July 26, 1960 R. C. LAWLOR 2,946,099

TRIM MEMBER

Filed Jan. 14, 1957

Fig. 1

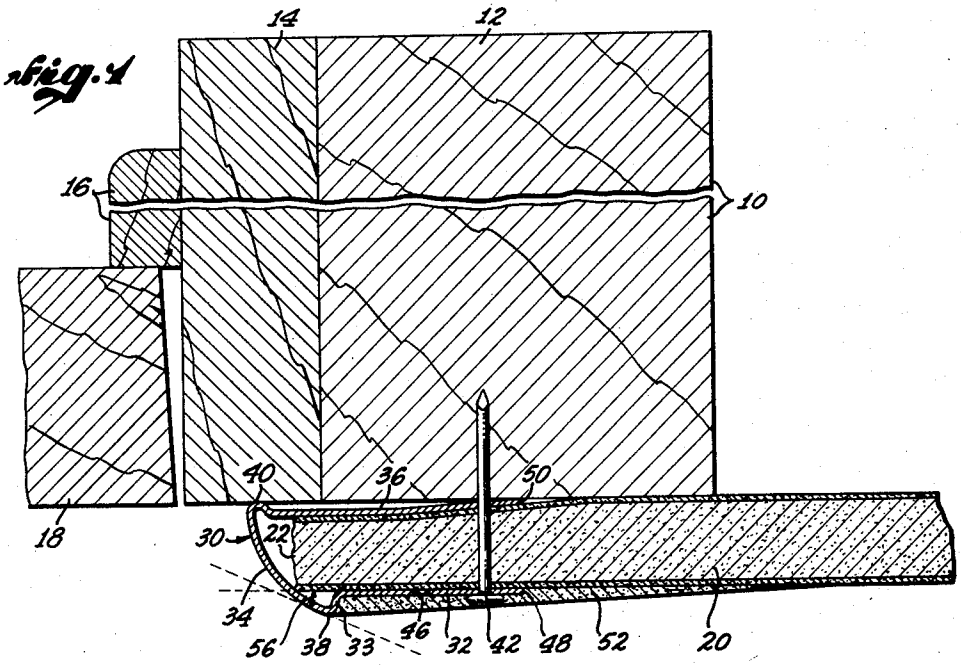
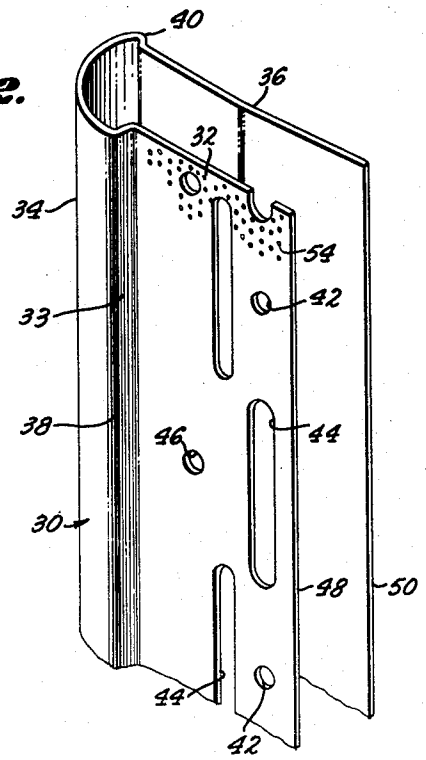


Fig. 2.



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TRIM MEMBER

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3 Claims. (Cl. 20—74)

This invention relates to improvements in building construction and more particularly to an improved trim member for use in dry-wall type construction.

