Oct. 20, 1931. C. J. CRAWFORD 1,828,242

DOOR HOLDER

Filed Dec. 31, 1929

Fig. 1.

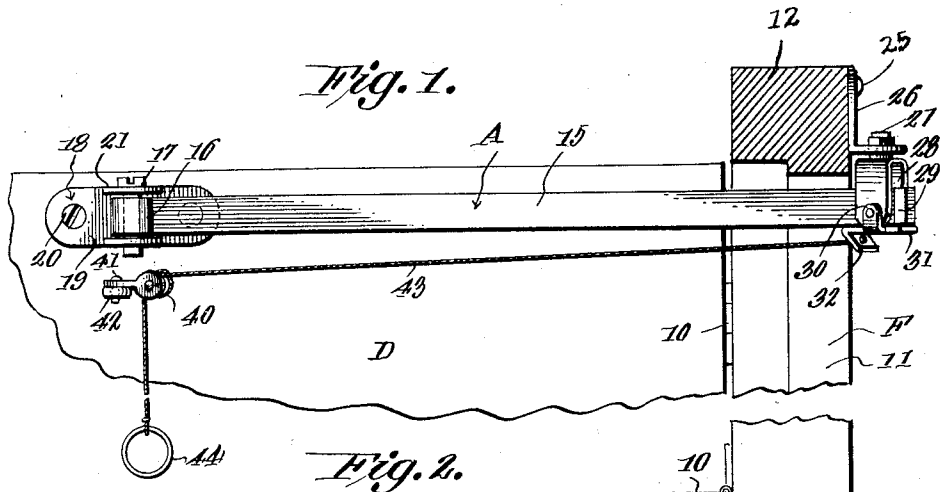


Fig. 2.

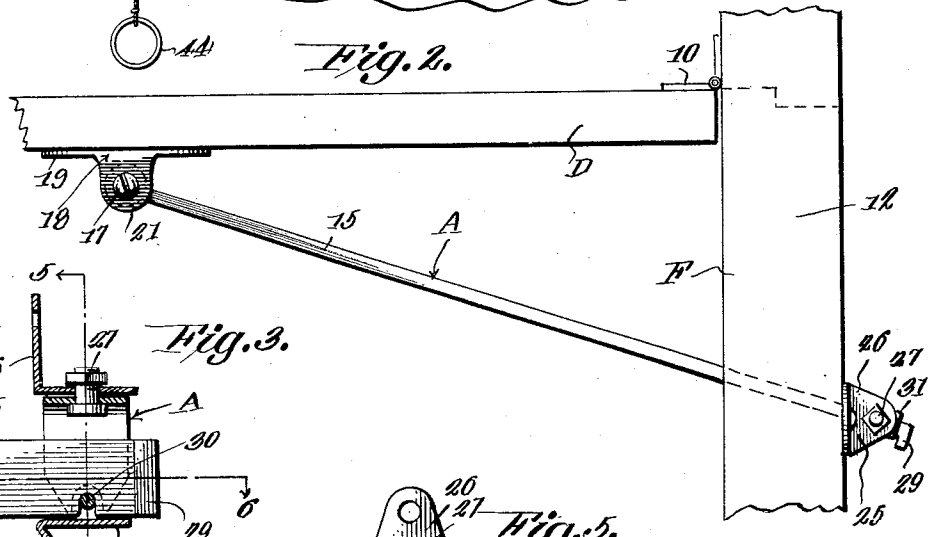


Fig. 3.

Fig. 4.

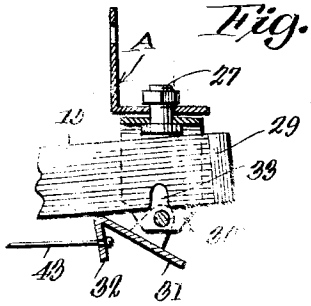


Fig. 5.

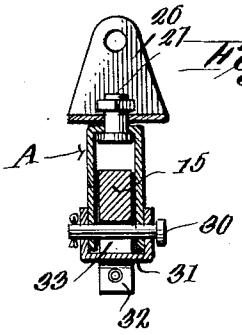
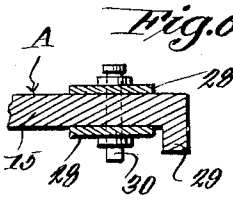


Fig. 6.



Inventor
CHARLES J. CRAWFORD

By Irving L. McCathran

Attorney

Patented Oct. 20, 1931

1,828,242

UNITED STATES PATENT OFFICE

CHARLES J. CRAWFORD, OF TOLEDO, OHIO

DOOR HOLDER

Application filed December 31, 1929. Serial No. 417,755.

This invention appertains to a novel device for holding a door open against accidental closing movement.

One of the primary objects of my invention is the provision of a device associated with a door for engaging a keeper member carried by the door frame, whereby when the door is moved to an open position the keeper engaging the device will hold the door against closing movement, novel means being associated with the keeper and carried by the door for releasing the engagement of the device with the keeper from the door so as to permit the closing of the door, when it is desired.

