Nov. 19, 1957 G. CIVITELLI 2,813,293

DOOR STOP

Filed May 17, 1954

Fig. 1.

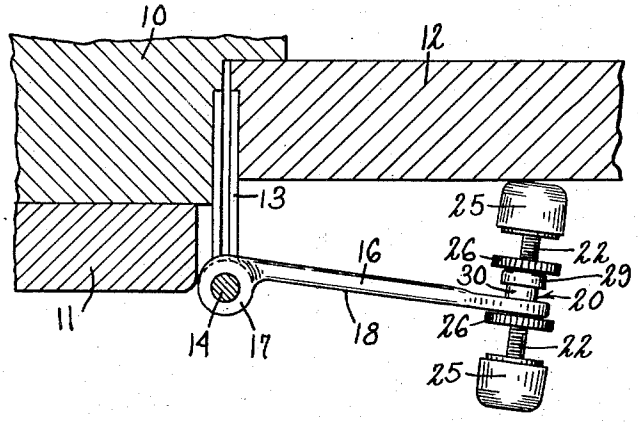


Fig. 2.

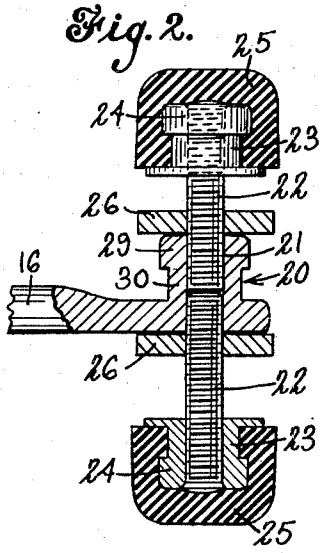


Fig. 3.

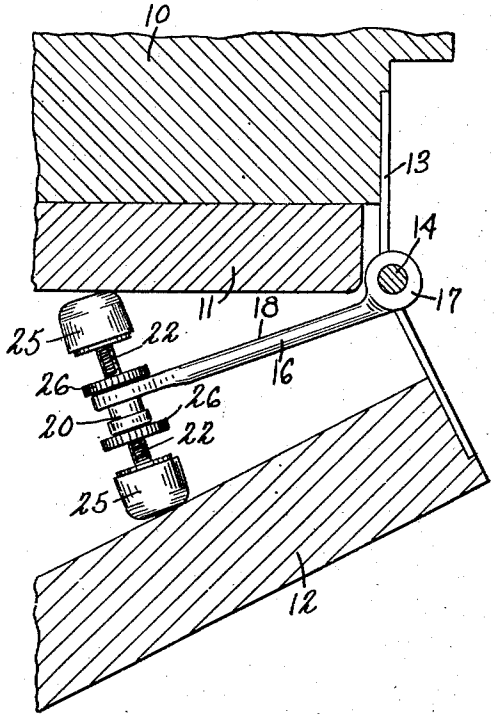
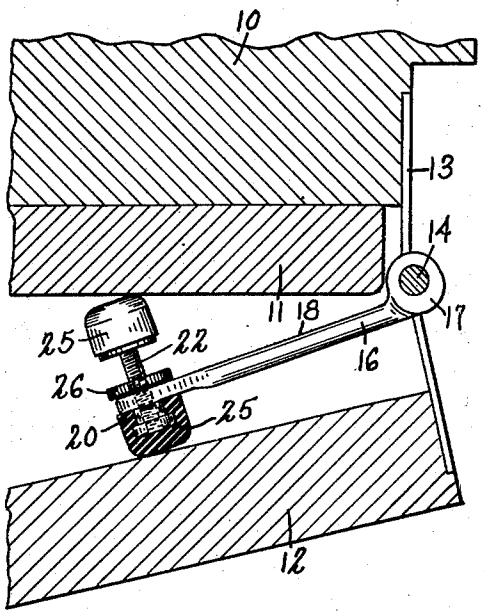


Fig. 4.



INVENTOR

Gennaro Civitelli

BY Rockwell & Rochester

ATTORNEYS

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2,813,293

DOOR STOP

Gennaro Civitelli, Hamden, Conn.

Application May 17, 1954, Serial No. 430,039

1 Claim. (Cl. 16—137)

This invention relates to door stops and more particularly to a door stop which is adapted to be detachably associated with the usual door hinge so as to be conveniently disposed away from the floor in a position to stand between the door and the door frame or wall when the door is in open position. As illustrated, it is similar to the closer shown in my Patent No. 2,638,620, granted May 19, 1953.

In the manufacture of a door stop of this type it is desirable that it be economically made so that it may sell for a relatively low price and at the same time be easily installed so as not to require an expert workman for its installation. Also, it is desirable that it be adjustable so that it may stop the door in any desired open position within limits. As shown, the present stop may be adjusted to hold the door at a position substantially 135 degrees from its closed position or at nearly 180 degrees from its closed position when the door opens back against a wall substantially in the plane of the door itself when the latter is closed.

Also as illustrated, the door stop comprises a structure of simple form which may readily be mounted upon the hinge pin of the usual butt hinge of a door and consists of a body portion extending outwardly from the pivot pin which at its free end carries rubber bumpers to engage against the door and door frame respectively.

One object of the invention is to provide an improved form of door stop having means whereby it may be mounted upon the hinge pin upon which the door swings so as to stand between the door frame and the door when the latter is in open position and limit the swinging of the door.

Another object of the invention is to provide a door stop of the character described which is provided with aligned rubber bumpers adapted to engage the door and casing respectively, the bumpers being adjustable so that the opening of the door may be limited to a desired angular position.

