

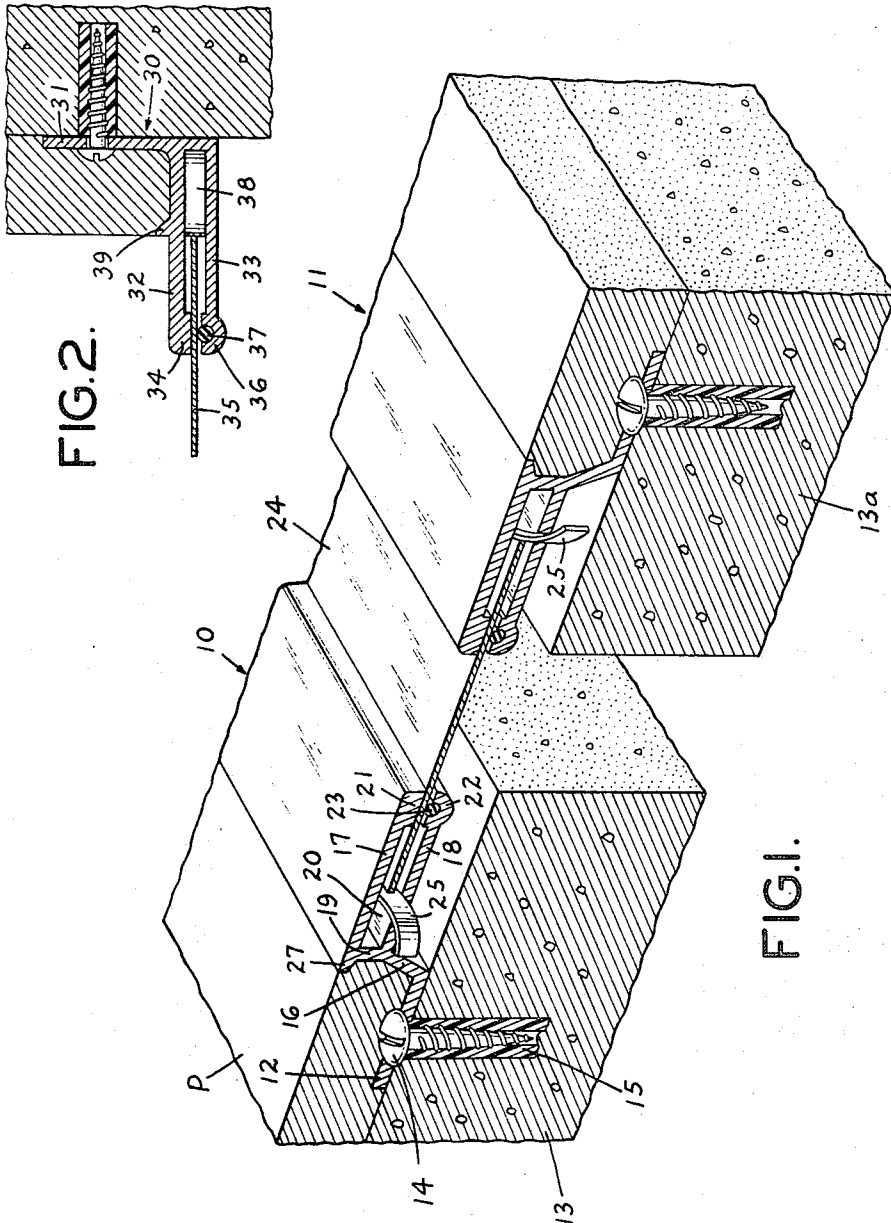
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EXPANSION JOINT COVERS

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ABSTRACT OF THE DISCLOSURE

An expansion joint assembly for closing a joint between a pair of relatively movable structures, including a pair of mounting members fastened to the moving structures and each including a portion defining a recess having an open end facing the open end of the other mounting member. A closure plate is slidably received in the recesses of the mounted members and is kept centered over the joint by a spring in each recess acting against the edge of the plate. Each of the mounting members includes a flange by which the members may be mounted to the structure and also includes a stop flange for plaster and the like, the mounting flange being so arranged so that it is covered by the finishing material which abuts and is flush with the stop flange to provide a simple, neat-appearing joint assembly.

This invention relates to expansion joint covers and more particularly to expansion joint covers for joints in walls, ceilings and at the corners of building structures.

Numerous types of expansion covers have been suggested heretofore, principally, however, for use in the floors and at the junctions of floors and walls of buildings where the mounting elements are embedded in concrete and a cover is provided which spans the joint and rests against the concrete surfaces of the floor and wall on opposite sides of the expansion joint. While these joint covers are quite satisfactory in the above-mentioned environment, they are somewhat less than satisfactory from the standpoint of appearance and ease of installation in the walls and ceilings where the covers should be inconspicuous.

In accordance with the present invention, an expansion joint cover suitable for use in walls and ceilings is provided and includes a pair of mounting members which can be affixed to the wall or ceiling on opposite sides of an expansion joint and provide a plaster stop enabling the mounting elements to be mounted flush with the plaster and, if desired, covered by paper, paint or other ceiling or wall covering. A thin plate or strip of metal or the like which likewise can be painted or otherwise treated is slidably received in opposing recesses in the mounting elements and is normally retained substantially centered between the mounting elements by means of compression springs so that as the walls or ceiling expand or contract, the plate member will always cover the joint or gap between the wall and ceiling section.

