Oct. 17, 1944. C. E. T. JOHNSON 2,360,500

METAL PARTITION

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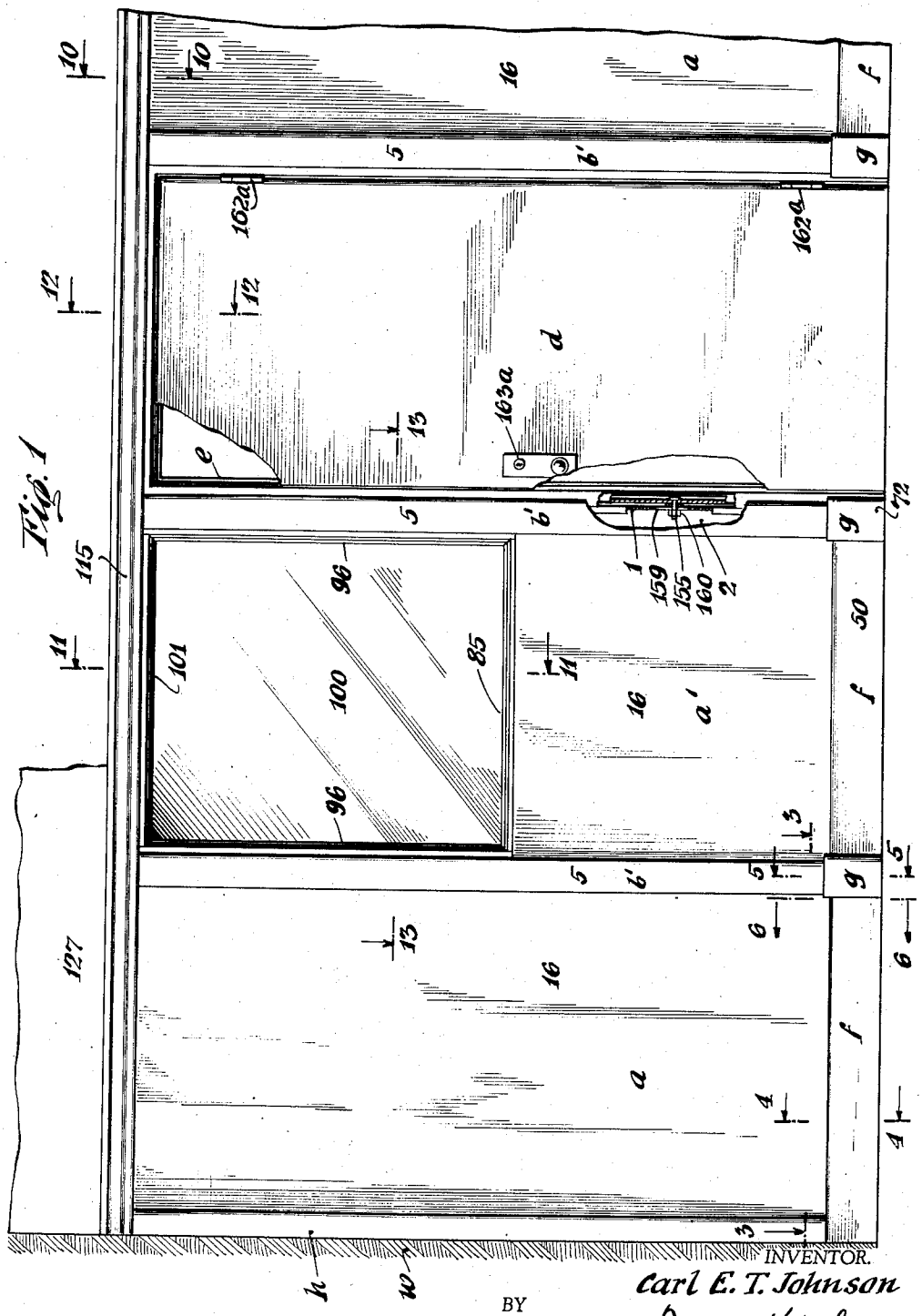


Fig. 1

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METAL PARTITION

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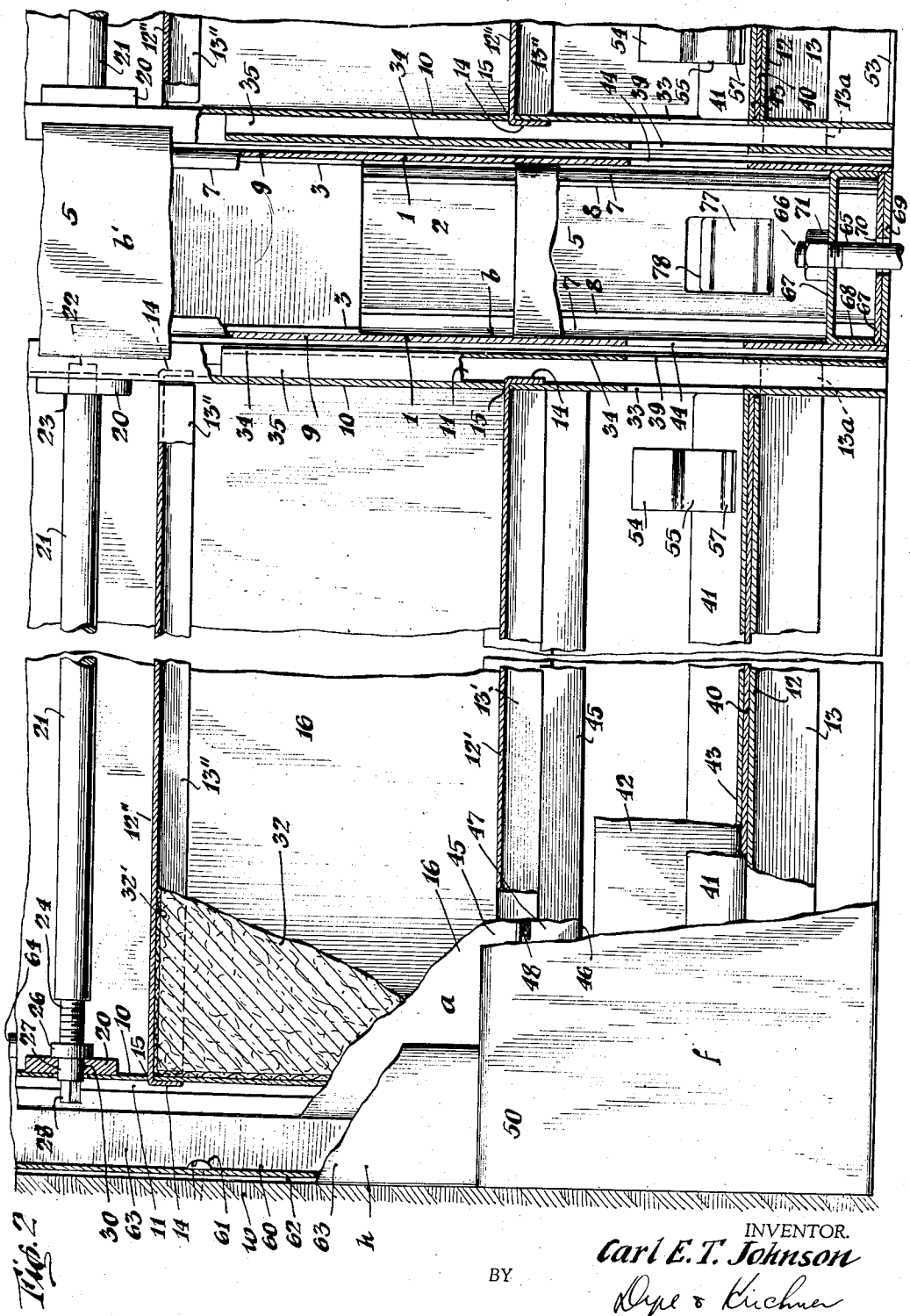


Fig. 2

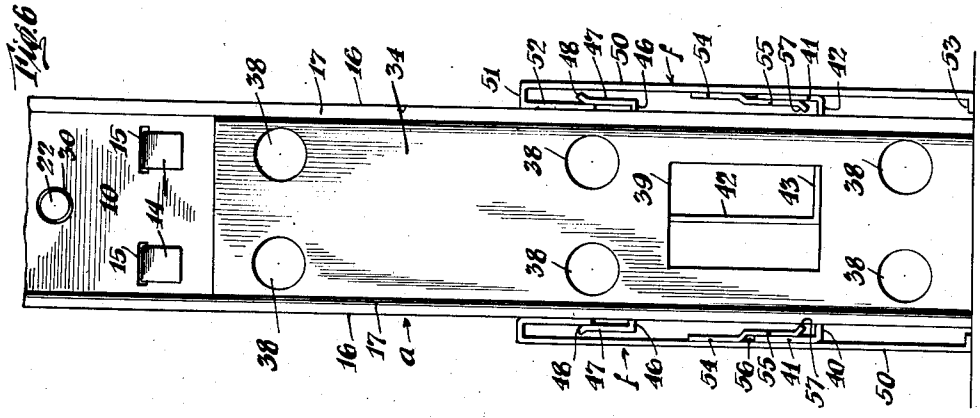
INVENTOR.
Carl E. T. Johnson

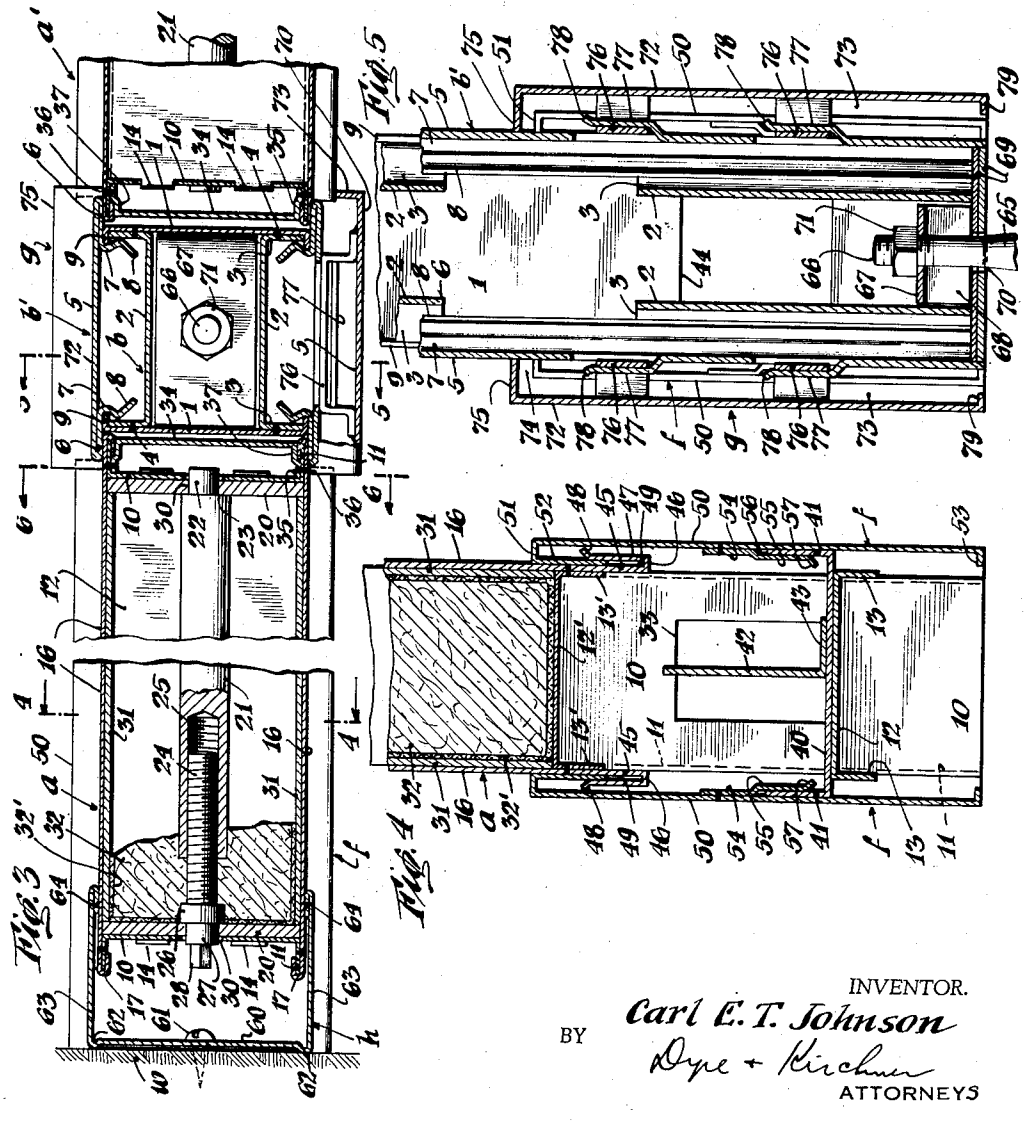
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METAL PARTITION

