

[54] DEMOUNTABLE PARTITION ASSEMBLY 3,608,266 9/1971 Satkip et al. 52/486 X  
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[52] U.S. Cl. 52/204, 52/241, 52/272, 52/481, 52/486, 52/582  
[51] Int. Cl. E04b 2/82  
[58] Field of Search 52/241, 483, 484, 52/474, 486, 481, 239, 238, 204, 272, 582, 585, 586

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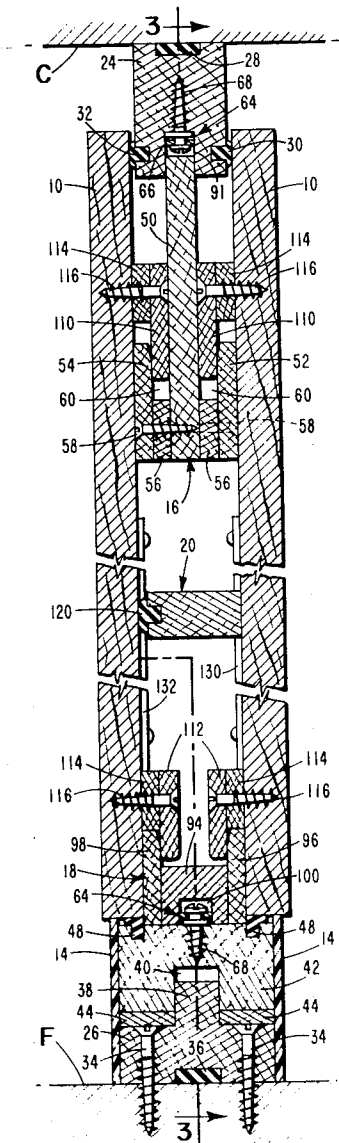
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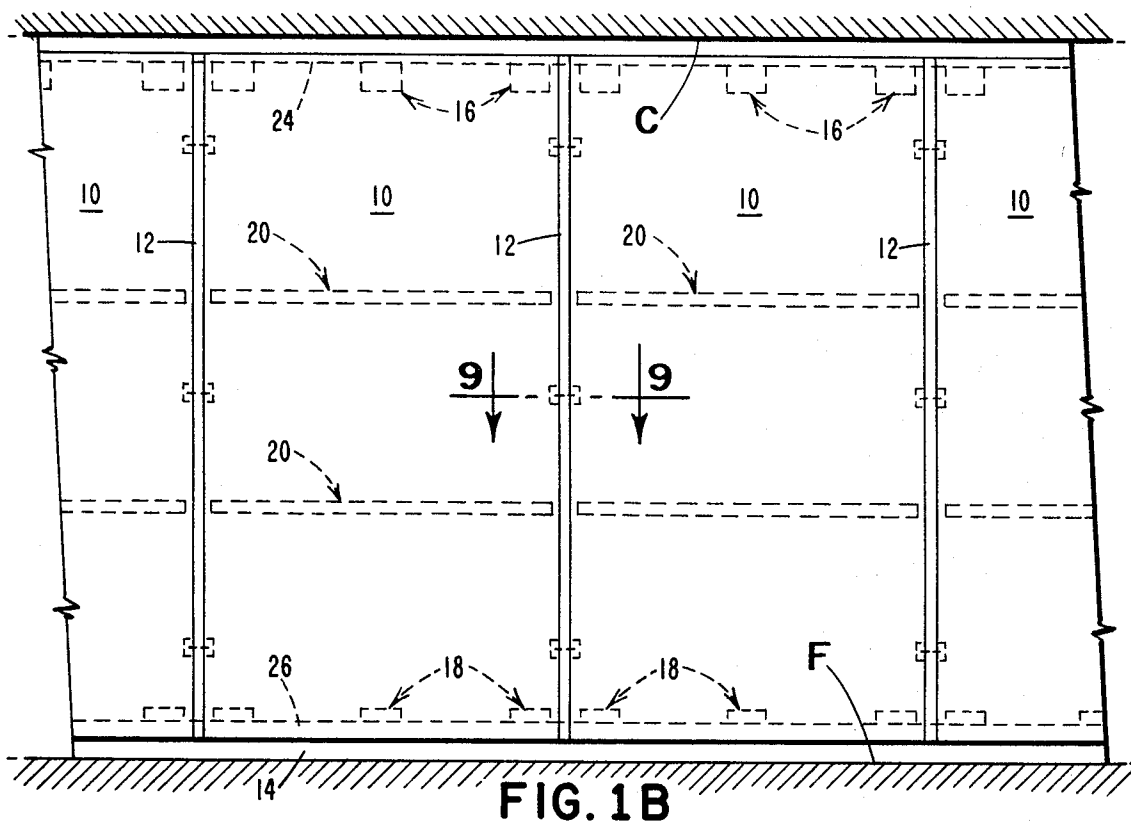
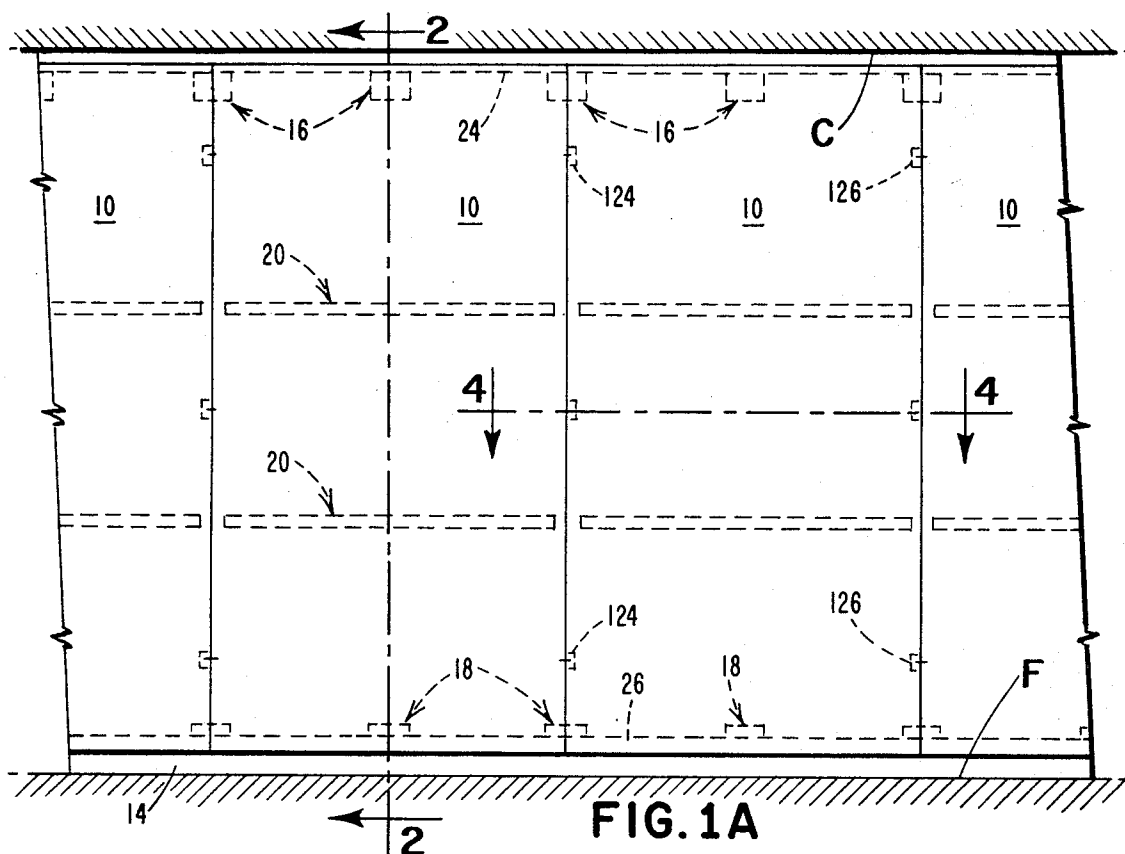
Primary Examiner—Price C. Faw, Jr.  
Attorney—Donald D. Jeffery

