

[54] **EDGE SEALS FOR
MULTIPLE-INTERFITTING PARTITIONS**

[75] Inventors: **Jerry W. Rae; Dean S. White**, both of New Castle, Ind.

[73] Assignee: **American Standard Inc.**, New York, N.Y.

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[51] Int. Cl. **E04b 2/74**

[58] Field of Search **52/579, 589, 582, 592, 588, 52/595, 593; 49/370, 483**

[56] **References Cited
UNITED STATES PATENTS**

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Primary Examiner—Henry C. Sutherland
Assistant Examiner—Leslie A. Braun
Attorney, Agent, or Firm—Biebel, French & Bugg

[57] **ABSTRACT**

Multiple-use partitions, which may be positioned in a plurality of intersecting arrangements, are provided with vertical edge seals which permit the panels to be positioned in transverse aligned relationship and which also provide for the mutual, right-angle nesting of two, three or four of the panels. The edge seals are formed with seal supports which provide abutting surfaces when the panels are nested in right-angular relationship and which form a light seal to prevent the passage of light across two or more of the panels.

3 Claims, 4 Drawing Figures

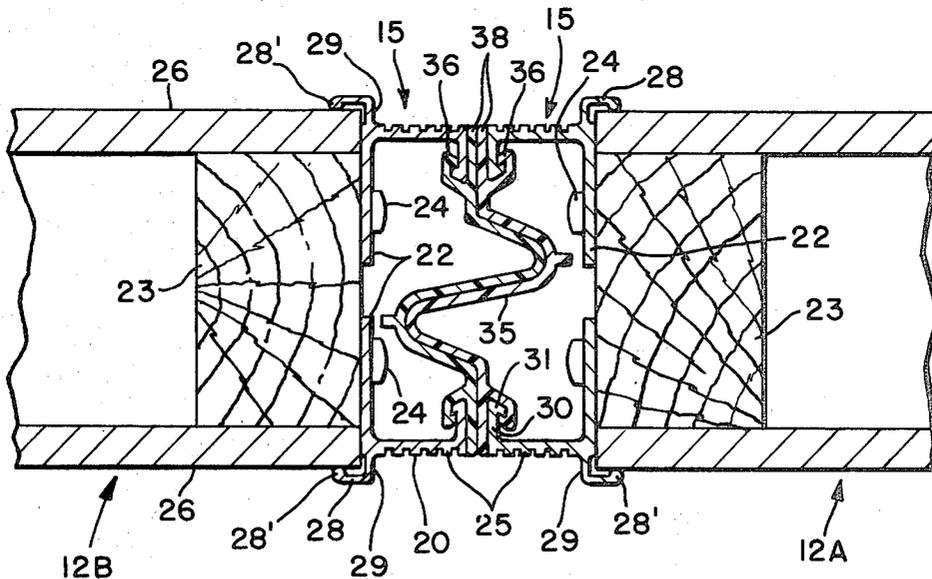


FIG-1

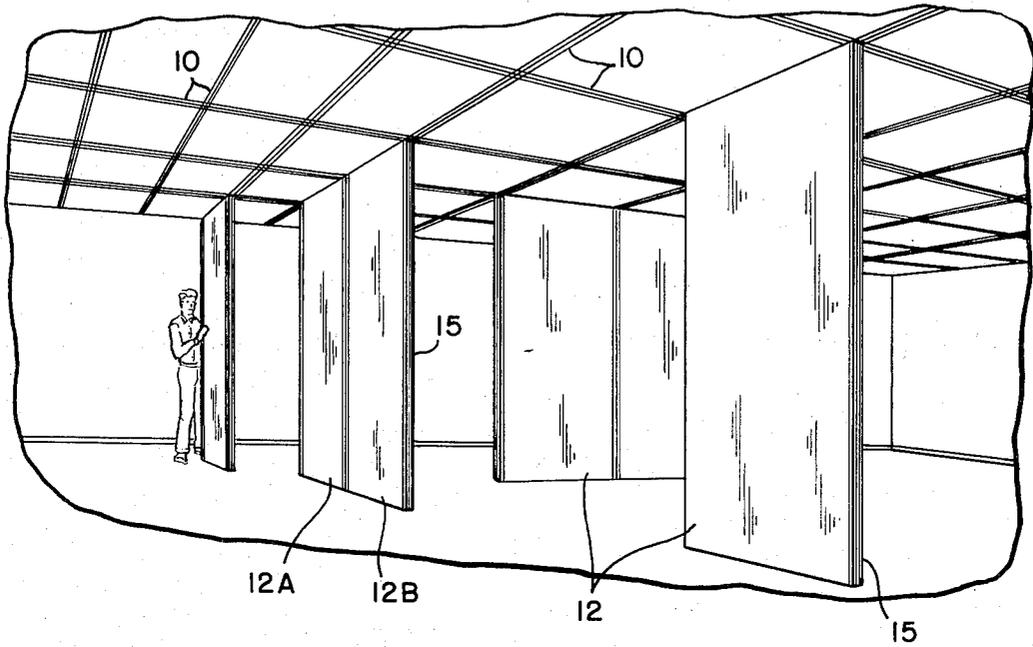
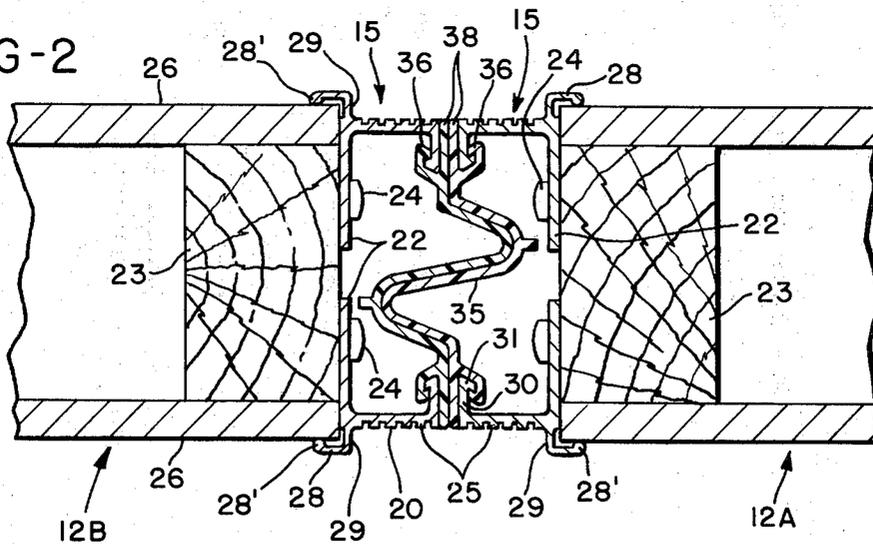


