Nov. 19, 1929. J. E. KENERSON 1,736,602

DOORCHECK

Filed July 26, 1927

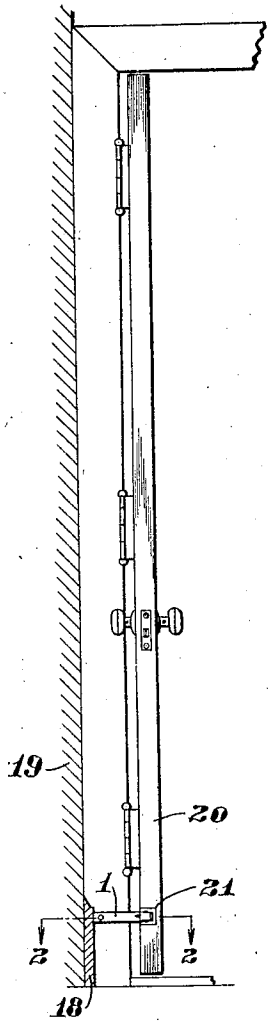


Fig. 1.

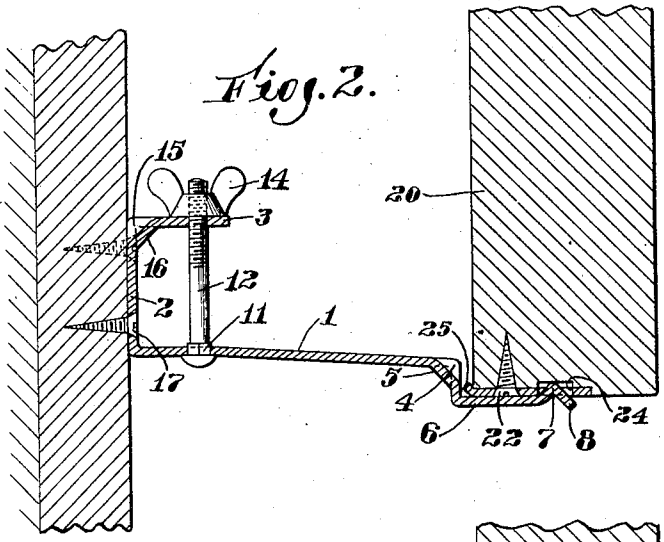


Fig. 2.

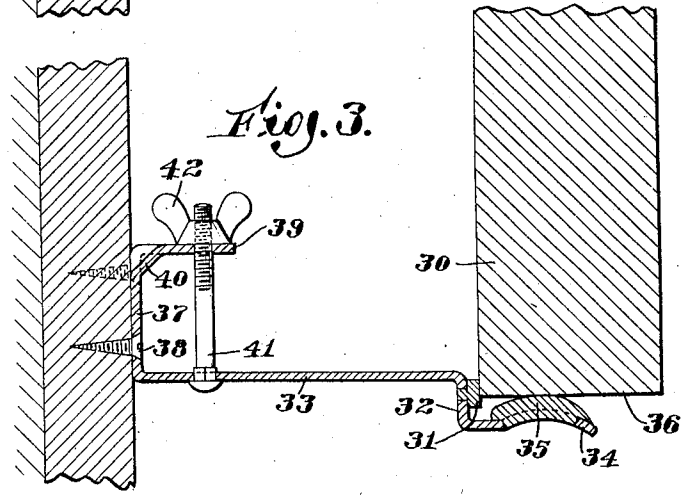


Fig. 3.

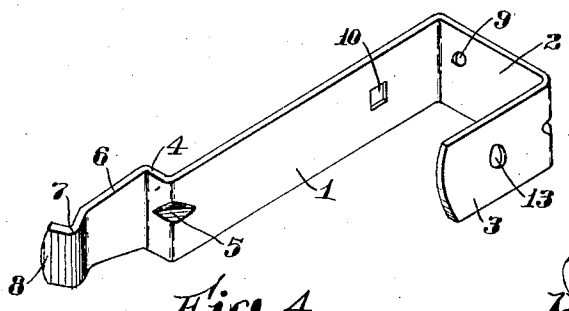


Fig. 4.

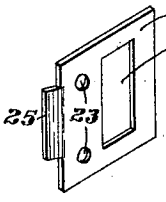


Fig. 5.