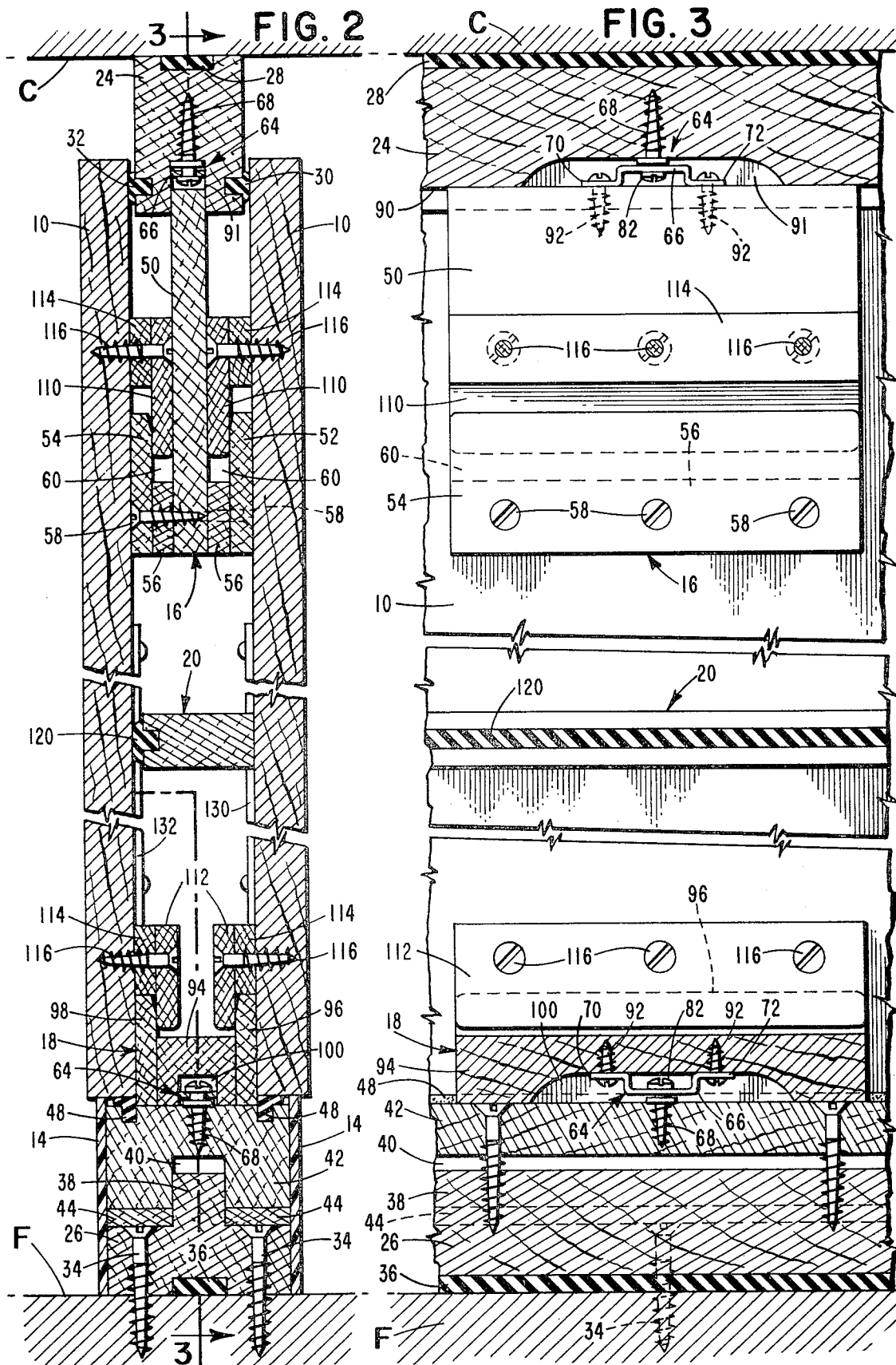
[57] ABSTRACT

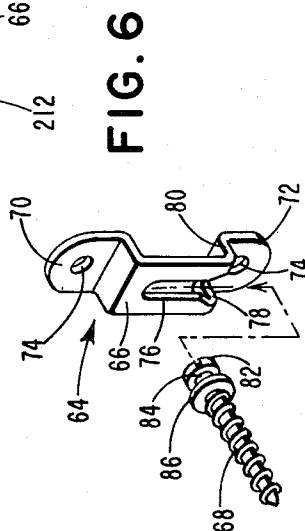
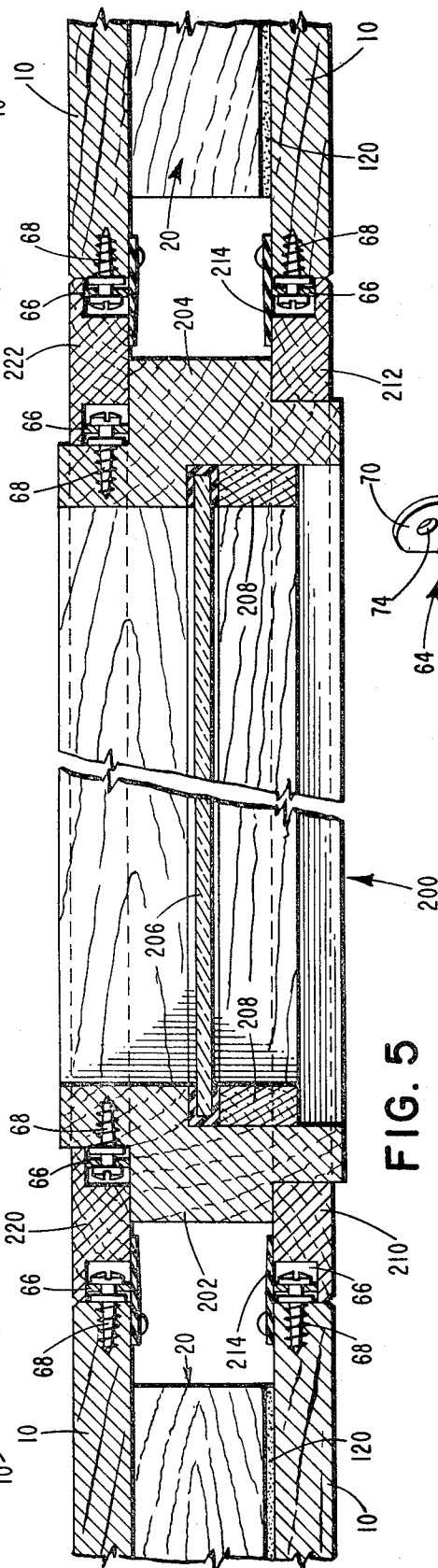
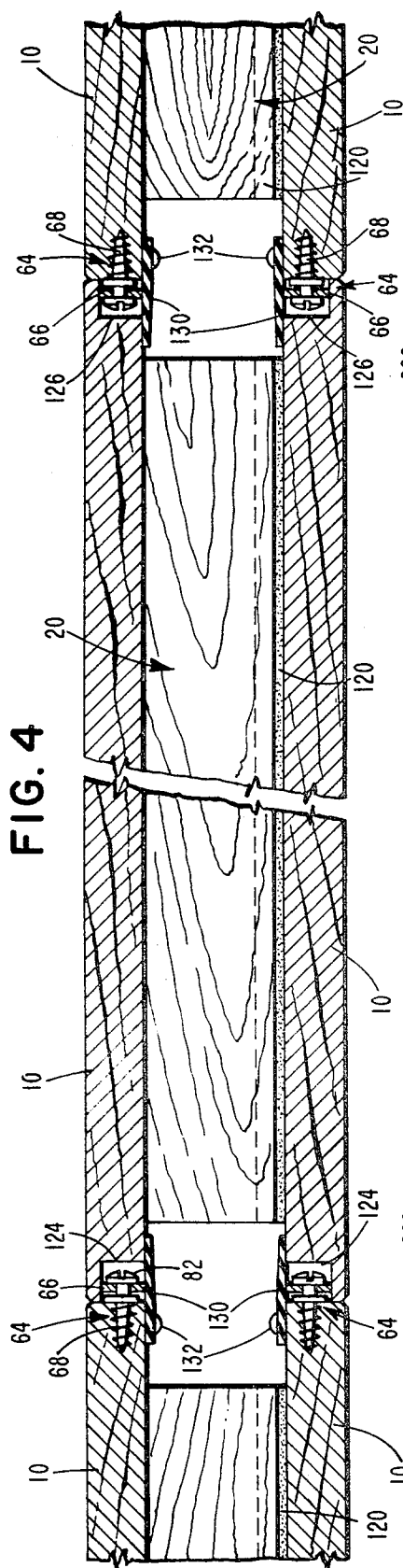
A demountable partition assembly comprising runners attached to the floor and ceiling, upper and lower stabilizer members mounted respectively on the upper and lower runners, and wall panels demountably supported on the stabilizer members. Adjacent panels are removably connected at their joints, to form the partition, with the sole support for the wall panels being the co-operating assembly of the runners and stabilizer members. The panels are sealed and isolated at their areas of contact with the ceiling runner and the sill leveller associated with the floor runner, and gasketing is provided at the panel joints to reduce sound transmission through the partition. The panels can be quickly mounted on or demounted from the stabilizers without requiring special tools, if partition relocation is desired.

