

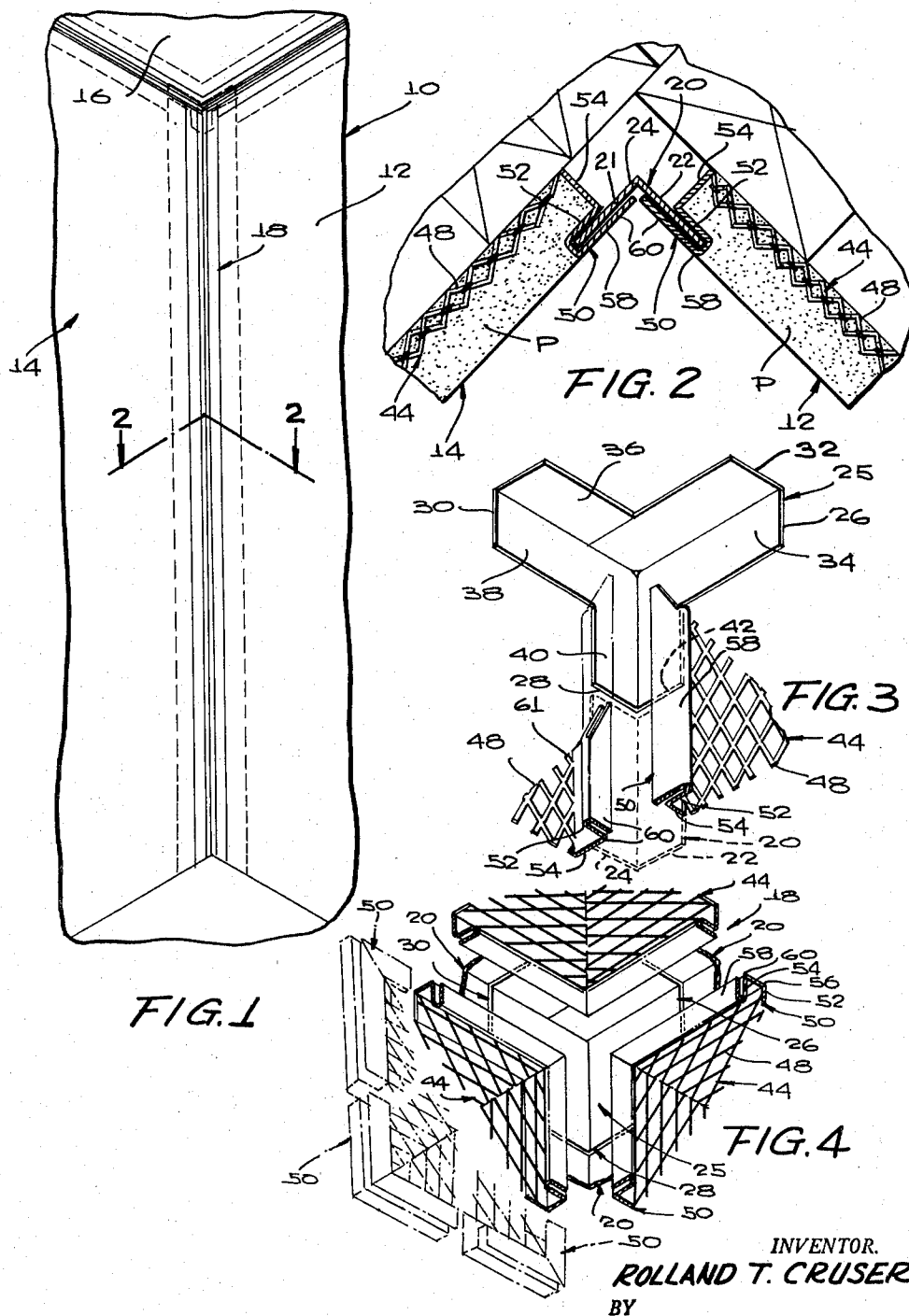
Sept. 22, 1959

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2,904,992

EXPANSION JOINT STRUCTURES FOR PLASTERED WALLS

Filed Nov. 9, 1956



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2,904,992

## EXPANSION JOINT STRUCTURES FOR PLASTERED WALLS

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Application November 9, 1956, Serial No. 621,281

4 Claims. (Cl. 72—121)

This invention relates generally to improved expansion joint structures for plastered walls.