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UNITED STATES PATENT OFFICE

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DOORCHECK

Application filed July 26, 1927. Serial No. 208,586.

My present invention relates to devices to check and stop a door in its opened position, and to retain the door in said position until desired to close the same, such devices being more commonly known as door stops, or door stops and checks.

An important object of the present invention is the provision of a device of this nature which will be positive and efficient in operation, and which will hold the door securely in place, under spring tension, and yet which requires no manual or other operations to release the same, other than the natural or usual closing of the door. My novel device, also, will hold the door in a sufficiently firm manner to prevent looseness or rattling of same.

Prior devices of this character, so far as I am aware, have required some operation to be performed before releasing the door therefrom, such as a push button, depressing a portion of the catch, or the like. My present device obviates these difficulties, checking and holding, or releasing the door, by merely pushing the door toward the device, or pulling it away from same.

A further object of the invention is the provision of such a novel door stop which will be exceedingly cheap to manufacture, simple to attach, and out of the way.

A further and important feature of the present invention is the provision of means whereby the spring tension of my novel device against the door may be increased or decreased at will, the means to perform this desirable purpose being very simple, and yet performing its function in an efficient manner.

In carrying out the present invention I may utilize, on the door, an escutcheon to cooperate with the door check or stop, or may provide my device with means to engage the door itself, in such a manner as not to injure the wood of the door.

Further details of the invention, features, combinations of parts and advantages, will be hereinafter more fully pointed out and claimed.

Referring to the drawings, illustrating preferred embodiments of my present invention,

Fig. 1 is an end elevation of a door held in opened position by my novel device;

Fig. 2 is a cross-sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a cross-sectional view of a modification;

Fig. 4 is a perspective view of the door check member; and

Fig. 5 is a perspective view of the escutcheon.

As shown in the drawings, my present novel device comprises a door stop or check member 1, generally of L-shape, having a wall engaging portion of web 2 and an upstanding end or web 3. Adjacent to the outer end of the check member 1 the same is angled outwardly, as shown at 4, and is provided with a reinforcing web 5, which will tend to prevent free bending of the stop and check end 6, which carries on its outer end a V-shaped escutcheon-engaging portion 7 and a beveled tongue 8.

Recesses 9 are provided for attaching the wall portion 2 to the wall or door, as the case may be, and the body portion 1 is provided with a recess 10, preferably square in shape, to receive the square shank 11 of a carriage bolt or other threaded device 12. The threaded end of the bolt 12 passes through a recess 13 in the web or member 3 and threaded thereon is a wing nut 14, this being the easiest manner of tightening up on the bolt 12. In the corner 15 is formed a reinforcing web 16, so that on tightening of the wing nut 14, the body portion 1 and check device will be drawn toward the web 3, thereby increasing the tension of the check device. On rotation of the wing nut 14 in the opposite direction, the tension on the body portion 1 will be lessened. This feature of adjustability of spring tension is an important element in the present invention.

Screws 17 are provided for attaching the wall engaging portion 2 to the mop-board or wall of a room.

As shown in Fig. 1, the device is attached to the mop board 18 of a wall 19 a sufficient distance above the floor so as not to interfere with sweeping or cleaning under the device.

If the feature of adjustability is not de-

sired or requisite, the web 3 and bolt 12 may be eliminated, and the spring tension of the body portion 1 will be sufficient to hold an ordinary door in opened position.

To the door 20 is affixed an escutcheon 21 by means of screws 22 passing through recesses 23 in the escutcheon.

A recess 24 is provided in the escutcheon, preferably rectangular in shape, to receive the V-shaped portion 7 when the check engages the door. The beveled tongue 25 is provided on the escutcheon, and on the door being swung toward the check device, this tongue 25 will engage the beveled tongue or end 8, causing the same to ride up on the tongue 25, and guiding the check device onto the escutcheon until the V-shaped portion 7 engages the recess 24, whereupon the door will be firmly held in opened position until it is desired to close the same.

By the use of the adjusting bolt 12, a wide range of tension may be secured on the check device, and the tongue 8 may be made of any desired length to adapt itself to this range of tension, so that irrespective of the amount of adjustability allowed, the tongue 25 will always engage the lip or end 8, assuring the guiding of the check device into the recess 24 in the escutcheon 21.