19 Claims, 13 Drawing Figures









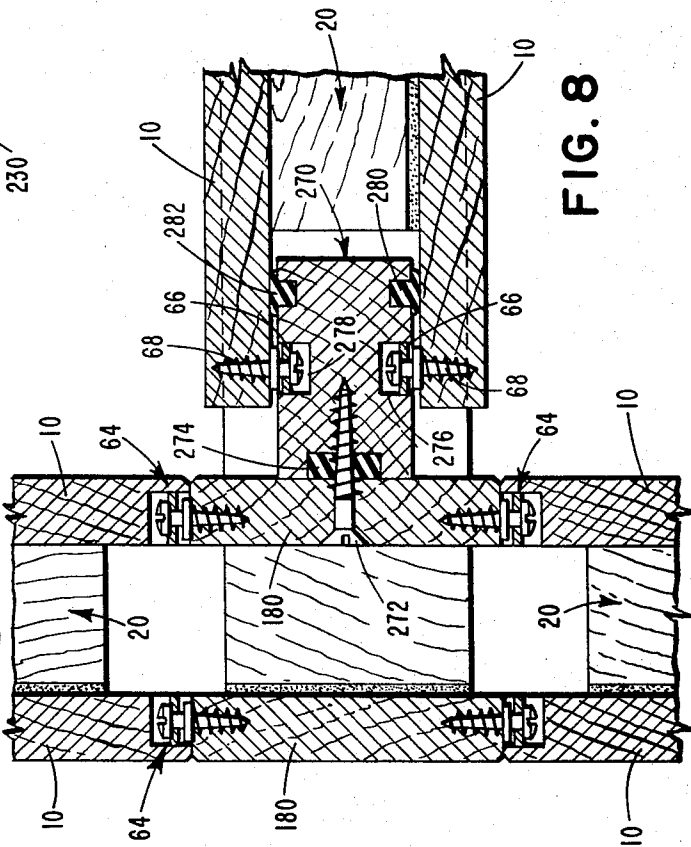
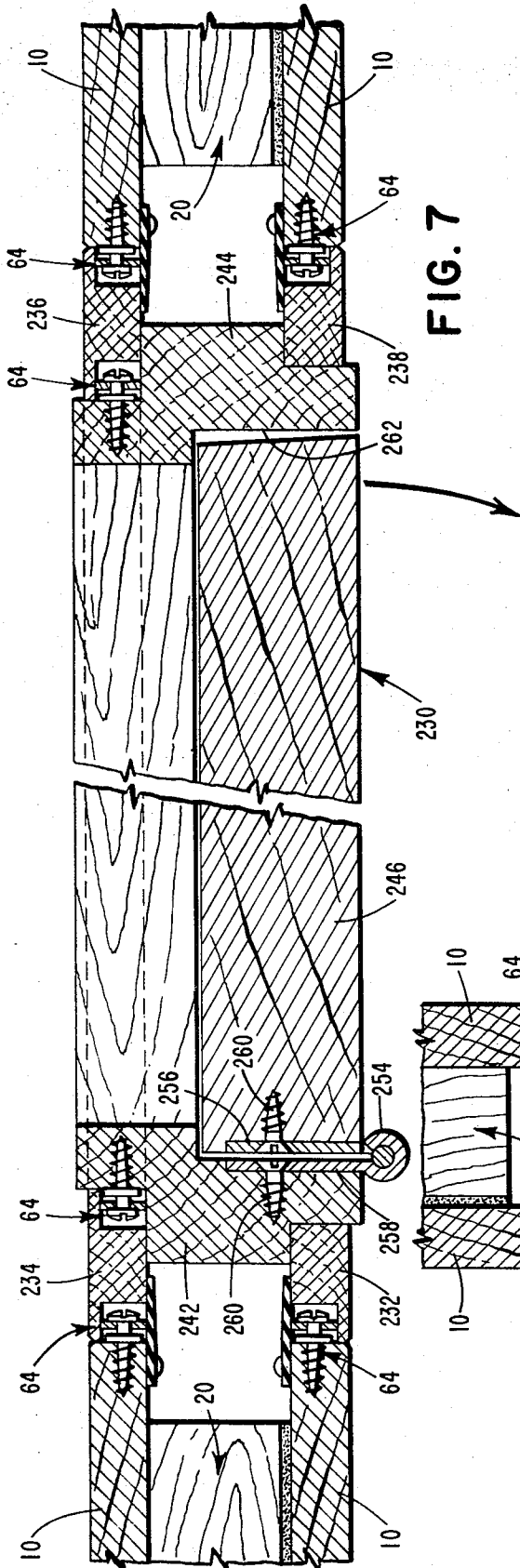


