United States Patent [19]

Keefe

[11] **3,767,245**

[45] **Oct. 23, 1973**

[54] **JAMB DEAD BOLT PLATE**

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[22] Filed: **Mar. 21, 1972**

[21] Appl. No.: **236,647**

[52] **U.S. Cl.** **292/340**

[51] **Int. Cl.** **E05b 15/02**

[58] **Field of Search** 292/340–341.19, 346

[56] **References Cited**

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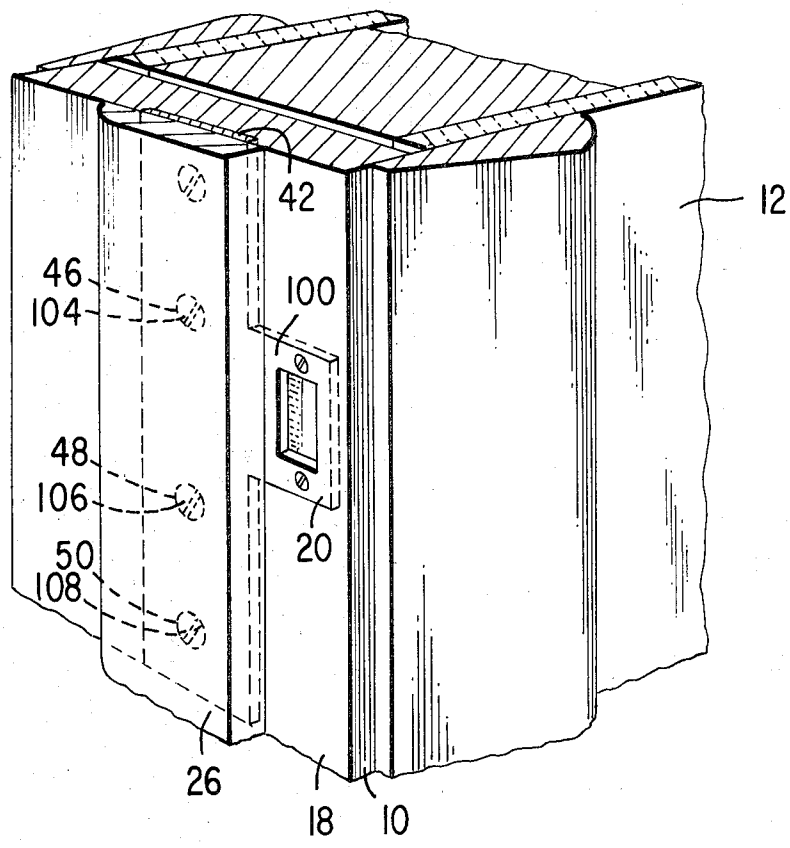
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Assistant Examiner—William F. Pate, III
Attorney—Albert Sperry et al.

[57] **ABSTRACT**

A DOOR JAMB AND BOLT STRIKE PLATE ARRANGEMENT is herein described including a bolt keeper strike plate having opposing side and end edges. An elongated anchor plate may be rigidly secured to one side edge of the strike plate and may be disposed so as to extend generally vertically when properly mounted in an operational posture. The door jamb may be routed out to form a recess for receiving this combined strike and anchor plate with the striking surface of the strike plate being flush with the surface of the door jamb. A door stop stripping may be mounted on the door jamb, over the elongated anchor plate.