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METAL PARTITION

Filed Aug. 26, 1941 8 Sheets-Sheet 4

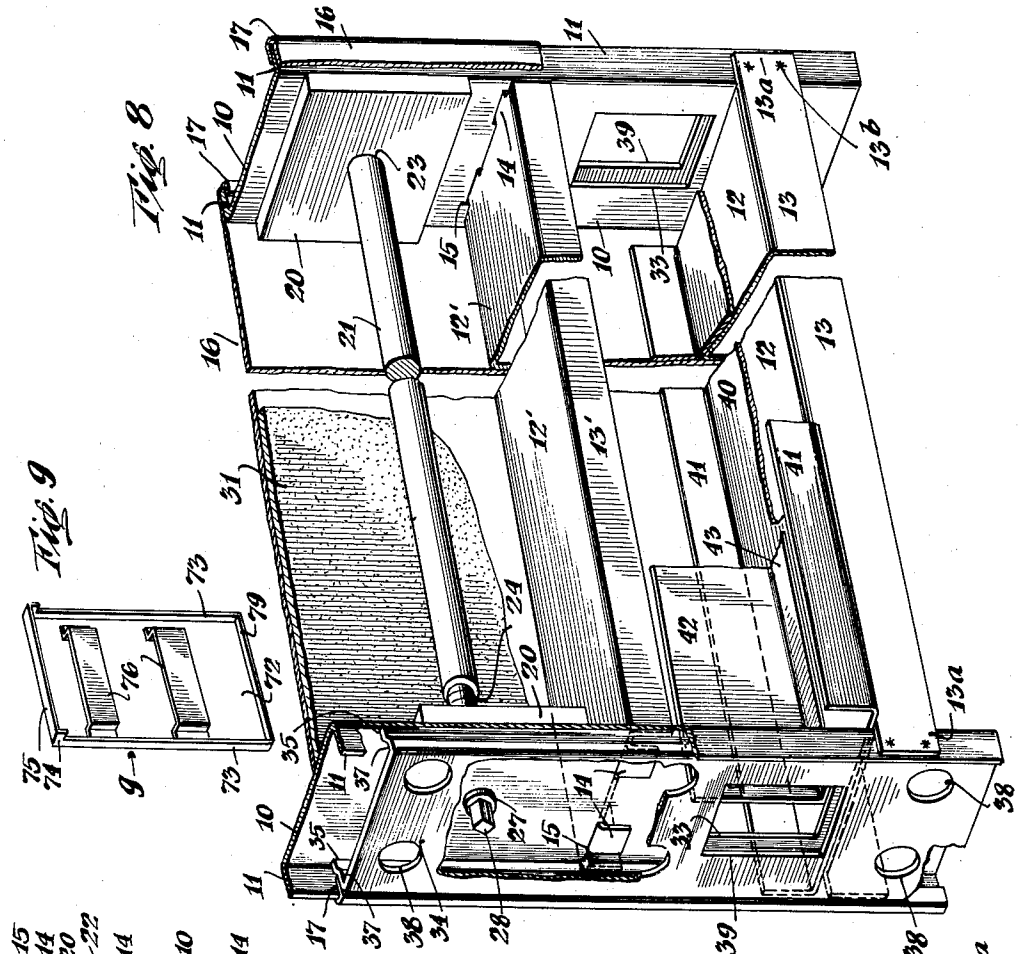


Fig. 8

Fig. 9

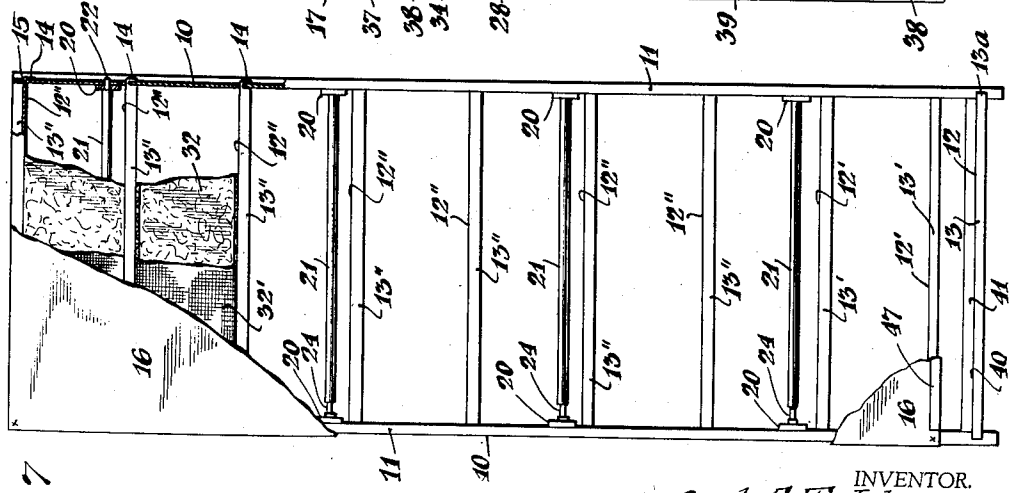


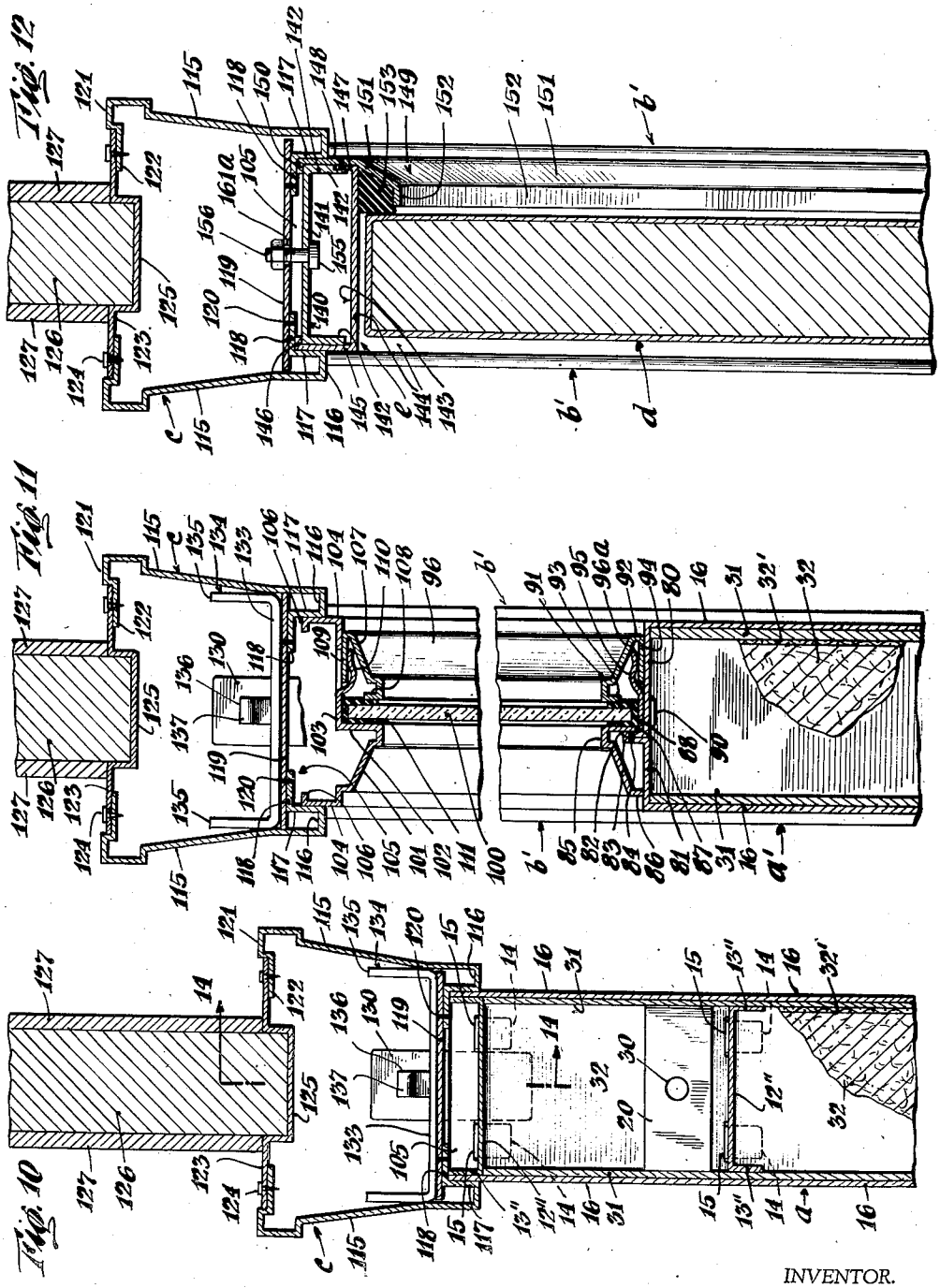
Fig. 7

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METAL PARTITION

Filed Aug. 26, 1941 8 Sheets-Sheet 5



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METAL PARTITION

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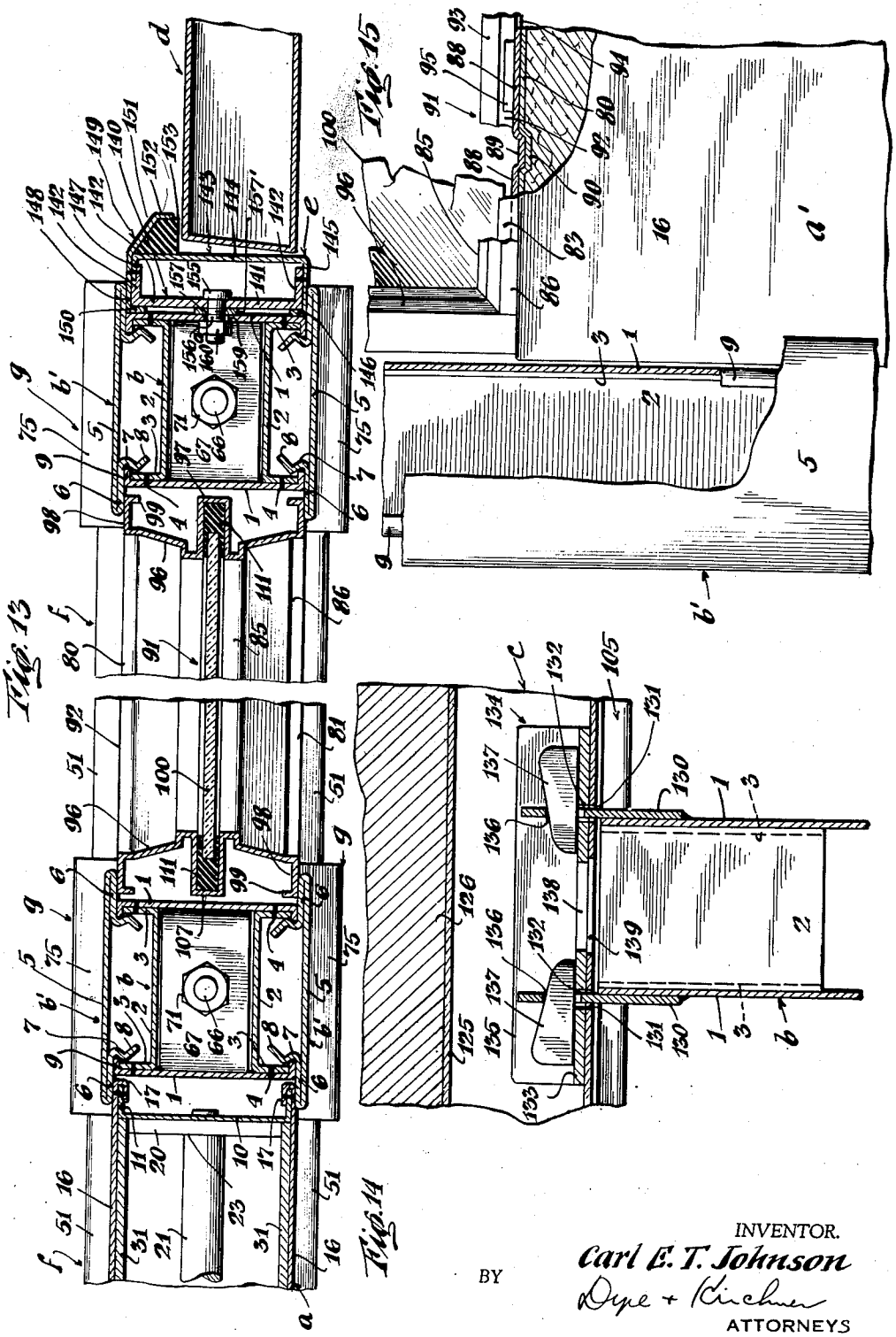


