Jan. 7, 1958 R. GOLDBERG 2,818,947

DRYWALL DOORFRAMES

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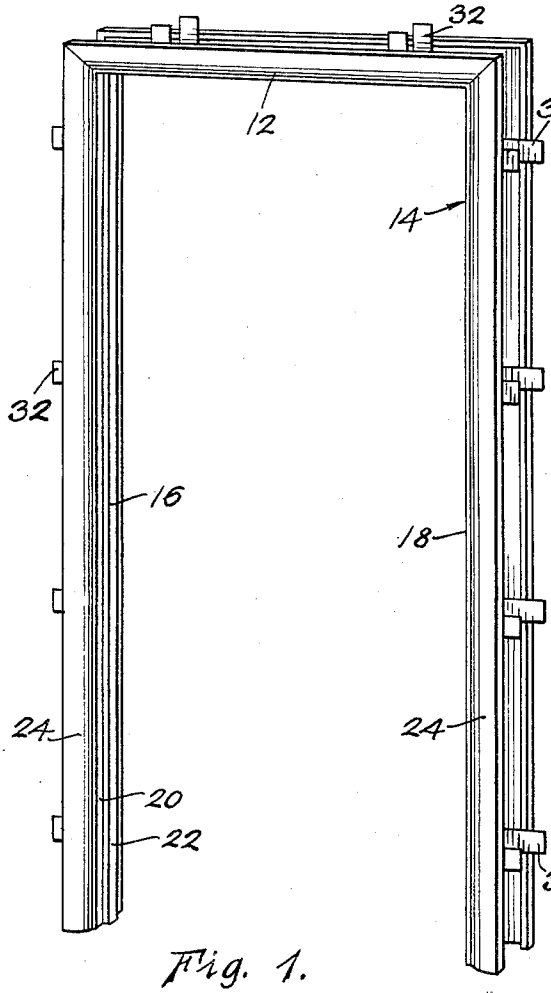


Fig. 1.

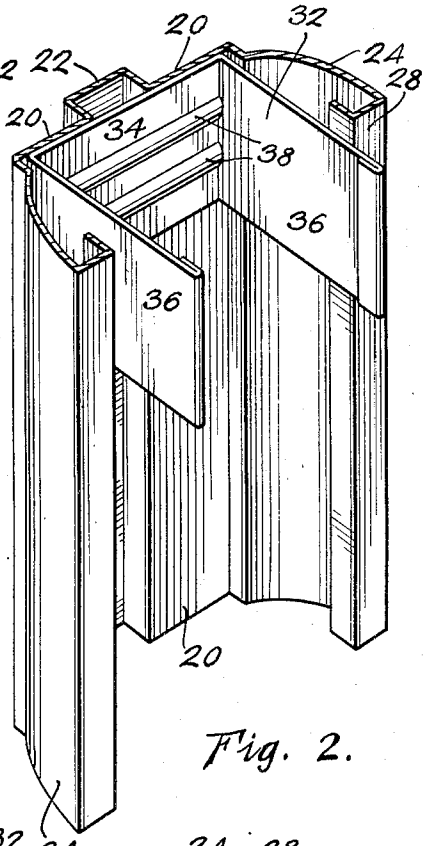


Fig. 2.

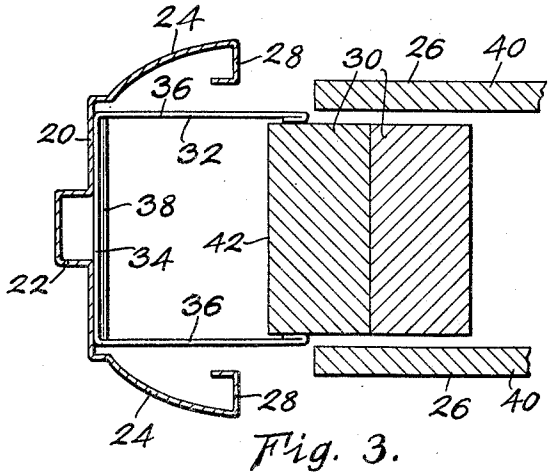


Fig. 3.

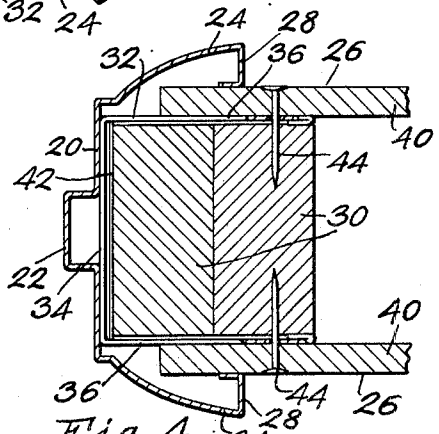


Fig. 4.

