Sept. 14, 1926.

1,600,171

F. W. HIXON

DOOR HOLDER

Filed June 29, 1925

Fig. 1.

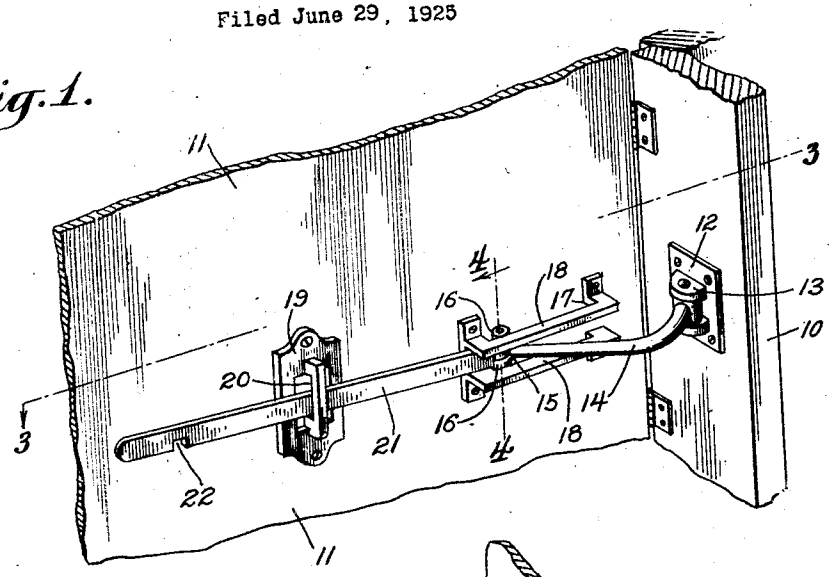


Fig. 2.

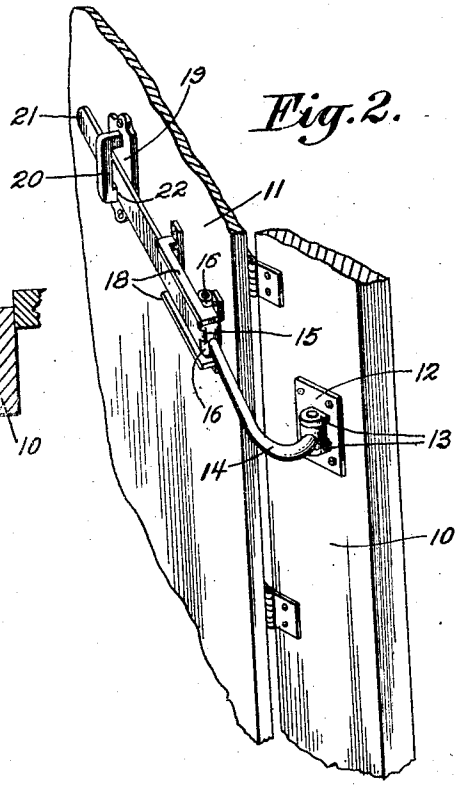


Fig. 3.

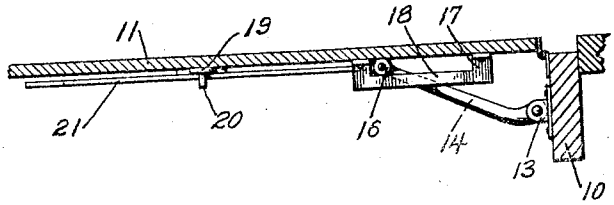
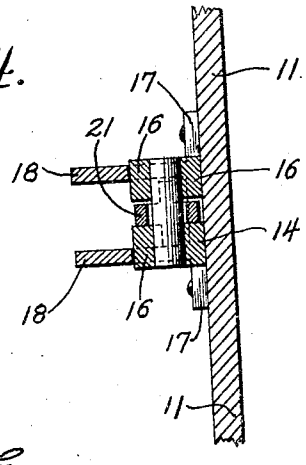


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRED W. HIXON, OF ELIZABETH, NEW JERSEY.

DOOR HOLDER.

Application filed June 29, 1925. Serial No. 40,396.

This invention relates to door holders and has particular reference to a means for automatically locking a door in an open position when the door reaches a predetermined point in its swinging movement and is primarily intended for use upon garage doors and the like to prevent the wind from accidentally blowing the same to a closed position.

Another object of the invention is to provide a means for performing the above function which is simple in construction, cheap of manufacture and easily installed on doors now in use.

With these and other objects in view, the invention resides in certain novel construction and combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claim, and are illustrated in the accompanying drawing, in which: —

Figure 1 is a perspective view of my improved door holder in position upon a door and showing the door in a closed position.

Figure 2 is a similar view but showing the position of the parts when the door is in an open position.

Figure 3 is a horizontal sectional view on the line 3—3 of Figure 1.

Figure 4 is a vertical sectional view on the line 4—4 of Figure 1.

Referring more particularly to the drawing, the reference numeral 10 designates the door frame of a structure such as a garage, and to which is hingedly secured in the usual manner a door or swinging closure member 11.

A plate 12 is attached to the frame 10 by suitable fastening elements such as screws or the like and is provided with spaced ears 13, between which one end of a curved arm 14 is pivotally mounted. The other end of the arm is enlarged and bifurcated as at 15, the furcations 16 of which co-act with the ends of a track or guide member 17 which is attached to the door 11 by suitable fastening elements. The member 17 comprises a pair of horiozntally spaced rails 18 between which the arm 14 slides during the movement of the door, and the said rails co-act with furcations for holding the end of the arm against lateral movement with respect to the door.

A keeper 19 is attached to the door in a horizontal plane with the arm 14 and the track 17 and is provided with an eye 20 through which a flat latch bolt 21 is free to slide. The outer end of the latch bolt is formed with a notch 22 and its opposite end is pivotally connected between the furcations 16.

With reference to Figure 1 of the drawing, it will be seen that when the door is in a closed position, the end of the arm 14 is at the extreme end of the track, the furcations co-acting with the end of the track to limit the movement of the same. In this position, the notch 22 is forward of the keeper but when the door is open, the same operates the arm 14 which causes the latch bolt to move until the notch 22 drops into co-acting engagement with the eye 20. When the latch bolt is moved to this position, the furcations 16 will co-act with the opposite end of the track and will also co-act with the bolt and eye for holding the door in a rigid opened position. In order to close the door, the latch bolt is lifted to move the notch out of engagement with the eye, at which time the door may be closed in the usual manner.

From the foregoing description, it will be seen that I have provided a means for automatically locking and holding a door in an open position when the door reaches a predetermined point in its swinging movement, and which movement can be limited by changing the position of the keeper 19. It will be appreciated that the parts are constructed to lie flat against the door during the opening and closing of the same and that the device could be easily attached to doors now in use without the necessity of changing the door structure in any way.

While I have described what I deem to be the most desirable embodiment of my invention, it is obvious that many of the details may be varied without in any way departing from the spirit of my invention, and I therefore do not limit myself to the exact details of construction herein set forth nor to anything less than the whole of my invention limited only by the appended claim.

What is claimed as new is:—

A device of the class described, an arm adapted to be pivotally connected to a door

frame, a latch bolt pivotally connected with said arm, a notch formed in said bolt, a guide for said arm adapted to be fixedly mounted on a swinging door for preventing lateral movement of said latch bolt during the movement of the door, and a keeper adapted to be secured to the swinging door, whereby movement of the door to a predetermined open position will cause said notch to co-act with said keeper for holding the same in an open position.

In testimony whereof I have affixed my signature.

FRED W. HIXON.