Feb. 5, 1935. H. L. WALTERS 1,990,259

BUILDING WALL STRUCTURE

Filed July 20, 1932 5 Sheets-Sheet 1

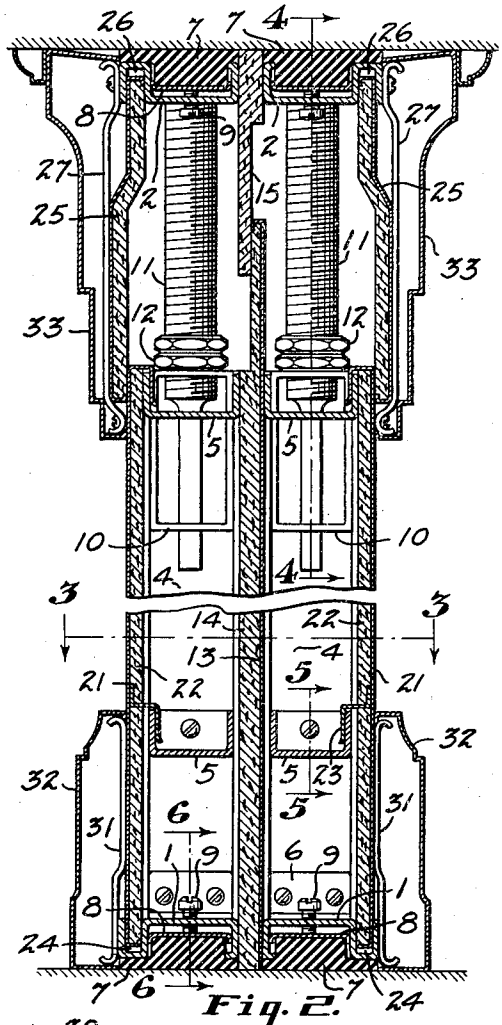

Fig. 2.

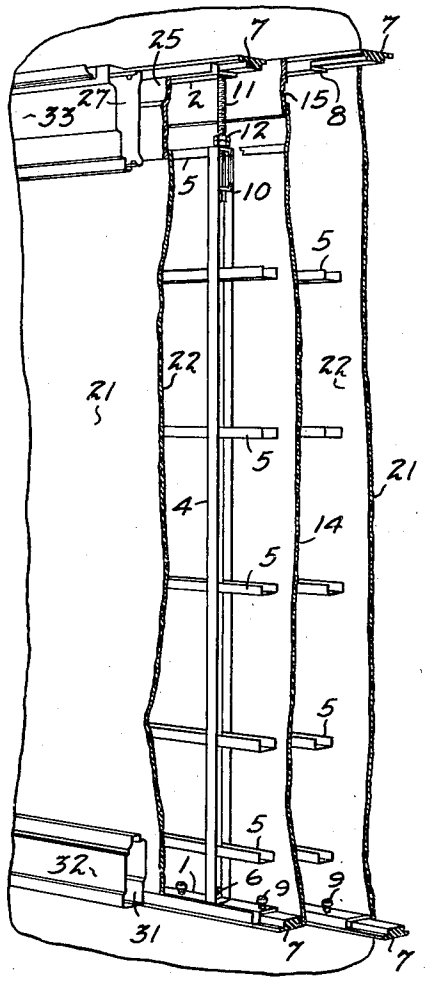

Fig. 1.

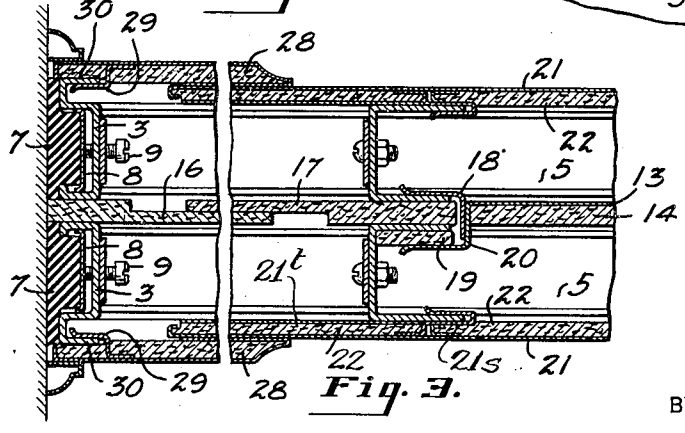

Fig. 3.

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BUILDING WALL STRUCTURE

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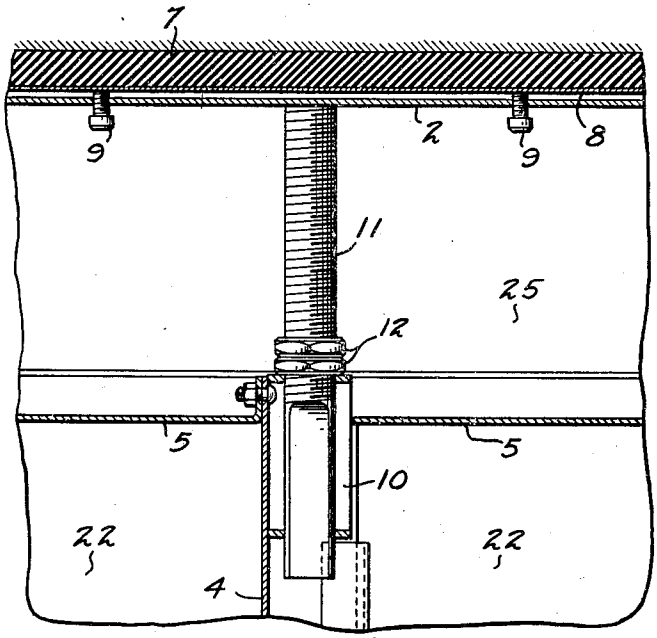

Fig. 4.

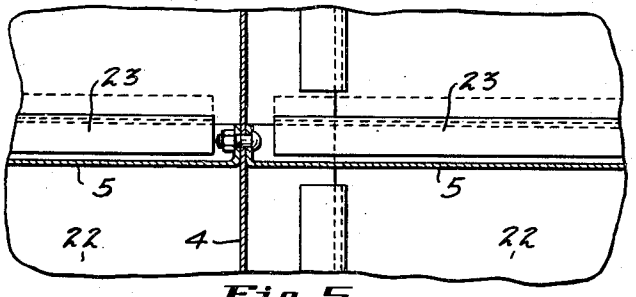

Fig. 5.