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DRYWALL DOORFRAMES

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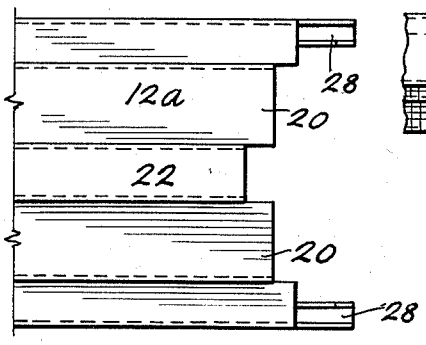


Fig. 7.

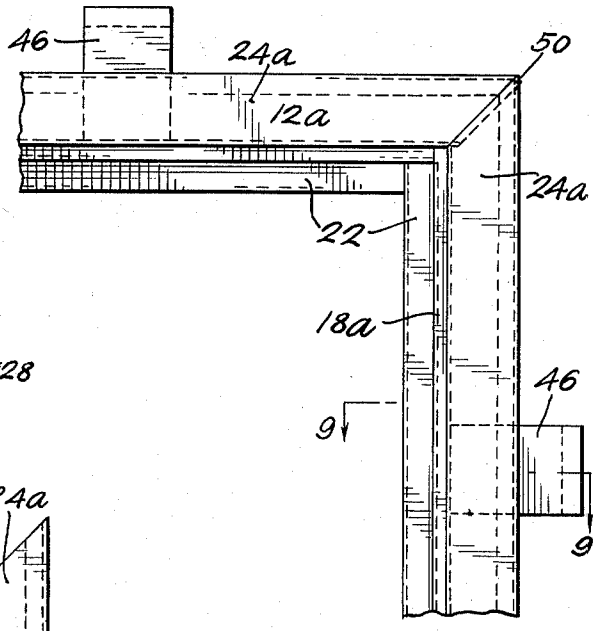


Fig. 5.

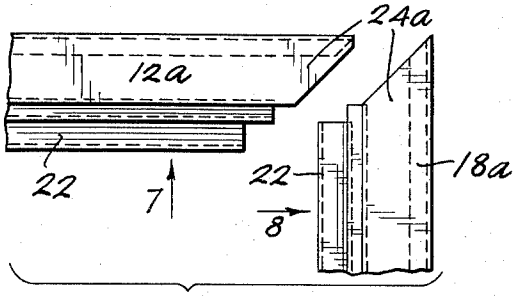


Fig. 6.

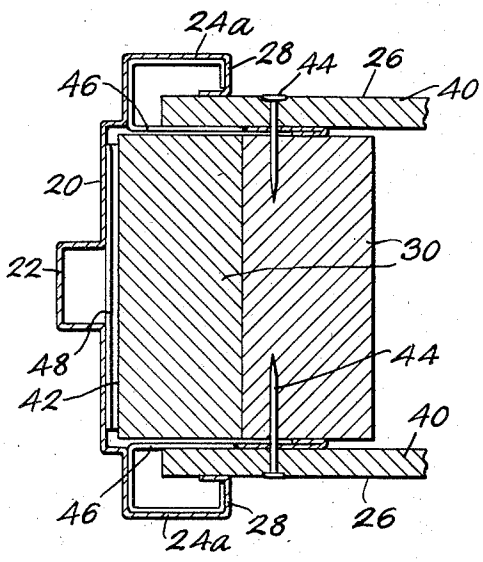


Fig. 9.

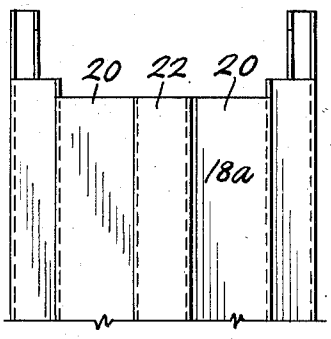


Fig. 8.

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DRYWALL DOORFRAMES

Ralph Goldberg, Denver, Colo.

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1 Claim. (Cl. 189—46)

This invention relates to metal doorframes; and more particularly, to dry wall metal doorframes and the method of mounting the same.

It is customary to mount metal doorframes by attaching them to the wooden frame members before the wall surfaces which cover the sides of the wooden frame members are in place. In dry wall construction the dry wall panels are slipped between the sides of the metal doorframe and the sides of the wooden frame members to form the finished wall. The prior art metal doorframes are usually fastened directly to the wooden frame members by nails passing through the face of the metal frame members. After the dry wall panels are in place, they too are nailed into the wooden frame members.

