A. J. PREVOST.

DOOR STOP.

APPLICATION FILED MAR. 24, 1910.

976,597.

Patented Nov. 22, 1910.

FIG. 1.

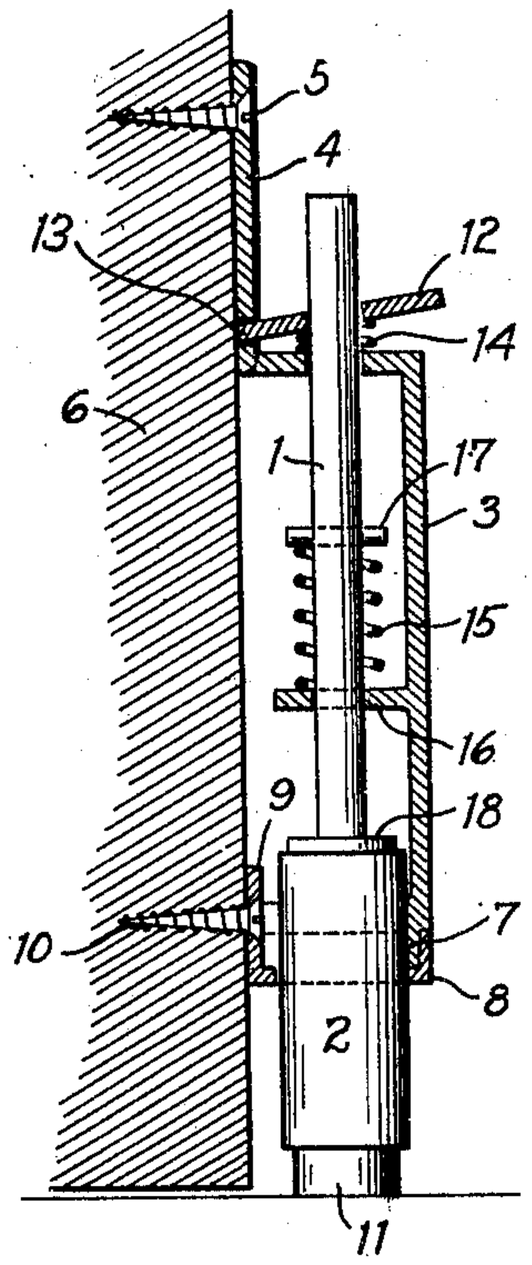


FIG. 2.

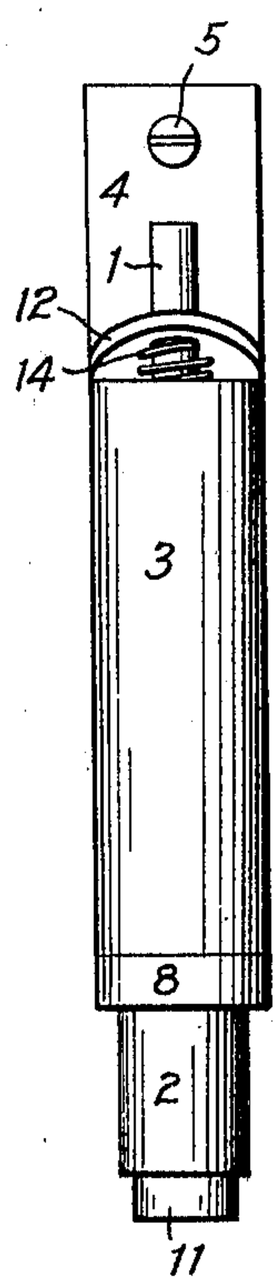
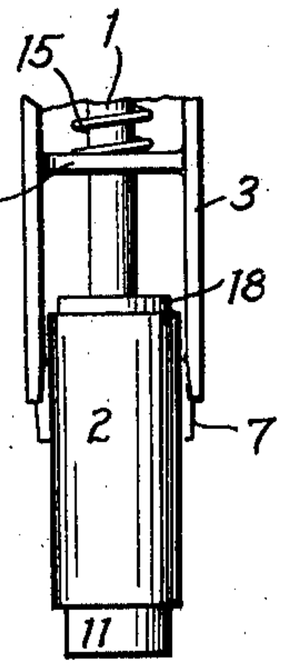
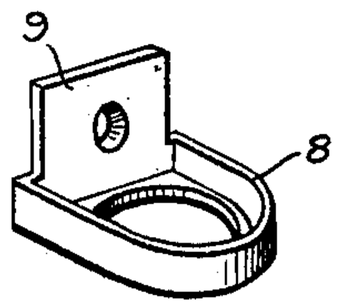


FIG. 4.

FIG. 3.





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UNITED STATES PATENT OFFICE.

ARTHUR J. PREVOST, OF ROCHESTER, NEW YORK, ASSIGNOR TO CALDWELL MANUFACTURING COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

DOOR-STOP.

