Dec. 6, 1955 J. R. MUMMERT 2,725,607

WALLBOARD TRIM

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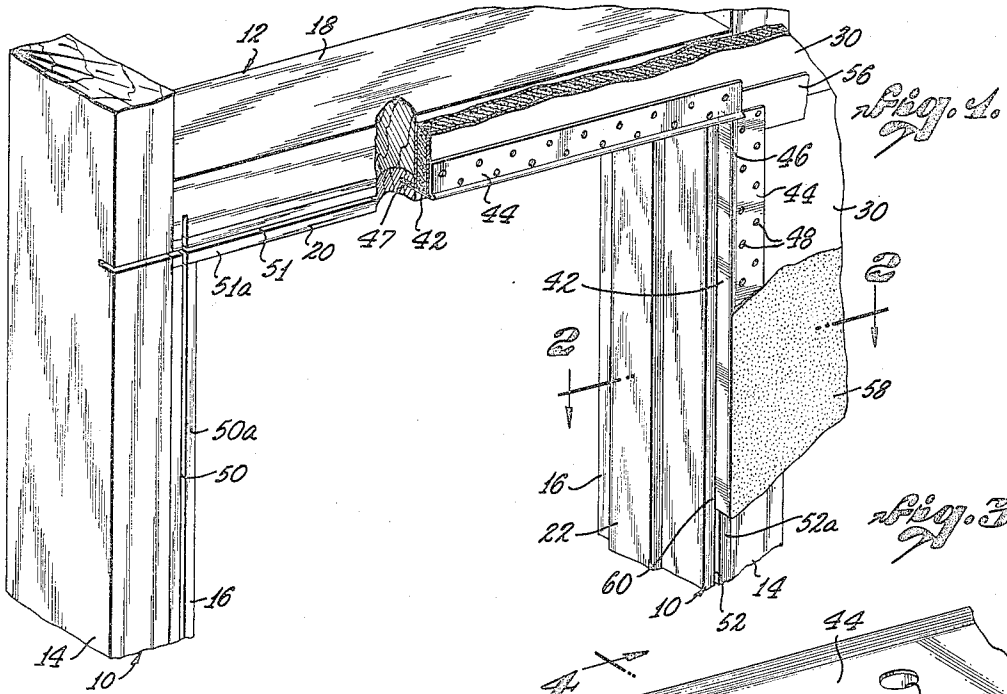



Fig. 1.

Fig. 3.

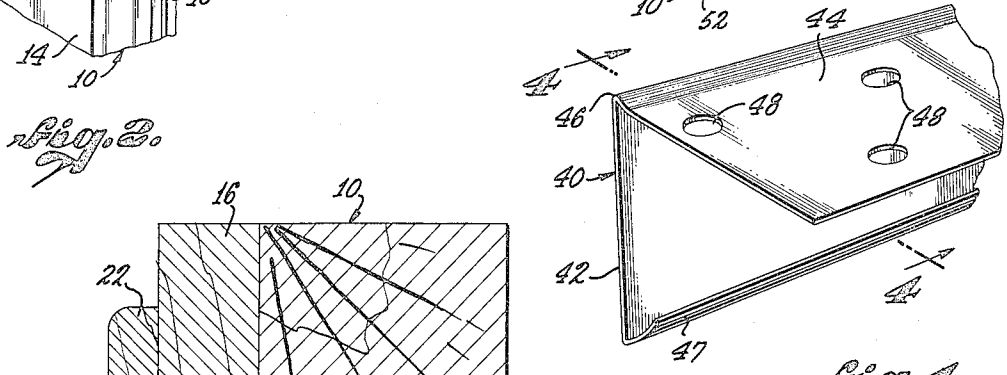



Fig. 2.