Certain difficulties arise, however, when an attempt is made to slip the dry wall panels between the sides of the metal and wooden frame while working near a corner. In this instance there is not enough room between the frame and corner to permit the dry wall panel to be slipped in place once the metal doorframe has been set.

It has also been found that metal doorframes attached to the wooden frame members by fasteners passing through the face of the metal frame into the face of the woden frame are not rigid and have a tendency to move relative to the wooden frame members. In order to overcome this objection several rather complicated corner constructions have been devised by means of which the jamb members are attached to the head member in a manner to prevent movement of the metal frame. These constructions are expensive and require considerably more time to install than the doorframe of the present invention.

It is, therefore, the principal object of the present invention to provide a dry wall metal doorframe which can be rapidly and rigidly attached to the wooden doorframe members with the dry wall panels already in place.

A second object of the invention is to provide a novel method for attaching a metal doorframe over a finished dry wall door opening.

A further object of the invention is to provide a metal doorframe which eliminates the necessity for fastening the jamb members to the head member; and therefore, enables the frame to be installed much more rapidly and easily.

Additional objects of the invention are the provision of a metal doorframe which is simple and inexpensive to manufacture; a doorframe which can be installed by unskilled workmen; and, a metal doorframe which presents an attractive appearance.

Other objects will be in part apparent and in part pointed out specifically hereinafter in connection with the description of the drawing which follows, and in which:

Figure 1 is a perspective view showing the dry wall metal doorframe of the present invention in its entirety;

Figure 2 is a fragmentary perspective view showing the strap by which the doorframe of the present invention

is attached to the wooden frame member mounted on the inside of the metal frame;

Figure 3 is a tranverse section showing the metal doorframe in position to be moved in place over the wooden frame members with the dry wall panels already in place alongside thereof;

Figure 4 is a view similar to Figure 3 showing the metal doorframe nailed in place on the finished wall;

Figure 5 is a fragmentary side elevation of a slightly modified form of the doorframe of the present invention showing the manner in which the jamb member adjoins the head member to form a corner;

Figure 6 is a view similar to Figure 5 showing the jamb member and head member of Figure 5 slightly separated;

Figure 7 is a view locking in the direction of arrow 7 Figure 6;

Figure 8 is a view looking in the direction of arrow 8 Figure 6; and,

Figure 9 is a transverse section taken along line 9—9 of Figure 5.

Referring now to the drawing, the dry wall metal doorframe of the present invention, represented in a general way by numeral 14, consists basically of jamb members 16 and 18 and a head member 12. The basic cross section of the jamb members and head member which comprise the frame is identical and one form thereof is clearly shown in Figures 3 and 4; whereas, a slightly modified cross section is illustrated in Figure 9.

Each of the frame members is formed from a single piece of metal which is bent to provide a face 20 which extends laterally to form the door-receiving surface; a door stop rib 22 formed in the face and extending forwardly therefrom; rearwardly extending sides 24 which form the decorative trim and lap the dry wall surfaces 26. The sides 24 of the frame members preferably terminate in portions 28 which return to the dry wall surface 26 and then extend forwardly along said surface to prevent marring the dry wall panels when slipped into place.

The face and sides of each frame member form a channel sized to receive the woden frame members 30 and the dry wall panels 40 on opposite sides thereof. The particular cross section illustrated has been selected because of its similarity in exterior appearance to a conventional wooden door casing and it is material to the present invention only insofar as it provides a channel formed by the face and sides to receive the wooden frame and dry wall panels. The slightly modified construction illustrated in Figures 5 through 9, inclusive, is provided with sides 24*a* which simulate a square molding or trim. Obviously, the door stop rib is unnecessary where no door is to be hung on the doorframe.

The most important single feature of the doorframe of the present invention is the provision of strap 32 fastened to the rear surface of face 20 in Figures 1 through 4 by which the metal frame members are fastened to the wooden frame members and the dry wall panels. The strap comprises transverse portion 34 which is spotwelded or otherwise permanently attached to the rear surface of face 20 and rearwardly extending portions 36 on either end thereof. Rearwardly extending portions 36 are parallel to one another and spaced apart a distance equal to the width of wooden frame members 30. Transverse portion 34 is preferably provided with one or more transverse ribs 38 formed therein which stiffen the strap and impart greater rigidity to the frame members. The rearwardly extending portions 36 extend rearwardly a greater distance than sides 24 as shown most clearly in Figures 3 and 4. Portions 28 of the sides are spaced from the rearwardly extending portions 36 of the strap a distance equal to the thickness of dry wall panels 40.

