

[54] **DOOR FRAME CONSTRUCTION**

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[51] Int. Cl. **E06b 1/04**

[58] Field of Search **49/504, 505; 52/212**

[56] **References Cited**

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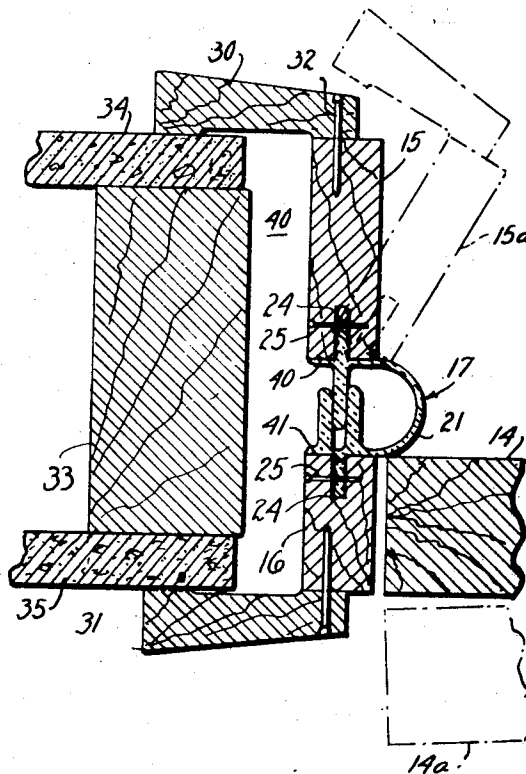
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[57] **ABSTRACT**

A preformed door jamb assembly wherein the door jambs are formed of two spaced jamb members having casing members attached thereto and a door stop of elastomeric material extending between the door jamb members. The flexible door stop member is U-shaped in cross section and is attached between the jamb members, permitting the jamb members to be moved relative to each other to facilitate installation in a rough wall opening and to accomodate walls of different thicknesses.

1 Claim, 4 Drawing Figures



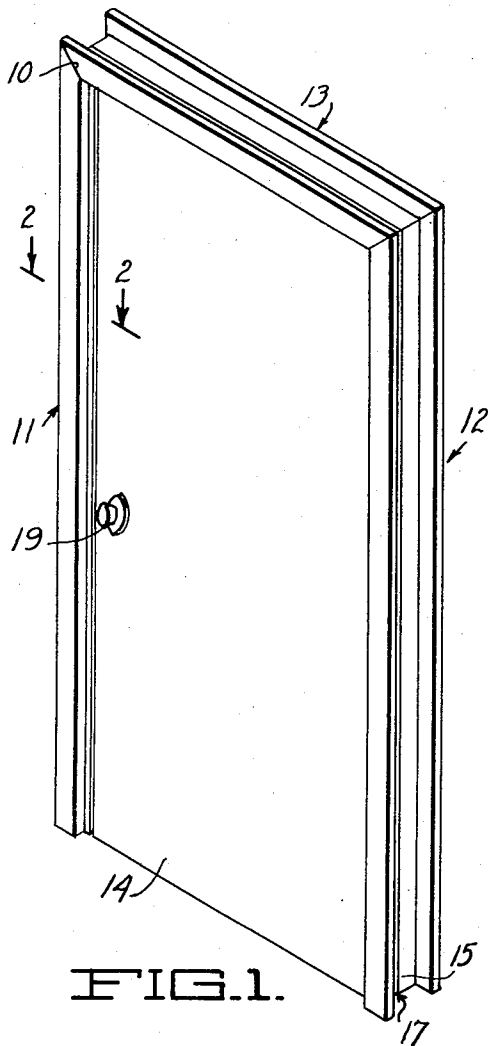


FIG. 1.

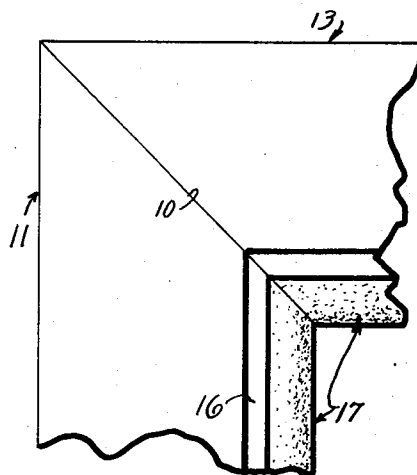


FIG. 3.