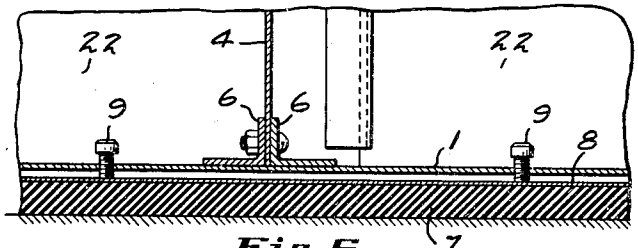

Fig. 6.

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BUILDING WALL STRUCTURE

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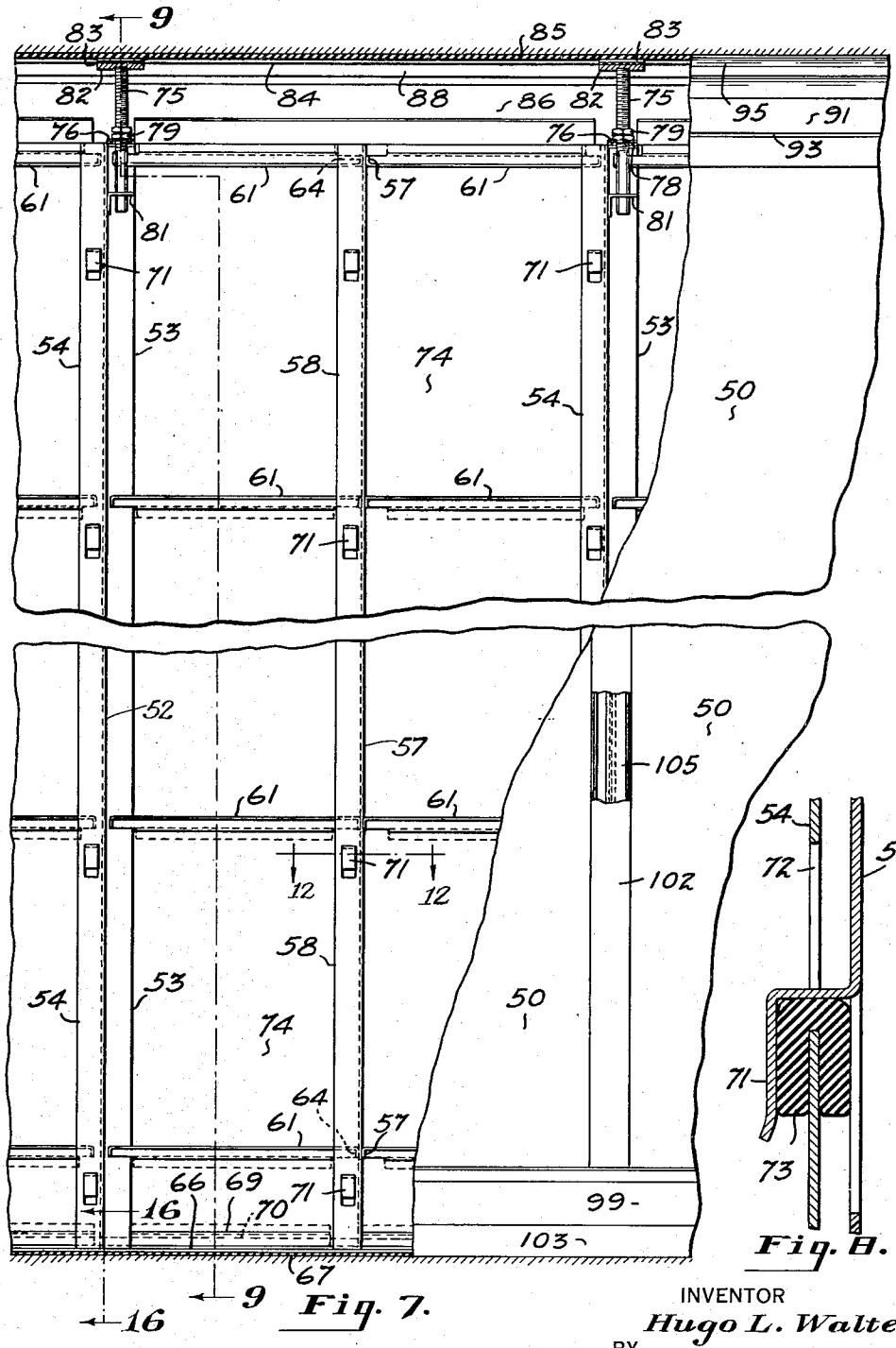

Fig. 7.

Fig. 8.

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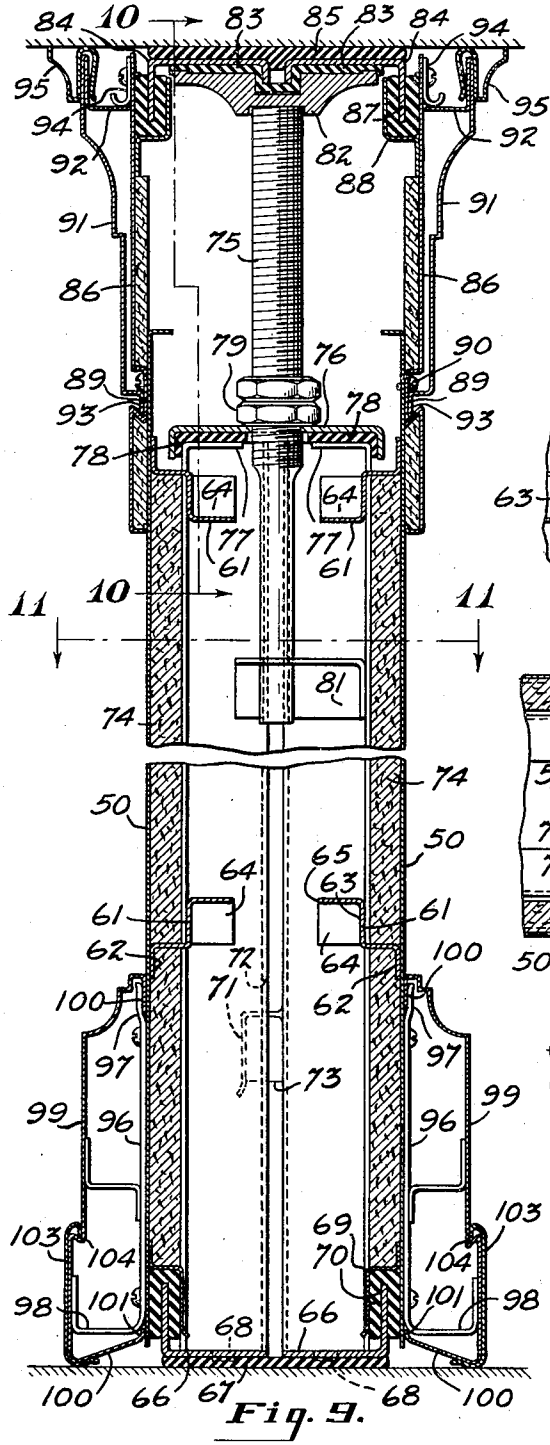