FIG. 9

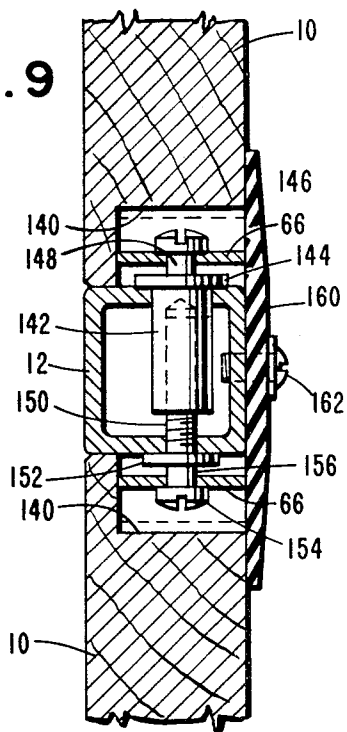


FIG. 10

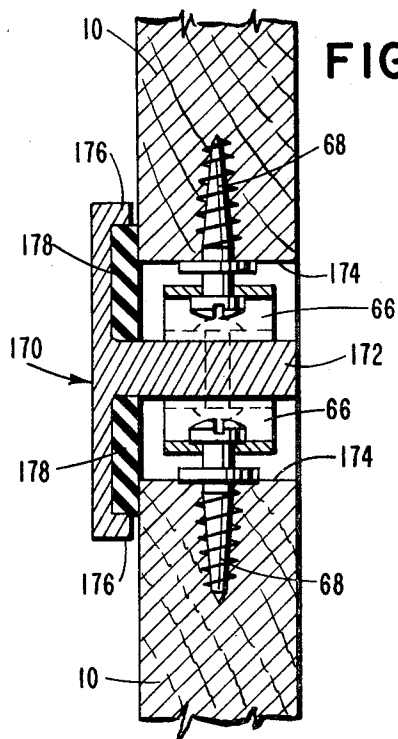


FIG. 11

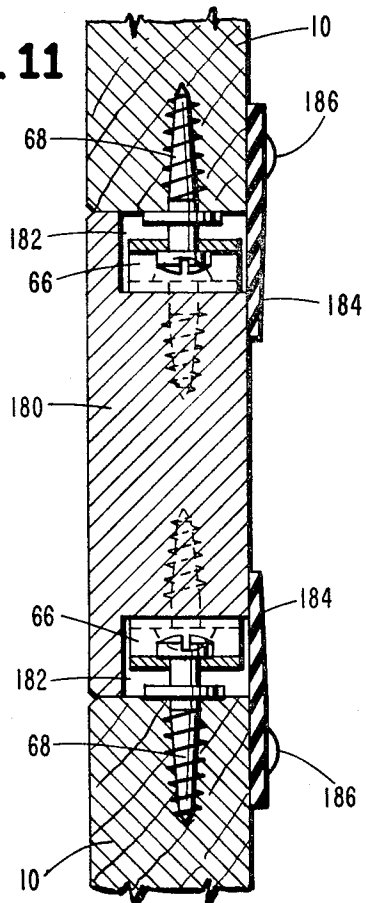
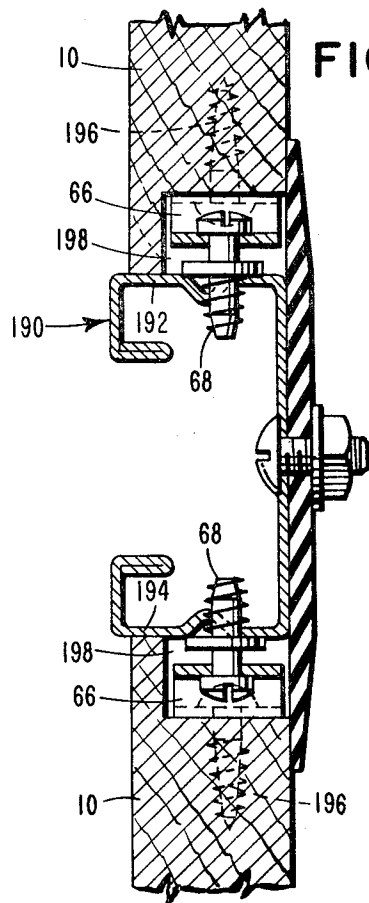


FIG. 12



## DEMOUNTABLE PARTITION ASSEMBLY

### BACKGROUND OF THE INVENTION

The present invention relates as indicated to a demountable partition assembly, and more particularly to such an assembly which can be readily assembled and disassembled to permit the desired partition arrangement or rearrangement of a room area.

In traditional interior wall construction, the interior walls are constructed integrally with the building to provide essentially permanent room areas. Such fixed interior wall constructions have several disadvantages. The initial installation expense attributable to both labor and materials is substantial. Secondly, it is as a practical matter impossible to relocate interior partitions or walls without complete disassembly of the partition, which is a labor consuming operation normally accompanied by substantial material loss. Wall constructions of the type referred to normally comprise wood or metal studs which extend floor to ceiling and are rigidly secured through connecting elements thereto, such studs serving to rigidly support facing panels, such as decorative panels, dry wall, or the like, which effectively form the interior wall surfaces.

Because of the noted disadvantages of fixed interior wall constructions, a great variety of interior wall systems have been proposed and adopted in an effort to achieve the desired advantage of simple and quick assembly and disassembly of the wall where rearrangement of the room area is desired. Although certain of these partition systems have been accepted commercially, they have not, generally speaking, been totally satisfactory from every respect. The assembly of the wall panels or the like normally entails attachment by means of fasteners or the like to the support structure, with the labor required in making such connection constituting a considerable installation expense. In addition, the supporting structures for the wall panels or the like have been relatively complex in construction and thus inherently incapable of simple and convenient installation and disassembly, not to mention the relatively high material costs required for such installation. Still further, the more simply constructed demountable partition assemblies presently available have not been characterized by their sound absorption properties and as a result sound transmission is relatively high, an obviously undesirable condition. The same general comments apply with respect to heat transmission. The interior wall partitions of the type concerned with here provide little resistance to heat transmission, except where loose insulating type material has been placed between the panels following their installation. Although such insulation does provide the necessary effect, it obviously severely impairs the flexibility of the system where partition relocation is desired.

Representative but by no means exhaustive of demountable wall structures of the type referred to above are disclosed in U.S. Pat. Nos. 3,537,217; 3,566,559 and 2,990,037. However, the partitions disclosed therein typify the inability of currently available partition systems to fully satisfy or provide the desired features in installation of this type.

### SUMMARY OF THE INVENTION

With the above in mind, a primary object of the present invention is to provide a demountable partition assembly which overcomes the above mentioned limita-

tions of prior structures of this general type by providing a partition construction which can be quickly and easily assembled and disassembled between the floor and ceiling of the room.

A more specific object of the present invention is to provide such a partition assembly wherein the wall panels or like members can be effectively mounted between support members secured to the floor and ceiling without requiring the use of tools. In accordance with the invention, each panel is aligned with the supporting structure for the partition and dropped in place, with no permanent connection or fastening being required for firm support of such wall panels. Similarly, adjacent panels can be quickly aligned and interconnected without the use of tools to provide a linear wall or partition of the desired length.

A further object of the present invention is to provide a partition assembly in which the wall panels are supported only adjacent the tops and bottoms thereof, thereby facilitating their installation. To provide stability in the intermediate regions of the wall panels, stabilizer members are provided which are preassembled on the wall panels and which automatically engage and correctly space opposed panels in their intermediate regions. In this regard, it will be understood that a pair of such wall panels are normally provided with the partition assembly to provide a decorative wall surface for adjoining rooms.

A still further object of the present invention is to provide a partition assembly in which the generally hollow partition interior is effectively sealed at the panel joints thereby to minimize heat transmission through the partition assembly. Noise transmission is likewise abated through the sealing of such joints and the provision of resilient gaskets at essentially all points of contact between the wall panels and the supporting structure, and at the points of intermediate stabilization.

A further object of the present invention is to provide a partition assembly which is constructed and arranged to accommodate doors or windows as desired along the partition. Such door and window units can likewise be assembled or disassembled without requiring special tools while at the same time stable support is provided therefor.

Another object of the invention is to provide a partition assembly in which a wall panel can be quickly removed from the assembly without interfering with adjacent wall panels, thereby to permit ready access to the interior of the partition, for wiring or the like.

### BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings, FIG. 1A is a fragmentary front elevational view of a partition assembly in accordance with the present invention wherein the interconnection of adjacent panels is concealed;

FIG. 1B is a view similar to FIG. 1A, showing a modified form for interconnecting adjacent panel sections;

FIG. 2 is a vertical cross sectional view taken on line 2—2, FIG. 1A;

FIG. 3 is a vertical sectional view taken on line 3—3, FIG. 2;

FIG. 4 is a horizontal sectional view taken on line 4—4 of FIG. 1A;

FIG. 5 is a cross sectional view similar to FIG. 4, illustrating the incorporation into the partition assembly of a window panel unit, looking upwardly;

FIG. 6 is an exploded, perspective view of the fastener assembly employed in accordance with the invention for interconnection of adjacent panels or partition components;

FIG. 7 is a horizontal cross sectional view similar to FIGS. 4 and 5, illustrating incorporation into the partition assembly of a door frame panel unit, looking downwardly;

FIG. 8 is a horizontal cross sectional view showing the interconnection of intersecting wall partitions;

FIG. 9 is a horizontal sectional view taken on line 9-9 of FIG. 1B;

FIG. 10 is a sectional view similar to FIG. 9 showing a modified form of panel connection;

FIG. 11 is a sectional view similar to FIG. 9 showing a still further modified form of panel interconnection, and

FIG. 12 is a sectional view similar to FIGS. 9-11 showing yet another modification for interconnecting the adjacent panels.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now in more detail to the drawings, wherein like parts have been indicated by like reference numerals, there is fragmentarily illustrated in FIGS. 1A and 1B a typical continuous partition assembly constructed in accordance with the present invention. Each individual wall panel is commonly designated at 10 and is interconnected at the floor and ceiling and with adjacent panel sections to form the completed partition, with the details of such mounting being illustrated in the other drawing figures and being described hereinbelow. In the form of the invention illustrated in FIG. 1A, the interconnection of adjacent panels is concealed thereby providing a substantially continuous flush wall surface. In FIG. 1B, the panels are spaced at their adjoining edges by means of a pilaster member commonly designated at 12 the details of which will be shown more clearly when particular reference is made to FIG. 9.

