March 21, 1961 B. E. ANDERSON 2,976,071

AUTOMATIC DOOR STOP AND CATCH

Filed April 29, 1959

Fig. 1.

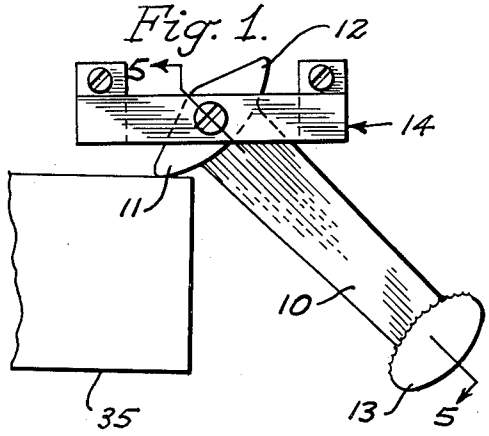


Fig. 2.

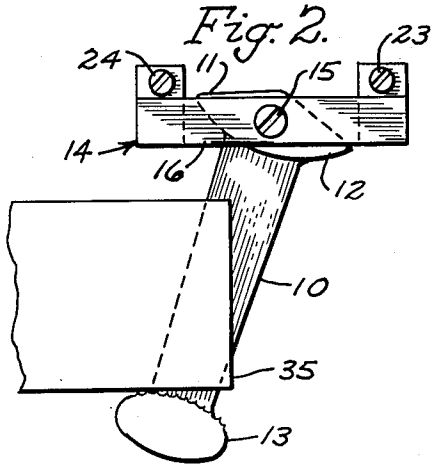


Fig. 3.

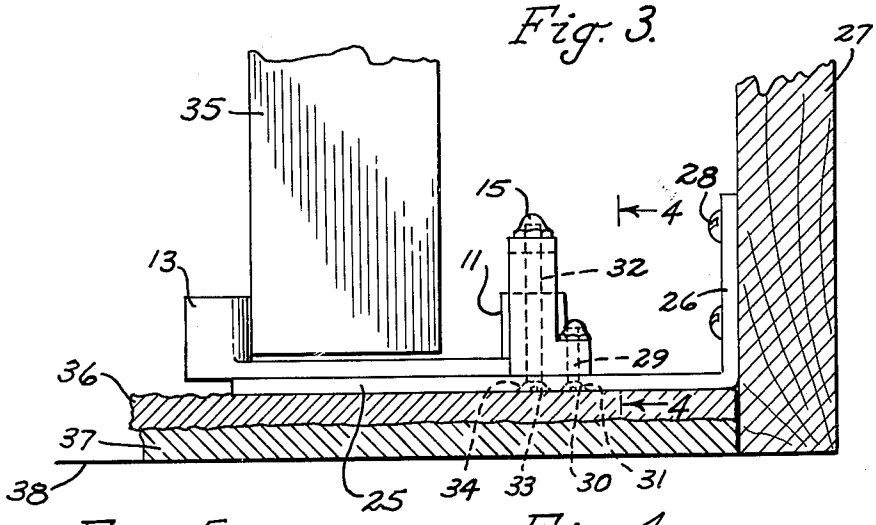


Fig. 5.

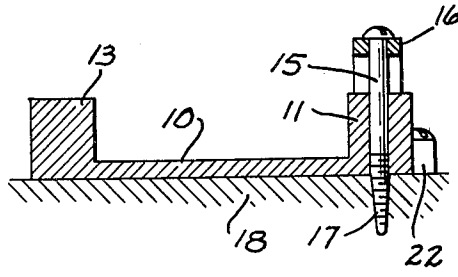
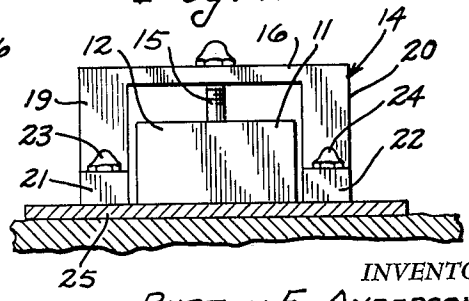


Fig. 4.



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AUTOMATIC DOOR STOP AND CATCH

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1 Claim. (Cl. 292—216)

This invention relates to a latch, pivotally-mounted in a bracket and positioned to receive a free or swinging edge of a door whereby, in the opening movement of the door, the edge of the door engages a knob that swings a bumper on the end of an arm over the surface of the door opposite to that engaging the knob, whereby the bumper holds the door, preventing return movement thereof, until the bumper is actuated manually to release the door.

The purpose of this invention is to provide a door stop that is automatically actuated, by the opening movement of a door, to swing a catching element over the edge of the door to prevent return movement of the door.

Various types of door stops and catches have been provided, and although many of such devices grip and hold a door, such devices are relatively complicated and costly to manufacture and are very seldom used. With this thought in mind, this invention contemplates a door stop and catch that receives a swinging edge of a door and that is actuated by the door to retain the door in the open position.