Fig. 9.

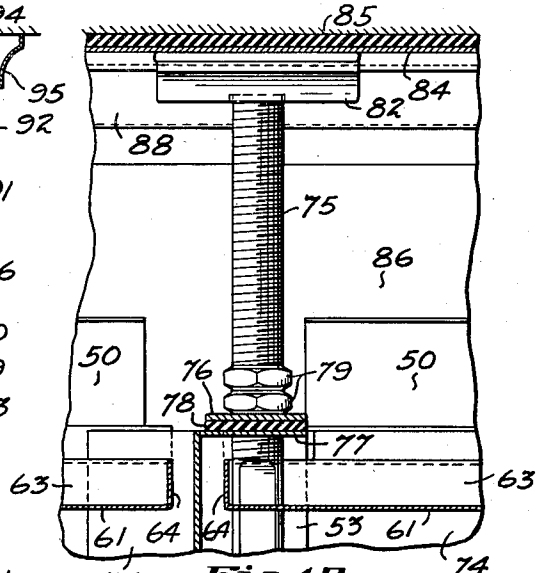

Fig. 10.

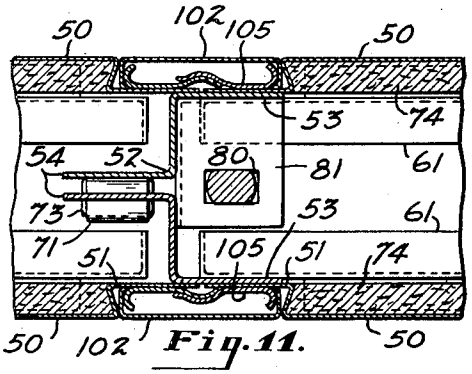

Fig. 11.

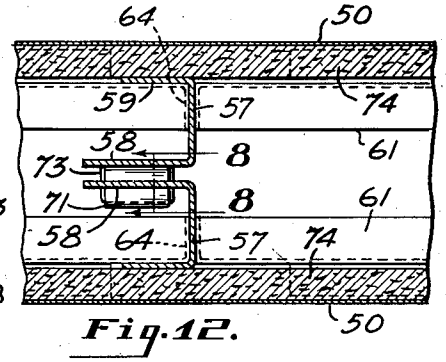

Fig. 12.

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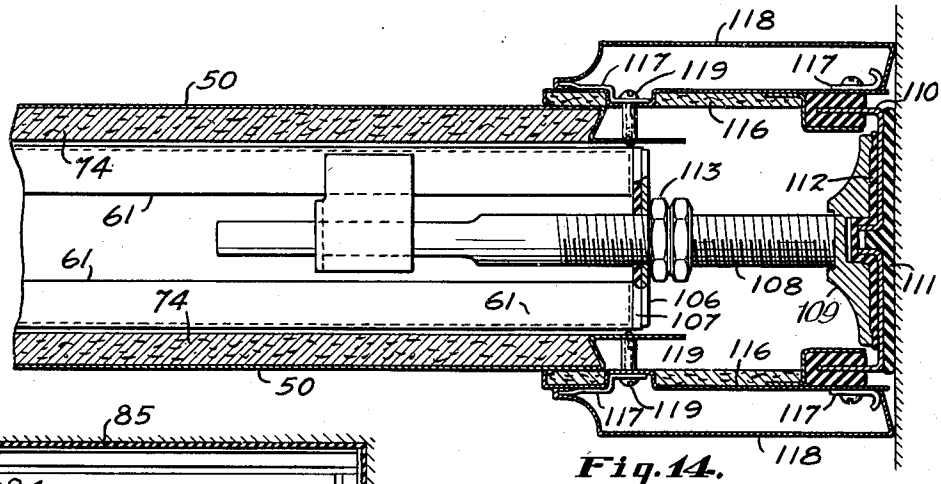
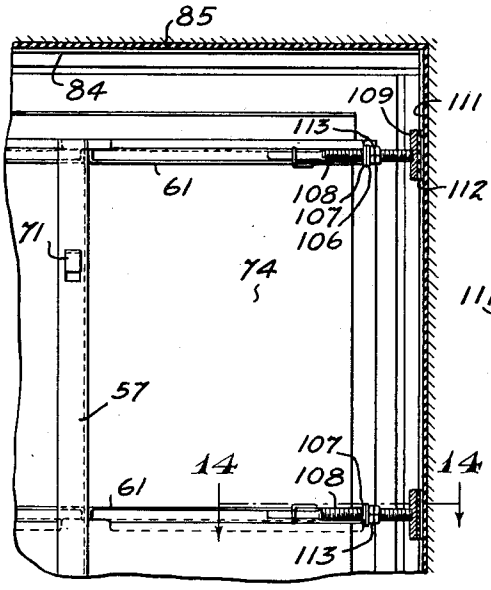


Fig. 14.