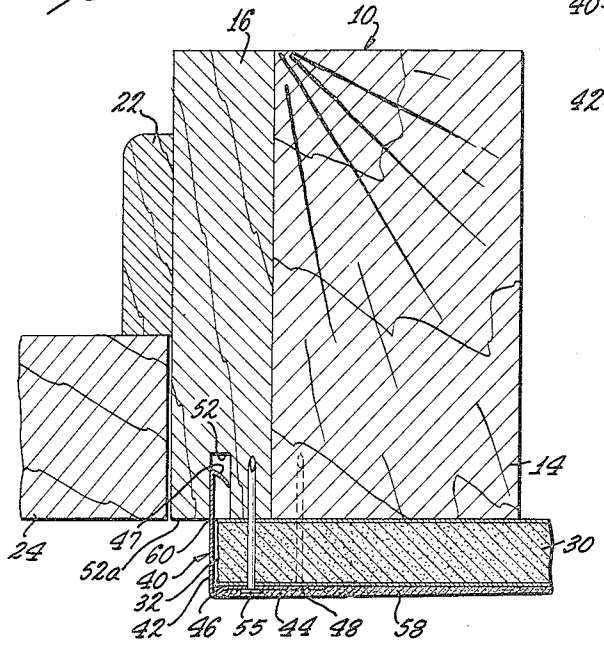
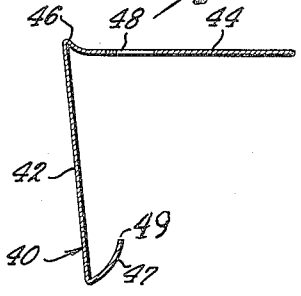



Fig. 4.




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# WALLBOARD TRIM

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4 Claims. (Cl. 20—74)

This invention relates to improvements in building construction, and more particularly to an improved metal trim for use in drywall type construction.

In the construction of homes and other buildings, drywall type construction is frequently adopted. In that type of construction the walls are formed by means of a wallboard, such as gypsum-rock panels having cardboard-like sheets on the outer surfaces thereof. Where the edge of the wallboard lies over a structural member of a building as along an exposed frame member of a door, window, or other opening, formed in the building, it is desirable to make some provision for protecting and concealing the edge of the wallboard.

One of the objects of this invention is to provide an improved metal trim for protecting and concealing the edges of pieces of wallboard that terminate at exposed positions such as those that lie at the sides of a door, window, or other opening, formed in a building.

Another object of this invention is to provide such an improved trim which may be readily applied after the wallboard has been mounted in place.

Another object of this invention is to provide such a trim member that is of simple construction, low manufacturing cost, and which may be easily applied.

Another object of this invention is to provide a drywall construction which is free of paint cracks along its edge and which has a smooth finish throughout.

The foregoing and other objects of this invention, together with various advantages thereof will become apparent from the following description taken in connection with the accompanying drawing wherein:

Figure 1 is a perspective view, partly broken away, illustrating the application of this invention to a door opening;

Fig. 2 is a cross-sectional view of a portion of the door opening taken on the plane 2—2 of Fig. 1;

Fig. 3 is a fragmentary perspective view of a trim member constructed in accordance with this invention; and

Fig. 4 is a cross-sectional view of the trim member taken on the plane 4—4 of Fig. 3.

Referring to the drawing and particularly to Figs. 1 and 2, there is illustrated a doorway to which this invention has been applied. The doorway is formed by two vertical frame members **10** at the sides thereof and a horizontal frame member **12** at the top thereof. Each of the vertical frame members **10** consists of a cripple **14**, such as a two-by-four, and a jamb **16**, such as a one-by-four. Each jamb and its associated cripple are secured together firmly by finishing nails (not shown) to form a single rigid vertical frame member. The horizontal frame member **12** likewise consists of a two-by-four rough header **18** and a one-by-four finish header **20**, similarly secured together. A stop **22** may be secured, if needed, to one of the vertical frame members **10** in order to limit movement of the unhinged edge of the door **24**.

Panels or other pieces **30** of wallboard are nailed in



place, forming a smooth surface on the interior of the wall which surrounds the doorway. The panels are first nailed to structural members of the wall at a distance from the doorway and then the edges near the doorway are finished off as described below. Normally such panels have a thickness of about one-half inch and are several feet wide and several feet long.

According to this invention, the edges **32** of the wallboard adjacent the frame members, such as the vertical members **10**, are concealed and protected by means of an improved trim member **40** that is formed by bending a strip of metal to the desired L-shape as described below.

The trim member **40** comprises a flat side trim section **42** and a flat front trim section **44**. The two trim sections **42** and **44** are joined by a forwardly projecting convex bead **46** that lies on the same side of the side trim section **42** as does the front trim section **44**. The bead extends only a short distance of about $\frac{1}{32}$" from the outer surface of the front trim section.

