April 21, 1942. N. P. MADSEN 2,280,655

DOOR STOP

Filed Sept. 1, 1937

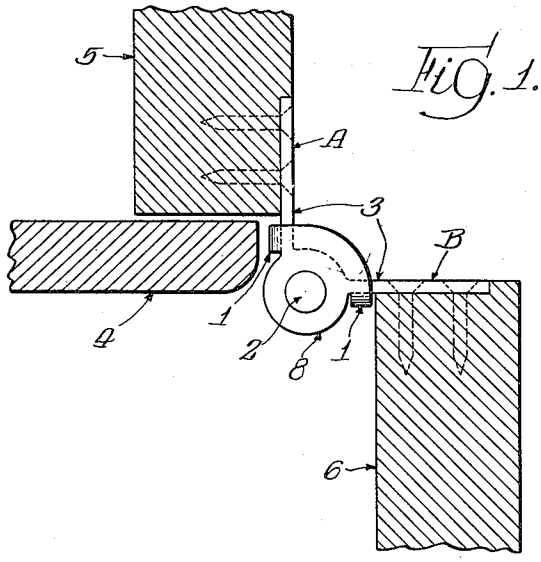


Fig. 1.

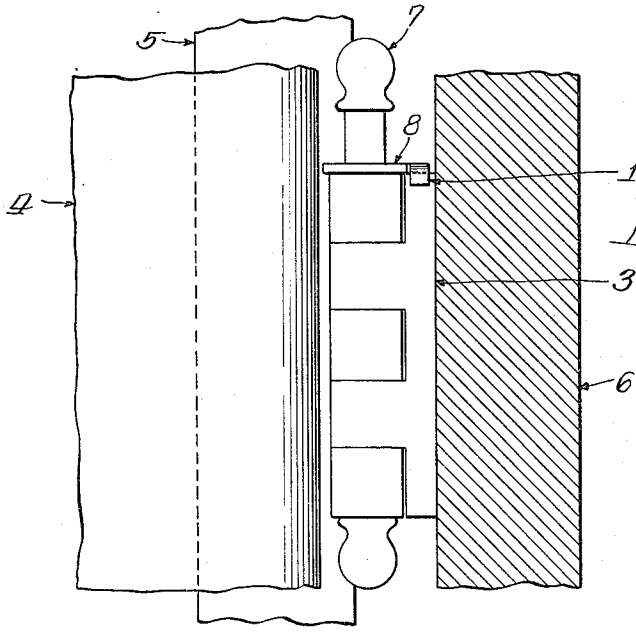


Fig. 2.

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DOORSTOP

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1 Claim. (Cl. 16—191)

This invention relates to a door stop adapted particularly for use with hinges in which the leaves pivot about a removable bolt or pintle.

An object of the invention is to provide an exceedingly simple, inexpensive but sturdy form of door stop that may be readily applied by anyone to a door without requiring the use of tools, nails, screws or like fastening devices, and without requiring a special form of hinge or any modification thereof.

A further object of the invention is to provide a device of this type that can be mounted upon the door by removing the bolt or pintle from one of the hinges and placing it between the pintle head and hinge, thereby eliminating devices heretofore used at the baseboards and those requiring changes in the hinge construction in order to adapt the same thereto.

More specifically the invention is directed to the provision of a segmental plate apertured to receive the hinge pintle for retaining the plate between the pintle head and hinge leaves and having two bent-over portions providing angularly related limiting stops, one portion for insertion between the fixed hinge leaf and the door trim, and the other portion serving as a limiting stop for the hinge leaf on the door.

Other objects and advantages of the invention will be apparent from the following detail description when taken in connection with the accompanying drawing which forms a part hereof.

In the drawing:

Figure 1 is a fragmentary detail sectional view of a portion of a door, its frame and trim illustrating a door stop embodying the present invention mounted in position under the head of the pintle, the angularly related limiting stops of the device engaging the outside faces of the hinge leaves and acting as a stop to prevent further opening movement of the door;

Fig. 2 is a view illustrating the door frame and the door cross hatched but with the hinge in elevation and showing the manner of mounting the door stop; and

A door stop comprising a preferred embodiment of the invention is illustrated in Figs. 1 and 2, inclusive. It comprises a segmental plate 8 having an aperture 2 and two bent-over portions 1 and 1*a*. Portions 1 and 1*a* are formed so that they serve as limiting stops adapted to restrict the opening movement of the door. As illustrated in this embodiment shown in the drawing, these portions 1 and 1*a* are so disposed with respect to the segmental plate and central opening 2 that they will limit the opening movement of the door to an angle of 90 degrees. It will be understood, however, that portions 1 and 1*a* may be so formed or positioned angularly with respect to plate 8, that they may limit the opening movement of the door to angles other than 90 degrees.

In mounting the door stop, pintle or bolt 7 of hinge 3 having leaves A and B is removed so that the segmental plate 8 may be positioned, as illustrated in Fig. 1, with aperture 2 aligning with the pintle opening in the knuckles of leaves A and B. Pintle 7 may then be replaced so that segmental plate 8 will be seated upon the hinge and held between the pintle head and the hinge leaves. Limiting stop 1 will then be inserted between fixed hinge leaf A carried by door frame 5 and the door trim 4. The other limiting stop will engage, as shown in Fig. 1 against outside face of hinge leaf B preferably between the door 6 and the central portion of the hinge.

It will be apparent that the door stop disclosed herein is designed to be located at a point where little strain is placed thereon when it stops the opening movement of the door. Hence, there is little danger of breaking one of the stops 1 or 1*a*, or otherwise injuring the device so as to render it ineffective. The device is easily mounted and does not require a skilled person to place it in its operative position with respect to the hinge of the door. It is only necessary to remove pintle 7 and place segmental plate 8 in the position shown in Fig. 1, so that the pintle may then be replaced, first through aperture 2 and then through the apertured knuckles of the door hinge. The door stop will thus be held in position and not removed until pintle 7 is again withdrawn from its position in the hinge.

Without further elaboration, the foregoing will so fully explain the gist of my invention that others may, by applying current knowledge, readily adapt the same for use under varying conditions of service, without eliminating certain features, which may properly be said to constitute the essential items of novelty involved, which items are intended to be defined and secured to me by the following claim.

I claim:

A door stop for use on a hinge, comprising a segmental plate apertured to receive the hinge pintle for retaining the plate between the pintle head and upper edges of the hinge leaves and having two lugs extending from said plate in the same direction and providing spaced limiting stops, one lug adapted for engagement against the outer face of the fixed hinge leaf on the door frame and the other lug serving as a limiting stop for the hinge leaf on the door.

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