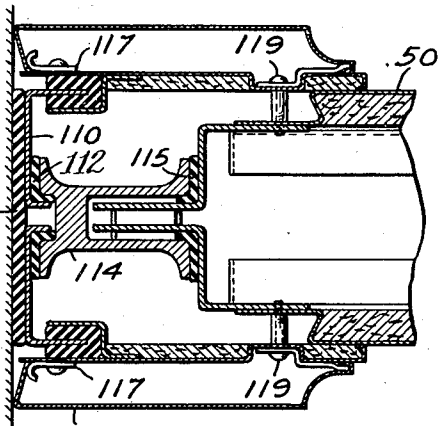


Fig. 15.

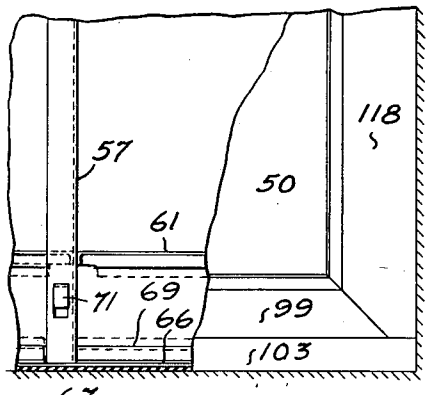


Fig. 13.

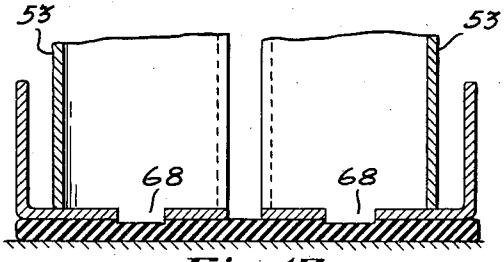


Fig. 16.

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Patented Feb. 5, 1935 1,990,259

UNITED STATES PATENT OFFICE

1,990,259

BUILDING WALL STRUCTURE

Hugo L. Walters, Cleveland, Ohio

Application July 20, 1932, Serial No. 623,587

14 Claims. (Cl. 189—34)

This application is a continuation in part of my copending application Serial No. 553,386 filed July 27, 1931, and the invention therein relates to building wall structures, more particularly to interior partition walls made of metal.

The metal partition of the present invention is particularly adapted for use in office buildings and the like where it is desired to partition space to suit the individual tenant and to change the partitioning at will to meet new conditions or to suit different tenants. Heretofore it has been the practice in office buildings to provide partitions built up of tile, plaster and the like, which necessitated the removal and re-building of the same each time it was desired to change the partitioned space. In the use of the wall of the present invention, the wall, as will be later apparent, may be used over and over again without the initial cost incident to tile and plaster walls.

One of the objects of the present invention is to provide a new and improved metal wall which will be economical to manufacture, light in weight, and easily installed.

Another object is to provide a metal wall which may be erected as a removable partition but which will have the appearance and advantages of a solid wall structure.

Another object is to provide a metal wall structure in which the metal panels and the supporting means therefor are insulated from the walls, floors and ceiling of a room when installed therein to prevent the transmission of vibrations to the wall structure and to prevent the transmission of sound through the wall structure.

Another object is to provide a removable metal wall structure which will remain firmly in place when installed, but which has no direct means for fastening the same to the building.

A further object is to provide a metal partition in which the opposite walls are carried by separate frameworks and in which the frameworks are insulated from each other.

With the above and other objects in view which will be apparent from the following detailed description, the invention consists in certain features of construction and combinations of parts which will be readily understood by those skilled in the art to which the invention appertains.

In the drawings which illustrate suitable embodiments of the present invention,

Figure 1 is a fragmentary perspective view showing the general arrangement of the supporting frameworks and partition walls;

Fig. 2 is a vertical section taken through the metal wall illustrated in Fig. 1;

Fig. 3 is a transverse section taken approximately on the line 3—3 of Fig. 2;

Fig. 4 is a section taken on the line 4—4 of Fig. 2 showing the insulating means between the metal framework and the ceiling of the room;

Fig. 5 is a section taken on the line 5—5 of Fig. 2 showing the method of attaching the horizontal frame members to the vertical supporting members;

Fig. 6 is a section taken on the line 6—6 of Fig. 2 showing the manner of attachment of the vertical supporting member to the lowermost frame member;

Fig. 7 is an enlarged side elevation of a modified wall structure, a portion of one of the panel sections being broken away to show the interior construction of the opposite section;

Fig. 8 is an enlarged section taken on the line 8—8 of Fig. 12;

Fig. 9 is an enlarged fragmentary vertical section taken approximately on the line 9—9 of Fig. 7;

Fig. 10 is a section taken approximately on the line 10—10 of Fig. 9;

Fig. 11 is a transverse section taken approximately on the line 11—11 of Fig. 9;

Fig. 12 is a transverse section taken approximately on the line 12—12 of Fig. 7;

Fig. 13 is a fragmentary side elevation of the partition with one of the side walls removed to show the connection between the partition and an adjacent wall;

Fig. 14 is an enlarged section taken on line 14—14 of Fig. 13;

Fig. 15 is a view similar to Fig. 14 but taken at the opposite end of the partition; and

Fig. 16 is a section taken on the line 16—16 of Fig. 7.

Referring to the drawings in which like numerals refer to like parts throughout the several views, the double wall construction, as shown in Figs. 1 to 6, inclusive, embodies a pair of spaced side panel assemblies, each of which is supported from a separate framework. Each side panel assembly comprises a series of horizontal and upright frame members of metal which includes lower and upper horizontal members 1 and 2, respectively, end upright members 3, intermediate uprights 4, and intermediate horizontals 5. The intermediate uprights 4, as here shown are of channel shape and the intermediate horizontals 5 are securely attached in any suitable manner to the intermediate uprights 4. One method of attachment is

indicated in the drawings wherein the horizontals 5 are arranged in an upwardly presented position and the webs thereof are flanged upwardly at their ends to provide attachment portions which are bolted or otherwise secured to the webs of the intermediate uprights.

