Sept. 21, 1948. S. S. BRINDA 2,449,686

DOOR STOP

Filed Aug. 19, 1946

Fig. 1

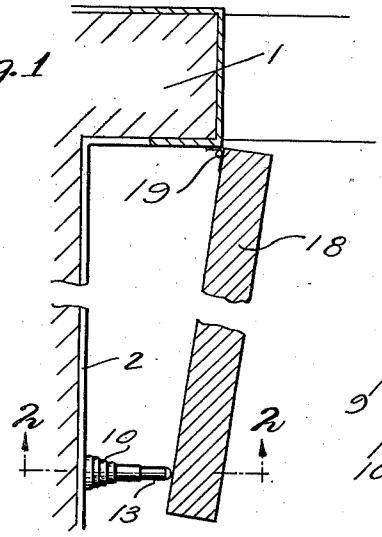


Fig. 3

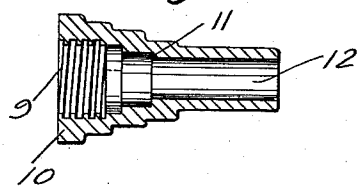


Fig. 2

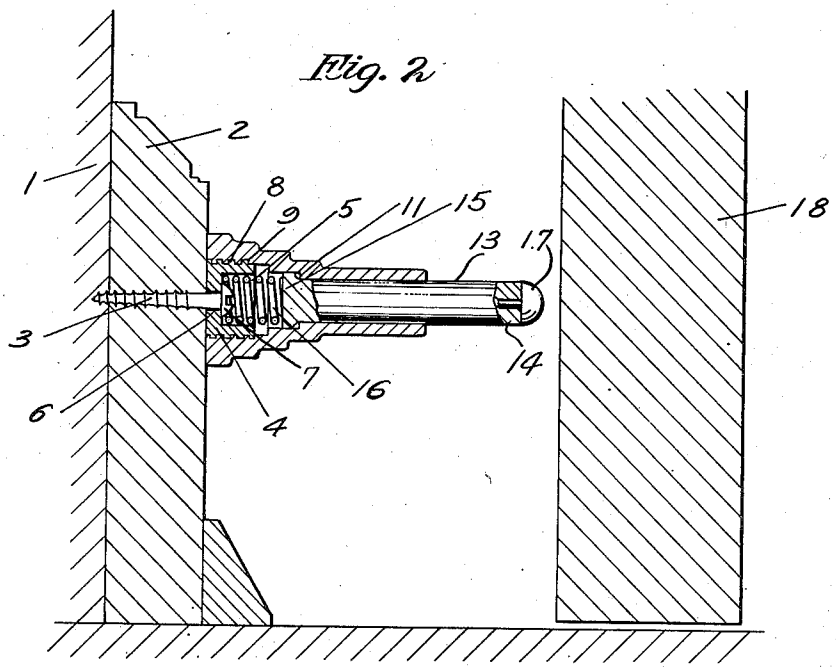
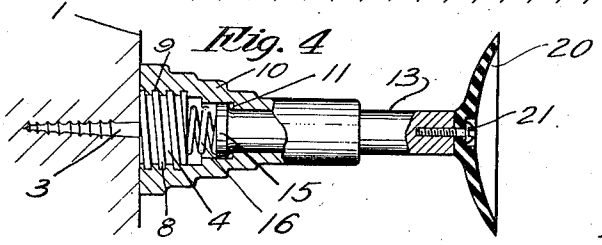


Fig. 4



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DOOR STOP

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2 Claims. (Cl. 16—85)

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My invention relates to door stops or buffers and has for its principal object the provision of such a device which can be readily secured to and removed from a wall or floor or the like.

Another object of my invention is the provision of a door stop or buffer in which the means for securing the same to a wall or the like is entirely concealed within the structure.

Another object of my invention is the provision of a novel means for engaging a door or the like whereby to prevent rebounding of a door in the event of excessive impact of the door thereagainst.

A still further object of my invention is the provision of a door stop which can be economically produced, which is quiet and efficient in operation, and which is extremely durable in use.

A still further object of my invention is the provision of a door stop, the construction of which permits manufacture of the same from light, durable, and inexpensive plastic materials.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims, and attached drawings.