Fig. 13

Fig. 15

Fig. 14

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METAL PARTITION

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Fig. 16

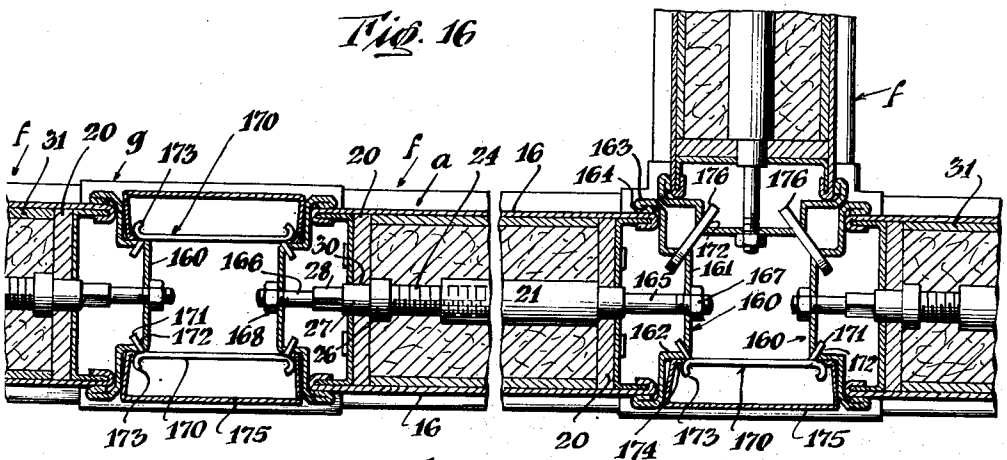
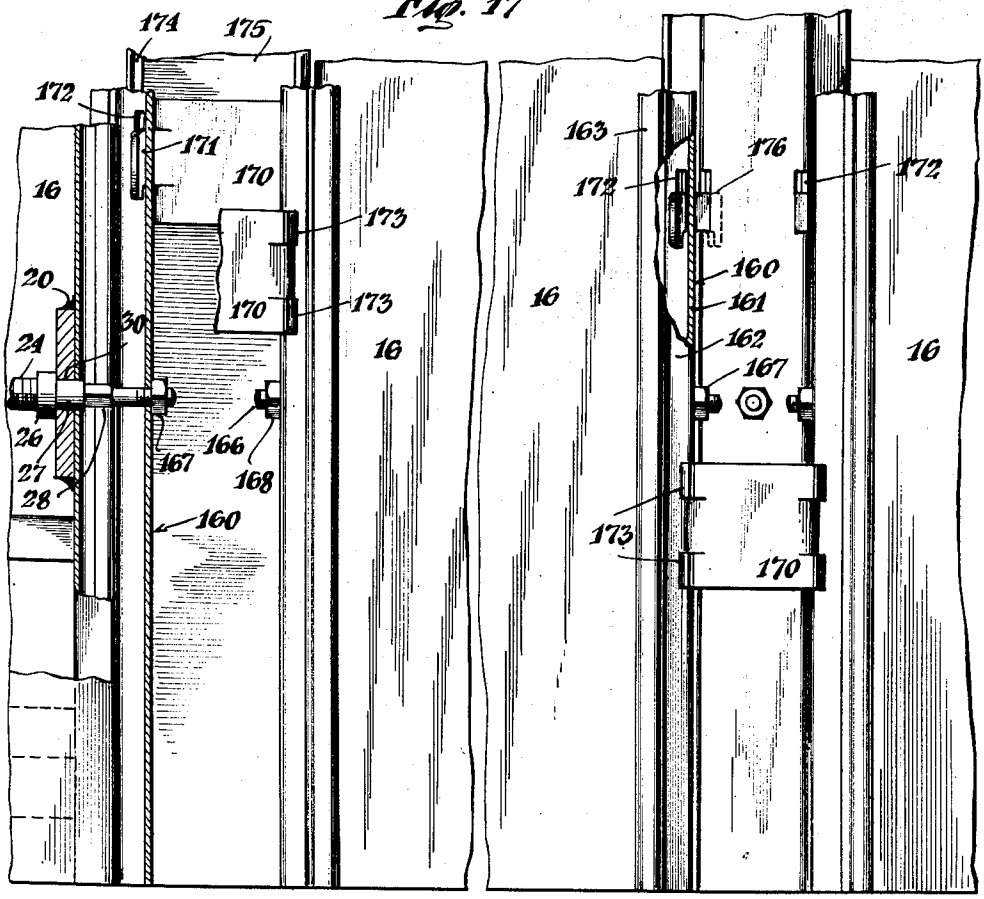


Fig. 17



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METAL PARTITION

Filed Aug. 26, 1941 8 Sheets-Sheet 8

Fig. 18

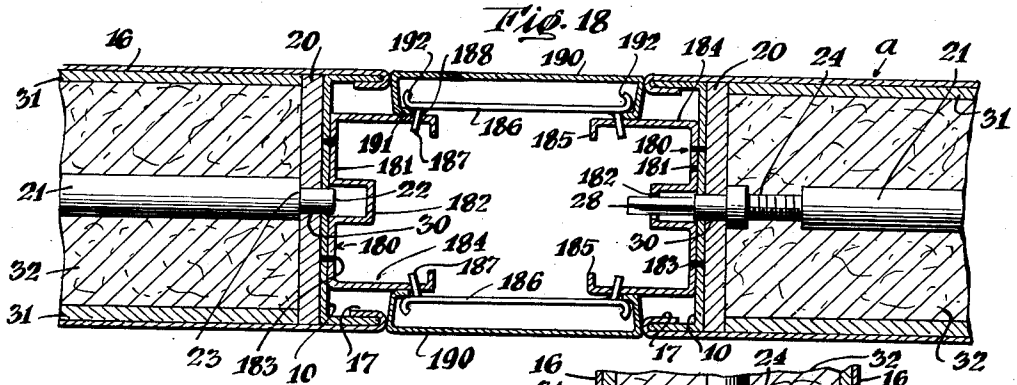


Fig. 19

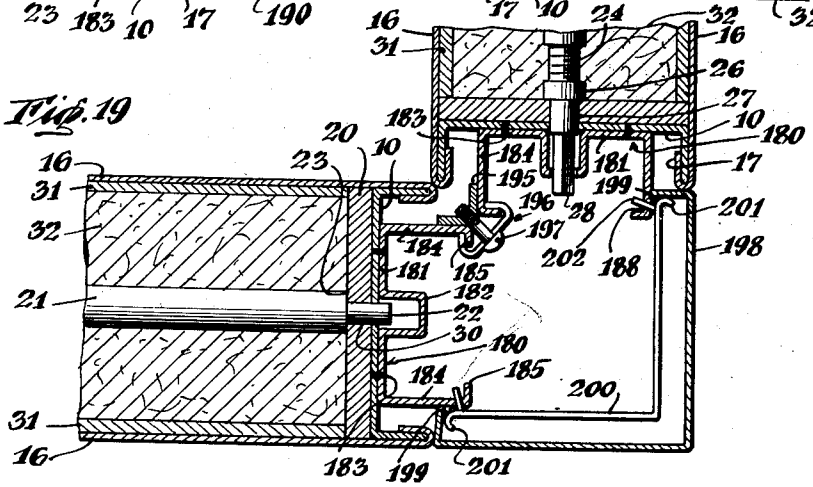
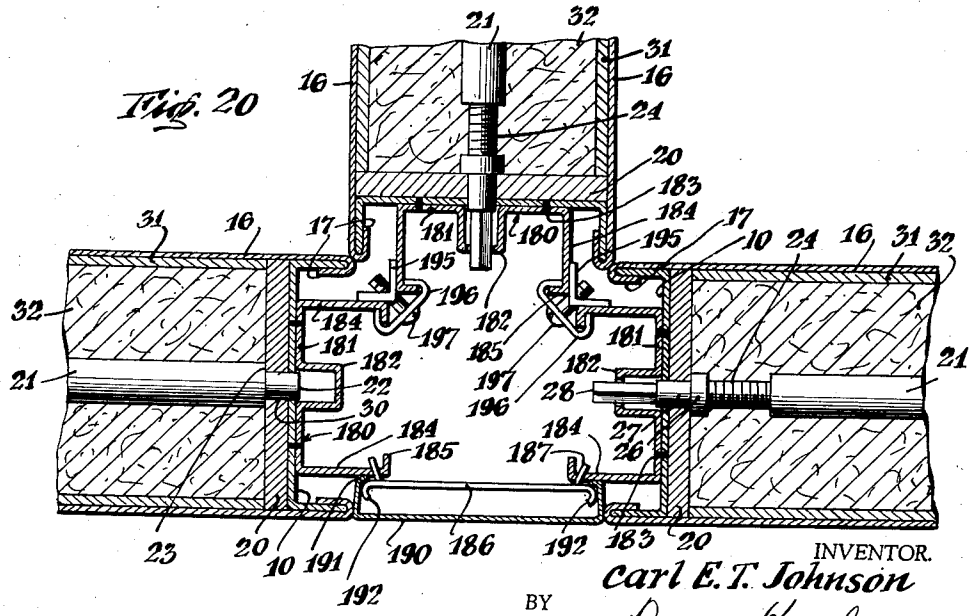