Another important object of my invention is the provision of a latch bar pivotally carried by a door and slidably received in a keeper yoke swivelly secured to the door frame, with a pivoted trip member carried by the keeper and operated from the door for moving the latch bar out of engagement with the keeper to permit the ordinary closing of the door.

A still further object of my invention is to provide a novel device of the above character for holding a door in an open position, which will be durable and efficient in use, one that will be simple and easy to manufacture, and one which can be placed upon the market and associated with a door at a small cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawings, in which drawings:—

Figure 1 is a vertical section through a door frame showing a door in its opened position with my novel door holding device applied thereto and holding said door in its opened position.

Figure 2 is a top plan view of my improved device applied to the door and door frame, the door being shown in its opened position.

Figure 3 is a vertical section through the keeper carried by the door frame showing the latch bar held therein against movement for holding the door in its open position.

Figure 4 is a view similar to Figure 3 showing a trip member for moving the latch bar from out of engagement with the holding pin of the keeper to permit the closing of the door.

Figure 5 is a vertical section taken on the line 5—5 of Figure 3 looking in the direction of the arrows, and

Figure 6 is a horizontal section taken on the line 6—6 of Figure 3 looking in the direction of the arrows.

Referring to the drawings, in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates my improved door holder applied to a door D and a door frame F. The door D is of the usual or any preferred construction and is connected by means of hinges 10 with one jam post 11 of the door frame F.

My improved door holder A comprises a flat metal latch bar 15 having one end provided with a vertically disposed eye or hinge barrel 16 through which extends the pivot bolt 17 carried by the door bracket 18. The door bracket 18 embodies a face plate 19, which is secured to the inner face of the door adjacent to the upper edge thereof by suitable fastening elements, such as screws 20. The face plate is provided with the laterally extending pivot ears 21, through which extends the pivot bolt 17. It is to be noted that the eye or hinge barrel 16 is arranged between the pivot ears 17 but is of a less height than the distance between said ears so as to allow movement of the latch bar 15 between the ears. The bore of the hinge barrel 16 is of a slightly greater diameter than the pivot bolt 17 so that the latch bar 15 is permitted of a slight rocking movement on the bolt as well as turning rotary movement. Connected by means of suitable fastening elements 25 to the cross piece 12 of the door frame F is an angle bracket 26 to which is swivelly connected by means of a bolt 27 a U-shaped latch bar keeper guide 28. The latch bar 15 is received through the guide 28 and has its inner end provided with a right-angularly extending foot 29 to prevent accidental displacement thereof from the guide incident to the opening and closing of the door.

The lower free ends of the arms of the U-shaped latch bar keeper guide 28 has pivotally connected thereto by means of a combined keeper and pivot bolt 30 a trip member 31, having its forward end provided with depending angularly disposed arms 32. The lower edge of the latch bar 16 adjacent to the foot 29 is provided with a transversely extending notch 33 and it is to be noted at this point that during the opening and closing of the door the lower edge of the latch bar 15 will slide on the combined keeper and pivot bolt 30 and that when the door D is opened, as shown, in Figures 1 and 2 the combined keeper and pivot bolt 30 will ride into the notch 33, the latch bar 15 dropping under the action of gravity. This will effectively hold the door in its open position.

In order to permit the release of the latch bar 15 from the door D I provide a pulley 40, which can be swivelly connected as at 41 to a bracket 42 connected to the door D adjacent to the upper edge thereof and below the door bracket 18.

Trained over the pulley 40 is a pull cord 43, one end of which is connected with the depending angular arm 32 of the trip 31 while the other end of the pull cord can be provided with a pull ring 44 or the like. It is obvious that when pull is exerted on the cord 43 that the trip member 31 will be rocked, raising one end thereof upwardly into engagement with the lower edge of the latch bar 15, as clearly shown in Figure 4 of the drawing. This will lift the latch bar 15 above the combined keeper and pivot bolt 30 and thus the walls of the notch will be moved from out of engagement with the keeper bolt, allowing the door to be returned to its closed position.

By this construction, and arrangement of parts, it can be seen that an exceptionally simple and durable device has been provided for holding a door in its open position against accidental closing movement and in which said holding means can be readily released from the door when it is desired to close the same.

The construction of the holding device also permits the use of the latch bar 15 to be used as the door holding member and also as a latching device.

Changes in details may be made without departing from the spirit or the scope of this invention, but:—

What I claim as new is:

A door holding device comprising a door bracket, a latch bar rockably carried by the bracket, a door frame bracket, a guide member receiving the latch bar swivelly carried by the door frame bracket, a combined latch and pivot bolt extending transversely across the guide member on which the lower edge of the latch bar normally slides, the lower edge of the latch bar being provided with a keeper recess for receiving said combined latch and pivot bolt when the door is in its open position, a trip member rockably mounted upon said combined latch and pivot bolt upon which the latch bar rests when the bolt is in the recess, and a pull cable secured to the trip member for rocking the same, whereby to raise the latch and its recess above said combined latch and pivot bolt.

In testimony whereof I affix my signature.

CHARLES J. CRAWFORD.