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DOORSTOP PLATE

Filed Feb. 9, 1929

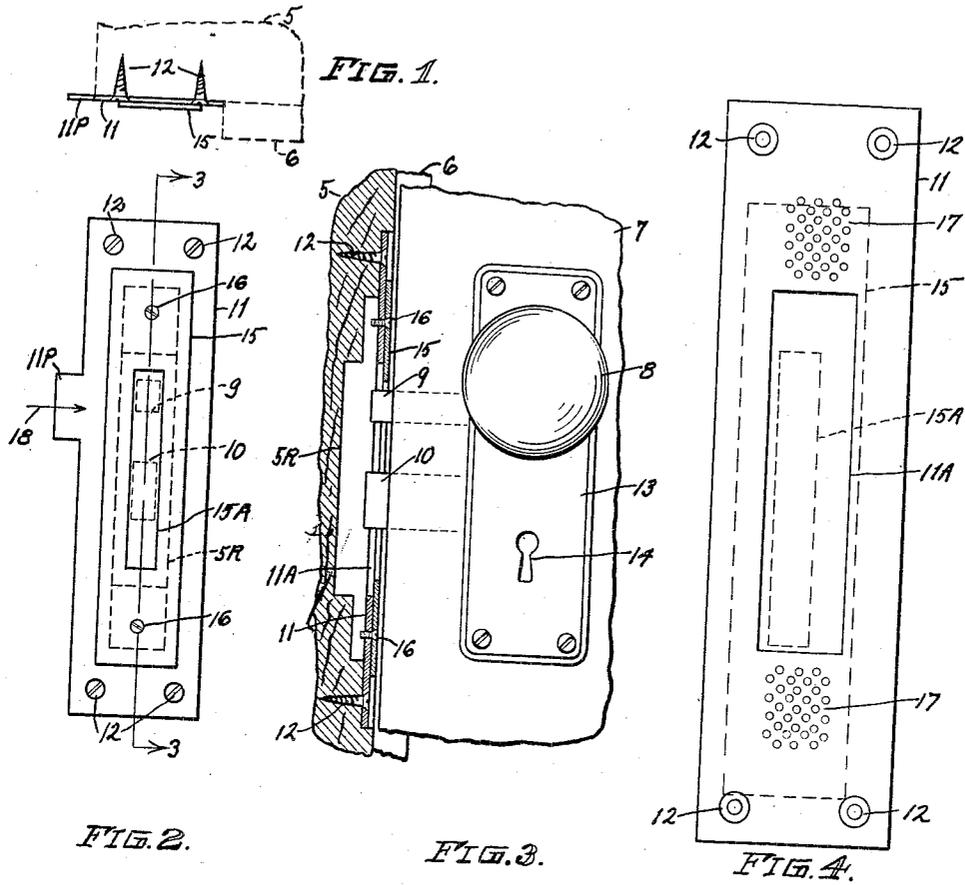


FIG. 2.

FIG. 3.

FIG. 4.

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DOORSTOP PLATE

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My invention relates to doorstop plates particularly adapted for use in door frames but also applicable for use as a stop for hinged lids or covers of various kinds having a frame stop member. The main object is to provide a plate with adjustable means to compensate for sagging or mis-alinement of the door or other hinged member as hereinafter fully set forth and as illustrated in the accompanying

drawings, in which,—

Fig. 1 is a top view of my improved doorstop plate in operative position on a door frame, the latter being shown in dotted lines only.

Fig. 2 is a vertical face view of my device assembled with its adjustable plate in central position relative to the base plate.

Fig. 3 is a sectional view about as on line 3—3 in Fig. 2 and added thereto a portion of the door frame in section, also an adjacent lock-containing portion of a door held in locked, closed position.

Fig. 4 is an enlarged face view of the main plate of my device and its auxiliary plate shown in dotted lines only and in a fixed lowered position.

Referring to the drawings by reference numerals, 5 designates a vertical door frame member having the usual doorstop strip 6 against which the free edge part of a door 7 is stopped, said edge part of the door provided with a lock including the door knob 8 for releasing the usual spring actuated bolt 9. 10 is a lock bolt normally below bolt 9 and actuated into or out of locking position in the stopplate. My device comprises a main plate 11 fixed as with screws 12 in the face of the door frame 5. Usually said frame is recessed as 5R to provide for free movement of the bolts 9—10 thereinto. 13 is the fixed door-knob plate having the keyhole 14.