It will be appreciated that this escutcheon 21, while illustrated as applied to the edge of the door, and which I believe is the most convenient position therefor, may be attached to the under edge of the door, or to the top thereof, if desired, or to any desired portion of the door. Also, if desired, the location of the respective parts herein illustrated may be reversed, viz, the check device may be attached to the door, and the escutcheon may be attached to or sunk in a recess in the wall or mop board, in which position the parts will function equally as well as in the present arrangement, but will not present as neat and attractive an appearance when the door is closed.

It will thus be apparent that I have devised an extremely simple device of this nature, and one requiring no attention after installation, unless it is desired to vary the tension of the checking device, no operation other than the mere opening and closing of the door being required to operate this novel apparatus.

In Fig. 3 I have illustrated a slight modification, wherein no escutcheon is utilized on the door 30, but a rubber plug or buffer 31 is affixed to the outwardly angling portion 32 of the check 33, and the curved outer end 34 of the check has a rubber gripping member 35 secured thereto or therein, adapted to engage the edge 36 of the door 30. I find that this form of the device will operate substantially as efficiently as the device of Fig. 2, and will not mar the door by the addition of an escutcheon, or the like.

The wall engaging portion 37, screws 38, upturned web 39 and reinforcing web 40 are also provided, as before. The adjustment of tension is obtained by means of a bolt 41, and wing nut 42 similar to the screw 12 of Fig. 2.

I believe that my present device represents a novel improvement in this art, and I have therefore claimed the same broadly herein.

While I have necessarily described my present invention somewhat in detail, it will be appreciated that I may vary the size, shape and arrangement of parts within reasonably wide limits without departing from the spirit of the invention.

My invention is further described and defined in the form of claims as follows:

1. A door check comprising a wall engaging portion, a projecting spring member, a door catch associated with said spring member and automatically operable to catch or release said door, means on said door cooperating with said catch, and means to prevent disalinement of said catch from said spring member.

2. A door check comprising a wall engaging portion, a projecting spring member, a door catch associated with said spring member and automatically operable to catch or release said door, means on said door cooperating with said catch, and a reinforcing web between said spring member and said catch to prevent disalinement thereof.

3. A door check comprising a wall engaging portion, a projecting spring member, a door catch associated with said spring member and automatically operable to catch or release said door, means on said door cooperating with said catch, a reinforcing web between said spring member and said catch to prevent disalinement thereof, a member projecting from said wall engaging portion substantially parallel with said spring member, and means to permit adjustment of said spring member toward or from said projecting member.

4. A door check comprising a wall engaging portion, a projecting spring member, a door catch associated with said spring member and automatically operable to catch or release said door, means on said door cooperating with said catch, a reinforcing web between said spring member and said catch to prevent disalinement thereof, a member projecting from said wall engaging portion substantially parallel with said spring member, means manually operable to permit adjustment of said spring member toward or from said projecting member, and means to retain said projecting member in rigid position.

5. A door check comprising a wall engaging portion, a projecting spring member, a door catch associated with said spring mem-

ber and automatically operable to catch or release said door, means on said door cooperating with said catch, a reinforcing web between said spring member and said catch to prevent disalinement thereof, a member projecting from said wall engaging portion substantially parallel with said spring member, and manually operable means to permit adjustment of said spring member toward or from said projecting member, and a reinforcing web between said wall engaging portion and said projecting member, to retain said projecting member in rigid position.

6. A door check comprising a wall engaging portion, a projecting spring member, a door catch associated with said spring member and automatically operable to catch or release said door, means on said door cooperating with said catch, a reinforcing web between said spring member and said catch to prevent disalinement thereof, a member projecting from said wall engaging portion substantially parallel with said spring member, manually operable means to permit adjustment of said spring member toward or from said projecting member, and a reinforcing web between said wall engaging portion and said projecting member, to retain said projecting member in rigid position, whereby said spring member may be adjusted toward or from said projecting member without disturbing the position of said projecting member.

7. A door check comprising a wall engaging portion, a projecting spring member, a door catch associated with said spring member and automatically operable to catch or release said door, an escutcheon on said door cooperating with said catch, and means to prevent disalinement of said catch from said spring member.

In testimony whereof, I have signed my name to this specification.

JOSEPH E. KENERSON.