Referring to the drawings wherein like characters indicate like parts throughout the several views:

Fig. 1 is a horizontal section taken through a portion of a wall and door casing;

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1 on an enlarged scale;

Fig. 3 is an axial section through a hollow post which forms a part of my invention; and

Fig. 4 is a view corresponding to Fig. 2 with some parts broken away, illustrating a modified form of my invention.

Referring with greater particularity to the drawings, the numeral 1 indicates a wall, to the baseboard 2 to which is secured by means of a screw 3, an anchoring plug 4. Anchoring plug 4, preferably and as shown, is cylindrical in form and is provided with an axial passage therethrough which comprises an enlarged recess 5 and the reduced opening 6. The enlarged head 7 of the screw 3 rests in the bottom of the recess 5 while the threaded portion thereof extends through the reduced opening 6 and into the baseboard 2 or the like. Plug 4 is externally threaded at 8 to receive the enlarged internally threaded inner end portion 9 of a hollow post 10. Intermediate its ends, hollow post 10 is provided with an internal shoulder 11 from which a reduced outwardly-opening passage 12 in the post 10 extends. Mounted for limited axial movements in

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the reduced passage 12 of the post 10 is a plunger 13, the outer end 14 of which projects outwardly therefrom. The extreme inner end of plunger 13 is provided with a circumferential flange 15 which is adapted to engage the internal shoulder 11 of the hollow post 10 and limit the outer movement of the plunger 13 with respect to the post 10.

Interposed between the inner end of plunger 13 and the plug 4 is an inner spring 16 which biases said plunger 13 in an outward direction. As will be seen, the inner end of the spring 16 is seated in the recess 5 of the base plug 4.

The extreme outer end of plunger 13 is provided with a cushioning pad 17 which is designed to prevent marring of the finish on the door and to deaden the sound of the impact of the door striking thereagainst. A door or the like indicated by the numeral 18, as shown in Fig. 1, is secured to the wall 1 by a hinge 19.

In Fig. 4, I illustrate a novel combination including an inwardly-dished resilient suction cup 20 which is secured to the extreme outer end of the plunger 13 by means of a screw or the like 21. In all other respects, the structure of Fig. 4 is identical to that illustrated in Figs. 1 to 3 inclusive. The purpose of the rubber suction cup 20 is to prevent excessive rebounding of the door 18 in the event of extreme impact. In practice, I have found the rubber suction cup will adhere to the door for a sufficient length of time to interrupt rebounding action.

While I have shown and described a buffer to be used to cushion the impact of a door against a wall when opening the door, it will be understood that such a device may be mounted in a door jamb to cushion a door when closing the same and thereafter serve to bias the door away from the door jamb and thus operate as an anti-rattle device.

What I claim is:

1. In a device of the class described, an anchoring plug having an axial opening therethrough, said opening being enlarged at one end to form a recess, screw means in the bottom of said recess and through said opening for securing said anchoring plug to a wall, a post having an axial passage therethrough, said passage being enlarged adjacent its inner end to provide an internal shoulder, means in the enlarged end of said post for removably securing said post to said anchoring plug, a plunger in said axial passage projecting outwardly from said plug, a circumferential flange on said plunger adapted to engage the internal shoulder of said post and

limit the outward movement of said plunger, a coil spring having one end seated in the recess of said anchoring plug and having its opposite end in contact with the inner end of said plunger and tending to bias said plunger in an outward direction, and an inwardly-dished resilient suction cup on the extreme outer end of said plunger.

2. In a device of the class described, an anchoring plug having an axial opening therethrough, said opening being enlarged at one end to form a recess, screw means in the bottom of said recess and through said opening for securing said anchoring plug to a wall, a post having an axial passage therethrough, said passage being enlarged adjacent its inner end to provide an internal shoulder, means in the enlarged end of said post for removably securing said post to said anchoring plug, a plunger in said axial passage projecting outwardly from said plug, a circumferential flange on said plunger adapted to

engage the internal shoulder of said post and limit the outward movement of said plunger, a coil spring having one end seated in the recess of said anchoring plug and having its opposite end in contact with the inner end of said plunger and tending to bias said plunger in an outward direction, and a resilient cushioning pad on the outer end of said plunger.

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