locking device which may be used upon doors swinging either toward the right or left, which will prevent the door from being opened by unauthorized persons, but which may be readily opened by persons who have been taught how to manipulate it, my invention being especially adapted to the rear doors of houses and acting to effectually prevent the entrance of tramps and other unauthorized persons, but capable of being readily opened by children and other members of the family who are familiar with its mode of operation, the device being self setting, but wholly without springs, so that the door will be always checked and held when moved toward the open position until the lever is manipulated in a certain manner, unless the lever shall have been fastened out of operative position.

In the accompanying drawings, forming part of this specification, Figure 1 is an elevation of the inner side of the door and jamb, the door being in the closed position; Fig. 2, a section on the line *x x* in Fig. 1, looking toward the right, the retaining-latch being omitted; Fig. 3, a view similar to Fig. 2, but showing the door but partially opened and checked by the catch, the view also indicating by arrows the line of movement of the lever in disengaging the head from the catch; Fig. 4, a view of the base-plate of the catch detached; Fig. 5, a view of the holding-plate inverted. Fig. 6 is a view corresponding with Fig. 3 and illustrating a modified form of holding-plate, which will not permit of the door being opened from the outer side; and Fig. 7 is a detail sectional view on the line *x x* in Fig. 1, looking down.

1 denotes the jamb, and 2 the door.

3 denotes a depending swinging lever, which is loosely pivoted to the jamb. As it is necessary that the lever should have a slight movement toward or from the door, so that it may be retained out of operative position, I preferably provide the upper end of the lever with trunnions 4, which loosely engage ears 5, secured to the jamb. The exact shape of this lever is of course not of the essence of my invention. I preferably, however, form it substantially as shown in Fig. 1, and suspend it in such a manner that it assumes its normal—*i. e.*, the locking—position by gravity alone. Upon opposite sides of the lever, near the lower end, I place lugs 6, which are adapted to be engaged by a pivoted retaining-latch 7. Lugs are placed on both sides of the lever, so as to adapt it to either a right or left jamb. When it is not desired that the holder should operate, the lever is swung backward slightly away from the door, the trunnions being loose enough in the ears to permit ample movement, and retaining-latch 7 is swung down and engaged with one of the lugs 6. At the lower end of the lever is a beveled head 8, which is connected with the body of the lever by a neck 9, the operation of which will presently be fully described.

The catch, which is placed upon the door, I have denoted as a whole by A. This catch may be cast in a single piece, although I preferably cast it in two pieces, as shown in the drawings, to wit: a base-plate (denoted by 10) and a holding-plate, (denoted by 11.) The special object in making the catch in two parts is to adapt it to either right or left doors. The catch is provided at the bottom with an opening 12, which is adapted to receive the head upon the lever, with an engaging-surface 12^a, which is engaged by the beveled head and with a flange 13, which is engaged by the neck of the lever after it has passed into the catch. The catch is also provided with one or more ribs 14, which are provided with flanges 14^a, each rib having an opening 15 through it. I have shown one rib only in the drawings, (see Figs. 2 and 3,) said rib running longitudinally of the catch. It should be understood, however, that the number and arrangement of these ribs are not of the essence of my invention. More than one rib may be

used, and they may be placed in various positions in accordance with the judgment of the manufacturer or the requirements of the trade, the essential principle being that said ribs when used are provided with flanges, which engage the head of the lever, but are also provided with openings, through which the head may be passed when the lever is manipulated by a person familiar with the holder. Upon the outer side of the catch is a rib 16, which in this form is also provided with an opening 15, preferably out of line with the opening through rib 14. As already stated, I preferably make the catch in two parts. Flange 13 is made upon the base-plate, which is also provided with a notch 17, to receive the head of the lever when the door is swung to the closed position. Engaging-surface 12^a may be formed on either part. In the drawings I have shown it as formed upon the base-plate; but, if preferred, a surface for that purpose may be formed upon the holding-plate. This is such an obvious mechanical expedient that it is not deemed to required illustration. In practice notches 12 and engaging-surfaces 12^a are formed at both top and bottom of the base-plate, so as to adapt it for use on either right or left doors. The base-plate is provided with slots 18 to receive screws, whereby the base-plate is held in position. Additional screw-slots 19 are provided in the edge of the base-plate to receive other screws, which also pass through slots 20 in the catch-plate. Two pairs of screw-holes 20 are provided to adapt the catch-plate for use either side up. The parts are placed in position on the door, as clearly shown in the drawings. It will be seen that after the head of the lever has passed through opening 12 and notch 17 at the bottom of the catch the head itself will lie under flange 13, and after it has passed through the opening in rib 14 it will lie under flange 14^a, so that it is impossible to get the head out of the catch, except in the proper manner. As the door is swung toward the open position, the lever is lifted up, as shown in Fig. 3, the head of the lever moving in one of the undercut grooves in the catch-plate, said grooves being denoted by 21. It will of course be understood that the catch-plate is attached to the base-plate in such a manner as to close the inner groove 21 at the top, the bottom being left open and constituting opening 12.