Although the specific dimensions of each wall panel 10 is not critical, they are preferably of a size similar to conventional decorative wall panels of commercially available type, being approximately 4 feet in width and between 7 and 9 feet in height.

In the form shown, the wall panels 10 terminate at their lower ends above the floor F, with a base molding 14 being provided both for decorative purposes and to enclose the partition support components at the bottom of the partition assembly.

The panels 10 are mounted at their upper ends on upper stabilizers shown in dashed lines in FIGS. 1A and 1B and commonly and generally indicated at 16. The panels 10 at their bottom ends are mounted on lower stabilizers commonly and generally shown at 18, with intermediate stabilizers generally indicated at 20 being interposed between the transversely spaced panels for stabilizing the same in the intermediate regions thereof as will be described in more detail hereinbelow.

Referring now to FIGS. 2 and 3 which comprise vertical sectional views through the partition assembly, attached to the ceiling C and floor F are ceiling and floor runners 24 and 26, respectively. The ceiling runner 24 can be bolted or otherwise secured to the ceiling, with a gasket 28 being housed within an opening in the top surface of the ceiling runner and compressed to seal the

interface. The ceiling runner is preferably continuous and is additionally provided with gaskets 30 and 32 which extend longitudinally of the ceiling runner for compressing engagement by the wall panels 10 when the same are installed in place, as shown in FIG. 2. The gaskets 30 and 32 serve not only to seal the interface between the panels and the ceiling runner 24 but greatly reduce the sound transmission through the partition assembly. As well known to those skilled in the art, sound transmission through partition assemblies of this general type is a significant problem, with environmental noise not infrequently causing vibrations in the partition components. The provision of gaskets 30 and 32 at the indicated location, as well as additional gaskets at other locations as will be presently described, serves to greatly diminish the noise transmitted through the partition assembly.

The floor runner 26 is likewise preferably continuous and is mounted on the floor F by means of mounting screws 34. A gasket 36 is carried in an opening formed in the bottom surface of the floor runner to seal the interface. The floor runner 26 is formed with a central, upwardly extending tongue portion 38 which is received in a longitudinal opening 40 formed in a sill leveller 42, which may be continuous or in sections and which functions to level and vertically locate the support for the lower stabilizer 18. Through the provision of the tongue 38 and opening 40, the sill leveller can be vertically adjusted relative to the floor runner 26, with shims 44 being provided where necessary to effect the desired leveling. Gaskets 46 and 48 are provided extending from the upper surfaces of the sill leveller 42 for compressing engagement by the wall panels 10, as shown.

Referring now to the construction of the upper stabilizer unit 16, several of which are suspended from the ceiling runner 24 along the wall partition, as shown in FIGS. 1A and 1B, the stabilizer comprises a center leg 50 and outer legs 52 and 54, which are spaced from the central leg 50 by spacers 56. In the form shown, the outer legs 52 and 54 are secured to the center leg 50 through countersunk mounting screws 58. The thickness of the spacer members 56 is such as to provide the desired stabilizer width and to provide the openings or slots 60 above such spacers to receive the panel cleat, as will be hereinafter described.

The upper stabilizer is removably suspended from the ceiling runner 24 by means of a snap fastener assembly generally indicated at 64. The fastener assembly 64 comprises, as shown in the exploded, perspective view of FIG. 6, a female part 66, in the form of a fastener clip, and a male part 68, in the form of a shoulder screw. The central portion of the clip 66 is generally shallow U-shaped in cross section, with laterally directed flanges 70 and 72 extending outwardly therefrom. The flange sections are formed with openings 74 through which mounting screws or the like extend for securing the clip 66 to the partition assembly component.

The central portion of the clip 66 is formed with an elongated slot 76, one end 78 of which is enlarged and forms part of an entrance slot which is also cut from the wall section 80 from which extends the flange 72.

The shoulder screw 68 of the fastener assembly 64 includes a slotted head portion 82, a neck 84, and an enlarged flange 86 spaced by the neck 84 from the slotted head 82. The head 82 and flange 86 are dimen-

sioned so as to permit the head to extend into the enlarged opening 78, with the diameter of the flange 86 being greater than the diameter of the opening 78 thereby to permit alignment of the neck 84 with the walls forming the elongated slot 76. Subsequent relative movement between the shoulder screw 68 and the clip 66, for example, in the direction indicated by the dash arrows in FIG. 6, serves to retain or anchor the head of the screw 68 behind the slot 76 in the clip 66. The length of the slot 76 provides a tolerance for the interconnection, with the parts being quickly disconnected if desired simply by re-establishing alignment of the head 82 with the enlarged opening 78.

Reverting back to FIGS. 2 and 3, the ceiling runner 24 is formed with an elongated slot 90 adapted to receive at spaced intervals the central leg 50 of the upper stabilizer 16, with a countersunk recess 91 being provided to receive the fastener assembly 64. The shoulder screw 68 is mounted on the ceiling runner 24 at the base of the recess 91, and tightened so that when mounted the leg 50 of the stabilizer is contiguous to the runner surface forming the bottom of the slot 90 thereby to transversely stabilize the mounting.

The fastener clip 66 is mounted on the top surface of the central leg 50 by means of mounting screws 92 which extend through the openings 74 and the flanges 70 and 72. It will thus be seen that when the upper stabilizer member 50 is moved toward the ceiling runner 24 with the enlarged slot portion 78 of the clip 66 aligned with the slotted head 82 of the shoulder screw 68, the upper stabilizer can be suspended from the ceiling runner by subsequent movement of the stabilizer to position the slotted head 82 behind the slot 76. In this manner, the upper stabilizer 16 can be quickly installed on or removed from the upper ceiling member 24 without permanent connection between these members.

Referring to the lower stabilizer 18, the same comprises a center section of reduced height and outer leg portions 96 and 98. The center section 94 is of a width and height so as to properly space the legs 96 and 98 and to provide a continuous opening immediately above the center section to receive the panel cleats for demountable support of the wall panels 10. For reasons which will be apparent, the outer width of the lower stabilizer 18 is approximately the same as the outer width of the upper stabilizer 16 so as to support the wall panels 10 in a vertical plane.

The lower stabilizer 18 is formed with an opening 100 for receiving the fastener assembly 64, as perhaps best shown in FIG. 3. The fastener assembly and the mounting of the lower stabilizer 18 on the sill leveller 42 is essentially identical to the mounting of the upper stabilizer 16, and detailed description of such mounting is not believed to be necessary. Briefly, the fastener clip 66 is mounted to the center section 94 in the slot 100, with the shoulder screw 68 being securely mounted on the top of the sill leveller immediately below the slot 100. To mount the lower stabilizer, the enlarged opening 78 in the latch clip 66 is aligned with the slotted head 82 of the screw 68, and the stabilizer thereafter moved relative to the screw 68 thereby to position the slotted head 82 behind the narrow slot 76. The lower stabilizer 18 can thus be quickly mounted on the sill leveller 42 in general alignment with the upper stabilizer 16, and can be quickly disconnected from the sill leveller if the wall assembly is desired to be demounted.

Still referring to FIGS. 2 and 3, each wall panel 10 is formed with an upper cleat 110 and a lower cleat 112. A cleat spacing member commonly designated at 114 is provided to space the cleat members from the adjacent wall surface. Mounting screws commonly designated at 116 are provided for securely attaching the cleat members to the inner surface of the wall panels 10. The cleat members 110 and 112 may extend continuously along the inner surface of the wall panel or may be mounted discontinuously therealong for alignment with the upper and lower stabilizer assemblies 16 and 18, respectively.