976,597. Specification of Letters Patent. **Patented Nov. 22, 1910.**

Application filed March 24, 1910. Serial No. 551,401.

To all whom it may concern:

Be it known that I, ARTHUR J. PREVOST, a subject of the King of Great Britain, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Door-Stops, of which the following is a specification.

This invention relates to door stops of the type in which a plunger is mounted to slide vertically in a casing fixed to the side of a door near the bottom thereof, the plunger being pressed into contact with the floor when the door is to be held in open position.

The object of the invention is to improve door stops of the type above referred to with respect to the means by which the casing is fixed to the door, and to this end I employ, at the lower end of the casing, a fastening device comprising a socket member inclosing the lower end of the casing and provided with a lug extending upwardly behind the casing, this lug being secured to the door by means of a screw or other suitable means. By this arrangement the lower end of the casing is securely held, while the appearance of the device is neat and simple, the screw being concealed behind the casing.

The preferred embodiment of my invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical median section of a door stop embodying the present invention, in place on a door and in operative engagement with the floor, the plunger being shown in full; Fig. 2 is a front elevation of the door stop of Fig. 1; Fig. 3 is a rear elevation of the lower portion of the door stop with the plunger in operative position; and Fig. 4 is a perspective view of the device for securing the lower end of the casing.

The illustrated embodiment of my invention is provided with a plunger comprising a shank 1 and a head 2 of larger diameter than the shank fixed to the lower end thereof. The plunger is arranged to slide vertically in a casing 3 which is secured to the surface of the door. The casing is of semi-cylindrical form at the front, and has two substantially parallel sides, while it is open at the back. The upper end of the casing is closed, and is perforated to provide a bearing for the shank of the plunger. The lower end of the casing is provided with a bearing for the head 2 of the plunger.

The casing is secured to the door at its upper end by means of an upwardly-extending lug 4 which is perforated to receive a screw 5 fixed in the door 6. The lower end of the casing is reduced at 7 (Figs. 1 and 3), and is seated in an upwardly-opening socket in a socket member 8, this member having the same form in horizontal cross-section as the casing. The socket member completely incloses the lower end of the casing, and the outer surface of this member is flush with the general surface of the casing, so that, as shown in Fig. 2, the socket member is, in appearance, a continuation or portion of the casing, except for the horizontal line of juncture between the socket member and the casing.

The socket member is fixed to the door by means of an upwardly-extending lug 9 which is perforated to receive a screw 10 fixed in the door. The lug 9 is narrower than the socket member, so that it enters the space between the parallel sides of the casing. The lug is, therefore, entirely concealed within the casing, and the securing device as a whole has a very neat appearance while at the same time securing the casing absolutely against movement in all directions.

When the door stop is in use the plunger is forced downward by the application of pressure against its upper end so as to bring its lower extremity into engagement with the floor, and to increase its frictional hold upon the floor a rubber plug 11 is inserted in the lower end of the head 2. The plunger is held in its depressed position by means of a pinch-plate 12. The pinch-plate has a lug 13 which enters a slot in the lug 4 on the casing. The plunger shank 1 passes through an opening in the pinch-plate which embraces the shank closely but loosely. A compression spring 14 is inserted between the pinch-plate and the upper end of the casing. The spring 14 causes the pinch-plate to bind against the shank of the plunger, owing to the rocking of the pinch-plate about its point of engagement with the lug 4. When the pinch-plate is depressed, however, by the application of pressure against its outer extremity, the shank may move freely through the pinch-plate.

To raise the plunger into inoperative position when the pinch-plate is depressed to release the plunger a compression spring 15, surrounding the shank 1, is employed. This

spring rests at its lower end upon a horizontal lug 16 formed within the casing and surrounding the plunger. The upper end of the spring engages a pin 17 fixed in the plunger.

When the pinch-plate is depressed and the plunger released the spring 15 throws the plunger upward with considerable force, and the lug 16 acts as a stop to arrest the plunger in upward position. To minimize the noise and jar when the plunger is thus arrested a washer 18 of soft rubber, or other resilient material, is placed upon the upper end of the head 2.

I claim:—

1. A door stop having, in combination, a plunger, a casing in which the plunger slides, means for securing the upper end of the casing to a door, and means for securing the lower end of the casing to the door comprising a socket member inclosing the end of the casing and having a lug extending upward behind the casing and adapted to be secured to the door.

2. A door stop having, in combination, a plunger, a casing in which the plunger slides, the casing being open at the rear and having a reduced lower end, means for securing the upper end of the casing to a door, and means for securing the lower end of the casing to the door comprising a socket member inclosing the reduced end of the casing and substantially flush with the general surface of the casing and a lug extending upward from the socket between the sides of the casing and adapted to be secured to the door.

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Witnesses:
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