5 Claims, 3 Drawing Figures



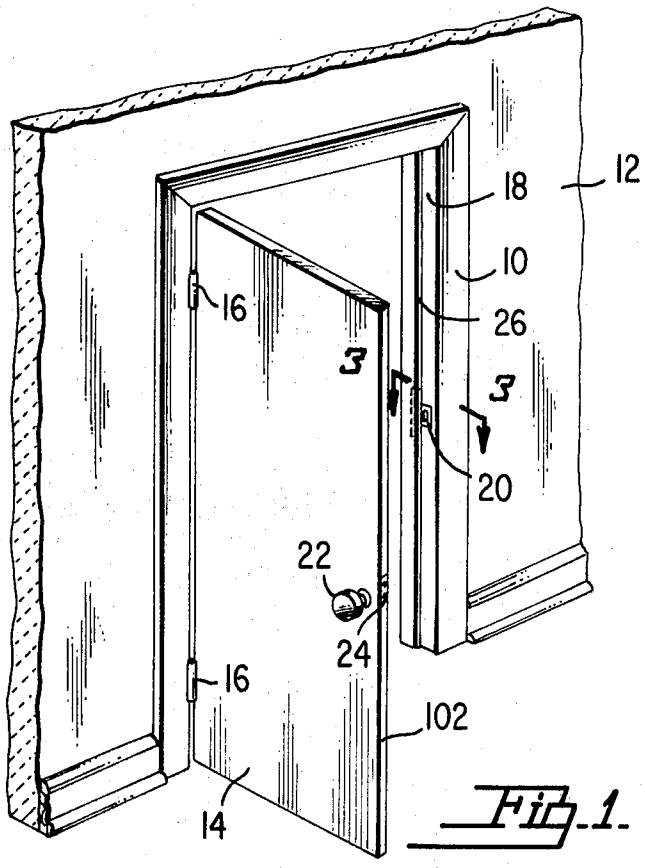


Fig. 1

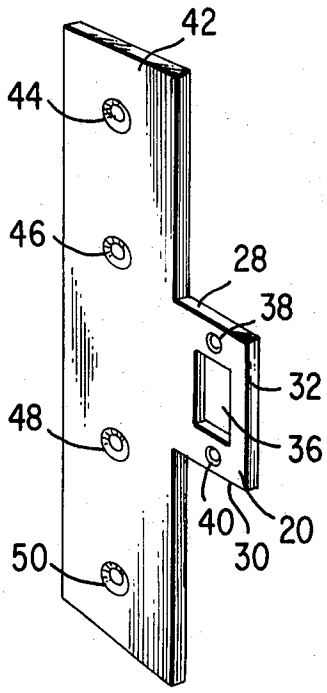


Fig. 2

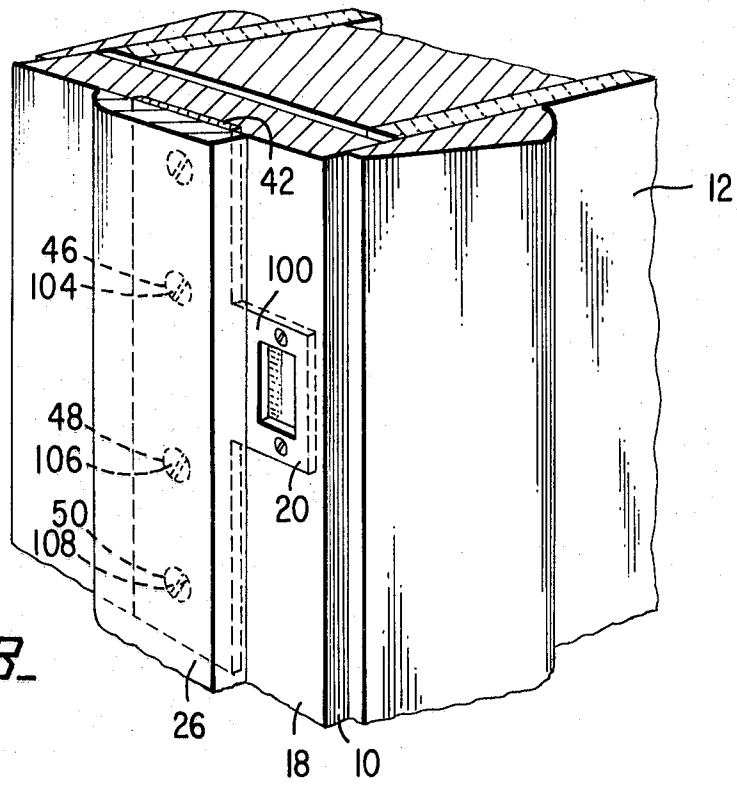


Fig. 3

JAMB DEAD BOLT PLATE

BACKGROUND OF THE INVENTION

The present invention relates to door arrangements and, more specifically, to an improved door jamb and bolt strike plate arrangement which is especially adapted to provide sturdier and tighter fitting door assemblies than heretofore possible.

The door art is virtually primitive in its origin and many configurations of door locks and bolt keeper strike plates have been proposed for providing sturdier and tighter fitting door arrangements.

Accordingly, even minor changes in lock and bolt keeper assemblies may be considered as invention when these changes produce the desired results of improving the door locking function with adversely effecting the aesthetics of the structure. Various configurations have been presented heretofore, which configurations are more massive and less aesthetic than the arrangement contemplated by the present inventor.