FIG-2



EDGE SEALS FOR MULTIPLE-INTERFITTING PARTITIONS

BACKGROUND OF THE INVENTION

A popular form of partition, for multiple-use rooms, consists of individual rigid panels which are movable on a grid-type overhead track system permitting a number of panels to be arranged to form multiple partitions. An example of such a system including the track is shown in the copending application of Tompkins et al., Ser. No. 142,158, filed May 11, 1971, now U.S. Pat. No. 3,748,793, and assigned to the same assignee as this invention. Another example is shown in Izenour, 3,181,274, issued May 4, 1965.

It is desirable that such panels be provided with vertical edge seals which form a light barrier when two of the panels are brought into coplanar relation. It is further desirable that the edge seal provide for the right angular mating of two or more panels in an essentially light-tight interesting relationship, and to provide a pleasing finished appearance to the exposed panel vertical edges.

SUMMARY OF THE INVENTION

The present invention is directed particularly to vertical edge seals for multiple-use wall panels which are particularly adapted to be received in multiple right-angle abutting relation, to interest with adjacent such edge seals of right-angled abutting panels as well as to provide for conventional coplanar edge-to-edge sealing between two panels. To this end, the edge seal of the present invention is provided with vertically oriented seal supports which have specially constructed side members. Such side members are preferably formed of extruded material, such as rigid plastic or aluminum, and are formed with a transversely extending side portion which is somewhat inwardly offset with respect to the sides of the panels with which it is associated, and which terminate in inwardly turned ends. A generally S-shaped flexible seal is supported between the inwardly turned ends of the supports.

The sides and ends of the supports are designed to form abutting surfaces for mutual engagement with right-angularly positioned adjacent panels to provide for the nesting of such adjacent panels thereto, while the S-shaped flexible seal members, which conventionally engage with a coplanar panel seal, are in non-interfering relation when two, three or four of the panel edges are nested together in right-angle relationship.

These and other objects and advantages of the invention will be apparent from the following description, the accompanying drawings and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing a multiple-use panel system to which the improved edge seal of the present invention is applied;

FIG. 2 is an enlarged section showing two panels and edge seal arrangements in conventional abutting relation;

FIG. 3 is a section similar to FIG. 2 showing two panels in right-angular abutting relation; and

FIG. 4 is a section showing the arrangement of four panels in right-angle interested relation.

DESCRIPTION OF PREFERRED EMBODIMENT

In FIG. 1 is shown a multiple-use panel system incorporating a system of overhead tracks 10 which may be of the type disclosed and claimed in application Ser. No. 142,158. The plurality of individual generally rigid panels 12 are mounted for movement along the track system 10, such panels being movable as desired to divide the room into two or more smaller rooms.

In systems of this kind, it is frequently desirable to bring pairs of panels not only into conventional end-to-end or coplanar relation as illustrated, for example, by the panels 12A and 12B in FIG. 2, but it is also desirable to bring the vertical edges of the panels into mutual right-angle abutting relation as shown by the panels in FIGS. 3 and 4.