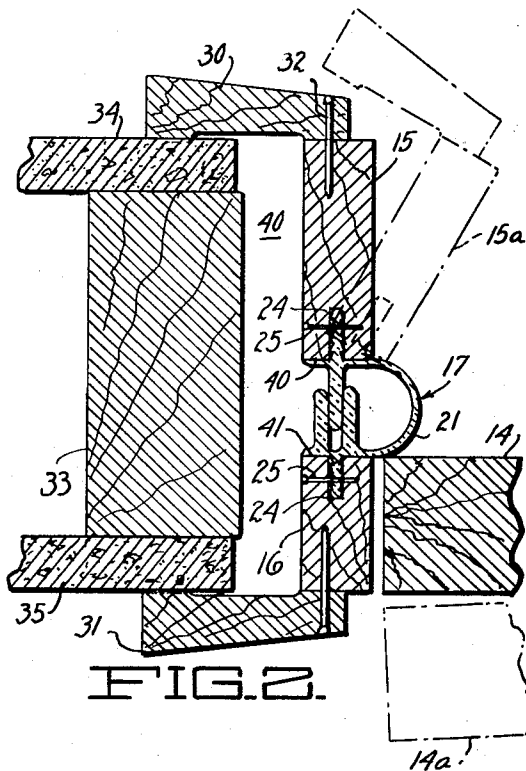


FIG. 2.

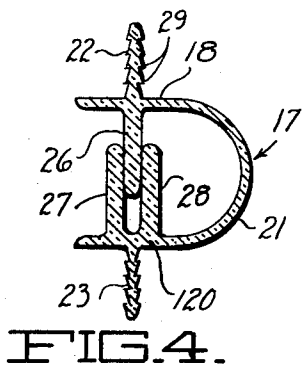


FIG. 4.

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DOOR FRAME CONSTRUCTION

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to door frames and has particular reference to prefabricated door frames.

2. Description of the Prior Art

In recent years, in order to reduce labor costs and time required to construct buildings, various building components or assemblies, such as door assemblies, have been prefabricated at mills or other processing plants, where mass production techniques and more uniform assembly procedures can be employed. In the case of door assemblies, the door is generally prehung in its frame. However, in order to fit the door frame within the rough opening in the wall panel, the casing members are generally supplied separately and are nailed in place after the partially complete door frame is mounted in place in the door opening. This requires a certain amount of labor time in order to properly mount the casing members on the job, and requires extra handling of such casing members. That is, the casing members must be handled as loose parts until assembled on the job. Also, after a period of time, the door or door frame may warp, resulting in an improper fit between the usual door stop and the door which may prevent closing of the door or may allow air drafts between the door and the door stop.

SUMMARY OF THE INVENTION

The present invention enables the complete door frame to be preassembled and thereafter installed in place at the building site and comprises a flexible door stop member of generally U-shaped cross section extending between two spaced door jamb members, permitting relative adjustment of the jamb members for different wall thicknesses and flexing of the door jamb members relative to each other to facilitate installation. The flexible stop member also insures intimate contact with the door, when closed, to reduce the possibility of air drafts, heat loss, etc., regardless of warping of the door or its frame and also reduces noise normally created by shutting the door against a solid stop.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a door assembly embodying a preferred form of the present invention.

FIG. 2 is a sectional plan view taken along the line 2-2 of FIG. 1.

FIG. 3 is a fragmentary view of the upper lefthand corner of the door assembly.

FIG. 4 is an enlarged sectional plan view of the door stop.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring in detail to the drawings, the door assembly comprises in general two door jamb assemblies 11 and 12. The latter are mitered at 10 at their upper ends and securely attached by nails, adhesive, or the like (not shown) to opposite ends of a mitered header jamb assembly 13, thus forming a rigid self contained door frame. A door 14 is hung in the door frame by suitable hinges (not shown) in the usual manner to permit swinging of the door between its closed position

shown in full lines in FIG. 2 and an open position such as is illustrated by the dot-dash lines 14a. A combined door handle and lock 19 of conventional construction enables locking of the door in closed position.

The door jamb assemblies 11 and 12 and header jamb assembly 13 are similar in construction and each comprises a pair of spaced parallel jamb members 15 and 16. The jamb member 16 is preferably equal in width to the thickness of the door 14.

According to the present invention, a flexible door stop generally indicated at 17 is provided. The latter is molded or extruded of a suitable elastomeric material, such as vinyl or polypropylene plastic, and extends along the length of each pair jamb members.