Therefore, the inventor herein discloses an uncomplicated, albeit effective, arrangement for achieving the same or better results as those achieved by more complicated, existing lock and keeper devices.

OBJECTS AND SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an improved door jamb and bolt keeper strike plate arrangement.

It is another object of the present invention to provide an improved door jamb and bolt keeper strike plate arrangement which is low in cost.

It is still another object of the present invention to provide an improved door jamb and bolt keeper strike plate arrangement which is easy to install.

It is yet another object of the present invention to provide an improved door jamb and bolt keeper strike plate arrangement which is easy to manufacture.

It is a further object of the present invention to provide a door jamb and bolt keeper strike plate arrangement which may be universally installed in existing door jambs.

It is still a further object of the present invention to provide an improved door jamb and bolt keeper strike plate arrangement which provides sturdier, tighter fitting, door and lock assemblies than heretofore known using such uncomplicated apparatus.

It is a major object of the present invention to provide an improved door jamb and bolt keeper strike plate arrangement which solves many of the problems currently confronting the construction industry and homeowners.

At least some of the above cited objects are achieved by the provision of a door jamb and bolt keeper strike arrangement, including a bolt keeper strike plate having opposite side and end edges. An elongated anchor plate is rigidly secured to one side of the keeper plate and is disposed to extend generally vertically when the elongated anchor plate is properly disposed in an operational posture. The door jamb is routed out to form a recess for receiving the strike and anchor plate with the striking surface of the keeper strike plate being flush with the surface of the door jamb. A door stop stripping is mounted on the door jamb over the elongated anchor plate.

BRIEF DESCRIPTION OF THE DRAWINGS

While the invention is particularly pointed out and distinctly claimed in the concluding portion of the specification, a preferred embodiment of the present invention is set forth in the following detailed description which may be best understood when read in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of a door assembly, incorporating the present invention;

FIG. 2 is a combined dead bolt strike plate and anchor plate constructed in accordance with the present invention;

FIG. 3 is a perspective sectional view of the door assembly shown in FIG. 1, taken along line 3—3.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, in which like numerals are used to indicate like parts throughout the various views thereof, FIG. 1 shows an overall door and lock arrangement.

A door jamb 10 may be formed as a frame within a structural wall 12 for hingedly connecting a door 14 on hinges 16. The door jamb 10 may be formed with a surface 18, facing the door assembly, and presenting a bolt keeper strike plate 20.

The door 14 may be provided with a knob 22, which is operable to manipulate one, or more, axially movable bolt members 24.

A door stop stripping member 26 may be mounted on the surface 18 of the door jamb 10 to position the door, in a closed position.

Referring now to FIG. 2, a combination bolt strike plate and anchor plate, according to the present invention, is shown in perspective view.

The bolt strike plate 20 may be formed with opposing end edges 28 and 30, and side edges 32 and 34.

The strike plate 20 may be formed with a generally centrally located aperture 36 for receiving and retaining a bolt member 24. The strike plate 20 may further be formed with apertures 38 and 40 for receiving mounting wood screws.

An anchoring plate 42 may be rigidly secured to the side edge 34 of the strike plate 20 by welding, or any suitable means.

The anchor plate 42 may be of an elongated configuration and it is preferable that the anchor plate 42 may be in the range of 10 to 20 inches long by one inch wide.

Apertures 44,46,48 and 50 may be formed in the anchor plate 42 for securing the plate to the surface 18 of a door jamb 10.

In order to offset the thrust of tearing forces asserted against the overall combination anchor and strike plate, shown in FIG. 2, which forces would be directed at the surfaces defining the aperture 36; it is preferable that the wood screw receiving apertures 44 through 50 be spaced vertically above and below the vertical extension of the strike plate 20.

It has been found, that with the apertures 44 through 50 so disposed and with the strike plate being of the above defined dimensions, that the combination strike and anchor plate shown in FIG. 2, presents remarkable sturdiness under constant use or even abuse.

Referring now to FIG. 3, the door jamb and strike plate arrangement of FIG. 1 is shown in perspective cross-sectional view, along line 3—3.

In order to improve the operational sturdiness of the door lock and strike plate arrangement, of the present invention, the surface 18 of the jamb 10 may be rotated out to form a recess for receiving the combination strike and anchor plate shown in FIG. 2.