The portion of the framework comprising the intermediate horizontals and uprights is carried by the lower horizontal members 1 and the end upright members 3 by supporting the intermediate uprights 4 directly on the lower horizontal members 1 and rigidly securing the same together in a suitable manner, such as by the angle brackets 6 indicated in Figs. 1 and 2. The intermediate horizontals 5 are also rigidly secured to the end upright members 3 in the same manner as they are secured to the intermediate uprights 4. The upper horizontal members 2 are supported above the intermediate portion in a manner to be later described.

The lower and upper horizontal members 1 and 2, respectively, and the end upright members 3 are similarly formed, each being of channel form and facing the adjacent wall surface of the room to receive a continuous strip of insulation material 7 such as rubber, as illustrated in the drawings. The insulation material 7 is disposed between the side flanges of these members to preferably extend the full length and the full height of the assembled wall structure so that the same may engage with the adjoining surface and thereby insulate each framework from the walls, ceiling and floor of the room which is to be partitioned.

In order to provide for continuous contact with the adjoining surfaces and to compensate for irregularities in such surfaces, it is desirable to provide a compression plate 8 in the space between the material 7 and the web of the surrounding frame member 1, 2 or 3, as the case may be, against which pressure may be exerted to tend to compress the insulation material. This is accomplished by means of set screws 9 threaded through the webs of the surrounding members at regular intervals. It is obvious that by employing the compression plate and the set screws an intimate sealed contact is provided to completely insulate the framework from the adjoining surfaces and to compensate for surface irregularities.

It will be noted that the intermediate framework does not extend the full height of the partition but terminates just below the upper horizontal members 2. The upper portion of the intermediate framework carries suitable thrust brackets 10 at regular intervals, preferably at each upright member 4. A compression screw 11 is arranged to slide in the thrust bracket and the lower end of the screw is flattened to extend through an elongated slot in the bracket 10 to prevent rotation of the screw. The upper end of the screw 11 is arranged to seat directly against the upper horizontal member 2. The screw 11 is actuated during the positioning of the framework by a nut 12 which engages the upper side of the thrust bracket 10. When the nuts 12 are threaded in the proper direction on the screws 11, the intermediate framework and upper horizontal members 2 are moved away from each other. Considerable force is exerted between the screws 11 and intermediate framework and to such an extent that the entire framework is held in place merely by the compression tendency of the insulating material 7, thereby eliminating any direct securing means between the framework and the adjacent wall surfaces.

As previously mentioned, one framework of the character just described is provided for each side panel assembly and in the assembly of the partition wall two such frameworks are erected side by side but are insulated from each other by means of an insulating panel 13 of approximately the area of the partition.

The insulating panel 13 is preferably of metal and provided with a suitable lining 14 of insulation material having sound deadening characteristics. This panel 13 is clamped between the two frameworks by contact with the adjacent lower horizontal members 1 and by contact with the adjacent upper horizontals 5 of the intermediate framework. Furthermore, the panel 13 extends above the intermediate framework and overlaps with an auxiliary depending insulator panel 15 clamped between the upper horizontal members 2. This overlapping insulator arrangement is provided to compensate for varying wall heights.

Similarly, varying wall lengths are compensated for by an overlapping insulator arrangement comprising an auxiliary insulator 16 clamped between the end upright members 13 which overlaps with a similar insulator 17 clamped between the endmost of the adjacent intermediate uprights 4, as shown in Fig. 3.

The metal facing of the central insulator 13 is bent at right angles at the ends and then longitudinally to provide an offset portion and an L-shaped piece 18 is secured thereto to provide a securing means 20 which straddles the inner flanges of the endmost of the adjacent uprights 4, as indicated in Fig. 3, there being a strip of insulating material 19 arranged between the last one of the uprights and clamping means 20.

It is thus seen that the two framework assemblies are completely insulated from each other by a continuous insulator extending from floor to ceiling and from wall to wall, which assists in preventing the passage of sound through the partition. The insulators 14 to 17, may be of any suitable material, such as a fibrous composition and other like sound deadening and absorbing material.

The lower and upper horizontal members 1 and 2 may each comprise separate aligned elements or they may be single pieces extending substantially from wall to wall of the room which is to be partitioned.

The side panels 21 are preferably of sheet metal and are preferably lined with sheet sound insulating material 22 and are provided with depending hook portions which hook over the outer flanges of the intermediate horizontals 5 in the manner indicated in Fig. 2. The bottom edges of these side panels nest within continuous grooves 24 formed at the outer sides of the horizontals 1, as shown in Fig. 2, by bending the outer flanges thereof outwardly and then upwardly.

The spaces above the intermediate portions of each framework are closed in by means of auxiliary insulation-lined side panels 25 which seat in grooves 26 formed at the outer sides of the upper horizontal members 2. These auxiliary panels 25 overlap with the main side panels 21 and are held in place by means of straps 27 which are fastened by suitable screws to the side panels 21 and to the outer flange portions of the upper horizontal members 2.

The space between the ends of the intermediate framework and the adjacent vertical walls of the room in which the partition is constructed are closed in by auxiliary side panels 28 and which overlap with the side panels 21 and are fastened

by clips 29 to the flanges 30 provided at the outer sides of the end upright members 3, as indicated in Fig. 3. The overlapping auxiliary side panels 28 are preferably contoured to provide a molding effect.

In order to secure the outer ends of the panels 21, as shown in Figure 3, the lining 22 is broken and clips 21s are secured to the metal of panel 21 which clips are reversely bent to hook over the outer flange of the vertical post 4. If desired the inner face of the short piece of lining may be covered with a metal facing 21t.

Additional clamping and securing means are provided for the mold edges of the panel 21 through the medium of strap members 31, and these strap members are secured at regular intervals to the side panels and overlap with the outer flanges of the lower horizontal member 1.

The strap members 31 and the strap members 27 at the upper portion of the structure also provide attaching means for base and ceiling moldings 32 and 33, respectively, which may be snapped thereover, as shown in Fig. 2.

In the construction illustrated in Figs. 7 to 12, the same relationship of a pair of panel supporting frameworks insulated from each other is provided. In this modified construction, however, each side panel assembly is built up of panel sections including a separate reinforcing frame and metal panel facing, which sections are interlocked together to provide the complete wall structure.

Each panel section includes a metal sheet 50 of less height than the room in which the wall is to be erected, and the ends are bent inwardly at an angle and provided with an inwardly offset panel flange 51, as shown in Fig. 11, so that a dovetail opening extending substantially the full height of the sheet 50 is provided when two panel sections are assembled in contiguous relation.