The thickness of the cleat members 110 and 112 and the spacing of the same from the adjacent wall surface is such as to permit mounting the cleat members on the stabilizer sections. Referring to the upper cleat members 110 and the upper stabilizer 16, the cleats 110 are received within the openings 60, while the bottom cleat members 112 extend within the legs 96 and 98 above the center section 94 of the lower stabilizer 18. The wall panels 10 are vertically positioned as shown in FIG. 2 through engagement of the bottom surface of the spacers 114 with the top surfaces of the outer legs 96 and 98 of the lower stabilizer 18. It will be noted that the length of the slots 60 provides a substantial tolerance in regard to movement of the upper cleats 110 relative to the upper stabilizer 16 so as to provide support of the wall panels 10 preferably in all instances on the lower stabilizer 18, thereby more effectively transferring the load to the floor F and to make allowances for variation in the plane of the ceiling from the plane of the top of the sill leveller.

It will thus be seen that the panels 10 can be mounted on the upper and lower stabilizers simply by positioning the panels so that the bottom surfaces of the cleat members 110 and 112 are vertically adjacent the top surfaces of the outer legs 52, 54, 96 and 98 of the stabilizers. Further inward movement of the wall panels and the cleat members 110 and 112 permits the latter to clear the outer legs of the stabilizers whereupon the wall panels 10 can be lowered to position the cleats 110 and 112 behind the outer leg sections of the stabilizers as shown in FIG. 2. As above noted, the lowering of the wall panels is terminated when the cleat spacers 114 engage the top surfaces of the outer legs 96 and 98 of the lower stabilizer 18. In such lowered position, the bottom face of the wall panels 10 engage and compress the gaskets 46 and 48 thereby to seal the interface and to prevent direct contact between the wall panels and the sill leveller 42, thereby effectively reducing sound transmission through the partition. Similarly, the wall panels 10 adjacent their upper ends compress the gaskets 30 and 32 carried by the ceiling runner 24, to provide the same reduction of sound transmission.

In order to stabilize the partition assembly in the vertically intermediate regions thereof, intermediate stabilizers 20, briefly referred to above in connection with FIGS. 1A and 1B, are provided. One of such stabilizers is shown in FIG. 2, rigidly attached to the wall panel 10 at the right in this figure. The stabilizer 20 can be secured to the panel by any suitable means such as mechanical fasteners, adhesive bonding, or the like. Although not shown in the fragmentary view of FIGS. 2-3, it will be understood that a similar intermediate stabilizer is preferably mounted on the wall panel 10 shown at the left in FIG. 2 at a position vertically staggered from the one mounted on the opposed panel.

The width of the intermediate stabilizers is slightly less than the distance between the interfaces of the panels when the same are mounted on the stabilizer members. A resilient gasket 120 is mounted in the front face of the intermediate stabilizer, and is compressed by the opposed wall panel when the panels are mounted in the manner described. The intermediate stabilizer mounted on the wall panel 10 shown at the left in FIG. 2, and not visible in such figure, is similarly provided with a gasket which is compressed during panel mounting. The intermediate stabilizers 20 serve effectively to uniformly space the vertical panels throughout their intermediate regions and to reduce the sound transmission, and more particularly the vibration, in such regions of the panel. It will thus be noted that the wall panels when mounted in position effect compression of gaskets at the top, bottom and intermediate regions of the wall panels. As shown in FIGS. 1A and 1B, the intermediate stabilizers 20 extend substantially the entire width of the wall panels 10.

FIG. 4 is a sectional view showing one form of interconnecting adjacent panels so as to provide a concealed joint. In order to provide the concealed joint, one of the wall panels, which will be referred to for purposes of clarity by reference numeral 10', is formed with a series of recesses 124 and 126 longitudinally spaced along the opposed side edges of the panel 10'. A clip fastener member identical in construction to the clip fastener member 66 in FIG. 6 is mounted in such opening and adapted to cooperate with a male shoulder screw 68 identical to the part 68 shown in FIG. 6, which shoulder screw is mounted on the adjoining side edge of the adjacent panel 10.

At least two of such areas of connection are provided for adjacent panels, with there being three such connections shown in FIGS. 1A and 1B. It will thus be seen that an adjacent panel, for example 10', can be quickly and easily mounted on the adjoining panel 10, for example, the panel to its left as shown in FIG. 4, in the manner above described by first aligning the slotted end 82 of the screw 68 with the enlarged opening 78 of the clip 66, and subsequently lowering the panel 10' until the head 82 is engaged behind slot 76. Such lowering at the same time effects positioning of the cleat members 110 and 112 behind the legs of the upper and lower stabilizer members 16 and 18 as above described to provide the panel support.

Once the panels 10' have been interconnected with the adjacent panels 10 (on the left, FIG. 4), adjacent wall panels 10 can be interconnected to the free end of the wall panels 10' through the same fastener connections. It will be understood that the partition could also be assembled from right to left, as shown in FIG. 4, and that once the assembly is in place, either or both of the panels 10' can be removed simply by lifting the same to disengage the fastener connections and clear the stabilizer legs. Quick access can therefore be obtained to the partition interior.

Each joint between adjacent wall panels is preferably covered with gasketing or the like to reduce the sound transmission through the partition assembly. Thus, gasket members commonly designated at 130 are mounted on the wall panels by mounting screws 132 or the like and preferably extend the full length of the joint between adjacent panels and cover the recesses 124 and 126. In the form shown in FIG. 4, the gaskets 130 are mounted on the wall panels 10 and overlap the recesses

124 and 126 for flush engagement with the adjacent surfaces of the wall panels 10'.

Referring now to FIGS. 9-12, there are illustrated therein various alternative means to interconnect adjacent wall panels. In FIG. 9, for example, which comprises a sectional view taken on line 9-9 of FIG. 1B, a pilaster 12 is provided which spaces the adjoining ends of the wall panels 10. Each wall panel 10 is provided with a series of vertically spaced recesses or openings commonly designated at 140 at their adjoining edges, in which a fastener clip 66 of the type shown in FIG. 6 is mounted, with the fastener clip 66 being shown only in cross section in this figure. An internally threaded sleeve 142 is mounted within the pilaster, with a diametrically enlarged flange 144 and slotted head 146 being positioned at one side of the pilaster spaced by a reduced neck 148 which travels in the slot 76 of the clip member as previously described to effect the alignment and retention of the respective members.

A shoulder bolt 150 is threaded into the sleeve 142, having a flange 152, reduced neck 156, slotted head 154 exteriorly of the pilaster for retention by the bolt by a reduced diameter neck of the fastener clip mounted on the adjacent wall panel.

In the installation sequence, the pilaster, with the sleeve 142 and shoulder screws 68 secured thereto is mounted on an already positioned wall panel, such as the panel 10 shown at the top of FIG. 9. The wall panel 10 shown at the bottom of FIG. 9 is thereafter aligned with the exposed side of the connection, and when lowered in place for support on the upper and lower stabilizers, the interconnection with the pilaster is made as above described. In the removal sequence, each panel can be removed without removal of the adjacent panel, simply by lifting the same to effect the fastener disconnection and clear the stabilizers.

To reduce sound transmission in the FIG. 9 form of the invention, a gasket member 160 is secured to the pilaster by means of a bolt 162 or the like, with the gasket normally extending the full length of the joint and over the recesses or openings 140 thereby to close such openings and reduce the sound transmission through the joint connections.

In FIG. 10, the connection between adjacent wall panels 10 includes a generally T-shaped batten member generally indicated at 170 which includes a stem portion 172 which extends between the wall panels 10 preferably the entire vertical dimension thereof. In the openings 174 formed between the spaced panels 10 and the stem portion 172, fastener clips 66 are mounted on the stem 172 and shoulder screws 68 are mounted on the ends of the adjoining wall panels to effect the removable connection.

The batten 170 includes inwardly turned flange end portions 176 which define with the stem portion 172 openings for receiving sealing gaskets commonly designated at 178, which preferably extend the full length of the joint.