A resilient foot **47** having a cross-section in the form of about a 60° or 90° convex arc extends along the rear edge of the side trim section **42**, on the same side thereof as the bead **46** and the front trim section **44**.

The entire trim member **40** is of elongated unitary construction being formed by bending a strip of sheet metal stock. For this purpose, the best metal to employ is of the non-rusting type, such as aluminum. The two trim sections **42** and **44** are in the shape of elongated rectangles having parallel elongated edges. The junction of the foot **47** with the side trim section **42** is parallel to the junction of the bead **46** with the front edge of the side trim section.

It is to be noted that the elongated bead **46** that joins the side and front trim sections **42** and **44** is formed integrally with those sections along the elongated edge that is at the front of the side trim section **42** and along the elongated edge of the front trim section **44** that is adjacent the bead. The side of the elongated bead that is joined with the side trim section is substantially coplanar with the side trim section **42**, and it is substantially orthogonal to, that is substantially perpendicular to, the front trim section **44**. In this way the bead is disposed in a substantially upstanding configuration that extends away from the frame member on which the trim member is mounted and a reentrant portion is formed at the front of the front trim section.

For use with wallboards having a thickness of one-half inch the widths of the trim members **42** and **44** are each about $\frac{7}{8}$ inch. The foot **47** extends about $\frac{1}{8}$" from the side trim section **42**. Bonding holes **48** having diameters of about $\frac{3}{16}$" are arranged in staggered relationship along the length of the front trim section **44**. The face of the side trim member is smooth and free of holes. Thin aluminum sheet stock having a thickness of about 0.020 inch is suitable. The angle between the trim sections **42** and **44** is slightly less than 90°. A suitable angle is about 86°. The members are supplied in standard lengths of 3', 6' and the like.

According to this invention, grooves **50**, **51** and **52** are cut by means of a saw along the wall faces **50***a*, **51***a* and **52***a* of the various frame members **10**, preferably being formed in the wall faces of the jambs **16** and the finish header **20** surrounding the doorway. The grooves **50**, **51** and **52** so formed have parallel sides that are perpendicular to the wall faces of the members in which they are formed. The width of the grooves is slightly less than about $\frac{1}{8}$" so that a foot **47** pressed therein will be compressed slightly. The grooves have depths slightly greater than the width of the side trim sections **42** less the thickness of the panels **30** of wallboards, being in the present instance approximately one-half inch deep.

The outer surfaces of the trim member 40 are painted with a suitable base such as a zinc-chromite type of paint to facilitate bonding of wall paint and joint cement thereto, as explained below.

To finish off the doorway, in accordance with this invention, sections of trim members 40 of suitable length are placed along the edges 32 of the wallboard that are adjacent the frame members of the doorway. Preferably, the lengths of the trim member are such that butting of sections of trim member intermediate the ends of the frame members is avoided.

In finishing off the wallboard, the side sections 42 of the trim members are inserted in the grooves 50, 51 and 52 with the feet 47 pressed snugly therein. By pressing the front sections 44 of the trim members flat against the outer surfaces of the panels 30, the outer surfaces of the side sections 42 are pressed flat against the sides of the grooves that lie adjacent the doorway. In this way each side trim section 42 is placed in intimate contact with the adjacent structural member on which it is mounted, and the side trim section projects substantially perpendicularly from the outer surfaces 50*a*, 51*a*, and 52*a* of such structural member, as indicated, for example, in Fig. 2. Thus, a recess is formed between each frame member and the front face 44 of the trim member 40 mounted thereon for enclosing the edge of the wallboard panel that lies on the frame member. Fasteners in the form of nails 55 driven through the front sections of the trim members and through the covered portion of the wallboard into the adjacent frame members hold the edges of the panels of wallboard and the trim members 40 securely in place. The inner surfaces of the front trim sections are thus pressed against the outer surfaces of the panels 30 of wallboard covered by them, thus, in the specific embodiment of the invention illustrated, establishing an orthogonal or right-angle relationship between the planes of the side and front trim sections 42 and 44. With this arrangement, the edges 32 of the wallboard are concealed and protected from damage. To avoid popping out of nails after the wall is finished, cement-coated nails are preferably employed.