The vertical edges of each of the panels is provided with a vertically oriented edge seal illustrated generally at 15 in FIG. 2. For this purpose, each of the edge seals is formed with means defining a pair of vertically oriented extruded aluminum spaced seal supports 20. The supports 20 have base members 22 which are retained on the vertical frame 23 of one of the panels 12 by means of screws or lag bolts 24. Further, each of the supports 20 is formed with a transversely extending web-like side member 25, the outer surface of which is somewhat inwardly offset with respect to the sides 26 of the associated panel 12. An L-shaped trim lip portion 28 extends transversely in an opposite direction from the web or side member 25 and has an outer end 28' which engages with the outer surface 26 of the panel in order to provide a finished appearance thereto. The portion 28 also defines with the adjacent member 25 a short transverse abutment surface 29.

The inwardly offset side members 25 are terminated in an inwardly turned end 30 formed with a hook 31 at the end thereof. Since a pair of the supports 20 are used along the vertical edge of each of the panels, the ends 30 extend mutually inwardly toward each other and define therebetween a space within which a generally S-shaped flexible edge seal 35 may be received.

A pair of seals 35 are shown in FIG. 2 in axial abutting relation with each other. The seals 35 may be extruded from a flexible plastic material, such as vinyl, and are formed with end portions 36 in engagement with the hook 31, on the inner side of the end 30, and with a transversely extending flat portion 38 received against the outer surface of the end 30. The transverse extent of the portion 38 is comparable in length to that of the side member 25. The geometric S-shaped configuration of the seal 35 is such that the exposed outer surface thereof precisely mates with the adjacent outer surface of the seal of an adjacent coplanar panel as shown in FIG. 2. In this configuration, the seals 30 define in effect a labyrinth light block, which assuring the vertical alignment of the adjacent suspended panels.

The supports 20 further advantageously provide for the interesting of two, three or four of the panels when they are brought into right-angle relationship as shown in FIGS. 3 and 4. To this end, the outer surfaces of the side members 25 of one of the panels are proportioned to engage the adjacent outer surface of the flat portion 38 of the adjacent seal, as shown by the intersection of panels 12B and 12C of FIG. 3. The fact that the side members 25 are somewhat inwardly offset with respect to the panel walls 26 to define the abutment surface 29 provides an interesting relation in which the web por-

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tion 25 on panel 12C is located against the abutment surface 29 of the panel 12B.

Two additional panels 12D and 12E may be brought into right-angular relationship at a corner intersection as shown in FIG. 4, the panels 12D and 12E having the same relationship to each other and to the panels 12B and 12C as previously described. The transverse depth of the seal 35 outwardly of the ends 30 is sufficiently small so as to be in non-interfering relation with corresponding seals on the right-angle adjacent nested panels.

It is accordingly seen that this invention provides a novel and useful edge seal for the vertical edges of multiple-use panels, which permits two or more panels to be internested with each other in right-angular relation and which permits two panels to be aligned in coplanar relation. In the internested relation as shown for example in FIG. 4, the right-angular abutment surfaces defined by the seals 30 and the members 25 assures the alignment and positioning of the adjacent panels and prevents the passage of stray light from one side of the panels to the other.

While the form of apparatus herein described constitutes a preferred embodiment of the invention, it is to be understood that the invention is not limited to this precise form of apparatus and that changes may be made therein without departing from the scope of the invention.

What is claimed is:

1. A self-fitting edge seal construction for acoustical panels providing a sound-absorbing seal for joining adjacent panels comprising means defining a pair of seal supports adapted to be fastened to the vertical edge of each panel, a pair of webs integral with said support means extending at right angles thereto away from the panel and located substantially in the plane of each

outer face thereof, relatively short flanges at the outer ends of said webs extending toward but separated from each other, and an S-shaped plastic seal member supported on said flanges and having each end thereof overlying and supported by one of said flanges.

2. The construction as defined in claim 1 in which the width of each web member is comparable to the length of the overlying end portion of said seal member providing for forming a light seal between two interfitting seal members whose panels lie in the same plane or between the web and an overlying end of said seal member between two panels extending at right angles to each other.

3. A vertically oriented edge seal adapted for use on the vertical edges of multiple-use wall panels, which panels may have their vertical edges in transverse aligned relation or in mutual right-angle nesting relation while providing a light seal between adjacent abutting panel edges, comprising means defining a pair of vertically oriented spaced seal supports having transversely extending side members which are somewhat inwardly offset with respect to the sides of the associated said panels and terminating in mutually inwardly-turned ends defining a space therebetween, the outer surfaces of said support means defining generally right-angle abutment surfaces for nesting with the adjacent vertical edges of a right-angularly arranged adjacent panel, and a generally symmetrical S-shaped flexible seal member supported on said support mean ends and being engageable with a corresponding said seal on an aligned panel to form a light seal therebetween, the transverse depth of said seal outwardly of said ends being sufficiently small so as to be in non-interfering relation with corresponding said seals on right-angle adjacent nested panels.

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