The interconnection of the panels in the FIG. 10 form of the invention is made by positioning the batten between adjacent, spaced wall panels. The batten can then be lowered to engage the heads of the shoulder screws behind the slots 76 of the fastener clips to effect the connection. In the removal sequence, the batten 170 can be removed simply by raising the same to disconnect the fastener assemblies. The panels 10 are removable following the removal of the adjacent battens.

Referring to FIG. 11, the panel joint shown therein is somewhat similar to that form shown in FIG. 9 except that the pilaster 180 in FIG. 11 is relatively elongated and of solid material. Female fastener clips 66 are mounted in openings 182 spaced vertically along the side edges of the pilaster 180, and male shoulder screws 68 of the type shown in FIG. 6 are mounted at spaced intervals along the adjoining side edges of the wall panels 10, in the same manner as shown in FIG. 10. The installation and removal sequence is as previously described in reference to FIG. 10, and gasket members 184 which preferably extend the full length of the joints are mounted by screws 186 or the like to the inside faces of the wall panels 10 for closing the joint connection.

Referring to the connection illustrated in FIG. 12, a clamping channel generally indicated at 190 separates the adjacent ends of the wall panels 10. The end walls 192 and 194 of the clamping channel receive shoulder screws 68 which are adapted to interengage fastener clips 66 mounted by screws 196 in openings 198 formed in the side edges of the wall panels 10 at vertically spaced intervals. The interconnection of the wall panels 10 is effected as previously described in reference to the FIG. 9 form of the invention. Thus, each panel can be removed directly without interference from either panels, and the clamping channel is removed by removing adjacent panels.

It should be noted that modifications of the above joint connection can be made without departing from the invention concept. For example, the pilaster 12 in FIG. 9 could be solid with shoulder screws extending from the sides thereof. In addition, the pilasters or battens, and particularly the clamping channel 190 can accommodate support structure for supporting shelves or the like from the partition assembly. Alternatively shelves or the like can be supported directly by the wall panels 10.

Referring now to FIG. 5, there is illustrated therein a partition assembly in which a window panel unit, generally indicated at 200, has been incorporated. The window panel 200 is of course preassembled and is adapted to be mounted within the partition assembly through fastener assemblies of the type previously described. Wall panels 10 of the type previously described are shown at the opposite sides of the window unit 200.

The unit 200 comprises window jambs 202 and 204 which are rabbeted to receive the glass panel 206, which is retained in place by stops commonly designated at 208, all in a conventional manner. Jamb cap members 210 and 212 are preassembled with jambs 202 and 204, and are preferably interconnected to each other across normally the top and bottom of the window by contiguous panel material to provide the panel unit. The jamb caps 210 and 212 carry fastener clips 66 in openings 214 formed at vertically spaced intervals in the cap members. Shoulder screws 68 are mounted at spaced intervals along the adjoining side edges of the wall panels 10 for interconnection with the fastener clips 66, as previously described.

A separate set of jamb caps 220 and 222 are interconnected to the opposite end of the jambs 202 and 204 through fastener clip assemblies of the type previously described. The jamb caps 220 and 222 also are preferably interconnected across the top and bottom of the window by panel material to form a complete panel

unit. The caps 220 and 222 at their outer ends are recessed to receive fastener clips 66 which engage shoulder screws 68 mounted on the adjoining end faces of the wall panels 10. The panel portion across the top of the window is provided with panel cleats to engage the upper stabilizer and the jamb caps are provided with panel cleats to engage the lower stabilizer.

The manner in which the window panel unit 200 is installed in the partition assembly should be apparent from the above description. The window panel unit 200 is aligned in the opening between the panels and lowered to interconnect the fastener assemblies at the front of the unit and to engage the stabilizers for support of the unit. The separate section including the jamb caps 220 and 222 is thereafter hung at the rear of the unit, through the respective fastener assemblies. In the removal sequence, the section with the jamb caps 220 and 222 is removed, thereby permitting removal of the window panel unit. In the removal sequence, the window panel unit can simply be lifted upwardly and withdrawn from the partition. It will thus be seen that the window panel unit can be installed in much the same manner and with approximately the same speed as regular wall panels.

Referring now to FIG. 7, there is illustrated therein a partition assembly in which a door frame panel unit, generally indicated at 230, is incorporated into the partition assembly. Wall panels 10 are shown at either side of the door frame unit.

The door frame unit 230 in the partition assembly is generally similar to the window panel unit above described with reference to FIG. 5, comprising jamb caps 232 and 238 which are preferably integrally attached to the jambs 242 and 244 and interconnected across the top of the door 246 by panel material to form the complete door panel unit.

Separate jamb caps 234 and 236 complete the assembly, with the jamb caps preferably being interconnected across the top of the door by panel material to complete the framing for the opposite side of the door. Fastener assemblies interconnect the jamb caps 234 and 236 with the jambs 242 and 244 and spaced wall panels 10, and fastener assemblies are provided for interconnecting the jamb caps 232 and 238 to the adjoining wall panels 10.

The door 246 is mounted on the jamb 242 by means of hinge 254, the legs 256 and 258 of which are mounted respectively on the door 252 and the jamb 242 by mounting screws 260. The jamb 244 is rabbeted as shown at 262 to receive the door 252 when closed.

The door frame unit 230 is mounted in the partition assembly in generally the same manner as the window panel unit. The unit is first mounted at its front end through the fastener assemblies 64 interconnecting the panels 10 and the jamb caps 232 and 238. The panel portion across the top of the door is preferably provided with panel cleats as are the jamb caps 232 and 238 to engage the upper and lower stabilizers. The separate section including the jamb caps 234 and 236 is thereafter hung in position by the fastener assemblies 64 between the wall panels and jambs to complete the assembly at the opposite side of the partition. The removal sequence is just the reverse. It will thus be seen that the door frame unit can be quickly and easily mounted in and demounted from the partition assembly.

Referring now to FIG. 8, there is shown therein in plan view a modification wherein a partition assembly can be mounted at right angles to a previously erected partition assembly for further definition of the room area. The partition assembly shown at the left in FIG. 8 is of the construction previously described, with the wall panels 10 being interconnected by pilaster sections 180. If desired, and in order to reinforce the joint, the connecting sections 180 may comprise relatively short panel sections provided with cleats of the type shown at 110 in FIG. 2 for cooperative engagement with upper and lower stabilizing members as shown in the same figure. Fastener assemblies 64 are employed as previously described to interconnect the wall panels 10 with the pilaster section 180.

A partition jamb generally indicated at 270 is mounted to the adjoining pilaster section 180 by mounting screws 272, with a resilient gasket 274 being provided to seal the connection.

The partition jamb 270 is formed with openings 276 and 278 in which are mounted fastener clips 66 as previously described. The wall panels 10 to be attached to the partition jamb 270 have mounted thereon shoulder screws 68 for interengagement with the clip fasteners 66 for demountably attaching the wall panels 10 to the jamb 270. Resilient gaskets 280 and 282 are mounted in openings therefor in the partition jamb and are compressed when the wall panels 10 are mounted to seal the connection thereby to reduce sound transmission through the partition. Although the partition assembly extending to the right in FIG. 8 is shown fragmentarily, it will be understood that the partition assembly is constructed and arranged to be mounted on upper and lower stabilizer units, as previously described and as illustrated in FIG. 2.

In lieu of the solid connection in the form of the partition jamb 270 shown in FIG. 8, an essentially hollow joint interconnection or corner construction can be provided for maintaining the entire partition assembly hollow for access purposes. In such construction, generally L-shaped members are provided at the corners or at the intersection for wall panel continuation thereby to maintain the space between the panels even at the corners and interconnections.

It will thus be seen that the partition assembly in accordance with the present invention is unique and possesses distant advantages over presently available removable partitions of this general type. The various partition sections described, including the window panel and door frame units, can be quickly mounted or demounted without the use of special tools. The joint connections can be made through simple alignment of fastener assembly parts mounted respectively on the sections to be joined, with subsequent relative movement effecting the joint connection. The wall panels are stabilized in their upper, intermediate and lower regions, and means in the form of resilient gaskets are provided at the joints and other contact areas to minimize the sound transmission through the assembly. Except for the stabilizer members, the partitions are otherwise hollow thereby permitting partition construction which is relatively inexpensive in terms of material costs compared to methods now available. This is in addition to the significant labor-saving techniques afforded in the mounting and demounting of the partition assembly in accordance with the present invention. Individual wall panels can be removed without interfering

with adjacent or opposed panels thereby permitting access to the interior of the partition.