In applying dry-wall construction to homes and other buildings, the walls are formed by means of wallboard, such as gypsum-rock panels, having cardboard or similar sheets on the outer surfaces thereof. Where the edge of a piece of wallboard lies at a corner of a wall structure, such as at the corner formed along the edge of a door, window, or other opening, it is desirable to make some provision for protecting, concealing, and/or fairing the edge of the wallboard. Numerous types of trim members, principally metal, have been devised and employed for this purpose. One type of trim member, now standard, is provided with a bead to form a rigid orthogonal corner which protects and conceals the raw edge of the wallboard but gives little opportunity for effective fairing. The bead is provided to strengthen the trim member, as the sections of the trim member secured to the framing and the wallboard are usually made of the thinnest material possible, and also for purposes of applying a joint cement over that portion of the trim member lying adjacent to the wallboard. This joint cement is spread from the bead, over and beyond the edge of the trim member onto the wallboard surface. Thus, the joint cement not only covers the trim member and its means of attachment to the wallboard, but serves to provide a monolithic structure which will accept paint or other such covering materials.

As previously mentioned, the standard trim member of the prior art has been that type which leaves a fairly sharp right-angled corner. Some attempts have been made in the past to provide various forms of curved or arcuate trim members. Such forms of curved trim have been of fairly complex structure involving sharp folds or parts doubled back on themselves or have been used in conjunction with slots cut or formed into the framing members or walls. None of them has been suitable for use in producing a monolithic structure. Furthermore most of such curved trims are expensive to manufacture and are difficult to apply.

Another great difficulty encountered in the use of the curved trim members of the prior art has been due to the fact that the plane tangent to the terminal section of the curved trim member adjacent to the outer face of the wallboard has been substantially parallel to the plane of the wallboard. When joint cement was then applied between the jointure of the curved side trim section with its flat wallboard covering front section and the adjacent surfaces of the wallboard, the joint cement would feather or would be spread so thinly over such jointure as to fail of proper adhesion thereto. While drying, the joint cement would pull away, curl up, and even drop off leaving unsightly holes or uneven patches which were practicably impossible to remedy. Consequently, such prior art curved trim has been very unpopular and has been but little used.

It is an object of my invention, therefore, to provide

a trim member that is no more difficult to apply than the standard right-angled trim but yet has a pleasing curved surface overlying the raw edge of the wallboard with which it may be used.

Another object of my invention is to provide a trim member that has curved surfaces so related to its terminal sections as to make possible an excellent joint cement and paint seal between the trim member, its adjacent wallboard, and the framing member to which it is attached.

A further object of my invention is to provide a trim member that is relatively inexpensive to manufacture and apply and can successfully compete with standard right-angled trim.

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 like reference characters denote like parts throughout the several views and wherein:

Figure 1 is a cross-sectional view of a wall structure, such as a door opening, embodying my invention; and

Figure 2 is a perspective view of my improved trim member as employed in Figure 1.

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

Panels or other pieces 20 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 the structural member of the wall at a distance from the doorway and then the edges near the doorway are finished off as described hereinafter. 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 22 of the wallboard adjacent the frame members, such as the vertical frame member 10, are concealed, protected and faired by means of an improved trim member 30 which may be constructed by bending a thin strip of metal, plastic, or other suitable material to a U-shape, as later described. Alternatively, this channel or U-shaped member can be extruded of either metal, plastic, or other suitable material.

The trim member 30 comprises a perforated front trim section 32, an arcuate or curved side trim section 34, and a resilient concave rear trim section 36. The front trim section 32 is joined to the front edge of the curved side trim section by means of a forwardly projecting part 33 which forms a rounded angular convex bead 38. This bead may be formed as shown in Figs. 1 and 2 with a forwardly projecting part 33 extending at an obtuse angle, or even approximately a ninety-degree angle with respect to the plane of the front trim section 32. The rear trim section 36 is joined to the rear edge of the arcuate side trim section 34 by means of a rearwardly projecting part in the form of a rearwardly projecting convex bead 40.