As shown in Figs. 7 and 11, a Z-shaped member 52 is secured to the offset flange 51 at one end only of the panel sheet 50 and this member 52 extends from the lower edge of the panel sheet to a point slightly below the upper edge thereof. One flange 53 of the Z-shaped member is thus secured to the inwardly offset flange 51 of the panel sheet and the other flange 54 thereof extends parallel with but beyond the offset flange 51 of the panel sheet. An additional vertical frame member 57, preferably of channel section, is provided intermediate the ends of the panel sheet 50.

The outermost side flange 58 of the member 57 is arranged in the same plane as the flange 54 of the Z-shaped member and the innermost flange 59 is likewise arranged in the same plane as the flange 53 of the Z-shaped member 52. The panel section is further reinforced by means of horizontal reinforcing members 61 which extend from the Z-shaped member 52 to the intermediate vertical member 57 and from the opposite end of the panel to the vertical member 57. These horizontal members 61 are preferably in the form of a double angle having one flange 62 secured at regular intervals throughout its length to the panel sheet 50 and its parallel flange 63 spaced inwardly from the panel sheet 50, as shown in Fig. 9. The outermost end of one of the horizontal members 61 overlaps with the flange 53 of the Z-shaped member and is rigidly secured thereto, and the opposite end thereof overlaps with the flange 59 of the channel member 57 and is rigidly secured thereto. The innermost end of the other horizontal member 61 is rigidly secured to the web of the channel member 57 by forming a tongue 64 at the end of the outermost horizontal portion 65 thereof, as indicated in Fig. 7 the opposite end of the horizontal portion also being formed with a tongue 64.

It is thus seen that each panel section comprises a framework of vertical and horizontal members rigidly secured together, and a panel sheet which is rigidly secured to this framework. It is preferable that the engaging parts of the framework and panel sheet be welded together, although it is to be understood that other securing means may be employed.

As previously explained, the building wall comprises two panel assemblies mounted in spaced relation and insulated from each other, each consisting of the panel sections described. Each pair of panel sections is supported on spaced angle members 66 which are disposed on a strip 67 of insulation material to insulate the same from the floor of the room. The horizontal flanges of these two angle members 66, as shown in Fig. 9, are spaced slightly away from each other so as to avoid metal to metal contact.

Considering each half of the partition, the panel section is supported directly on the angle member 66 and is held against displacement thereon by means of tongues 68 formed at the lower edges of the Z-shaped member 52, and the channel member 57, which extend into slots formed at the horizontal flange of the angle member 66. Furthermore, the panel sheet 50 of each panel section is formed at its lower edge with a depending hook portion 69 which overlaps with the vertical flange of the angle member 66 and is insulated therefrom by means of a strip 70 of insulation disposed between the depending portion of the hook and the flange and between the flange of the panel sheet 50.

The frameworks comprising each pair of opposite panel sections are secured together but are insulated from each other to prevent metal to metal contact, and this may be accomplished, as shown in the drawings, by providing an offset depending finger portion 71 formed from the flange 54 of the Z-shaped member and the flange 58 of the channel member 57, which finger portion 71 may extend, when the panel sections are assembled, through an opening 72 formed in the corresponding flanges of the Z-shaped and channel members of the opposite section, so that when the opposite sections are assembled the finger portion 71 will overlap with the flange portion of the said members of the other section. These finger portions 71 are preferably provided at spaced intervals on the members 52 and 57 and the finger portions are insulated from the metal of the opposite member by means of insulation strips 73 folded so as to be disposed between the fingers 71 and the flanges of the opposite member and between said flange and the flange of the member in which the finger portion 71 is provided.

The inner surface of each panel sheet 50 is also preferably lined with a sound absorbing and vibration dampening material 74 to dampen vibrations of the panel sheets 50 and to assist in preventing the transmission of sound through the partition. The partition is also insulated from the ceiling of the room in a manner similar to that described in connection with Figs. 1 to 6, inclusive. This means may comprise, as shown in Figs. 9 and 10, screw members 75 arranged at the end of each panel section. Each screw member is preferably supported on the frame-

work by means of a channel plate 76 extending transversely across the upper ends of the Z-shaped members 52 of each adjacent pair of panel sections. The upper ends of the Z-shaped members are preferably flanged inwardly at 77 to provide supports for the plates 75 and a strip of insulation material 78 is disposed between the flange 77 and the plate 76, as indicated in Fig. 9. The screw member is provided with a suitable nut 79 which rests upon the upper side of the plate 76, and the lower end of the screw 75 which extends through the plate 76 is flattened to extend through an elongated slot 80 formed in a plate 81 which is secured to the flange 53 of the Z-shaped member 52 to prevent rotation of the screw but to permit a vertical movement of the screw relative to the panel sections. The upper end of the screw 75 carries a plate member 82 which, in turn, carries a sheet of suitable insulation material 83. This insulation material 83 bears against a pair of spaced downwardly presented channel members 84 which extend the full length of the room in which the partition is assembled in the same manner as the lower angle members 66 and which are insulated from the ceiling of the room by a continuous strip of insulation material 85. As shown in Fig. 9, the inner edges of the channels 84 are spaced from each other to avoid metal-to-metal contact.

The method of insulating the ends of the panel assemblies from the vertical wall of the room to be partitioned is illustrated in Figures 13, 14 and 15, and as here shown may be in a manner similar to the method employed at the upper edge of the partition.

At one end a thrust plate 106 bridges the ends of the opposed horizontal members 61 and is insulated therefrom by a suitable non-metallic insulator 107. A suitable non-rotatable screw 108 slidably extends through the plate 106 and carries a thrust pad 109 at its outer end.

Vertically extending spaced channels 110 are arranged to extend substantially the full height of the room and these are insulated from each other and from the wall of the room by a suitable strip 111 of insulation material. Two or more thrust screws and pads are employed and the pads are recessed to receive insulators 112 which bear against the sealing channels 110. The thrust screws are provided with nuts 113 which, when tightened against the thrust plates 106 exert pressure against the channels 110, tending to compress the insulation strip 111 and thereby form the seal at that end of the partition.

