No. 650,059. Patented May 22, 1900.

B. ALMONTE.

DOOR STOP AND HOLDER.

(Application filed Jan. 9, 1900.)

(No Model.)

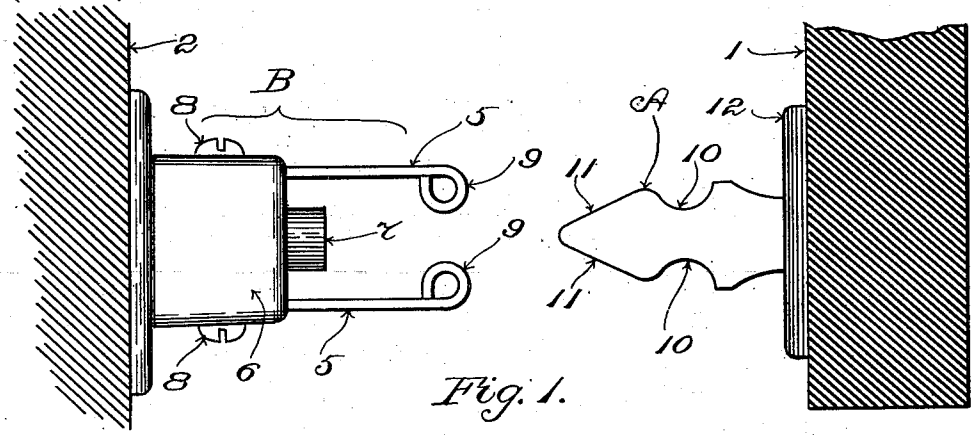


Fig. 1.

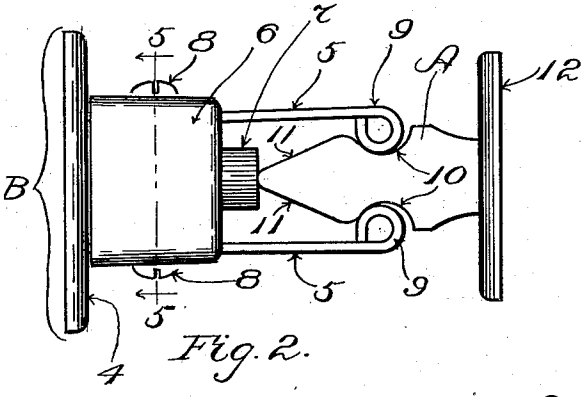


Fig. 2.

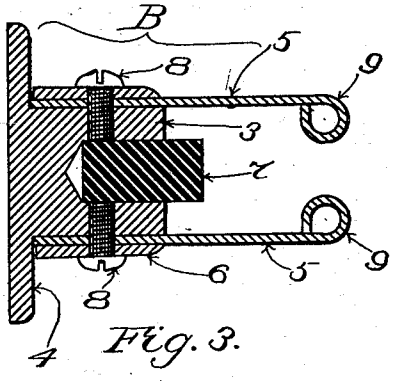


Fig. 3.

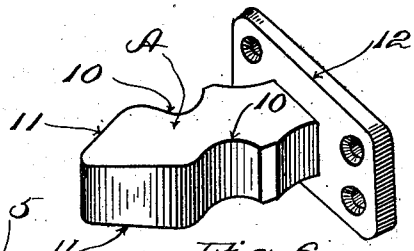


Fig. 6.

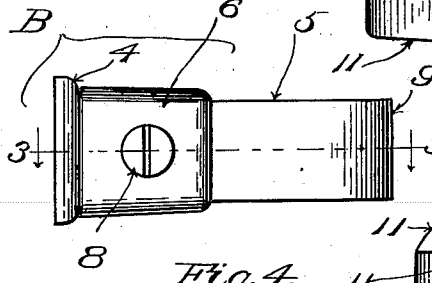


Fig. 4.

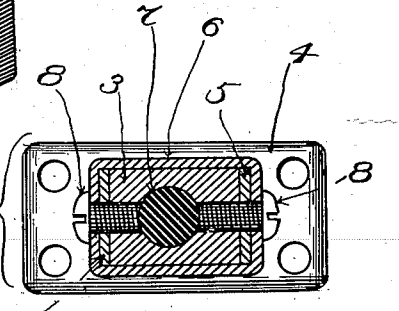


Fig. 5.

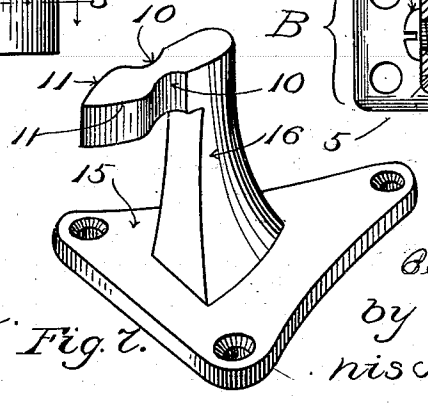


Fig. 7.

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UNITED STATES PATENT OFFICE.

BERNARD ALMONTE, OF BOSTON, MASSACHUSETTS.

DOOR STOP AND HOLDER.