The curved side trim section 34 is formed with a particular curvature which may be described as substantially circular or elliptical. A plane tangent to the surface of

the curved side trim section 34 at the bead 40 is approximately normal to the plane defined by the flat portion of the concave rear trim section while the plane tangent to the curved trim section at the front bead 38 forms an acute angle 56 with the plane defined by the flat portion of the front trim section 32, or the outer face of the wallboard, as shown by the dotted lines in Fig. 1. This particular curvilinear configuration is very important for the purposes hereinafter described.

The front and rear trim sections 32 and 36 are spaced apart slightly less than one-half inch so that they may be readily but firmly clamped along the edge 22 of the wallboard to be finished. This clamping action is promoted by the concavity of the rear trim section 36 and the inherent spring characteristics furnished by the joining of these two trim sections with the curved side trim member 34. The front trim section 32 is somewhat longer than the rear trim section 36 and is provided with nailing holes 42, elongated bonding holes 44, and circular bonding holes 46 near the front bead 38. Thus, the front and rear trim sections are substantially parallel as are the beads 38 and 40 and the rear or lateral edges 48 and 50, respectively, of the front and rear trim sections. The bead 40 projects rearwardly about 1/32 inch from the nearby portion of the rear trim section while the bead 38 extends outwardly from the flat portion of the front trim section between about 1/32 of an inch to as much as 1/8 of an inch.

The entire trim member is furnished in standard lengths of 3, 6, and 9 feet or the like with the outer surfaces painted with a suitable undercoat base, such as zinc chromate, to facilitate bonding of wall paint and joint cement thereto, as explained below. The outer surfaces of the front trim section may be suitably provided with knurling or serrations 54 to further improve the bonding of the paint and joint cement thereto.

To finish off the doorway, in accordance with this invention, sections of trim member 30 of suitable length are pressed over the edges 22 of the wallboard with the front trim section 32 on the outer side thereof. Preferably, the lengths of the trim members are such as to avoid butting of sections of trim members intermediate the ends of the frame members.

When the trim members have been pressed into place, on the edge of the wallboard panel, nails are driven through the front trim sections 32, through the covered portions of the wallboard, into the adjacent frame members to hold the edges of the panels of wallboard and the trim members 30 securely in place. With this arrangement, the edges 22 of the wallboard are concealed, protected from damage, and faired. Cement coated nails are preferably employed to avoid popping out of nails after the wall is finished.

In nailing the trim members into place, the inner surfaces of the front trim sections are pressed against the outer surfaces of the panels 20 of wallboard covered by them and the convex bearing surfaces of the rear bead 40 are pressed tightly against the jamb 14, forming slight indentations therein. This action is further promoted by the concavity of the rear trim section 36. In this way, the rear bead of the curved side trim section is placed in intimate contact with the adjacent structural member on which it is mounted. With this arrangement, cracks are avoided at the corners 49 when the assembled unit is painted and the subsequent formation of cracks is precluded by virtue of the pressure exerted by the rear beads 40 on the frame members even though the wall faces of the jambs are not flush with the wall faces of the structural members to which they are nailed.

In finishing off the wallboard, the reentrant portion, formed between angular bead 38 and the sides of the wallboard adjacent to and beyond the edge 48 of the front trim section, is filled with bodies 52 of suitable filler material, such as joint cement; the forwardly projecting bead 38 forming a border for the bodies of cement. Preferably, three or more coats of joint cement are applied until the outer surface thus produced is flush with the outer edge of front bead 38. When the plane of tangency of the curved trim section 34 at the bead 38 is parallel, or substantially parallel, to the flat portion of the front trim section 32 or the wallboard covered thereby, the joint cement may feather too much and may not adhere properly to the outer surface of bead 38 unless extreme care is exercised in applying the joint cement. As previously mentioned, when the plane of tangency of the curve at that point forms an acute angle with the extended plane of the outer surface of the wallboard, the joint cement will adhere best and less work is required to avoid unsightly cracks or holes that might appear along the bead 38.