More specifically, the surface 18 may be routed out to form a recess which is precisely formed in the configuration of the combined strike plate and anchor plate of FIG. 2, so that the combined plate fits snugly therein with the surface 100 thereof being flush with the surface 18.

The door stop stripping 10 may comprise wood, metal or any suitable material and is especially effective for restricting impact movement of the overall strike plate and anchor plate combination so as to minimize the effect of shock in loosened the plate from the door jamb 10.

Additionally, the door stop stripping 16 cooperates with the properly fastened anchor plate 42 to hold the strike plate 20 against being torn out, by the application of torque thereto.

Since the combination strike plate and anchor plate is snugly fit within a correspondingly formed recess, developed in the surface 18 of the door jamb 10, the door stop stripping 26 may be snugly fit against the surface 28 so as to perform the function of weather stripping.

Additionally, due to the unique ruggedness of the present arrangement, as well as due to the flush mounting feature thereof, the door 14 may be hinged so that the surface 102 may be moved to within a closer tolerance to the surface 18 of the door jamb 10 and would not be as effective in loosening the door strip stripping 26, upon slamming the door 14.

Since the wood screws 104, 106 and 108, operatively engaged within the apertures 46,48, and 50, respectively, are spaced vertically above and below the aperture 36 of the strike plate 20; the connection of the anchor plate 42 is not in the line of impact thrust so as to minimize the tearing effects of such impact with respect to the connection of the plate 42 with the door jamb 10.

It can thus be seen that an improved door jamb and bolt keeper strike plate arrangement has been herein provided which is less expensive than existing such arrangements of equivalent effectiveness. The arrangement according to present invention, is easy to install and may be universally installed in existing door jambs. Due to the uncomplicated nature of the combination strike and anchor plate, of the present invention, such an arrangement lends itself to facility of manufacturing.

Due to the snug fitting of the combination strike and anchor plate into a routed-out recess and, due to the covering of the anchor plate with a door stop stripping member, the arrangement, according to the present invention, is sturdier and provides a tighter fit than many existing such door and lock assemblies. As a result, the door and lock assembly of the present invention solves many of the problems presently confronting the construction industry and homeowners, alike.

SCOPE OF THE INVENTION

While what has been described herein is a preferred embodiment of the present invention, it is, of course, to be understood that various modifications and changes may be made therein without departing from the invention. It is therefore intended to cover in the following claims all such modifications and changes as may fall within the true spirit and scope of the present invention.

What I claim is:

1. A door jamb and bolt keeper strike plate arrangement comprising:
   - A. a bolt keeper strike plate having opposing side and end edges;
   - B. an elongated anchor plate rigidly secured to one side edge of said strike plate and extending generally vertically when properly disposed in an operational posture;
   - C. said door jamb being routed out to form a recess for receiving said strike and anchor plate combination with the striking surface of said strike plate being flush with the surface of said door jamb; and
   - D. a door stop stripping mounted on said door jamb, over said elongated anchor plate.

2. A door jamb and bolt keeper strike plate arrangement according to claim 1, wherein:
   - A. said door jamb is routed out to precisely define a recess having a configuration precisely corresponding to the configuration of said strike and anchor plate combination; and
   - B. whereby said combination strike plate and anchor plate fits snugly within said recess, with the striking surface of said strike plate being flush with the surrounding surface defining said door jamb.

3. A door jamb and bolt keeper strike plate arrangement according to claim 1, wherein:
   - A. wood screws are operatively inserted through apertures formed in said anchor plate; and
   - B. said apertures are spaced above and below the vertical extension of said bolt keeper strike plate.

4. A door jamb and bolt keeper strike plate arrangement according to claim 1, wherein:
   - A. said door jamb is routed-out to precisely define a recess having a configuration corresponding to the configuration of said combination strike and anchor plate;
   - B. wood screws are operatively inserted through apertures formed in said anchor plate;
   - C. said last mentioned apertures are formed only above and below the vertical extension of said strike plates;
   - D. said anchor plate being in the range of ten to twenty inches long and one half to two inches wide; and
   - E. four apertures being formed in said anchor plate and being spaced above and below the vertical extension of said strike plate.

5. A door jamb and bolt keeper strike plate arrangement according to claim 4, wherein said strike plate is formed with apertures for operationally receiving wood screws.

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