11P is the usual outer lip of the plate 11 (see Figs. 1 and 2) for the knob-actuated bolt 9 to engage and be pressed back as the door closes, the outer end of said bolt riding frictionally on the face of the plate 11 until the door is nearly closed and subsequently the bolt is projected into the plate aperture.

In my device the main plate 11 is fixed as

described and the two bolts do not engage it directly when the door is closed. An adjustable auxiliary face plate 15 is provided, of the same general proportions as the main plate 11 but smaller. This face plate 15 is provided near each end with a central countersunk bore for insertion of a flat-head machine screw 16 and between said bores is provided an elongated aperture 15A. 17 is a group of threaded holes near each end of the main plate, said groups so arranged that the face plate can be attached to the main plate in selective positions. In Fig. 2 the face plate is shown about central of the main plate, but in Fig. 4 it is shown dotted in lowered, downward and sidewise offset position so that its aperture is correspondingly lowered for a purpose presently to be described.

It will now be readily seen that with my stop plate mounted as shown the free edge of a door is swung to closed position, close to the face of the plate, the knob-bolt 9 riding first on plate 11 then on plate 15 until the bolt is sprung into the aperture 15A, this position of the bolt being shown dotted in Fig. 2 and its direction of movement indicated by an arrow 18 in Fig. 2. When thus in closed position the lock-bolt 10 may of course be moved by a key (not shown) to project into aperture 15A below bolt 9 (see Figs. 2 and 3). 11A is an elongated large aperture in the base plate and at all times covered by plate 15 except when the latter is entirely removed. This provides free and unobstructed movement of the lock-bolts through both plates into the recess 5R.

It is now apparent that when a door frame expands or warps, or the door itself may sag or even raise for any number of reasons well known in the building industry, the bolts 9—10 will not remain in properly registering positions with the apertures of the doorstop. When these conditions are present the face plate of my device is readily adjusted to a position in which its apertured part may be properly engaged by the lock bolts. In means hitherto used there is merely a fixed, apertured plate in which the aperture must be enlarged or the plate itself readjusted for

the above described condition. Furthermore in the use of my device, when a door shrinks, for example, its free edge may recede from the door plate but this may readily be allowed for and my face plate 15 brought to proper fixed position by simply inserting flat shims or washers (not shown) between the plates 11 and 15.

The threaded holes 17 are preferably grouped in staggered arrangement as shown and the countersunk holes in plate 15 made oversize so that it is possible to set plate 15 in a slightly tipped or angular position if it should happen that the bolts 9-10 are not in proper vertical alinement.

I claim:

1. A device of the character described, comprising a base plate adapted to be fixedly attached to a door frame member, said base plate having an aperture adapted to lie over a recess of said door frame member for receiving a door bolt, a face plate for said base plate adapted to be situated opposite said recess of the door frame member when said device is associated with said door frame member, said face plate being capable of selective adjustment both vertically and horizontally upon said base plate to each of a plurality of different positions thereon and having an aperture lying over the aperture in said base plate, and means for positively and fixedly attaching said face plate to said base plate against the possibility of accidental movement at any selected one of said plurality of different positions to which said face plate is capable of adjustment.

2. A device of the character described, comprising a base plate adapted to be fixedly attached to a door frame member, said base plate having an aperture adapted to lie over a recess of said door frame member for receiving a door bolt, a face plate for said base plate adapted to be situated opposite said recess of the door frame member when said device is associated with said door frame member, said face plate being capable of selective adjustment both vertically and horizontally upon said base plate to each of a plurality of different positions thereon and having an aperture lying over the aperture in said base plate, and means for fixedly attaching said face plate to said base plate at any selected one of said plurality of different positions to which said face plate is capable of adjustment, said attaching means including a plurality of spaced, threaded holes adjacent each end of one of said plates adapted to be selectively entered by attaching members each of which passes through a hole in the other of said plates.

3. A device of the character described comprising a base plate adapted to be fixedly attached to a door frame member, said base plate having an aperture adapted to lie over a recess of said door frame member for re-

ceiving a door bolt, a face plate for said base plate adapted to be situated opposite said recess of the door frame member when said device is associated with said door frame member, said face plate being capable of selective adjustment longitudinally, transversely and obliquely upon said base plate to each of a plurality of different positions thereon, and means for fixedly attaching said face plate to said base plate at any selected one of said plurality of different positions to which said face plate is capable of adjustment, said attaching means including a plurality of threaded holes arranged in staggered relation adjacent each end of one of said plates adapted to be selectively entered by attaching members each of which passes through a hole in the other of said plates.

In testimony whereof I affix my signature.
HOWARD D. NORRING.

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