Due to expansion and contraction and settling of buildings plastered walls and ceilings develop cracks which start at the intersections of side walls and/or at the intersections of ceilings and side walls, which require repair at substantial cost.

A primary object of the invention is to provide expansion joint structures for plastered walls which accommodate normal expansion and contraction and shifting of buildings so as to prevent cracks in plastered walls and ceilings caused thereby.

Another object of the invention is to provide expansion joint structures of the character indicated which include corner assemblies which have diverging side flanges which are movably engageable in grooves of intersecting lathing panels, so that the lathing panels, after having plaster applied thereon, can move in units relative to the corner assemblies, so as to preclude cracking of the plaster thereon.

A further object of the invention is to provide expansion joint structures of the character indicated, which can be made in well-finished, rugged, and serviceable forms at relatively low cost, are easily assembled, and are highly satisfactory.

These together with other objects and advantages which will become apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout the several views, and in which:

Figure 1 is a fragmentary perspective view of a room corner showing two intersecting side walls and an intersecting ceiling, and incorporating expansion joint structures of the invention;

Figure 2 is an enlarged fragmentary horizontal section taken substantially on the plane of line 2—2 of Figure 1;

Figure 3 is an enlarged exploded perspective view showing members of an expansion joint structure of the invention; and

Figure 4 is an enlarged fragmentary exploded view showing expansion joint structure of the invention, and showing in full and in phantom lines lathing panel associated therewith.

Referring to the drawings in detail, indicated generally at 10 is a corner of a room having intersecting side walls 12 and 14 and a ceiling 16 intersecting the side walls. Installed in the corner 10 between the side walls 12 and 14 and the ceiling 16 is expansion joint structure of the invention, indicated generally at 18.

The expansion joint structure 18 comprises a corner assembly 20 which is an elongated angle iron 21 to be positioned vertically between the adjacent edges of side walls 12 and 14 at the intersection thereof, or horizontally between the adjacent edges of side walls and their intersection with a ceiling 16. The angle irons 21 have right angularly related side flanges 22 and 24.

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The structure 18 further comprises a corner assembly, indicated generally at 25, for use at the intersection between side walls 12 and 14 and a ceiling 16 comprising a vertical arm 28 and right angularly related divergent horizontal arms 26 and 30 on the upper end of the vertical arm 28, said arms being angle irons, having divergent right angularly related side flanges 40 and 42, 32 and 34, and 36 and 38, respectively. In assembling the assemblies 20 and 25, the vertical angle irons 21 are disposed in longitudinally extending relationship to the respective arms 26 through 30, see Figure 4.

Indicated generally at 44 are lathing panels, which as seen in the lower left-hand part of Figure 4, are rectangular in form and include panels 48 of lathing material secured at their several edges to elongated edge members 50. The edge members 50 have right angularly related side flanges 52 and end flanges 54. The end flanges 54 have secured thereto related edges of the lath panels 48, the panels 48 being bendable to be disposed in substantially parallel relationship to the side flanges 52. Integral with the flanges 52 and overlying the same are reverse-bent flanges 58 defining with the flanges 52 grooves 60, see Figure 2, in which are slidably engageable edges of the side flanges of the assemblies 20 or 25.