Suitable sealing means are interposed between the strip or plate and the mounting portions of the expansion joint cover so that entry of dust and/or moisture is effectively precluded and a tight joint is provided at all times.

For a better understanding of the present invention, reference may be had to the accompanying drawing, in which:

FIGURE 1 is a cross-sectional and perspective view of a typical expansion joint cover embodying the present invention, and

FIGURE 2 is a view in cross-section of a modified form of the expansion joint.

The expansion joint illustrated in FIGURE 1 includes two mounting members 10 and 11 which are mirror images of each other and, in fact, can be sections of the

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same extrusion formed by means of a suitable extrusion die. The mounting member 10 includes an edge flange 12 extending the length of the member which is adapted to be secured to a wall or ceiling structure such as the concrete or wood surface 13, either directly by means of screws 14 or by means of screws and insert plugs 15 of known type. Extending upwardly from the flange 12 is a flange portion 16 which carries at its upper edge a pair of spaced-apart plates 17 and 18 connected at one end by means of a base member 19, thereby forming a recess 20 therebetween.

The inner edge of the plate 17 includes a thickened portion 21. A grooved, semi-cylindrical portion 22 is at the inner edge of the plate 18 and is adapted to receive a sealing rod or strip 23 for a purpose to be described. The mounting member 11 is, as indicated above, the same as the mounting member 10 and these two mounting members receive a strip 24 of sheet material, such as stainless steel, aluminum, aluminum alloy, thin plastic or the like, which extends into the recess 20 of the mounting member 10 and the corresponding recess of the member 11 in tight engagement with the thickened portion 21 and the sealing strip or rod 23 of each of the mounting members. Arcuate compression springs 25 bear against the outer edges of the strip 24 and the base 19 of the mounting member 10 and the corresponding portion of the mounting member 11, thereby keeping the strip 24 centered with respect to the joint.

When the wall or ceiling structure expands so that the expansion joint between the portions 13 and 13a becomes narrower, the springs 25 are compressed by sliding of the strip 24 relative to the mounting members 10 and 11. If the expansion joint expands, the plate 24 can slide, and due to the pressure of the springs 25 will be kept centered with respect to the mounting members 10 and 11.

Each of the mounting members 10 and 11 has an outwardly extending flange 27 at the outer end of the plate portion 17 which forms a plaster stop to enable plaster P to be laid up to the edge of the mounting portions in the plane thereof so that the exposed plate portions 17 can be painted or provided with wall coverings which cause them to blend into the remainder of the wall or ceiling.

A modified type of joint cover can be provided for closing a joint at the junction of a wall and the ceiling. Such a joint cover includes a mounting member like the mounting member 10 and a corner mounting member 30, as shown in FIGURE 2. The corner mount member includes a flange 31 adapted to be secured to the wall or ceiling from which extend lateral plate portions 32 and 33, one of them having a thickened edge portion 34 for engaging the outer surface of the joint cover plate 35 and the other having a thickened and grooved portion 36 for receiving the sealing strip 37 of vinyl plastic or other elastomeric material for engaging the inner surface of the plate 35. Compression springs 38, similar to the springs 25 described above, center the plate 35 in the mounting members. In this form of mounting member, the upper plate has an upwardly extending plaster stop 39 to enable the plaster to be laid in the plane of the nose of the plaster stop 39 to form a continuous surface. Here again, both of the mounting members may be painted or provided with a wall or ceiling covering matching the wall or ceiling covering of the room so that only the plate 35 is visible or differs visibly from the remainder of the wall. However, its visibility may be reduced by painting it or, if desired, providing it with appropriate matching pattern or covering so that the entire joint is rendered inconspicuous or harmonious with the remainder of the ceiling or wall structure.

It will be understood that the wall mounting structures are susceptible to modification in their dimensions and

shapes, depending upon requirements, and the width of the joint cover plate 24 or 35 can be modified in accordance with the width of the joint to be covered or concealed. Moreover, the types of springs used for centering the joint covering plate 24 or 35 can be varied. Accordingly, the forms of the invention disclosed herein should be considered as illustrative and not as limiting the scope of the invention as defined in the following claims.

I claim:

1. An expansion joint assembly for closing a joint defined between a pair of longitudinally extending structures relatively movable toward and away from one another, comprising:

first and second longitudinally extending mounting members for mounting parallel to the joint to be closed, each member having (a) a first portion forming a recess having an open end facing the open end of the recess in the first portion of the other mounting member, said first portion being relatively flat lying in a plane substantially parallel to one of the surfaces adjacent the joint, (b) a stop flange formed integrally with the first portion and projecting therefrom to form a flange surface; and (c) a mounting flange formed integrally with said first portion and extending angularly therefrom to accommodate fastening elements for attaching the mounting member to one of the structures, the direction of extension of the flange of at least one of the mounting members maintaining the first portion in spaced relation to the associated structure;

a plate spanning the joint and having opposite edge portions slidably engaging said recesses;

spring means in said recess engaging opposite edges of said plate in both of said mounting members to yieldably center the plate between said members; and a finish material overlying said mounting flange of each mounting member to conceal said flange and fastening elements, and abutting said stop flange to be flush with the surface thereof to form a continuous finished surface.

2. An expansion joint assembly according to claim 1, in which:

the recess is formed between substantially parallel plates of the first portion, one of the plates having formed in the inner surface thereof a longitudinally extending groove, the assembly further comprising

a strip of elastomeric material received in the groove and bearing against a surface of the plate to maintain the plate and mounting members in sealed sliding relation.

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