The door stop comprises, in cross section, a pair of parallel spaced legs 18 and 20 integrally connected by a semi-cylindrical connecting section 21 having a thickness of approximately .050 inches. The legs extend along the facing edges 40 and 41 of the jamb members 15 and 16, respectively, while the connecting section 21 extends beyond the jamb members so as to form a stop which the door 14 engages when closed.

In order to secure the door stop to the jamb members 15 and 16, strips 22 and 23 are formed along the lengths of the legs 18 and 20, respectively, and extend at right angles thereto to fit in slots 24 formed in the jamb members. The strips may be held in the slots 24 by suitable adhesive and/or by nails, staples or other fastener elements 25 which extend into the jamb members and through the strips.

Preferably, the strips are saw toothed in cross section, as shown particularly at 29 in FIG. 4, to facilitate insertion into the slots 24 in the event the latter are roughened or have small inwardly extending splinters or other projections which would otherwise block insertion of the strips.

A relatively thick and therefore somewhat stiff flange 26 extends integrally with the leg 18 along the length thereof and slideably fits between a pair of similar flanges 27 and 28 formed along the opposite leg 20. Such interfitting flanges are approximately twice the thickness of the portion 21 and normally hold the jamb member in parallel relation with each other when in free standing position as shown in FIG. 1. At this time, the connecting portion 21 also yieldably holds the jamb members in approximately proper spaced relation to each other. Because of their thickness, the flanges 26, 27, and 28 are stiffer than the connecting portion 21 and tend to maintain the jamb members 15 and 16 in parallel relation with each other.

Casing members 30 and 31 are secured, as by a suitable adhesive and nails or staples 32, to the outer edges of the jamb members 15 and 16 and extend on the sides thereof opposite the projecting portion 21 of the stop member 17 for ultimate engagement with the sides of a wall panel.

From the above it will be seen usual rough the prehung door assembly is completely assembled as seen in FIG. 1 when delivered to the building site, without requiring any associated loose parts which must be assembled and nailed after the door frame is in place.

In mounting the door frame in the usual door opening of a wall comprising opening defining studs, i.e., 33, and plaster or wall board sides 34 and 35, one or more of the jamb members 15 are deflected into positions

shown, for example, by the dot-dash lines 15a of FIG. 2, permitting the door frame to be radially fitted within the wall opening. In this case, the door stop yields sufficiently to permit swinging the jamb member so that the casing member will clear the adjacent edge of the rough wall opening. Thereafter, the jamb members are returned to their normal positions enabling the casing members, i.e., 30 and 31, to engage the outer surfaces of the poster or wall board sides 34 and 35. Nails, staples or other fastening means (not shown) are then driven through the casing members and into the sides of the wall to secure the door frame in place.

Spacing blocks, wedges or the like (not shown) may if desired be fitted within the space 40 between the stud 33 and the jamb members and may be secured in place by nails driven through the jamb members.

It will be noted the connecting portion 21 of the door stop is flexible enough to enable adjustment of the door jamb members relative to each other to accommodate walls of varying thickness and yet function as a door stop. Also, in view of its resilient nature, the projecting portion 21 will arrest the door when closed, without undue noise and will form an effective seal against the door, to prevent air drafts, even though the door or door frame may subsequently warp.

In order to facilitate construction of the door frame, the jamb assemblies, including jamb members 15 and 16, door stop 17, and casing members 30 and 31 may be each preassembled and thereafter mitered, as at 10, using a suitable saw. Finally, the two door jamb assem-

blies and the header jamb assembly are suitably secured together at their mitered ends to form the door frame.

I claim:

1. A door jamb assembly comprising a pair of parallel jamb members spaced apart from each other, said jamb members having longitudinally extending slots along respective facing edges thereof, an elongate door stop of flexible material, said door stop having a pair of spaced legs extending therealong and a door stop portion connecting said legs; said legs extending along said facing edges of said jamb members, strips integral with said legs and extending into said slots, two spaced parallel flanges integral with one of said legs and extending therealong, a third flange integral with the other of said legs and extending along the length of said other leg, said third flange extending between said two first mentioned flanges and in sliding engagement therewith, said flanges being relatively stiffer than said door stop portion, said door stop portion extending beyond said jamb members whereby to engage a door associated with said door jamb assembly, and means for fastening said strips in said slots.

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