Fig. 20



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UNITED STATES PATENT OFFICE

2,360,500

METAL PARTITION

Carl E. T. Johnson, Jamestown, N. Y., assignor to Jamestown Steel Partitions, Inc., Jamestown, N. Y., a corporation of New York

Application August 26, 1941, Serial No. 408,377

19 Claims. (Cl. 189—34)

This invention relates to metal partitions which may be set up in separately erectable sections or units to divide space in buildings.

In accordance with this invention, the partition is constructed from separately erectable panel units of novel construction which present substantially flush wall surfaces. The panel unit is formed from spaced metal sheets whose vertical edges are joined to vertical uprights. Means are provided for spreading the vertical uprights forming the panel unit apart so as to place a predetermined drumhead stretch or tension on the wall-forming facing sheets so as to remove from the facing sheets waves, undulations and surface irregularities so that an absolutely flat and flush wall surface is produced. To prevent inward buckling of the facing sheets and to reinforce and stiffen the same, a plurality of struts extend horizontally between the uprights. The ends of the struts are rather loosely connected to the uprights of the unit so that the uprights can be spread apart a sufficient amount to place drumhead tension on the facing sheets. The horizontally extending struts may be formed channel-shaped in cross-section with the flanges so placed as to abut the inside surfaces of the facing sheets without causing distortion of the facing sheet. These flanges thus provide a rigid backing for the facing sheets which positively prevents rattling of the facing sheets when drummed upon. The inside surface of the facing sheets may be covered by a suitable sound deadening coating or sheeting and the space between the facing sheets may be packed with a suitable filler formed from some sound deadening material which is preferably non-heat conducting and fire resistant.

In one form of the invention post structures may be positioned between the vertical edges of adjacent panel units. Each post structure may be provided with a removable post cap positioned on one or both sides thereof and removably secured to the post structure by resilient clip elements. The post caps may be designed to overlap the adjacent panel units to retain them in erect position between the post structures. Each post structure is secured to the building floor by suitable floor securing means and to the cornice which extends over the panel units and post structures.

In another form of the invention the panel units may be connected together at their vertical edges by spaced clips without the use of an intervening post structure. In this type of construction the post caps are removably attached to the panel unit connecting clips. The post caps may be designed to present outside surfaces substantially flush with the outside surfaces of the adjacent panel units or, if desired, the post caps may be shaped to present vertical edges which overlap the adjacent vertical edges of the panel units.

A metal baseboard extends along each side of the panel units adjacent the lower end thereof and is removably attached to the panel unit by means of clips slidably engaging the adjacent flange of a wire and conduit receiving tray which is readily accessible upon removal of the baseboard. The baseboards may be of such length as to extend along the bottom of a plurality of panel units so as to present a substantially flush base molding throughout. Where plinths are to be used each baseboard may be of such length that it extends substantially only the width of the panel unit and the plinths may be positioned to overlap the adjacent ends of the baseboard. The plinths may be provided with U-shaped straps welded thereto which removably engage tongues struck out from the lower end of the adjacent post caps.

Apertures may be provided in the panel unit uprights through which wiring and other conduits may be threaded from one panel unit to the other or into the space provided between the vertical edges of adjacent panel units. Where a post structure is provided between adjacent panel units, the post structures would also be provided with apertures which align with the apertures in the panel unit uprights and panel unit trays so that the wiring or conduits may be strung through the posts or into the posts. The wire and conduit receiving trays are readily accessible upon removal of the baseboards.

The panel units extend from the building floor to the cornice and may be constructed to present substantially flush wall surfaces throughout their length and width. The panel units may also be constructed to provide glazed sections which are formed by placing a glass receiving frame above a lower packed section constructed substantially similar to the cornice-high panel units.

When the partition is to be equipped with entrance doors, door frames are provided which may be inserted between and secured to adjacent panel units or adjacent post structures. The door frames are secured to the post structure by adjustable means which permits both vertical and horizontal adjustment of the door

frame to properly center the same and square the door frame so that it conforms to the edges of the door.

An object of this invention is to provide an improved metal partition composed of panel units formed of spaced metal facing sheets which present substantially flush wall surfaces and equipped with means for placing a drumhead tension on the panel forming facing sheets to remove waves, undulations and surface irregularities therefrom.

Another object of this invention is to provide an improved partitioning panel unit comprising spaced facing sheets connected to vertical uprights in a manner to permit tensioning of the facing sheets to remove waves, undulations and surface irregularities therefrom.

Another object of this invention is to provide an improved partitioning panel unit formed from spaced facing sheets which are interiorly braced by a series of horizontally extending struts so connected to the vertical uprights of the panel unit that the facing sheets may be stretched to a drumhead tension.

Another object of this invention is to provide an improved baseboard assembly for metal partitions which is connected to the lower ends of the panel unit in a manner to permit quick removal and attachment thereof so as to give ready access to a wire and conduit receiving tray forming a part of the panel unit.

Another object of this invention is to provide improved means for attaching plinth blocks to a partition assembly.

Another object of this invention is to provide an improved glazing frame for metal partitions which can be quickly mounted upon a panel unit section positioned therebelow.

Another object of this invention is to provide an improved door frame assembly having means associated therewith for adjustably securing and squaring the door frame in the partition wall.

A further object of this invention is to provide an improved metal partition comprising a plurality of separately erectable and removable panel units which are economical to manufacture, fully insulated against passage of sound, and which present flush wall surfaces free from surface waves, undulations and irregularities, and which are braced and reinforced to present firm, rigid and vibrationless wall surfaces.

Other objects and advantages will become apparent as the disclosure proceeds.

Various other features and advantages of the invention will be apparent from the following particular description and from an inspection of the accompanying drawings.

Although the novel features which are believed to be characteristic of this invention will be particularly pointed out in the claims appended hereto, the invention itself, as to its objects and advantages, and the manner in which it may be carried out, may be better understood by referring to the following description taken in connection with the accompanying drawings forming a part thereof, in which

Fig. 1 is a front elevational view of a post type partition equipped with my improved panel units;

Fig. 2 is an enlarged fragmentary elevational view of the partition shown in Fig. 1, this view showing certain parts broken away to illustrate structural features of the panel units and partition post positioned between the panel units;

Fig. 3 is an enlarged horizontal cross-sectional view taken through the wall channel, panel unit and post, to illustrate further structural details thereof, this view being taken along line 3—3 of Fig. 1;

Fig. 4 is an enlarged vertical cross-sectional view through the lower portion of the panel unit and base structure as it appears when looking in the direction of the arrows 4—4 of Figs. 1 and 3;

Fig. 5 is an enlarged vertical cross-sectional view through the partition as it appears when looking in the direction of the arrows 5—5 of Figs. 1 and 3;

Fig. 6 is an enlarged end view through the lower portion of the panel unit and associated baseboards as they appear when looking in the direction of the arrows 6—6 of Figs. 1 and 3;

Fig. 7 is an elevational view of the improved panel unit which extends from the floor to the cornice, certain parts being broken away to illustrate structural details;

Fig. 8 is an enlarged perspective view of the lower portion of the panel unit with certain parts broken away to illustrate structural details;

Fig. 9 is a perspective view of the plinth which is attached to the lower end of each post cover;

Fig. 10 is an enlarged fragmentary vertical cross-sectional view taken through the cornice and the upper portion of the partition panel as these parts appear when looking in the direction of the arrows 10—10 of Fig. 1;

Fig. 11 is an enlarged vertical cross-sectional view through a portion of the cornice and a partition panel having the upper section thereof equipped with glass framing, as the same appears when looking in the direction of arrows 11—11 of Fig. 1;

Fig. 12 is an enlarged vertical cross-sectional view through the cornice, door frame and the upper portion of the door, as the same appears when looking in the direction of the arrows 12—12 of Fig. 1;

Fig. 13 is an enlarged horizontal cross-sectional view through the partition as the same appears when looking in the direction of the arrows 13—13 of Fig. 1;

Fig. 14 is an enlarged vertical cross-sectional view taken longitudinally through the upper portion of the partition illustrating the means by which the cornice is secured to the upper end of the post, as the same appears when looking in the direction of the arrows 14—14 of Fig. 10;

Fig. 15 is an enlarged fragmentary elevational view of a portion of the post and the adjacent portion of the partition panel equipped with glass framing, certain parts being broken away to illustrate structural details.

Fig. 16 is a horizontal cross-sectional view through a sectional type partition built up from my improved panel units connected by spaced connecting clips without the use of an intervening post structure and with the space between adjacent panel units covered by removable post caps;

Fig. 17 is a fragmentary elevational view of the sectional type partition shown in Fig. 16 with certain parts broken away to illustrate structural details;

Fig. 18 is a fragmentary cross-sectional view of another type of postless sectional partition built up from my improved panel units connected together by spaced clips, with the space between the panel units covered by a post cap whose outer surface is substantially flush with the adjacent facing surfaces of the panel units;

Fig. 19 is a fragmentary horizontal cross-sectional view through the sectional type partition shown in Fig. 18, illustrating the manner in which my improved panel units may be connected to provide a right-angled partition run;

Fig. 20 is a fragmentary horizontal cross-sectional view of the sectional type partition shown in Fig. 18, illustrating the manner in which my improved panel units may be connected to form a T-shaped partition run.

Similar reference characters refer to similar parts throughout the several views of the drawings and the specification.

The partition assembly constructed in accordance with this invention generally comprises a series of panel units of the desired height and width which may extend from the floor to the cornice or to the ceiling, as desired. The partition panels designated *a* are shown as extending from the floor to the cornice *c* and present flush facing surfaces throughout their length. The partition panels may also be constructed to receive glass in their upper section with the lower section thereof presenting flat wall surfaces, which type of panel is designated *a'*.

Baseboards *f* extend along each panel unit and are removably secured thereto. Plinths *g* are also provided which are secured to the lower end of each post cap. Where the partition is to abut against a building wall, a wall channel *h* may be provided which is secured to the wall and is constructed to receive the vertical edge of the adjacent panel unit.