In the further process of finishing off, the joint cement is squeezed through the bonding holes 44 and 46 and is applied to the adjacent exposed parts of the wallboard panels thus providing a firm bond between the joint cement, the trim member and the parts of the wallboard panels covered thereby. The body of filler material so applied to each trim member covers the entire front trim section 32 including its edge 48 and is tapered gradually toward the remaining exposed part of the wallboard, as shown in Fig. 1. The entire exposed surface of the wall is then coated with texture, a mixture of a sealer and a bonding cement, finishing the wall smoothly preparatory to the application of paint. The outer surfaces of the curved side trim section 34 as well as the outer surfaces of the finished jamb 14 and the stop 16 are then painted. In this fashion, the raw edges of the wallboard panel are securely fastened to the framing structure of the door or other wall opening and are provided with efficient means of concealment and protection with none of the comparatively sharp corners of the prior art trim members.

It should be noted that when the trim member is made of plastic, the curved side trim section need not be painted. Where the finished frame members are left in natural color, say, a proper colored plastic trim member could furnish a pleasing contrast between the natural finish of the door framing and a selected wall coloring while still providing adequate protection and concealment of the raw edges of the wallboard panels.

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 materials of which the trim member is made without departing from the invention. For instance, though the invention has been described with particular reference to the use of framing members which consist of two parts, namely, a rough two-by-four and a finished one-by-four, it is clear that the invention may also be applied by employing finished two-by-fours as framing members. 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 structural member of a building;

a piece of wallboard overlying said structural member;

an elongated substantially U-shaped unitary trim member disposed about a free edge of said piece of wallboard, said trim member having a first elongated straight substantially curved trim section having a parallel elongated edges and serving as an arcuate side trim section;

a second elongated straight substantially flat trim section having parallel elongated edges and serving as a front trim section;

a third elongated straight substantially concave trim section having parallel elongated edges and serving as a rear trim section;

an elongated rearwardly projecting convex bead formed

integrally with each of said curved side and rear trim sections and joining said rear and side trim section, said rearwardly projecting bead being disposed adjacent one side of said piece of wallboard and spaced forwardly of the free edge of said wallboard, one side of said first elongated rearwardly projecting convex bead being substantially coplanar with a rear plane of tangency of curvature of the said arcuate side trim section at the rear edge thereof, said rear plane of tangency being substantially orthogonal to said rear trim section whereby said bead extends beyond the intersection of the plane extended from said rear trim section to said curved side trim section in a substantially upstanding configuration relative to said rear trim section;

an elongated forwardly projecting rounded angular bead joining said front and said curved side trim section and formed integrally with each of said side and front trim sections, said forwardly projecting bead overlying the other side of said piece of wallboard at a position spaced rearwardly of the free edge thereof, one side of said elongated forwardly projecting angular rounded bead being substantially coplanar with a front plane of tangency of the curvature of said arcuate side trim section at the front edge thereof, said front plane of tangency meeting the plane extended from the front trim section at an acute angle, the other side of said elongated forwardly projecting angular bead being extended to meet the front trim section at an obtuse angle whereby said rounded angular bead extends in a substantially upstanding configuration relative to said front trim section, the free edges of said front and rear trim sections projecting in the same direction away from said arcuate side trim section, said free

edge of said wallboard lying between said front and rear trim sections;

fasteners projecting through said front trim section and said wallboard into said structural member holding said wallboard in place with said rearwardly projecting convex bead pressed against the wall face of said structural member; and

a body of filler material covering said front trim section and the adjacent part of said wallboard, said body of filler material being flush with the front edge of said arcuate side trim section whereby the said edge of said wallboard is faired into said structural member.

2. The combination of claim 1 wherein said front and rear trim sections constitute spring means for clamping said U-shaped unitary trim member to the said free edge of said wallboard panel.

3. The combination of claim 1 wherein said front trim section is perforated and the outer surface of said front trim section is provided with serrations.

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