A further object of the invention is to provide an improved door stop of the character described which will be relatively inexpensive to manufacture, simple in construction and readily installed by anyone, thus not requiring the services of a skilled workman.

To these and other ends the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawing:

Fig. 1 is a sectional view of a portion of a door having my improved door stop applied to the hinge thereof, and the door being shown in closed position;

Fig. 2 is an enlarged sectional view of the end portion of the door stop;

Fig. 3 is a view similar to Fig. 1 showing the door in open position; and

Fig. 4 is a view similar to Fig. 3 showing one of the adjustments of which the device is capable.

To illustrate a preferred embodiment of my invention, I have indicated a portion of a door casing at **10**, the

casing being provided with a facing member **11**, and to the casing is hinged a door, the rear portion of which is shown in cross section at **12**. The door **12** is hinged to the casing **10** by the usual butt hinge **13**, the leaves of which are pivotally joined together by the hinge pin **14** in the usual manner.

The door stop comprises an arm or body portion **16** having at one end an opening or eye **17** to receive the hinge pin **14** so that the stop may be mounted upon the door hinge. It will be noted that the arm or body portion **16** is not radially disposed with respect to the opening **17** but is offset from the center of the opening so that the outer edge of the arm **18** (lower edge as shown in Fig. 1) is substantially tangent to the edge of the opening.

As shown more particularly in Fig. 2, the free end of the arm **16** is provided with a stud **20**, this stud being provided with a threaded opening **21**.

In each end of this opening is adjustably received a threaded stem **22**, the stem carrying at its free end a stud **23** having an enlarged head **24** over which may be frictionally telescoped a rubber bumper or cap **25**.

The bumpers **25** are of substantially cup-shaped form and are made of resilient material such as rubber, this material being of such a nature that the bumpers may be stretched over the enlarged heads **24** of the studs **23** and be frictionally held in position by engagement of the free skirt portions of the bumpers below the enlarged heads of the studs. It may also be noted that each of the bumpers is adjustable with respect to its distance from the stud **20** by its threaded engagement with this stud.

In order to hold each of the stems **22** in any adjusted position to which it may be turned, lock nuts **26** are provided and after the bumpers have been properly positioned, these lock nuts will be turned up against the stud **20** or the outer flat face of the arm **16** as the case may be to lock the stems **22** in position.

The operation of the device is shown in Figs. 1 and 3. In Fig. 1 the door is shown in closed position, and the member **16** may stand in the position shown with one of the bumpers **25** in engagement with the face of the door. When the door is opened, as shown in Fig. 3, the stop will be turned with the door until one of the bumpers lies against the face plate **11** and the other against the face of the door, as shown in Fig. 3. This will be the limit of the open position of the door, and it will be stopped in this position so that it cannot swing back and damage the casing. The bumpers **25** may be adjusted by means of their threaded connection with the stud **20** so as to hold the door open at an angle of substantially 135 degrees from the position shown in Fig. 1 or even at a lesser angle if desired. It may, of course, be adjusted to permit the door to open to a greater extent.

In order to enable a further adjustment of the open position of the door, I have provided the stud **20** of such a shape that one of the bumpers may be placed upon it if desired. For instance, if it is desired to open the door to a greater extent than is permitted by the structure as shown in Figs. 1 to 3, one of the stems **22** (the upper, as shown in Fig. 2) may be entirely removed from the stud **20**. The rubber bumper **25** may then be removed from the stud **23** and slipped over the stud **20**, as shown in Fig. 4 of the drawing. For this purpose the stud **20** is provided with an enlarged head **29** and a reduced annular lower portion **30** just as are the studs **23** so that the rubber bumper **25** may be frictionally engaged with the stud and securely held in place.

With this arrangement, as shown in Fig. 4, the distance between the outer faces of the bumpers **25** is much less than is the case with the arrangement shown in Figs. 1 to 3, and hence the door will be allowed to open to a greater extent. It will, of course, be understood that the remain-

ing stem **22** may be adjusted within the opening **21** of the stud **20** to a greater extent than is shown in Fig. 4 so as to permit the door to open to a posittion nearly 180 degrees from its closed position. The thickness of the facing member **11** and its position with respect to the hinge pin **14** will, of course, determine to some extent the extreme open position to which the door may be limited.

It will be obvious from the above description that I have provided a very simple and inexpensive door stop which is capable of a wide range of adjustment to limit the opening of the door to a desired position. Moreover, the device is made of relatively few parts and may be readily installed by the average householder. It will also be obvious that by providing the stud **20** of the same shape as the studs **23**, one of the bumpers **25** may be mounted directly upon the stud **20**, thus lessening the distance between the bumpers **25** and rendering possible a still further adjustment of the device.

While I have shown and described a preferred embodiment of my invention, it will be understood that it is not to be limited to all of the details shown, but is capable of modification and variation within the spirit of the invention and within the scope of the claim.

What I claim is:

A door stop comprising an arm having an opening at one end thereof to receive a hinge pin whereby it may be attached to a door hinge, said arm being offset laterally from the axis of said opening, the other end of said arm being provided with an integrally formed stud having a threaded opening therethrough, a threaded stem adjustably received in each end of said opening for adjustment in a direction substantially transverse to said arm, a stud carried by the free end of each of said stems, and a cup-shaped bumper member in frictional gripping engagement with each of said last-named studs to be removably mounted thereon, and at least one of said last-named studs being of an exterior shape substantially identical with that of said first stud whereby one of said bumper members may be removably mounted on the latter.

References Cited in the file of this patent

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