In the post type partition, as shown in Figs. 1 to 5 inclusive, the partition posts *b* are arranged between the spaced panel units and have their lower ends fastened to the building floor and their upper ends fastened to the cornice *c* which extends over the posts and panel units. Each post is provided with a removable face cover which snaps onto the post structure and overlaps the adjacent panel units, thus retaining the panel units in assembled position. The partition may be provided with a suitable door *d* fitting within a door frame *e* fixed to the adjacent posts *b*.

In the post type partition, each partition post *b*, as illustrated more particularly in Figs. 2, 3, 5 and 13, comprises a built-up structure comprising a pair of spaced channel members 1 secured together in rigid assembly by paired channel-shaped spacers 2 which extend transversely between the main channel members 1. Each channel spacer 2 may be made only a few inches in length and arranged in vertical spaced relationship. Each channel spacer 2 has an outturned flange 3 at each end thereof which seats against the inside face of the adjacent main channel 1 and are secured thereto as by spot welding 4. While a series of vertically spaced channel spacers 2, properly secured as by welding to the main channels 1, produce a post structure of ample strength, it will be appreciated that the channel spacers 2 may be formed so as to extend the full height of the post, if desired.

A sheet metal post cap *b'* is removably secured to each exposed side of the post structure. Each post cap *b'* extends substantially the full height of the post and comprises a flat wall-forming facing portion 5 each of whose vertical edges terminates in a rebent portion 6 which may lie substantially flat against the inside face of the wall-forming facing portion 5. The rebent portions 6 each terminate in an inturned relatively resilient lip portion 7 which is so shaped as to spring over the adjacent inturned flanges 9 of the main channels 1 of the post and which terminates in a flared free edge 8 to facilitate snapping attachment of the post cover *b'* to the post structure *b*. The lower end of each post *b* is secured to the building floor and its upper end is secured to the cornice *c* in a manner which will be described more particularly hereinafter.

An important feature of this invention is the construction of the panel units. The structural details of panel unit *a* are illustrated more particularly in Figs. 2 to 8 inclusive. Panel unit *a* comprises more particularly a pair of spaced channel uprights 10 each having outturned flanges 11. The upright channels 10 are maintained in spaced parallel relationship by a plurality of channel-shaped horizontally extending struts 12, 12' and 12'', which are spaced at suitable intervals from the bottom to the top of the panel unit. The lower-most strut 12 is positioned adjacent the lower end of the channel uprights 10 with the web portion thereof positioned horizontally and extending between the channel uprights 10. The channel strut 12 is provided with downturned flanges 13 which may be provided with end portions 13*a* which overlap the outside faces of the adjacent flanges 11 of the channel uprights 10 and are suitably secured thereto as by welding 13*b*. The channel strut 12' immediately above the lowermost channel strut 12 is also provided with downturned flanges 13' whose outside faces are substantially flush with the outside faces of the adjacent flanges 11 of the channel uprights 10. The space between the channel struts 12 and 12' provides a tunnel in which wiring and other conduits may be placed. The series of spaced channel struts 12'' arranged above the channel strut 12' are also provided with flanges 13'' whose outside faces are slightly inset with respect to the outside faces of the adjacent flanges 11 of the channel uprights 10 for a purpose that will presently appear.

The strut forming channels 12' and 12'' are each provided with a pair of ears 14 projecting from each end of the web portion thereof, which are adapted to be inserted into corresponding slots 15 in the web portion of the channel uprights 10. When the ears 14 have been inserted through the corresponding slots 15 in the structural channels 10, the ears 14 can be bent downwardly or upwardly to lie against the web portions of the channel uprights 10, as illustrated more particularly in Figs. 2 and 8, so as to lock the channel-shaped struts 12' and 12'' to the vertically extending structural channels 10.

A wall-forming metal facing sheet 16 is positioned on each side of the channel uprights and is supported by the flanges 11 of the channel uprights 10 to form the exterior wall surface of the panel unit. Each facing sheet 16 has a rebent vertical edge portion 17 which is bent around and overlaps the inside face of the adjacent flange 11 of the channel uprights 10, as more particularly illustrated in Figs. 3 and 8. The facing sheets 16 are applied to the structural channels 10 by telescoping the vertical edges of the sheets endwise over the adjacent flanges 11 of the channel uprights 10. It will be appreciated that when the facing sheets 16 have thus been applied, the spaced channel uprights 10 of the panel unit are prevented from separating outwardly and that each facing sheet 16 thus acts as a tension member.

Means are provided for driving the paired structural channels 10 outwardly so as to place a predetermined tension on the facing sheets 16

and thus stretch the facing sheets 16 sufficiently to remove all waves and undulations from the facing surfaces thereof. This tensioning means comprises a series of spaced horizontally extending bars 21 each end of which is supported by a heavy abutment plate 20 welded to the web portion of each channel upright 10. One end of each bar 21 is provided with a reduced end portion 22 which extends through a corresponding hole 30 in the adjacent abutment plate 20. Each bar 21 is provided with a shoulder 23 which seats against the abutment plate 20. The other end of each bar 21 carries a specially constructed screw bolt 24 which is threaded into a threaded socket 25 extending into the other end of the bar 21. The screw bolt 24 is provided with a shoulder portion 26 which seats against the inside face of the adjacent abutment plate 20. A stud portion 27 projects from the collar portion 26 through the receiving hole 30 in the abutment plate 20 and terminates in a head portion 28 to which a wrench may be applied. By manipulating the head 28 of screw bolt 24 the channel uprights 10 can be spread apart so as to drive the flanges 11 thereof into the vertical pockets formed by the rebent edge portions 17 of the facing sheets 16 so as to stretch each of the facing sheets 16 to the point where all waves and undulations are removed from the facing surface thereof, thus producing a panel unit presenting truly level facing surfaces.

To deaden sound and to further reinforce the panel sheets 16, it is desirable to apply a covering material to the inside surface of each of the sheets 16. The covering material 31 may comprise suitable sound deadening and heat resisting sheet material, such as fibrous or asbestos sheets, which are suitably cemented to the inside surface of the facing sheets 16 or the insulating sheeting may be formed on the facing sheets 16 by spraying a plastic compound containing asbestos fiber to the facing sheets 16, which is of such a character that it will harden and solidify after application. The insulating layer 31 may be applied so as to extend only between the web portions of the channel uprights 10 as shown in Fig. 3 and above the channel strut 12' as shown in Fig. 4. Since this insulating material is of substantial thickness the flanges 13'' of the channel struts 12'' may be sufficiently inset from the flanges 11 of the structural channels 10 as to make room for the added thickness of the insulating layer, but the flanges 13'' should nevertheless abut the inside face of insulating layer 31 when the facing sheet is level and flush. It will also be noted by referring to Fig. 4 that the inside face of each facing sheet 16 abuts the adjacent flange 13' of channel strut 12'. The lower end of each facing sheet 16 does not extend appreciably below the flanges 13' of channel strut 12'.

It will now be noted that the bars 21 and associated screw bolts provide means for placing a drumhead tension on the facing sheets so that the sheets are maintained smooth and level and that the flanges 13' of strut 12' and flanges 13'' of struts 12'' provide a backing abutment for the facing sheets which prevents inward buckling thereof. Each panel unit may be equipped with any desired number of channel struts 12' and 12'' and spreader bars 21. In actual practice it has been found that the channel struts 12'' should be spaced approximately one foot apart while the tensioning bars 21 may be spaced approximately two feet apart. However, these spacing distances may be varied as the width and height of the panel may require.

As shown more particularly in Figs. 3, 4 and 7, the space between the spaced channel struts 12' and 12'' is preferably filled with a suitable sound deadening packing material, such as asbestos fiber or rock wool. The sound deadening packing material may be formed into a suitably shaped pad 32 wrapped in a wrapper 32' so as to facilitate the insertion of the pads between the spaced channel struts.

The lower end of each of the channel uprights 10 may be provided with an opening 33 cut in the web portion thereof, through which wiring and other conduits may be threaded. Since cutting of the openings 33 in the lower end of the channel uprights has a tendency to weaken the same, it is desirable to provide a stiffening member 34 at the lower end of each upright which extends from the lower end thereof to some distance above the opening 33. As shown more particularly in Figs. 2, 3, 6 and 8, the reinforcing member 34 may be of channel-shaped cross-section provided with inturned flanges 35 which seat within and between the flanges 11 of the channel uprights 10. The flanges 35 of the reinforcing member 34 may be secured as by welding 36 to the flanges 11 and a portion 37 of the flanges 35 may be offset sufficiently to permit the rebent edges 17 of the facing sheets 16 to slide between the offset portion 37 of the flanges 35 and the adjacent flange 11 of the channel upright 10. The spot welds 36 can be applied by cutting suitable holes 38 in the reinforcing member 34 through which holes the nose end of a welding tool may be inserted to apply the spot welds 36. Each reinforcing member 34 is provided with a wire and conduit opening 39 which aligns with the adjacent opening 33 in the channel upright 10, as shown more particularly in Figs. 2 and 8.

A channel-shaped tray member 40 extends between the channel uprights 10 and is supported upon the web portion of the lower channel strut 12 and is arranged to receive wiring and conduits threaded through the aligned openings 33 and 39. The channel-shaped wire-receiving tray 40 is somewhat wider than the channel-shaped strut 12 and is provided with upturned flanges 41 to which the baseboards *f* are attached in a manner hereinafter described. The tray 40 may be provided with a vertically extending dividing wall 42 positioned approximately centrally of the tray 40, which dividing wall may be provided with a foot portion 43 which may be welded to the bottom or web portion of the tray 40. The dividing wall 42 is so positioned that wiring and conduits can be positioned on each side thereof and run through the openings 33 in the channel uprights 10 and the openings 39 in the reinforcing members 34. The vertical channels 1 for the post structure *b* may also be provided with wire and conduit openings 44 which align with openings 33 and 39 so as to permit wiring in the trays 40 to be strung through the center of the post structure *b*.

The lower end 45 of each facing sheet 16 terminates in an outturned end portion 46 spaced some distance from the tray 40, as shown more particularly in Figs. 4 and 6. A flange portion 47 extends upwardly from the end portion 46 and terminates in an outwardly flared lip portion 48. Thus the lower end 45 of the facing sheet 16 and the flange portion 47 spaced therefrom define a pocket 49 therebetween which provides means for removably securing the metal baseboards *f* in position.

A metal baseboard *f* is removably positioned at each side of the panel unit, and comprises a facing portion **50** which terminates at its upper end in an inturned shoulder portion **51** and a downturned flange portion **52** designed to seat in the adjacent pocket **49** formed in the lower end of the facing sheet **16**. A plurality of spaced metal clips are also secured to the inside surface of the facing portion **50** by means of which the baseboard can be secured to the adjacent flange **41** of the tray member **40**. Each clip comprises a foot portion **54** which may be welded to the inside surface of the facing portion **50** of the baseboard and an offset portion **55** which provides a pocket **56** shaped to snugly receive the upturned flange **41** of the tray member **40**. The offset portion **55** of each clip may be provided with a flared end **57** to facilitate entry of the tray flange **41** in the pocket **56**. The lower end of the facing portion **50** of the baseboard terminates in an inturned foot portion **53** designed to seat against the building floor. The baseboards *f* are applied by sliding the same downwardly adjacent the facing sheet **16** to the point where the flange portion **52** of the baseboard seats within the pocket **49**, the upturned flange **41** of the tray **40** telescopes into the clip pocket **56**, and the inturned foot portion **53** seats against the building floor. The length of each baseboard *f* is such as to extend between the vertical edges of the post caps *b'*, as shown more particularly in Fig. 3.