In mounting the dry wall metal doorframe of the present invention, the dry wall panels **40** are placed on opposite sides of the wooden frame members **30**, as shown in Figure 3, but not fastened thereto. The frame member is then placed as shown in Figure 3 with the rearwardly extending portions **36** of the strap positioned to enter the space between the sides of the wooden frame members **30** and the dry wall panels **40**. The frame member is then pushed rearwardly into the position shown in Figure 4; whereupon, the dry wall panels move into the gap between the sides of the metal frame member and the rearwardly extending portions of the strap. The base **42** of the forward wooden frame member **30** lies against the transverse portion **34** of the strap. Nails **44** are then driven through the dry wall panels **40**, through the rearwardly extending portions **36** of the strap, and into the wooden frame members. Thus, the doorframe and dry wall panels are attached to the wooden frame members at the same time and with the same fasteners. The jamb members are nailed in place independently of the head member and there is no positive connection therebetween.

Referring now in perpendicular to Figure 9 of the drawing wherein is shown a slightly modified form of strap for attaching the metal frame members to the wooden frame members, it will be seen that rearwardly extending members **46** are separate from transverse stiffening plate **48** and attached to the sides **24***a* of the frame. Rearwardly extending members **46** are attached to the sides of the frame in such a manner that a gap is left between portions **28** of the sides and said rearwardly extending members equal to the thickness of the dry wall panels **40** as aforementioned. Rearwardly extending members **46** perform exactly the same function as rearwardly extending portions **36** of the Figures 1 through 4 strap construction. The dry wall metal doorframe of Figures 5 through 9, inclusive, is mounted in exactly the same way as that of Figures 1 through 4. In the Figure 9 strap the rearwardly extending members project rearwardly beyond the rear edge of sides **24***a* to receive the nails **44**.

Figures 5 through 8, inclusive, illustrate the corner construction which is used with the dry wall metal doorframes of the present invention. In Figure 7 it will be seen that the head member **12***a* is notched at each end to receive the particular cross section of jamb member **18***a*. The sides **24***a* are mitered to form a 45° joint, as shown, with the sides of one of the adjoining frame members being extended slightly to form an overlap to compensate for any discrepancies in the fit between said adjoining members.

The short extension of the sides of the head member **12***a* are shown quite clearly in Figure 6. The extent of the overlap is shown at **50** in Figure 5.

Both modifications of the dry wall metal doorframe of the present invention illustrated in the accompanying drawing provide frame members having a transversely extending face with rearwardly extending sides formed on

the side margins thereof which act together to provide a channel sized to receive the width of the wooden frame member plus the thickness of the dry wall panels on either side thereof. The straps which are fastened to the inside of the frame members are each provided with rearwardly extending parallel portions spaced apart a distance equal to the width of the wooden frame member and extending rearwardly a greater distance than the sides. The gap between the rearwardly extending members of the strap and the sides of the frame member is the thickness of the dry wall panels. Thus, the rearwardly extending portions of the strap will lap the sides of the wooden frame members and lie between the frame members and the unfastened dry wall panel. In order to fasten the doorframe and plasterboard panels to the wooden frame members it is only necessary to nail the plasterboard panels to the wooden frame members at points where the fasteners will pass through the rearwardly extending portion of the straps.

Having thus described the many useful and novel features of the dry wall metal doorframe of the present invention and the method of mounting same, it will be seen that the many objects for which it was designed have been achieved; and therefore,

I claim:

In combination with a metal door frame of the type having a lateral panel presenting an outer face forming a door-receiving surface and terminating at opposie sides thereof in rearwardly extending sides spaced to receive and lap dry wall panels placed along the sides of wooden frame members forming a door opening, a plurality of U-shaped strap members of nailable material disposed at spaced points along said frame and each including a bight portion rigidly affixed to the inner face of said lateral panel and rearwardly extending leg portions, said leg portions being spaced apart a distance substantially equal to the width of the wooden frame members and extending beyond the ends of said sides of the door frame and in inwardly spaced relation thereto to define dry wall-receiving pockets whereby when the dry wall panels are received within such pockets said legs will pass along the sides of the wooden frame members and inside the dry wall panels with the sides of the door frame lapping the dry wall panels and with the free ends of the legs presenting end portions beyond said sides to receive fasteners extending through the dry wall panels and such end portions and into the wooden frame members, and each bight portion having its inner face spaced outwardly from the inner face of said lateral panel to present localized wooden frame-engaging surfaces at spaced points along said door frame.

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