After the expansion joint structure has been assembled in the manner shown in Figure 4, suitable plaster P, see Figure 2, is applied to the panels 48 substantially flush with the outer surfaces of the reverse bent flanges 58. Thereafter, movements of the side walls 12 and 14 relative to the assembly 20 are permitted, so that cracking of the plaster on the side wall panels, otherwise produced by expansion, contraction, and settling is precluded. Obviously, similar movements of a ceiling panel and of related side wall panels relative to the assembly 25 are permitted. It will be seen that the plastered lathing panels 44 constitute substantially independent units which are individually movable relative to the expansion joint structure 18, and provide more permanent and substantial plastered walls and ceilings. The assemblies 20 and 25 can be manufactured in random lengths and cut on a building site to fit. This holds true also of the lath panels 44, so that ready assembly of structures on building sites is facilitated, preparatory to plastering walls and ceilings.

The foregoing is considered as illustrative only of the principles of the invention. Since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, as fall within the scope of the appended claims.

What is claimed as new is as follows:

1. A room corner wherein said room comprising, in combination, two intersecting side walls comprising plaster lathing panels having vertical edge members having end flanges and side flanges, said side flanges having laterally inward sides, groove means on and extending along the laterally inward sides of said side flanges, a first corner assembly located at the intersections of said side walls comprising a vertical angle iron having divergent side flanges having edges movably engaged in groove means of related edge members, a ceiling comprising a plaster lathing ceiling panel having edge members having end flanges and side flanges, said ceiling panel side flanges having lower sides, groove means on and extending along the lower sides of the side flanges of the ceiling panel, a second corner assembly comprising a vertical angle iron and two divergent horizontal angle irons, the angle irons of the second assembly having side flanges movably engaged in groove means of the ceiling panel and in groove means of side wall panels.

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2. A room corner wherein said room comprising, in combination, two intersecting side walls comprising plaster lathing panels having vertical edge members having end flanges and side flanges, said side flanges having laterally inward sides, groove means on and extending along the laterally inward sides of said side flanges, a first corner assembly located at the intersections of said side walls comprising a vertical angle iron having divergent side flanges having edges movably engaged in groove means of related edge members, a ceiling comprising a plaster lathing ceiling panel having edge members having end flanges and side flanges, said ceiling panel side flanges having lower sides groove means on and extending along the lower sides of the side flanges of the ceiling panel, a second corner assembly comprising a vertical angle iron and two divergent horizontal angle irons, the angle irons of the second assembly having side flanges movably engaged in groove means of the ceiling panel and in groove means of side wall panels, the vertical angle irons of the first and second assemblies being in longitudinal extension of each other.

3. A room corner comprising two angularly related walls having vertical edge members on their adjacent ends, said edge members having side flanges extending parallel to the walls, said side flanges having opposite sides, reverse flanges secured on sides of said side flanges having flange portions spaced parallel from such sides and therewith defining grooves, a first corner assembly positioned between the adjacent ends of the walls and comprising a vertical angle iron having divergent flanges movably engaged in grooves of related edge members, a ceiling panel having angularly related edge members having side flanges paralleling and extending along the edge members, said ceiling edge member side flanges having flange portions parallel to and spaced from said sides and therewith defining grooves, and a second corner assembly compris-

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ing a vertical angle iron and two angularly related horizontal angle irons, the angle irons of the second corner assembly having flanges movably engaged in related grooves of the ceiling panel edge members.

4. A room corner comprising two angularly related walls having vertical edge members on their adjacent ends, said edge members having side flanges extending parallel to the walls, said side flanges having opposite sides, reverse flanges secured on sides of said side flanges having flange portions spaced parallel from such sides and therewith defining grooves, a first corner assembly positioned between the adjacent ends of the walls and comprising a vertical angle iron having divergent flanges movably engaged in grooves of related edge members, a ceiling panel having angularly related edge members having side flanges paralleling and extending along the edge members, said ceiling edge member side flanges having flange portions parallel to and spaced from said sides and therewith defining grooves, and a second corner assembly comprising a vertical angle iron and two angularly related horizontal angle irons, the angle irons of the second corner assembly having flanges movably engaged in related grooves of the ceiling panel edge members, and in related grooves of the wall edge members.

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