The lower flush wall section of the glazed panel unit *a'* may be constructed similar to the full height panel unit *a* except that it is of lesser height. Referring more particularly to Figs. 1, 11, 13 and 15, the lower packed section of glazed panel unit *a'* has its upper edge so formed as to provide a seat for the glazing frame. As shown in Fig. 11, the upper ends of the facing sheet **16** are each bent inwardly to provide complementary shoulder portions **80** and **81**, which terminate in upturned abutting lip portions **82** and **83** secured together as by spot welding **84**. The upturned lip portions **82** and **83** are offset from the medial line extending through the lower packed section so as to provide an abutment for the lower glazing rail **85** seating thereagainst.

The glazing rail **85** presents a decorative molding portion **86** which seats against the shoulder portion **81** of the lower section. The glazing rail **85** is provided with a downturned wall portion **87** which provides a shoulder against which the glazing sheet **100** seats. The lower end of the vertical wall portion **87** terminates in a horizontally extending foot portion **88** which seats against the shoulder portion **80** of the lower section. As shown more particularly in Figs. 11 and 15, the foot portion **88** is provided with a depressed blister **89** which seats within a complementary depressed blister **90** formed in the shoulder portion **80**. The complementary blisters **89** and **90** serve to retain the glazed section in seating position upon the upper end of the lower flush section.

A molding strip **91**, removably secured to glazing rail **85**, has a molding portion **92** complementary to the molding portion **86** of the glazing rail **85** and is designed to seat against the opposite face of the glazing sheet **100**. Molding strip **91** is provided with a downturned lip **93** which seats against the glazing sheet **100** and an inturned foot portion **94** designed to seat upon the shoulder portion **80**, and is retained in position by a resilient clip portion **95** which forms an extension of foot portion **88** of glazing rail **85**. Resilient clip portion **95** is provided with a flared lip **96a** to permit the foot portion **94** of the molding strip **91** to be easily slid under the resilient clip portion **95**.

A pair of vertical spaced molding rails **96** are secured at the lower end thereof to the ends of the lower horizontal molding rail **85**, these parts being welded together to form a neat mitered joint. Molding rails **96** are each provided with a depressed groove **97** into which the vertical edges of the glazing sheet **100** extend, and are also provided with facing flanges **98** whose outside faces align with the outside faces of the facing sheets **16** of the lower packed section. The facing flanges **98** are so constructed that the vertical edges of the post caps *b'* seat thereagainst, and the flanges **98** may be stiffened and reinforced by inturned lips **99** formed thereon.

The upper horizontal glazing rail **101** is provided with a vertical wall portion **102** against which the upper horizontal edge of the glazing sheet **100** may seat. Extending horizontally from the vertical wall **102** is a relatively flat wall **103**. Glazing rail **101** is provided with upturned facing flanges **104** which extend into a recess **105** provided in the cornice *c*, the facing flanges **104** being substantially flush with the facing flanges **98** of the vertical glazing rails **96**. The upper horizontally extending glazing rail **101** is secured at its ends as by welding to the upper ends of vertical glazing rails **96** and they are joined in a manner to form a smooth mitered joint. The facing flanges **104** may also terminate in inturned lip portions **106** to reinforce and stiffen the glazing rails **101**. A molding strip **107**, which may be made similar in all respects to the lower horizontally extending molding strip **91**, is provided with an inturned lip portion **108** designed to seat against the glazing sheet **100** and an inturned foot portion **109** adapted to seat under and be resiliently gripped by a plurality of spaced resilient clip elements **110** struck out from the flat portion **103** of the glazing rail **101**.

It will be appreciated that the glazing frame, comprising the lower horizontally extending glazing rail **85** and the upper horizontally extending glazing rail **101**, is connected to the ends of the vertical glazing rails **96** as by welding to form a rigid frame, and after erection of the lower flush section of the panel unit *a'*, the glazing frame is placed thereon. The lower horizontally extending glazing rail **85** is centered on the upper end of the lower section by the complementary blisters **89** and **90**, the upper horizontally extending rail **101** is held in position by the recess **105** in the cornice *c*, and the vertically extending glazing rails **96** are held in position by the overlapping post caps *b'*. Either before or after erection of the lower packed section, the glazing sheet **100** is placed in the glazing frame by inserting one vertical edge of the glazing sheet in the groove **97** of one vertical glazing rail **96** until the other vertical edge of the glazing sheet **100** can be inserted in the groove **97** of the other vertical glazing rail **96**. The glazing sheet **100** is then moved horizontally in the opposite direction until the vertical edges of the glazing sheet **100** are properly centered in both spaced grooves **97**. The lower molding strip **91** and the upper molding strip **107** are then applied to the lower and upper rails **85** and **101**. Glazing putty or other suitable glazing plastic **111** is applied to the vertical grooves **97** and the grooves formed in the upper and lower horizontal glazing rail before, during, or after the

glazing sheet is inserted in the frame, as is most convenient.

Where the panel unit is to abut a building wall *w*, as shown more particularly in Figs. 1, 2 and 3, a vertically extending wall channel *h* is provided, which extends from the top shoulders 51 of the adjacent baseboards *f* to the cornice *c*. The vertical wall channel *h* comprises more particularly a web portion 60 which is secured to the building wall *w* by means of suitable wall screws or bolts 61. The vertical edges of the web portion 60 are provided with ribs 62 which seat snugly against the building wall *w* and laterally extending flanges 63 having rebent edge portions 64 between which the vertical edge of the panel unit *a* is adapted to telescope. A neat and attractive partition-to-wall connection is thus provided.

The lower ends of the post caps *b'* are each covered by a removable plinth *g* constructed as illustrated more particularly in Figs. 1, 3, 5 and 9. Each plinth comprises a facing portion 72 having inturned vertical flanges 73 whose free edges neatly seat against the facing portion 50 of the adjacent baseboard *f*. The upper ends of the flanges 73 are provided with an overhanging portion 74 which snugly seats over the shoulder portion 51 of the adjacent baseboard *f*. A horizontally extending flange portion 75 is contoured to snugly fit the outer contour of the post cap *b'*. The plinth is secured to the adjacent post cap *b'* by means of a pair of U-shaped straps 76 welded to the inside surface of the facing portion 72 of the plinth. A pair of vertically spaced tongues 77 are struck out from the lower end of the facing portion 5 of the post cap *b'*, which tongues 77 have outwardly flared ends 78, so that the straps 76 may be telescoped behind the tongues 77. The lower horizontal edge of the plinth block *g* may be provided with an inturned lip portion 19 which seats against the building floor.

The cornice structure *c* which extends over the various panel units may be formed from stamped sheet metal parts. The cornice comprises generally a pair of complementary molding members 115, as shown more particularly in Figs. 1, 10, 11, 12 and 14, which present attractive exposed molding surfaces. Each molding member 115 is provided with an inturned shoulder portion 116 at the lower edge thereof which terminates in an upwardly extending wall portion 117 which terminates in an inwardly extending flange portion 118. A spacing plate 119 extends the full length of the cornice between the molding members 115 and rests upon and is secured to the inturned flange portions 118 as by spot weld 120. Thus the vertically extending wall portions 117 and the horizontally extending spacing plate 119 form a recess 105 into which the upper ends of the panel units extend. The upper horizontal edges of the molding members 115 are each provided with an inturned shoulder portion 121 terminating in a depressed flange portion 122 upon which a cornice cover plate 123 may seat. The cornice cover plate 123 may be secured to the depressed flange portions 122 by means of suitable metal screws 124. The cornice cover plate 123 may be provided with a depressed groove 125 within which the vertical uprights 126 of a ceiling filler may be positioned. The ceiling filler extends between the cover plate 123 and the building ceiling, and the vertical frame members 126 thereof may be covered with a suitable plasterboard 127 or other wall-forming material.

In the post type partition, a vertical post *b* is positioned between adjacent panel units and is secured to the building floor by means of a suitable floor bolt 65, shown more particularly in Figs. 3 and 5, which may be of the lug or expansion bolt type. The upper threaded end 66 of the floor bolt 65 extends through an opening provided in a sturdy metal strap 67 which extends between the paired channel uprights 1 of the post structure *b*. The ends of the strap member 67 are provided with downturned flanges 68 which abut and are welded to the web portions of the channel uprights 1. The lower end of the post structure *b* is designed to rest on one or more flat leveling shims 69 which rest upon the building floor. Each shim plate 69 is provided with an aperture 70 through which the floor bolt 65 extends, and where a plurality of stacked shim plates 69 are provided, the apertures 70 in the shims are arranged in alignment. The threaded end 66 of the floor bolt 70 is provided with a threaded nut 71 which may be tightened to secure the post structure *b* in rigid vertically erect position.

The upper end of each partition post seats within the cornice recess 105 and is firmly secured to the cornice. As shown more particularly in Figs. 10, 11 and 14, it will be noted that a vertically extending lug plate 130 is welded to the web portion of each of the vertical uprights 1 which form the post structure *b*. Each lug plate projects through a slit 131 cut in the spacing plate 119 of the cornice and through an aligned slit 132 cut through the web portion 133 of a channel-shaped stiffener 134 which seats within the cornice and rests upon and may be welded to the spacing plate 119. The channel-shaped stiffener 134 is provided with vertically extending stiffening flanges 135 to stiffen and strengthen the construction. The channel-shaped stiffener 134 may be relatively short and extend only a short distance beyond the lug plates 130, as shown in Fig. 14. Each of the lug plates 130 is provided with a vertically extending slot 136 into which a wedge-shaped key 137 may be driven to firmly secure the cornice to the post structure *b*. The web portion 133 of the channel stiffener 134 may be provided with a hole or opening 138 which aligns with a hole or opening 139 in the stiffener plate 119. The holes 138 and 139 are centrally positioned over the end of the post structure *b* so that wiring and other conduits positioned within the post structure *b* may also be strung through the cornice *c*.

Where the partition is provided with a door *d*, a door frame *e* is secured to a pair of properly spaced adjacent post structures *b*, as shown more particularly in Figs. 1, 12 and 13. The door frame *e* comprises a pair of vertically extending framing members and an upper horizontally extending framing member connected by mitered joints and welded together at the joints. Each framing member is a built-up section comprising a heavy channel-shaped member 140 having a web portion 141 and flange portions 142. A door facing member 143 is provided with a flat door edge portion 144 and a facing flange 145 which seats against the outside face of one of the flanges 142 of the stiffening channel 140, the flange 145 terminating in an inturned lip portion 146 which seats against and may be welded to the outside face of the web portion 141 of the stiffening channel 140. The other end of the facing portion 144 terminates in a flange 147 which is welded to the inside surface of a facing portion

148 forming a part of a sheet metal abutment member 149. The facing portion 148 of the abutment member 149 also seats against the adjacent flange 142 of the stiffening channel 140 and is complementary to the facing flange 145 of the member 144. The facing portion 148 may also be provided with an inturned lip 150 which is welded to the web portion 141 of the stiffening channel 140. The abutment member 149 is provided with an attractively shaped abutment flange 151 which terminates in a lip portion 152 spaced from the facing portion 144 of the facing member 143, the lip portion 152 being so shaped as to retain a resilient cushioning member 153 against which the edge of the door may seat.