In finishing off the wallboard, the reentrant portions formed by the beads 46 along the edges of the wallboard are filled with bodies 58 of suitable filler material, such as joint cement. Preferably three coats of such joint cement are applied, and the outer portions thereof are made flush with the outer edge of the bead 46. In this process the joint cement is squeezed through the bonding holes 48 and is applied over the exposed parts of the wallboard panels adjacent the front trim sections 44, thus providing a firm bond between the joint cement and the trim members and the adjacent parts of the wallboard panels. The body of filler material so applied to each trim section covers the entire front trim section 44 including the free edge of the front trim section that is remote from the convex bead, and it is tapered gradually toward the remaining exposed part of the wallboard. In this way the bodies of filler material conceal the entire front trim sections and also the adjacent parts of the wallboard, as shown, for example, in Fig. 2. In addition, paper tape 56 is secured over seams or joints between adjacent panels of the wallboard.

Then the entire exposed surface of the wall is coated with texture, a mixture of a sealer and bonding cement, finishing the wall smoothly, preparatory to the application of paint. The outer surfaces of the side trim section 42 as well as the outer surfaces of the finish members 16 and 20 and the stop 22 are then painted and the wall is painted too. In this connection it is to be noted that by virtue of the lateral pressure exerted by the side trim members 42 on the outer surfaces of the grooves 50, 51 and 52, paint cracks are avoided in the corners 60 between the trim members and the jambs and the finish header.

If the wall is to be covered with wallpaper instead of paint it is not necessary to employ paper tape over the seams or joints between adjacent panels of the wallpaper. Also in this case it is not necessary to cover the wall with texture, as described above.



With this trim member an excellent finish is provided even though the wall faces of the jamb and the finish header are not flush with the wall faces of the two-by-fours to which they are nailed. Though the invention has been described with particular reference to the use of frame members which consist of two parts, namely, a finished one-by-four and a two-by-four that may be rough, it is clear that the invention may also be applied by employing finished two-by-fours's as frame members.

While the invention has been described with particular reference to a specific embodiment thereof, it will now be obvious to those skilled in the art that many changes may be made in the shape and dimensions of the parts and in the material of which the trim member is composed without departing from the invention. Thus, for example, in the particular form of the invention illustrated in the drawing the front edge 49 of the foot 47 is the furthermost portion of the foot from the side trim section 42. This arrangement facilitates locking the trim member permanently in place. However, if the outer edge of the foot member is turned inwardly, thereby presenting an arced portion of the foot instead of a sharp edge for contact with the side of the groove 52, the trim member may be removed readily. It is therefore to be understood that the invention is not limited to the specific embodiment thereof described in detail herein but includes other embodiments coming within the scope of the appended claims.

The invention claimed is:

1. In combination, a frame member framing a door, window, or other structural opening formed in a building, said frame member having a groove along its length on the wall face thereof, an elongated substantially L-shaped unitary trim member comprising a straight substantially planar side trim section having a first elongated edge projecting into said groove, said first elongated edge of said side trim section being reversed upon itself thereby to define a resilient foot contiguous with the opposed side walls of said groove for resiliently pressing said side trim section against a side wall of said groove, said trim member further comprising a straight substantially planar front trim section disposed adjacent said frame member and projecting substantially orthogonally from said side trim section in a direction away from said structural opening, said side and front trim sections being joined to one another along a common junction edge substantially parallel to said first elongated edge by an elongated convex bead formed integrally with said side and front trim sections along an elongated edge of each of said sections, one side of said elongated bead being substantially coplanar with said side trim section and being substantially orthogonal to said front trim section whereby said bead is disposed in a substantially upstanding configuration extending away from said frame member with respect to the plane of said front trim section and defines a reentrant portion for said front trim section, said front trim section having a plurality of bonding holes thereon, a piece of wallboard having an elongated edge thereof adjacent said side trim section, said elongated edge of said piece of wallboard being interposed between said front trim section and said frame member, said piece of wallboard extending away from said structural opening, a plurality of fasteners spaced from said bonding holes and extending through said front trim section and thence through said piece of wallboard into said frame member, and a body of joint cement adjacent said front trim section and filling the reentrant portion thereof formed on the wallboard side of said elongated bead, said joint cement engaging said bonding holes, said fasteners, the edge of said front trim section remote from said elongated bead, and the adjacent portion of said wallboard extending beyond said front trim section away from said

structural opening, the outer surface of said body of joint cement being flush with the outer edge of said elongated bead, whereby said fasteners, the edge of said front trim section remote from said elongated bead, and the said adjacent portion of said wallboard are concealed.