The opposite end of the partition is insulated from the adjoining wall in the same manner as above described, with the exception, however, that the thrust screws 108 and pads 109 are omitted and replaced by struts 114 which carry the insulators 112 at one end and bear against the Z-bars 52, suitable insulation 115 being provided between the struts 114 and Z-bars.

Suitable insulation lined auxiliary panels 116 are disposed to overlap the end panel sections and have a sealed non-metallic engagement with the flanges of the vertical sealing channels 110 in the same manner as the upper auxiliary panels 86. The auxiliary panels 116 may be provided with clips 117 to carry vertical molding strips 118. These, however, may be omitted. It is preferred to secure the auxiliary panels 116 to the offset flanges 51 by suitable screws 119, although other mounting means may be employed.

The metal partition just described is held in place by threading the nut 79 on the screw 75 to force the screw upwardly and thereby place the insulation 85 under compression by reason of the thrust created by the screw 75. It is thus seen that the partition is held in place by a relatively great expansion force and that the insulation material 67 beneath the angles 66 insulates the spaced panel assemblies from the floor of the room and that the insulation material 85 insulates the spaced panel assemblies from the ceiling of the room, as well as from each other. Likewise, the insulation material 78 between the plate 76 and the inturned flanges 77 and the insulation material 73 completely insulates the frame portions of the panel sections from each other.

The space above the panel sections is closed in at each side by an auxiliary panel 86 which overlaps with the panel sheets 50 and with the outer flange 87 of the upper channel members 84. In order to prevent the passage of sound between the panel 86 and the flange 84 a hook member 88 is provided on the inner side of the panel path 6 to straddle the flange 87 and a body of insulation material is arranged between the panel 86 and the flange 87 and between the flange 87 and the hook portion 88 in the same manner as the insulation 70 between the panel sheets 50 and the flange of the lower angle members 66. Furthermore, the auxiliary panel 86 is provided with an inwardly offset portion 89 which is secured by screws 90 at regular intervals to the panel sheets 50, as indicated in Fig. 9.

A molding along the upper edge of the side wall of the partition and adjacent the ceiling is provided by the lower portion of the auxiliary panel 86 and by a formed metal molding 91 which is provided at its upper edge with an inwardly extending strip 92 and a depending portion 93 at its lower edge. The portions 92 and 93 provide a holding means for the molding 91. The lower edge 93 thereof is arranged to seat against the offset portion 89 of the panel 86 and the portion 92 is arranged to seat in a snapping relation back of small clips 94 secured to the uppermost edge of the panel 86. As shown in Fig. 9, the mold 91 also conceals the screws 90 which secure the panel 86 to the panel sheets 50.

In order to compensate for irregularities in the ceiling, the upper edge of the molding 91 is spaced a slight distance from the ceiling and an auxiliary molding 95 is arranged to hook over and frictionally engage the upper edge of the molding 91.

A molding may also be provided at the lower portion of the side of each partition adjacent the floor. This molding may take the form illustrated in Fig. 9 wherein strap portions 96 are secured to the panel sheets 50 at regular intervals and are provided with an outwardly offset tongue 97 at their upper edge and a flange 98 at the lower edge spaced outwardly from the panel sheet 50. The molding 99 may be of any suitable preformed shape, and is provided with a depending flange 100 arranged to seat back of the offset tongue 97 and is provided with a spring portion 101 at its lower edge arranged to snap into place back of the strips 96. In order to take care of surface irregularities in the floor the lower edge of the molding is spaced slightly from the floor and an auxiliary molding 103 is arranged to seat underneath the lower edge of the molding 99 and engage at its upper end with a depression 104 formed in the molding 99, as illustrated in Fig. 9.

Referring to Fig. 11, when the individual panel sections at each side of the partition are assembled, each inwardly offset flange 51 of the panel sheet of each section is provided with an inter-

locking strip 105 secured to the outer surface of the flange 51 to overlap with the interlocking strip 105 of the other flange 51, and the ends of the overlapping strips are curved so that a sealing panel 102 of channel form may be disposed within the dovetail depression between the assembled panel sections and snapped over the curved portions in order to close in the space between the edges of the adjacent panel sheets 50. These channel-shaped sealing panels 102 are, of course, put in place before the moldings 91 and 99 are assembled.

It will be seen from the foregoing description that efficient, economical partitions are provided which may be conveniently made out of inexpensive structural elements such as sheet metal but which will be substantially sound-proof because it does not afford any direct means of sound transmission between one face of the partition and the other by reason of the fact that each panel supporting framework is completely insulated from the other and from the floor and ceiling of the room to prevent the transmission of vibrations and, by reason of the fact that any resonating effect in the panels themselves is dampened by their contact with the insulation lining.

Aside from the specific embodiments of the invention herein shown and described, it will be understood that numerous details of construction may be altered and omitted without departing from the spirit and scope of this invention, and it is not intended to limit the invention to the exact construction set forth, as it is desired to claim the invention broadly as well as specifically, as indicated in the appended claims.

What I claim is:

1. A partition wall for dividing a room comprising a pair of spaced frameworks, means insulating said frameworks from each other, insulation means having vibration-absorbing characteristics for insulating said frameworks from the floor and ceiling of the room, a metal panel supported from each of said frameworks, and a facing of sound absorbing material for each of said metal panels.

2. A partition wall for dividing a room comprising a pair of spaced non-contacting frameworks, insulation means having vibration absorbing characteristics for insulating said frameworks from the floor and ceiling of the room, means carried by said frameworks for exerting compression forces against said insulation means to force said means into intimate contact with the floor and ceiling of the room, a metal panel supported from each of said frameworks, and a facing of sound absorbing material for each of said metal panels.

3. A partition wall for dividing a room comprising a pair of spaced frameworks, insulation material having sound absorbing characteristics disposed between and extending substantially throughout the entire area of said wall, a metal panel carried by each of said frameworks, a facing of sound absorbing material for each of said metal panels, and non-metallic insulation means for insulating said frameworks from the floor and ceiling of the room.