In the post type partition, the vertical framing members constructed as above described may each be positioned adjacent a post structure *b* with the inturned lip portions 146 and 150 thereof seating against the outside face of the adjacent channel upright 1 of the post structure. The facing portions 145 and 148 of the frame member are generally flush with the facing sheets 16 of the panel unit and are overlapped by the vertical edges of the post caps *b'*. The vertical framing members of the door frame may each be adjustably secured to the adjacent post structure *b* by means of a plurality of spaced screw bolts 155 whose shank portion 156 extends through a suitable aperture 157 provided in the web portion 141 of the stiffening channel 140. To hold the bolts 155 in position, a relatively thin nut washer 157' may be threaded on or welded to the shank 156 thereof adjacent the outside face of the web portion 141 of the stiffening channel 140 to retain the bolts in fixed position. In erecting the door frame each bolt shank 156 is inserted into elongated slot 159 cut in the web portion of the adjacent upright 1 which forms a part of the post structure, and the vertical framing members are firmly secured to the post structure by applying and tightening nuts 160*a* threaded onto the shanks 156 of the bolts 155.

The upper horizontally extending framing member of the door frame, as shown in Fig. 12, is shaped and constructed similar to the vertically extending framing members just described and therefore need not be further described. It will be noted, however, that the horizontally extending door frame member snugly seats within the recess 105 of the cornice *c*, and, if desired, web portion 141 of the stiffening channel 140 may be secured to the spacing plate 119 of the cornice by similar bolts 155 whose shank portions 156 are inserted into slots 161*a* cut in the spacing plate 119.

The door *d* may be of any desired construction and forms no part of this invention. The door *d* is supported upon suitable hinges 162*a* secured to the door and to the facing portion 144 of the adjacent vertical door framing member, and the other edge of the door may be provided with a suitable latch or lock 163*a* which engages a suitable lock plate secured to the facing portion 144 of the adjacent vertical door framing member.

My improved panel units are not limited for use in connection with post type partitions but may be used to advantage in the construction of sectional postless type partitions wherein the panel units are joined by spaced connecting clips with the space therebetween covered by post caps removably secured in position. My improved panel units may be used in the construction of almost any type of sectional type partition. I have shown in Figs. 16 to 20 inclusive, for purposes of illustration, two types of sectional partitions formed and constructed from my improved panel units.

Referring more particularly to Figs. 16 and 17, the panel units *a* may be constructed substantially the same as the panel units illustrated in Figs. 7 and 8 and heretofore described, except that a vertical half post 160 is applied to each vertical edge of the panel unit *a* after the panel units have been constructed and assembled. Each half post 160 is formed from sheet metal of suitable gauge and comprises a web portion 161 provided with offset shoulder portion 162. Web portion 161 terminates in a pair of flange portions 163 each having a rebent edge 164 which overlaps the adjacent facing sheet 16 of the panel unit. The half posts 160 are secured to the vertical edges of the panel units in a suitable manner, as by bolts extending between the half posts and the adjacent vertical upright 10 of the panel unit. If desired, these bolts may be formed as extensions 165 and 166 of expansion members 21. As shown more particularly in Fig. 16, extension 165 extends from the end 32 of expansion member 21 and is provided with a threaded end to receive the nut 167. Similarly, the headed end 28 is provided with extension 166 which is threaded to receive the nut 168.

In this construction panel unit *a* is completely assembled and drumhead tension is placed on the sheets 16 by manipulating the head 28 of the expansion stud 24, which can be done without interference. Each half post 160 is then telescoped over the vertical edges of the facing sheets 16 and the threaded ends of extensions 165 and 166 inserted through the bolt holes provided in the half post. Nuts 167 and 168 are then applied and the half posts securely clamped to the vertical edges of the panel unit, which can be easily done without disturbing the drumhead stretch applied to the facing sheets 16 of the half posts 160.

The panel units *a* equipped with the half posts 160 are then erected into position with the lower ends thereof suitably secured to the building floor. The half posts 160 of adjacent panel units are connected together by suitable metal clips 170 which are provided with dogs 171 which are inserted through vertical slots 172 cut in the shoulder portions 162 of the half posts. The clips 170 are then driven down so that the dogs 171 will firmly grip the adjacent half posts 160. The clips 170 are also provided with rolled edges 173 which are so shaped that the inturned edges 174 of the post cap 175 may be sprung thereover so as to removably secure the post cap 175 in position.

Where the panel units are arranged to form a T-run, as shown in Figs. 16 and 17, the half posts 160 of the panel units which form the branch run are connected to adjacent half posts of the straight run panel units by suitable wedge blocks 176 provided with dogs inserted into vertical slots 172 of the half posts. The wedge blocks are then driven down so that the dogs will securely grip the half posts. It will be appreciated that the panel units may be connected together to form a sectional type partition by various and sundry types of clip securing means other than those illustrated.

The panel units *a* equipped with half posts 160 may extend from the floor to the ceiling or from the floor to the cornice *c*, in which event

the upper ends of the panel units extend into cornice recess 105 in the manner heretofore described. The half posts 160 of the panel units may be adjustably secured to the building floor in any suitable manner and, if desired, the half posts 160 may be secured to the cornice by welding lug plates 130 which are secured to the cornice by the wedge pins 136 in the manner heretofore described. It will be appreciated that the half posts 160 may also be secured to the cornice by suitable bolts or other securing means.

In event my improved panel units are to be used to form a sectional partition in which the post caps are substantially flush with the facing surfaces 16 of the panel units, each of the panel units *a* may be equipped with half posts 180, as illustrated in Figs. 18 and 20. In this construction the panel units *a* are constructed and assembled similarly to the panel unit shown in Figs. 7 and 8 and heretofore described. Each half post 180 comprises a web portion 181 whose midsection is offset to provide a glass-receiving groove 182 so that the half posts 180 may also serve to provide glass frames above or below the packed panel *a*. The half posts 180 thus extend from the floor to the ceiling or cornice *c*, irrespective of the height of the packed panel *a*. Where glass is required above the packed panel units *a*, the top of panel unit *a* may be constructed similarly to that shown in the lower portion of Fig. 11, with the half posts 180 continuing above the lower panel unit *a* to form the vertical framing members of the glass frame.

The half posts 180 are secured as by welding 183 to the web portion of panel upright 10. Each half post 180 is provided with outwardly extending flanges 184 which terminate in rebent ends 185 to stiffen and strengthen the same. In the straight partition run, as shown in Fig. 18, the half posts 180 and the adjacent panel units are connected together by spaced clips 186 equipped with dogs 187 which extend through slots 188 provided in the flanges 184 of the half posts 180. The dogs 187 are so shaped that when the clip 186 is driven downwardly these dogs will firmly grip flanges 184 and retain the panel units in rigidly spaced position. A post cap 190 covers the space between adjacent panel units and each metal post cap is provided with rebent ends 191 which may be sprung over adjacent curled edges 192 of the clips 186 so as to removably retain the post caps in position.

Half posts 180 may be welded to vertical uprights 10 after the panel unit *a* has been constructed and assembled, as shown in Figs. 7 and 8. The head 28 of expansion member 21 may be arranged to project through the groove-forming offset portion of the half posts 180, so that the head 28 can be manipulated after the half post 180 has been welded to the vertical upright 10 of the panel unit.

If the panel units are to be arranged to form a right-angled run, the flanges 184 of the uprights positioned adjacent the inner corner may be connected by clamps comprising a V-shaped element 195 positioned against the outside faces of the adjacent flanges 184 and a U-shaped clip 196 which engages the rebent edges 185 of these flanges. Screws 197 extending through the U-shaped element 196 are threaded into the V-shaped element 195 to secure the adjacent flanges 184 together. The outside corner is formed by a right-angled post cover 198 having rebent edges 199 which seat behind the curled ends 201 of a clip 200, the clip 200 being provided with a dog 202 at each end thereof which extends into a vertical slot in the adjacent flange 184 of the half post 180.

In a T-partition run, as shown in Fig. 20, the branch panel unit is secured to the straight run panel units by the cooperating corner clamps comprising the V-shaped element 195 and the U-shaped element 196 secured together by the screws 197.

In the partition construction shown in Figs. 18 to 20, adjustable floor securing means attached to the half post 180 may be provided to secure the panel units to the building floor. The upper ends of the panel units extend into the cornice recess 105 of the cornice *c* and may be suitably secured thereto as by lug plates 130 fixed to the upper end of each half post 180, the lug plates being locked to the cornice by wedge pins 137.

In the sectional type partitions, as illustrated in Figs. 16 to 20 inclusive, for example, the panel units may be constructed with wire trays as illustrated in Fig. 8 and heretofore described, and they may also be equipped with baseboards *f* constructed and secured to the outside face of the panel units, as illustrated in Fig. 4. Plinth blocks may also be secured to the lower end of the post caps in the manner illustrated in Fig. 5. If desired, the baseboard may be formed to extend continuously along the bottom ends of a number of panel units, in which event the plinth blocks would be eliminated.

It will now be appreciated that I have provided an improved panel unit construction which incorporates means for placing the facing sheets under a drumhead tension. These panel units may be used in the assembly of either post type partitions or postless sectional partitions without departing from the teachings of this invention. The panel units may be equipped with glazing frames either removably or permanently attached to the lower packed panel section. It will be further appreciated that each panel unit may be built in one section extending from the floor to the ceiling or cornice or, if desired, may be made up of a plurality of superimposed panel sections. The facing sheets of the panel units when placed under drumhead stretch in accordance with the teachings of this invention are maintained straight and flush and free from waves and undulations, which has been a serious drawback in packed panels as heretofore constructed. It will also be noted that there are no exposed weld marks on the facing sheets, which have heretofore blemished the appearance of a partition wall.

While certain novel features of the invention have been disclosed and are pointed out in the annexed claims, it will be understood that various omissions, substitutions and changes may be made by those skilled in the art without departing from the spirit of the invention.

What is claimed is:

1. In partition construction, a panel unit comprising spaced metal panel sheets having their vertical edges rebent inwardly, a pair of spaced channel-shaped sheet metal frame members positioned between said panel sheets and having the flange portions thereof turned outwardly and seating within the adjacent grooves formed by said rebent edges, sound insulating liners secured to the inside surfaces of said panel sheets and extending between said frame members, and a plurality of spaced adjustable expansion devices extending horizontally between said frame mem-

bers operative to spread said frame members to place said panel sheets under predetermined tension, and a bracing member extending between and loosely connected to said frame members and having side edges arranged to provide a firm bracing support for said liners and tensioned panel sheets.

2. In partition construction, a panel unit comprising spaced metal panel sheets, vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets, a plurality of channel-shaped sheet metal bracing members extending horizontally between said frame members having their flanges arranged to brace said panel sheets, cooperating tongues and slits associated with the ends of said bracing members and adjacent frame members providing a supporting connection therebetween, and expansion means engaging said vertical frame members operative upon adjustment to spread said vertical frame members and place a predetermined drumhead tension on said panel sheets.