2. In combination, a frame member framing a door, window, or other structural opening formed in a building, said frame member having a groove along its length on the wall face thereof, an elongated substantially L-shaped unitary trim member comprising a straight substantially planar side trim section having a first elongated edge projecting into said groove, said first elongated edge of said side trim section being reversed upon itself thereby to define a resilient foot contiguous with the opposed side walls of said groove for resiliently pressing said side trim section against a side wall of said groove, said trim member further comprising a straight substantially planar front trim section disposed adjacent said frame member and projecting substantially orthogonally from said side trim section in a direction away from said structural opening, an elongated convex bead joining said side and front trim sections along a common junction edge substantially parallel to said first elongated edge, said bead being formed integrally with said side and front trim sections along an elongated edge of each of said sections, one side of said elongated bead being substantially coplanar with said side trim section and being substantially orthogonal to said front trim section whereby said bead is disposed in a substantially upstanding configuration extending away from said frame member with respect to the plane of said front trim section and defines a reentrant portion for said front trim section, a piece of wallboard having an elongated edge thereof adjacent said side trim section, said elongated edge of said piece of wallboard being interposed between said front trim section and said frame member, said piece of wallboard extending away from said structural opening, and a plurality of fasteners extending through said front trim section and thence through said piece of wallboard into said frame member.

3. In combination, a structural member in a building, said structural member having a groove along its length on the wall face thereof, an elongated substantially L-shaped unitary trim member comprising a straight substantially planar side trim section having a first elongated edge projecting into said groove, said first elongated edge of said side trim section being reversed upon itself thereby to define a resilient foot contiguous with the opposed side walls of said groove for resiliently pressing said side trim section against a side wall of said groove, said trim member further comprising a straight substantially planar front trim section disposed adjacent said structural member, an elongated convex bead joining said side and front trim sections along a common junction edge substantially parallel to said structural member, said bead being formed integrally with said side and front trim sections along an elongated edge of each of said sections, one side of said elongated bead being substantially coplanar with said side trim section and being substantially orthogonal to said front trim section whereby said bead is disposed in a substantially upstanding configuration extending away from said structural member with respect to the plane of said front trim section and defines a reentrant portion for said front trim section, a piece of wallboard having an elongated edge thereof adjacent said side trim section, said elongated edge of said piece of wallboard being interposed between said front trim section and said structural member, said piece of wallboard extending away from said side trim section, a plurality of fasteners extending through said front trim section and thence through said piece of wallboard into said frame member, and a body of filler material adjacent said front trim section and filling the reentrant portion thereof formed on the wallboard side of said elongated bead, the outer surface of said body of filler material being flush with the outer edge of said elongated bead, said body of filler material covering the edge of said front trim section remote from said elongated bead, whereby the edge of said front trim section remote from said elongated bead and the said adjacent portion of said wallboard are concealed.



4. In combination, a structural member in a building, an elongated substantially L-shaped unitary trim member comprising a straight substantially planar side trim section having an elongated edge in intimate contact with said structural member, said trim member further comprising a straight substantially planar front trim section disposed adjacent said structural member, an elongated convex bead joining said side and front trim sections along a common junction substantially parallel to said structural member, said bead being formed integrally with said side and front trim sections along an elongated edge of each of said sections, one side of said elongated bead being substantially coplanar with said side trim section and being substantially orthogonal to said front trim section whereby said bead is disposed in a substantially upstanding configuration extending away from said structural member with respect to the plane of said front trim section and defines a reentrant portion for said front trim section, a piece of wallboard having an elongated edge thereof adjacent said side trim section, said elongated edge of said piece of wallboard being interposed between said front trim section and said structural member, said piece of wallboard extending away from said side trim section, a plurality of fasteners extending through said front trim section and thence through said piece of wallboard into said frame member, and a body of filler material adjacent said front trim section and filling the reentrant portion thereof formed on the wallboard side of said elongated bead, the outer surface of said body of filler material being flush with the outer edge of said elongated bead, said body of filler material covering the edge of said front trim section remote from said elongated bead, whereby the edge of said front trim section remote from said elongated bead and the said adjacent portion of said wallboard are concealed.

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