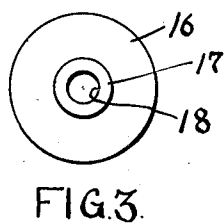
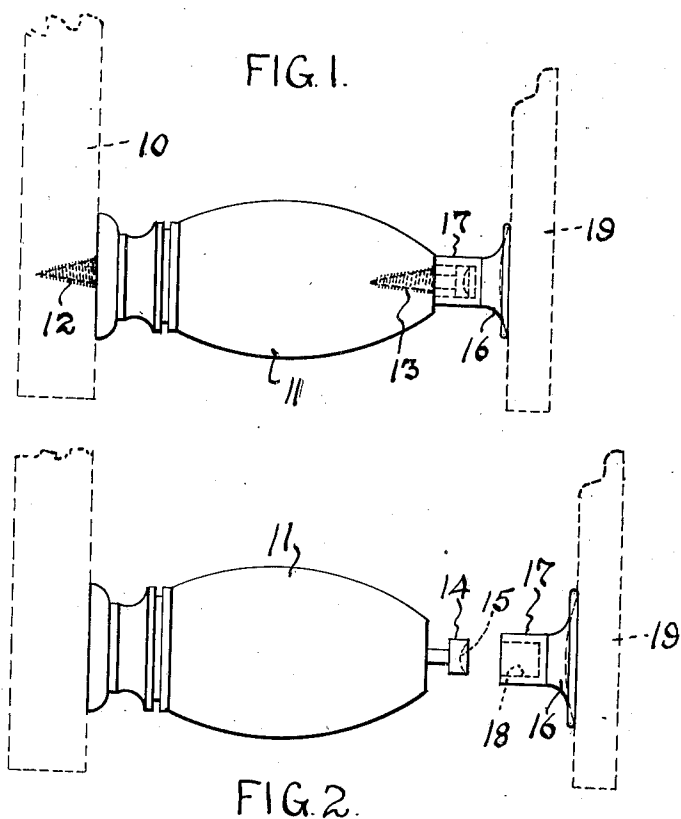


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DOOR HOLDER AND STOP
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DOOR HOLDER AND STOP

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4 Claims. (Cl. 292—70)

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This invention relates to an improved form of door stop constructed to hold the door in any desired position, that is either fully open, fully closed, or some intermediate position.

The general object of this invention is to provide an improved and simplified construction for these purposes which has the advantage of holding a door so that it will not rattle and for exerting an increased holding action under sudden force to move the door such as would be created by a gust of wind.

A more specific object of the invention is to provide a device of this kind which can be mounted for use very quickly and without special effort to mount the cooperating parts in proper location.

Other and more detailed objects of the invention will be apparent from the following description of the embodiment thereof illustrated in the drawings.

This invention resides substantially in the combination, construction, arrangement and relative location of parts as will be described in detail below.

In the accompanying drawings,

Figure 1 is a side elevational view of the structure as applied to a door near the bottom for cooperation with the adjacent baseboard and showing the position of the parts when the door is fully opened;

Figure 2 is a similar view showing the relative position of the parts when the door has been moved a short distance towards closed position; and

Figure 3 is an end elevational view of one of the parts of the device.

The usual types of door bumpers comprise a member mounted either on the door, the adjacent baseboard, or on the floor in the proper position serving as a cushioning device to prevent the door from banging the wall and being a source of noise. There are other types of door fixtures which act to hold the door in any desired position, as for example fully closed or fully open, but these devices are usually relatively complex and expensive.

An object of this invention is to provide a combined door bumper and holder of very simple construction and because of its features of construction easy to install properly.

Thus, as shown in the figures the device comprises a body member 11 of any suitable construction and preferably of a decorated nature which can be mounted on the door or the baseboard. As illustrated in the drawings it is shown mounted on the lower part of a door 10 near its free edge

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by means of a threaded screw 12 mounted on the end thereof. Mounted on the other end in any suitable manner, as for example by means of the wood screw end 13 is a plunger 14 which has a hollowed or recessed end, as indicated at 15. A resilient suction cup 16 is provided with an extension 17 having a recess 18 which in effect provides a cylinder to receive the plunger 14. The element 16—17 is preferably of a single piece of any suitable resilient material as for example rubber, natural or synthetic.

The relative diameters of the plunger 14 and recess 18 can be such that the plunger has a frictional fit in the recess. In addition to the frictional fit there is the suction action which occurs when the plunger 14 is withdrawn from the recess 18. The device is mounted on the door as previously explained with the suction cup member 16 telescoped on the piston 14. When the door is opened so that the suction cup 16 hits the baseboard 19 it will hold the door in that position. As the door is closed the piston 14 is withdrawn from the cylinder 18 and resistance to its withdrawal occurs both due to the suction action developed and the frictional engagement between the walls of the cylinder and the piston.

It will be seen that there is no problem of aligning the cooperating member 16 with the remainder of the structure since the member 16 is self-attaching and therefore is retained on the baseboard in proper alignment with the piston 14.

One of the advantages of this structure is that it acts very effectively as an anti-rattling device in that under vibration due to gusts of wind the door is firmly held in place. Sudden efforts to disengage the piston 14 from the cylinder are resisted by the increased suction action arising from any sudden effort to withdraw the piston from the rubber cylinder. On the other hand, a steady even pressure on the door will readily cause its disengagement. In some cases it may be that the force required to withdraw the piston 14 will be greater than the suction action of the suction cup 16 in which case the suction cup will remain on the end of the fixture 11 when the door is closed. This, however, does not interfere with the proper action of the device since the next time the door is opened it can attach itself to the baseboard or other adjacent stop.

It is likewise clear that the device can be mounted on the baseboard or other back stop instead of on the door, in which case the suction cup will engage the door in the same manner as it engaged the baseboard in the previous description.

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From the above description of the single embodiment illustrated in the drawings it will be apparent that the subject matter of this invention is capable of variation by those skilled in the art and I do not therefore desire to be limited to the example described herein. I prefer that the claims granted me be the measure of my protection.

What is claimed is:

1. A device of the type described comprising a body member having means for attachment to a support, a projection secured to the free end thereof, and a suction cup releasably and frictionally attached to said projection.

2. In the combination of claim 1, said projection comprising a piston and said suction cup having a cooperating cylinder telescoping with said piston.

3. A combined door stop and holder, comprising

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ing a body member, means for detachably securing the body member on a support, a headed member mounted on the end of said body member, and a resilient member frictionally mounted on said headed member and having a terminal end comprising a suction cup.

4. In the combination of claim 3, said resilient member having an open-ended cylinder into which said headed member frictionally engages.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,621,974	Deenihan	Mar. 22, 1927
2,140,002	Dion	Dec. 13, 1938