3. In partition construction, a panel unit comprising spaced metal panel sheets having their vertical edges rebent inwardly, a pair of spaced channel-shaped frame members positioned between said panel sheets and having the flange portions thereof seating within the adjacent grooves formed by said rebent edges, sound insulating liners secured to the inside surfaces of said panel sheets and extending between said frame members, a plurality of adjustable expansion devices extending horizontally between said frame members operative to spread said frame members to place said panel sheets under predetermined tension, and a plurality of bracing members extending between and loosely connected to said frame members and having side edges arranged to provide a firm bracing support for said liners and tensioned panel sheets.

4. In partition construction, a panel unit comprising spaced metal panel sheets, vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets, a sound-insulating sheet secured to the inside surface of each of said panel sheets and extending between said frame members, a plurality of channel-shaped bracing members extending horizontally between said frame members, cooperating tongues and slits associated with the ends of said bracing members and the adjacent frame members providing a supporting connection therebetween, said channel-shaped bracing members having the flanges thereof arranged to abut the inside surfaces of said insulating sheets and thereby brace said panel sheets, and expansion means engaging said vertical frame members operative upon adjustment to spread said vertical frame members and place a predetermined drumhead tension on said panel sheets.

5. In partition construction, a panel unit comprising spaced metal panel sheets, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets, a sound deadening coating cemented to the inside surfaces of said panel sheets, fibrous sound deadening material occupying the space between said panel sheets, adjustable means positioned between said panel sheets arranged to spread said vertical frame members and place a predetermined tension on said panel sheets, and a channel-shaped bracing member extending between and loosely connected to said frame members and having the flanges thereof arranged to abut said coatings and brace the tensioned panel sheets.

6. In partition construction, a panel unit comprising spaced metal panel sheets, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets, a plurality of horizontally extending bars positioned between said panel sheets, each of said bars having a shoulder portion at one end thereof in abutting engagement with one of said frame members, a stud member at the other end of said bar in threaded engagement therewith and projecting through an opening in the adjacent frame member, an abutment element on said stud adapted to abut the adjacent vertical frame member, means on said stud for manipulating said stud to spread said frame members and place said panel sheets under predetermined tension, and a plurality of spaced bracing members extending between and loosely connected to said frame members and having the side edges thereof arranged to brace the tensioned panel sheets.

7. In partition construction, a panel unit comprising spaced metal panel sheets, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets, a plurality of horizontally extending bars positioned between said panel sheets, a plurality of spaced abutment plates secured to the inside faces of each of said frame members, each of said bars having a shoulder portion at one end thereof in abutting engagement with one of said abutment plates, a stud member at the other end of said bar in threaded engagement therewith, an abutment element on said stud in abutting engagement with one of the abutment plates on the adjacent vertical frame member, means on said stud for manipulating said stud to spread said frame members and place said panel sheets under predetermined tension, and a plurality of spaced bracing members extending between and loosely connected to said frame members and having the side edges thereof arranged to brace the tensioned panel sheets.

8. In partition construction, a panel unit comprising spaced metal panel sheets each having a rebent edge portion at each vertical edge thereof, a pair of spaced channel-shaped sheet metal frame members positioned between said panel sheets, each of said frame members having the flange portions thereof extending outwardly and seating within an adjacent groove formed by said rebent edges, means extending between said frame members operative to spread said frame members to place a predetermined drumhead tension on said panel sheets, and a channel-shaped sheet metal reinforcing member secured to each of said vertical frame members having the flanges thereof telescoped between the flanges of the frame members and outwardly offset into engagement with the panel sheets inwardly beyond the ends of the rebent edges thereof.

9. In partition construction, a panel unit comprising spaced metal panel sheets, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets, expansion bars extending between said frame members operative to spread said frame members to place a predetermined drumhead tension on said panel sheets, a plurality of spaced bracing members extending between and loosely connected to said frame members and having the side edges thereof arranged to brace the tensioned panel sheets, a channel-shaped

half post member telescoped over the vertical ends of each of said panel sheets, and means associated with said expansion bars for removably securing each of said half post members to the adjacent frame member.

10. A metal partition including, a series of spaced posts, means for securing said posts to the building floor, panel units positioned between said posts having a wall thickness equal to the wall thickness of said post, each of said panel units comprising spaced metal panel forming panel sheets each having a rebent edge portion at each vertical edge thereof, a pair of spaced channel-shaped sheet metal frame members positioned between said panel sheets, each of said frame members having the flange portions thereof extending outwardly and seating within an adjacent groove formed by said rebent edges, and means positioned between said panel sheets and said frame members for placing said sheets under tension, post caps resiliently and removably secured to each side of said posts, said post caps having portions thereof overlapping the adjacent vertical edges of adjacent panel units retaining said panel units in position between said posts, a cornice member having a groove in the undersurface thereof into which the upper ends of said panel units and posts project, and means for detachably securing said posts to said cornice.

11. A metal partition including, a plurality of panel units each comprising spaced metal panel sheets each having a rebent edge portion at each vertical edge thereof, a pair of spaced channel-shaped sheet metal frame members positioned between said panel sheets, each of said frame members having the flange portions thereof extending outwardly and seating within an adjacent groove formed by said rebent edges, and means positioned between said panel sheets and said frame members for placing said sheets under tension, a plurality of spaced bracing members extending between and loosely connected to said frame members and having the side edges thereof arranged to brace the tensioned panel sheets, a channel-shaped half post associated with each of said frame members and having the web portion thereof secured to the web portion of its associated frame member, clip means connected to said half posts for securing said panel units together, post caps resiliently secured to said clips covering the space between adjacent panel units, a cornice member having a groove in the undersurface thereof into which the upper ends of said panel units project, and means for detachably securing said cornice to said panel units.

12. A metal partition including, a plurality of panel units each comprising spaced metal forming panel sheets, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets, jacking means for spreading said frame members to place said panel sheets under tension, a post positioned between adjacent panel units having a wall thickness equal to the wall thickness of said panel units, post caps covering the space between adjacent panel units, resilient means associated with said post caps and said posts for removably securing the post caps thereto, base members extending along the lower ends of said panel units, means for removably securing said base members to the panel units, and plinth blocks overlapping the adjacent ends of adjacent base members and removably secured to the said post caps.

13. A metal partition including, spaced posts, panel units positioned between certain of said spaced posts, a door frame member positioned between a pair of said posts, said door frame member comprising a pair of vertically extending tubular frames, a horizontally extending tubular frame connecting the upper ends of said vertically extending tubular frames, each of said tubular frames comprising a heavy sheet metal channel-shaped member having a relatively light channel-shaped member telescoped over the flanges of said relatively heavy channel-shaped member and secured thereto providing a tubular frame having a wall thickness substantially equal to the wall thickness of said panel unit, spaced bolts having the head portions thereof positioned within each of said vertical tubular frames and the shank portions thereof extending through a vertically extending slot in the adjacent post, and a nut applied to each of said shanks accessible within said post, and post caps removably secured to the exposed faces of each of said posts, certain of said post caps having a portion thereof normally overlapping the adjacent panel unit and the adjacent vertically extending tubular door frame member.

14. In metal partition construction, a panel unit comprising spaced metal panel sheets each having a rebent edge portion at each vertical edge thereof, a pair of spaced channel-shaped sheet metal frame members positioned between said panel sheets, each of said frame members having the flanges thereof extending outwardly and seating within the adjacent grooves formed by said rebent edges, both of said rebent edges being of the same width and each terminating short of the base of the flange which it overlaps, adjustable expansion means extending between said frame members operative upon adjustment to spread said vertical frame members and place a predetermined drumhead tension on said panel sheets, and a plurality of spaced bracing members extending between and loosely connected to said frame members and having the side edges thereof arranged to brace the tensioned panel sheets.

15. In metal partition construction, a panel unit comprising spaced metal panel sheets each having a rebent edge portion at each vertical edge thereof, a pair of spaced channel-shaped sheet metal frame members positioned between said panel sheets, each of said frame members having the flanges thereof extending outwardly and seating within the adjacent grooves formed by said rebent edges, a channel-shaped sheet metal reinforcing member associated with each of said frame members and having the flanges thereof seated between the rebent edges of said panel sheets to stiffen and reinforce said frame members, adjustable expansion means extending between said frame members operative upon adjustment to spread said vertical frame members and place a predetermined drumhead tension on said panel sheets, and a plurality of spaced bracing members extending between and loosely connected to said frame members and having the side edges thereof arranged to brace the tensioned panel sheets.

16. In metal partition construction, a panel unit comprising spaced metal panel sheets each having a rebent edge portion at each vertical edge thereof, a pair of spaced channel-shaped sheet metal frame members positioned between said panel sheets, each of said frame members having the flanges thereof extending outwardly and seat-

ing within the adjacent grooves formed by said rebent edges, adjustable expansion means extending between said frame members operative upon adjustment to spread said vertical frame members and place a predetermined drumhead tension on said panel sheets, a sound-insulating sheet secured to the inside surface of each of said panel sheets extending between the web portions of said spaced frame members, a bracing member extending between and loosely connected to said frame members having the side edges thereof arranged to provide a firm bracing support for said sound insulating sheets and tensioned panel sheets, and a relatively loose fibrous insulating packing filling the space between said insulating sheets and said frame members.

17. In partition construction, a panel unit comprising spaced metal panel sheets, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets and extending below the lower edges of said panel sheets, expansion means for spreading the frame members apart and placing the panel sheets under tension, an inverted channel-shaped strut extending between the frame members below the panel sheets and holding the frame members together, an upright channel-shaped wiring tray supported on said strut, a metal base member positioned adjacent the lower end of the panel unit and concealing the tray, and flange elements provided on said base member and cooperating respectively with one of the panel sheets and a flange of the tray for detachably fastening the base member in position.

18. In partition construction, a panel unit comprising spaced metal panel sheets, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets and extending below the lower edges of said panel sheets, expansion means for spreading the frame members apart and placing the panel sheets under tension, a plurality of horizontal struts connecting the frame members together including an upper strut bracing the tensioned panel sheets against inward buckling and an inverted channel-shaped strut positioned below the panel sheets, an upright channel-shaped wiring tray supported on said last named strut, a metal base member positioned adjacent the lower end of the panel unit and concealing the tray, and hook means formed on said base member and cooperating respectively with one of the panel sheets and a flange of the tray for detachably fastening the base member in position.

19. In partition construction, a panel unit comprising spaced metal panel sheets each having an upwardly facing pocket formed on its outer surface adjacent its lower edge, a pair of vertical frame members positioned between and connected to the adjacent vertical edges of said panel sheets and extending below said lower edges, expansion means for spreading the frame members apart and placing the panel sheets under tension, a plurality of horizontal struts connecting the frame members together including an upper strut bracing the tensioned panel sheets against inward buckling and an inverted channel-shaped strut positioned below the panel sheets, an upright channel-shaped wiring tray supported on said last named strut, a metal base member positioned adjacent the lower end of the panel unit and concealing the tray, and vertically spaced hook elements formed on said base member and cooperating respectively with said pocket and a flange of the tray for detachably fastening the base member in position.

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