I claim:

1. A demountable partition assembly comprising,
  - a. runners rigidly attached respectively to upper and lower supporting surfaces between which the partition assembly extends,
  - b. upper stabilizer means suspended from said upper runner, said upper stabilizer means being constructed and arranged to receive, align and support the upper portion of wall panels hung on the opposed sides of said upper stabilizer means,
  - c. lower stabilizer means supported on said lower runner, said lower stabilizer means being constructed and arranged to receive, align and support the lower portions of such wall panels supported on opposed sides of said lower stabilizer means, and
  - d. a pair of wall panels at either side of said partition assembly and forming the exposed wall surfaces thereof, each of said wall panels carrying on its upper, inner surfaces mounting means for cooperative, demountable engagement with said upper stabilizer means for aligning and supporting said panels relatively adjacent their upper ends, each of said wall panels further carrying mounting means relatively adjacent their bottom, inner surfaces for cooperative, demountable engagement with said lower stabilizer means for aligning and supporting said wall panels adjacent their lower ends, said upper and lower stabilizer means in cooperation with said upper and lower runners serving as the sole means for supporting said panels, with such supporting arrangement permitting mounting and demounting of said wall panels without the use of special tools for partition relocation as desired.
2. The demountable partition assembly of claim 1 wherein said upper stabilizer means is suspended from said upper runner by means of a disconnectable fastener assembly which permits installation and demounting of said upper stabilizer means from the runner without the use of special tools.
3. The assembly of claim 2 wherein said fastener assembly comprises a fastener clip mounted on the adjoining end of said upper stabilizer means, and a shoulder screw mounted on said upper runner, the fastener clip being constructed and arranged to receive and retain said shoulder screw thereby effecting the disconnectable mounting.
4. The assembly of claim 1 wherein said mounting means carried by each of said wall panels comprises upper and lower cleat members positioned in spaced relation from the inner faces of said wall panels, said upper and lower stabilizer means being formed with outer, upwardly extending legs which define therein openings for receiving said cleat members, whereby the mounting of said wall panels can be effected through general alignment of said upper and lower cleat members with said outer legs of said upper and lower stabilizer means followed by lowering of said wall panels to position said cleat members behind said legs of said stabilizer means thereby to support said wall panels in such a manner as to permit quick and easy demounting of the same where partition relocation is desired.
5. The assembly of claim 1 further including a sill leveller positioned between said lower runner and said

lower stabilizer means, said lower stabilizer means being disconnectably mounted to said sill leveller through a fastener assembly connection, said sill leveller and said lower runner being constructed and arranged to permit relative vertical adjustment of said sill leveller to properly vertically position said lower stabilizer means.

6. The assembly of claim 5 wherein sealing means in the form of compressed gaskets are positioned between and space said upper runner and said sill leveller from the upper and lower ends of said wall panels thereby sealing the partition assembly at the upper and lower ends thereof.

7. The assembly of claim 1 further including at least one intermediate stabilizer member secured to one of said wall panels in the vertically intermediate region thereof, said intermediate stabilizer member being spaced from the inner surface of the opposed wall panel when said wall panels are mounted on said upper and lower stabilizing means, said intermediate stabilizer member having mounted in the front face thereof a resilient gasket compressed by such opposed wall panel thereby to reduce the sound transmission through the partition assembly in the intermediate regions thereof.

8. The assembly of claim 1 wherein a series of said wall panels are mounted linearly on said upper and lower stabilizer means to form a partition of the desired length, and means for demountably connecting each adjacent wall panel one to the other.

9. The assembly of claim 8 wherein said means for demountably connecting adjacent wall panels comprises a plurality of vertically spaced fastener assemblies each of which includes a fastener clip mounted in a concealed opening formed in the confronting edge of one of said panels, and a shoulder screw mounted on and extending from the confronting edge of the other of said panels, with said shoulder screw being received in and retained by said fastener clip for removable attachment of such panels while at the same time providing a flush joint where the confronting edges of the panels abut.

10. The assembly of claim 8 wherein said means for demountably connecting adjacent wall panels comprises a hollow pilaster member extending vertically between and spacing the adjacent ends of said wall panels, and fastener assemblies for removably connecting each adjacent edge of said wall panels to said pilaster member, said fastener assemblies comprising a clip fastener mounted in openings provided therefor in the confronting edge of said wall panels, and mating shoulder screws carried by and extending from the sides of said pilaster member for removable retention by said fastener clips for securing such connection.

11. The assembly of claim 8 wherein said means for demountably connecting said wall panels comprises a generally T-shaped batten member the stem of which extends vertically between the adjacently disposed, spaced wall panels, said stem portion having mounted thereon fastener clips adapted to receive and retain shoulder screws mounted on the confronting edges of said wall panels to cooperatively connect the same.

12. The assembly of claim 8 wherein said means for demountably connecting adjacent wall panels comprises a solid, generally wide pilaster member extending vertically between spaced wall panels, said pilaster member being removably connected to said adjacently

disposed wall panels through fastener assemblies comprising fastener clips mounted in openings therefor in the respective side edges of said pilaster member, and mating shoulder screws mounted on the confronting edges of said wall panels, with said shoulder screws being received and retained by said fastener clips for demountable connection of said wall panels to said pilaster member.

13. The assembly of claim 8 wherein said means for demountably connecting adjacent wall panels comprises a clamping channel extending vertically between and spacing the wall panels, said clamping channel being removably connected to said wall panels by means of fastener assemblies comprising fastener clips mounted in openings formed therefor in the confronting edges of said wall panels, and shoulder screws carried by the opposed sides of said clamping channel for cooperative engagement and retention by said fastener clips.

14. The assembly of claim 8 further including sealing gasket means provided at the joint of interconnected wall panels thereby to seal each such joint.

15. The assembly of claim 8 further including a door frame unit mounted in said partition assembly, and means for demountably connecting said door frame unit to wall panels disposed at either side thereof.

16. The assembly of claim 15 wherein said door frame unit includes a pair of opposed door jambs, with said door being prehung on one of said jambs, and jamb caps integrally formed with said door frame unit at the front thereof, said means for demountably connecting said door frame unit to said adjacent wall panels comprising fastener assemblies for demountably connecting said integral jamb caps with adjacent wall panels, separate jamb caps at the rear of said jambs and positioned between such jambs and wall panels, and fastener assemblies demountably connecting the opposed sides of said separate jamb caps respectively to said adjacent wall panels and said door jambs whereby said door frame unit can be quickly mounted or demounted from adjacent wall panels in the partition assembly.

17. The assembly of claim 8 further including a window panel unit mounted in said partition assembly, and means for demountably connecting said window panel unit to adjacently disposed wall panels suitably spaced to accommodate said window panel unit.

18. The assembly of claim 17 wherein said window panel unit comprises opposed jamb members to which is mounted a window panel, jamb caps integrally formed with said jambs at the front thereof, and wherein said means for demountably connecting said window panel unit to adjacent wall panels comprises fastener assemblies for removably connecting said integral jamb caps with adjacent wall panels, separate jamb caps disposed at the rear of said jambs and disposed between such jambs and adjacent wall panels, and fastener assemblies for removably connecting said separate jamb caps to said jamb and said adjacent wall panels, respectively.

19. The assembly of claim 8 further including a second partition assembly extending perpendicular to said first mentioned partition assembly, and means for joining said second partition assembly to said first, said joining means comprising a partition jamb rigidly secured to said first partition assembly, and fastener assemblies for removably connecting wall panels of said second partition assembly to said partition jamb, said

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fastener assemblies comprising fastener clips mounted in openings therefor in said partition jamb, and shoulder screws mounted on said wall panels of said second partition assembly, said shoulder screws being receive

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and retained by said fastener clips for connection of said wall panels of said second partition assembly to said partition jamb.

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