The normal operation of the holder is as follows: The head of the lever is always in operative position, being retained there by gravity alone unless the lever is locked out of operative position by retaining-latch 7, as already stated. Suppose the lever to be in operative position when the door is swung to the closed position. The head of the lever passes through notch 17, the neck passing through opening 12. At the instant of engagement the beveled head 8 of the lever strikes engaging-surface 12^a, which forces the lever backward for an instant away from the door, the lever dropping back to its normal position again the instant the head has passed into the catch. The instant the door is swung toward the open position the beveled head rides along the engaging-surface and the neck rides up on flange 13, the head being within said flange and retained thereby. In case the person trying to open the door is not familiar with the holder the door may be swung to the position shown in Fig. 3, but no farther. Suppose, however, that a person familiar with the holder desires to open the door. This person places his hand upon the lever after the door has been opened sufficiently and guides the lever through opening 15 in rib 14, as indicated in the drawings, and through the opening in the outer rib 16, although, as already stated, the number and arrangement of these ribs may be varied to suit the judgment of the manufacturer or the requirements of the trade, and then swings it upward out of the way of the catch, allowing it to drop back to its normal position again as soon as the door has passed beyond the head of the lever.

In Fig. 6 I have shown a modified form which cannot be opened from the outer side of the door. In this form rib 14 is entirely dispensed with. The outer rib 16 is placed in the position of rib 14—that is to say, the catch-plate is made lower and the outer rib is not provided with any opening 15, so that when a person tries to open the door from the outer side the lever will move up to the position shown in Fig. 6; but the door can be moved no farther and cannot be opened at all except from the inner side, the operator being required to move the door to the fully-closed position before he can disengage the lever from the catch by holding it in position so that the head will pass out at opening 12 and notch 17.

It will of course be understood that the various details of construction may be varied greatly without departing from the principle of my invention.

I claim—

1. A self-locking door-holder consisting of a depending lever having a beveled head and a neck, adapted for attachment to a jamb, and a catch having at its lower end an opening to receive the neck and head, an engaging-surface acting to force the lever outward slightly, so that the head will pass through the opening, and a flange which is engaged by the head when the door is swung toward the open position.

2. A self-locking door-holder consisting of a depending lever having a beveled head and a neck, and a catch having at its lower end an opening to receive the neck and head, an engaging-surface acting to force the lever outward slightly, so that the head will pass through the opening, a flange which is engaged by the head when the door is swung toward the open position, a rib 14, having a flange 14^a, and an opening through it, and an outer rib 16, also

having an opening through it, so that when properly manipulated the head of the lever may be passed through said openings and swung upward out of the way by a person on the outside.

3. The combination, with a suitable catch adapted for attachment to a door, of a depending lever having a head and neck adapted to engage the catch, lugs 6, and trunnions 4, ears adapted for attachment to a jamb, which are loosely engaged by the trunnions, and a retaining-latch 7, which is adapted to engage one of the lugs to retain the lever out of operative position.

4. The combination, with a swinging lever having a beveled head and neck, substantially as described and shown, of a catch having an engaging-surface 12^a, an opening 12, notch 17, flange 13, flanged rib 14, and rib 16, said ribs having openings 15 through them to permit the head to pass when the lever is properly manipulated.

5. The combination, with the depending lever having a beveled head and neck, substantially as described and shown, of a catch consisting of a base-plate having a notch 17, an engaging-surface 12^a, and a rib 13, and a holding-plate having a flanged rib 14 and an outer rib 16, said ribs having openings through them, said base-plate and holding-plate being provided with screw-slots, so that the two parts of the catch may be attached to a right or left door, leaving an opening at the bottom to receive the neck and head of the lever.

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

GEORGE W. MOULTON.

Witnesses:

A. M. WOOSTER,

WILBUR E. NICHOLS.