SPECIFICATION forming part of Letters Patent No. 650,059, dated May 22, 1900.

Application filed January 9, 1900. Serial No. 842. (No model.)

To all whom it may concern:

Be it known that I, BERNARD ALMONTE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Door Stops and Holders, of which the following is a specification.

My invention relates to a door stop and holder having two members, one of which is affixed to the door, and the other member, which coöperates therewith, is affixed to the floor or to the base-board or any convenient support.

In many of the door stops and holders heretofore made, especially those which have an elastic buffer, the principle of construction is such that they are too fragile for use on heavy doors, and many of the door-stops in use that are strong enough for large doors are not door-holders, and in order to make them strong enough it would be necessary to make them so large as to be clumsy and unsightly.

The object of my invention is to produce a device which will serve both as a noiseless door-stop and as a holder to retain the door open and be of such form of construction that even when of comparatively-small size it will be sufficiently strong for use on large heavy doors.

My invention will now be fully described by reference to the accompanying drawings, and the novel features thereof will be particularly pointed out in the claim at the close of this specification.

In the drawings, Figure 1 is a plan view showing my device in use, one member being secured to the door and the other member secured to the wall, a portion only of the door and wall being shown, the door being swung back nearly far enough for the two members to become engaged. Fig. 2 is a plan showing the two members engaged as they will appear when the door is swung clear back. Fig. 3 is a section of the female member on line 3 3 of Fig. 4. Fig. 4 is a side elevation of the female member. Fig. 5 is a section on line 5 5 of Fig. 2. Fig. 6 is a perspective view of the male member. Fig. 7 is a perspective of a modified form of male member such as I prefer to use when one of the members is attached to the floor instead of to the wall.

When one of the members is attached to the wall, I prefer that it should be the female member and that the male member be attached to the door. When one of the members is attached to the floor, I prefer that it should be the male member and that the female member then be attached to the door.

Referring to Figs. 1 to 6 of the drawings, the male member A is attached to the door 1, and the female member B is attached to the wall 2. The preferred location is near the floor. The female member B comprises a block 3, having a flanged base 4, spring-plates 5, set one on either side of the block 3, and a collar 6, which clamps the two spring-plates to the block. The block 3 is preferably formed of metal and cast integral with the base 4. When made of metal, I make it with a socket in which I insert a plug 7, of rubber or other elastic material, which projects beyond the block and forms an elastic and noiseless buffer. The block 3 may, however, be itself composed of rubber and secured to the base 4; but I prefer the block to be of metal, with a rubber plug. The two spring-plates 5 are placed on opposite sides of the block 3, with their inner ends resting against the base 4, and are held firmly in position by a collar 6, which fits snugly outside the block and springs. The collar and springs are held in place by screws 8, which pass through the collar and springs into the block and impinge against the rubber plug 7, holding it in its socket. The outer ends of the springs 5 are preferably formed with their ends curled inwardly and around against the sides, as shown, thus strengthening the springs and forming curls 9, which engage in grooves 10 of the male member, as will be hereinafter described, to lock the two members together. The base 4 is screwed to the wall or other support. The male member A is formed with a wedge-shaped end portion 11, the thickness of the wedge being somewhat greater than the space between the curls 9 of the springs, so that the curls will be spread apart when the wedge is pushed between them. After the wedge portion has passed the curls 9 they will spring back into the grooves 10, securely holding the door against being closed by a draft of wind or by any ordinary accidental movement; but by pulling on the door with some slight force the springs will yield, so that the wedge may withdraw. The grooves 10 are preferably

concaved, so that the curls 9, which are also curved, will ride smoothly into and out of the grooves. The member A has a flanged base 12, which is screwed to the door 1.

The rubber plug 7 forms a stop and buffer, which prevents the wedge from being pushed too far through the curls 9 by a violent swing of the door, and it also serves to make the stop noiseless.

As the springs 5 are flat without any bend, except the curls 9, and are backed by the collar 6, which although detachable forms a strengthening-band, they will stand a much greater strain than if the springs were formed of one plate bent to form the two arms, and there is practically nothing to break. A comparatively-small device will be sufficient for large and heavy doors. It is adapted for use on steamships, cars, house and office use, halls, and any doors requiring a stop or holder.

It is obvious that the position of the two members may be reversed, the female member B being on the door and the male member A secured to the wall or floor or other fixed support.

In the modification shown in Fig. 7 the male member is adapted to be secured to the floor, being formed with a base 15, a standard 16, and a laterally-projecting portion having the wedge 11 and grooves 10, similar to the form already described.

What I claim is—

A door stop and holder comprising a male and a female member one of which is attached to a door and the other to a fixed support and which interlock with each other when the door is open, the female member comprising a bed-block, a rubber buffer inserted in a socket therein, two plate-springs on opposite sides of the block with projecting outer ends which receive the male member and with their inner ends resting against the base of the block, a reinforcing-collar which surrounds said block and said springs, and screws which pass through said collar and said springs and into the block and impinge on said buffer, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

BERNARD ALMONTE.

Witnesses:
WILLIAM A. COPELAND,
ROBERT WALLACE.