The object of this invention is, therefore, to provide a door stop that is actuated by the opening movement of a door to grip and hold the door in an open position.

Another object of the invention is to provide a combination door stop and catch that is designed to be installed by the average layman.

Another important object of the invention is to provide a combination door stop and catch that is designed to be installed for use on doors now in use without cutting or otherwise changing the door.

A further object of the invention is to provide a combination door stop and catch which is of a simple and economical construction.

With these and other objects and advantages in view, the invention embodies an arm, having knobs on one end and a bumper on the opposite end, and a bracket for pivotally-mounting the arm, whereby in an opening movement of a door, the door engages a knob at one end and swings the arm so that a bumper on the opposite end extends over the outer surface of the door for retaining the door in an open position.

Other features and advantages of the invention will appear from the following description, taken in connection with the drawing, wherein:

Figure 1 is a plan view of the improved door stop and catch, showing the parts in positions wherein the door is engaging a knob of the catch.

Figure 2 is a view, similar to that shown in Figure 1, showing movement of the door continued whereby the knob is actuated to swing the bumper against the outer surface of the door.

Figure 3 is an end elevational view of the improved door stop and catch, showing the device mounted on a horizontal arm of a bracket whereby the door stop and catch is supported above a rug or carpet.

Figure 4 is a cross section through the supporting arm, taken on line 4—4 of Figure 3, showing an elevational view of the bracket and catch.

Figure 5 is a section, taken on line 5—5 of Figure 1, showing the door stop and catch with the supporting bracket omitted.

Referring now to the drawing, wherein like reference characters denote corresponding parts, the improved door stop and catch of this invention includes arm **10**, having upwardly-disposed laterally-extended knobs **11** and **12** on one end and bumper **13** on the opposite end; substantially U-shaped bracket **14**, in which arm **10** is pivotally-mounted by screw **15** extended through upper bar **16** and having threaded lower end **17**, which is threaded into floor **18**; and bar **16**, supported by posts **19** and **20**, having lugs **21** and **22** extended from rear surfaces thereof and provided with screws **23** and **24**, which are threaded into floor **18**.

The bracket may also be mounted on horizontally-disposed arm **25** of L-shaped support **26**, which is secured to mop board **27** around the lower edge of a wall of a building, by screws **28**; in this design, lugs **21** and **22** are secured to arm **25** by screws **29**, heads **30** of which are positioned in countersunk openings **31**, and arm **10** is pivotally-mounted on screw **32**, which extends through bar **16** and is provided with head **33**, which is positioned in countersunk opening **34**, in arm **25**.

As illustrated in Figures 3 and 5, knobs **11** and **12** extend upwardly from arm **10**, and bracket **14** is positioned so that in the opening movement of door **35**, the door engages knob **11** and the pressure of the door moves the knob toward bracket **14**, swinging bumper **13** from the position shown in Figure 1 to that shown in Figure 2.

A bracket is positioned on a floor, and in spaced relation to a wall against which a door opens, whereby the bracket is out of the path of persons passing through the doorway.

Bracket **14** may be attached to a floor by screws **23** and **24**, or to horizontal arm **25** of bracket **26** by screws **29**. Bracket **26** is positioned to support bracket **14** above the surface of rug or carpet **36** and also above linoleum or silencing pad **37** positioned on floor **38** below the rug.

The parts may be made of plastic or other suitable material, and the knobs and bumper may be coated to prevent marring or scratching a door or the like.

It will be understood that modifications, within the scope of the appended claim, may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

In a door stop and catch, the combination which comprises an L-shaped support having a vertically disposed portion that is adapted to be mounted on a mop board of a wall and a horizontally disposed portion that extends outwardly of said vertically disposed portion in parallel spaced relation to a floor contiguous to the wall, an inverted U-shaped bracket having apertured lugs extending outwardly thereof at right angles thereto, screw members extended through said apertured lugs to secure said inverted U-shaped bracket to the horizontally disposed portion of said support, an arm positioned within said inverted U-shaped bracket, said arm having a pair of vertically disposed knobs extending laterally from one end thereof and a vertically disposed bumper on the opposite end thereof, a bolt extended through the bight of said inverted U-shaped bracket, through said arm intermediate of the pair of knobs thereon and into the horizontally disposed portion of said support to pivotally mount said arm in said inverted U-shaped bracket, said support being adapted to be mounted so that one of the knobs is in the path of a free edge of a door, with the knobs positioned whereby the arm will swing below the free edge of the door and upon engagement of one of the knobs by the

free edge of the door, the arm is actuated to swing the bumper against the side of the door opposite to the side which engages the knob, the free edge of the door engaging the knob at a point spaced from the pivotal mounting of the arm and between the pivotal mounting of the arm and the pivotal mounting of the door.

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