4. A partition wall for dividing a room comprising a pair of metal frameworks, means for supporting said frameworks from the floor of the room, attaching means for securing said frameworks together, non-metallic insulation means disposed between said attaching means and frameworks, means for insulating said frameworks from the floor and ceiling of the room, a metal panel supported from each of said frameworks, and a facing of sound absorbing material for each of said metal panels.

5. A partition wall for dividing a room comprising a pair of metal frameworks, a lower member for supporting each of said frameworks from the floor of the room, a pair of upper members insulated from each other, insulation material for insulating said lower members from the floor of the room and insulating said upper members from the ceiling of the room, means commonly carried by said frameworks for supporting said upper members and for exerting opposite forces against said frameworks and upper members to substantially compress said insulation material, a metal facing carried by each of said frameworks, and sound insulation lining for each said metal facing.

6. A partition wall for dividing a room comprising a pair of metal frameworks, a lower member for supporting each of said frameworks from the floor of the room, a pair of upper members insulated from each other, insulation material for insulating said lower members from the floor of the room and insulating said upper members from the ceiling of the room, means commonly carried by said frameworks for supporting said upper members and for exerting opposite forces against said frameworks and upper members to substantially compress said insulation material, a metal facing carried by each of said frameworks, sound insulation lining for each said metal facing, and means forming a continuous seal between the lower edges of said facings and said lower members and between the upper edges of said facings and said upper members.

7. In a metal partition for dividing a room, an assembly of interlocked metal panel sections forming one wall of said partition, an assembly of interlocked panel sections forming the other wall of said partition, a separate framework for each said assembly, means insulating said frameworks from each other, insulation means for insulating said assemblies and frameworks from the floor of the room, and insulation means for insulating said assemblies and frameworks from the ceiling of the room.

8. In a metal partition for dividing a room, an assembly of interlocked panel sections of metal forming one side wall of said partition, an assembly of interlocked panel sections of metal forming the other side wall of said partition, a separate framework for each said assembly, attaching means for securing the framework of one assembly to the opposite framework of the other assembly, insulation means between said attaching means and the framework of one assembly, and a sound absorbing lining for each panel section of each assembly.

9. In a metal partition for dividing a room, an assembly of interlocked panel sections of metal forming one side wall of said partition, an assembly of interlocked panel sections of metal forming the other side wall of said partition, a separate framework for each said assembly, attaching means for securing the framework of one assembly to the opposite framework of the other assembly, insulation means between said attaching means and the framework of one assembly, a sound absorbing lining for each panel section of each assembly, and a separate means for supporting each assembly.

10. In a metal partition for dividing a room, an assembly of interlocked panel sections of metal

forming one side wall of said partition, an assembly of interlocked panel sections of metal forming the other side wall of said partition, a separate framework for each said assembly, attaching means for securing the framework of one assembly to the opposite framework of the other assembly, insulation means between said attaching means and the framework of one assembly, a sound absorbing lining for each panel section of each assembly, insulation means for insulating said assemblies and frameworks from the floor of the room, and insulation means for insulating said assemblies and frameworks from the ceiling of the room.

11. A partition wall for dividing a room comprising an assembly of interlocked panel sections of metal forming one wall of the partition, an assembly of interlocked panel sections of metal forming the other wall of the partition, said assemblies being of less height than the room, separate supports insulated from each other and insulated from the floor of the room to support said sections independently of each other, upper members insulated from the ceiling of the room, force exerting means carried by said sections for exerting opposite forces against said upper members and panel sections whereby said partition is held in place by contact between said upper members and ceiling through the insulation thereof and between said supports and floor through the insulation thereof, and auxiliary panel members extending between said assemblies and upper members to close the spaces therebetween.

12. A partition wall for dividing a room comprising an assembly of interlocked panel sections of metal forming one wall of the partition, an assembly of interlocked panel sections of metal forming the other wall of the partition, said assemblies being of less height than the room, separate supports insulated from each other and insulated from the floor of the room to support said sections independently of each other, upper members insulated from the ceiling of the room, force exerting means carried by said sections for exerting opposite forces against said upper members and panel sections whereby said partition is held in place by contact between said upper members and ceiling through the insulation thereof and between said supports and floor through the insulation thereof, auxiliary panel members extending between said assemblies and upper members to close the spaces therebetween, sound absorbent insulation carried by the inner face of each panel section, and sound absorbent insulation carried by the inner faces of said auxiliary panel members.

13. A partition wall for dividing a room comprising an assembly of interlocked panel sections of metal forming one wall of the partition, an assembly of interlocked panel sections of metal forming the other wall of the partition wall, said assemblies being of less height than said room, attaching means for securing the panel sections of one assembly to the opposite panel sections of the other assembly, non-metallic insulation means between said attaching means and the panel sections of one assembly, separate supports extending substantially the full length of said wall for independently supporting said assemblies, a substantially continuous strip of insulation for insulating said supports from the floor of the room, a pair of upper members supported on and above said assemblies and extending substantially the full length of the room, said upper members being insulated from each other, a substantially continuous strip of insulation for insulating said upper members from the ceiling of the room, means disposed to substantially compress said strips of insulation and form a seal between said strips and the floor and ceiling of the room, and auxiliary panel members extending between said assemblies and upper members to close the spaces therebetween.

14. A partition wall for dividing a room comprising an assembly of interlocked panel sections of metal forming one wall of the partition, an assembly of interlocked panel sections of metal forming the other wall of the partition wall, said assemblies being of less height than said room, attaching means for securing the panel sections of one assembly to the opposite panel sections of the other assembly, non-metallic insulation means between said attaching means and the panel sections of one assembly, separate supports extending substantially the full length of said wall for independently supporting said assemblies, a substantially continuous strip of insulation for insulating said supports from the floor of the room, a pair of upper members supported on and above said assemblies and extending substantially the full length of the room, said upper members being insulated from each other, a substantially continuous strip of insulation for insulating said upper members from the ceiling of the room, means disposed to substantially compress said strips of insulation and form a seal between said strips and the floor and ceiling of the room, and auxiliary panel members extending between said assemblies and upper members to close the spaces therebetween, the upper edges of said auxiliary panel members having a substantially continuous sealed non-metallic engagement with said upper members, and the lower edges of said assemblies having a substantially continuous sealed non-metallic engagement with said supports.

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