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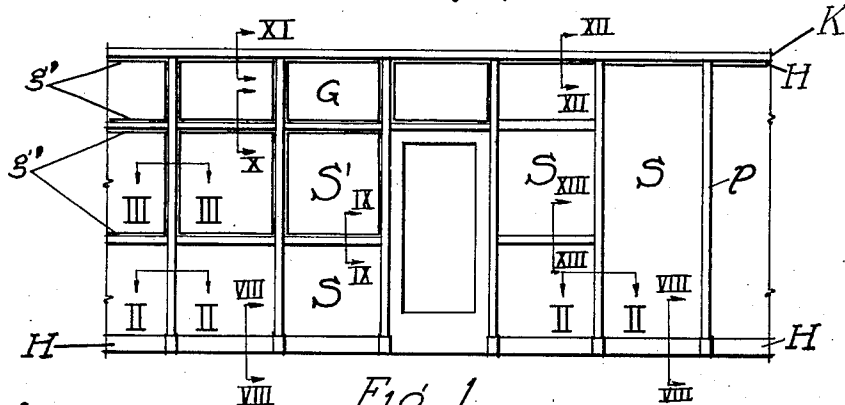
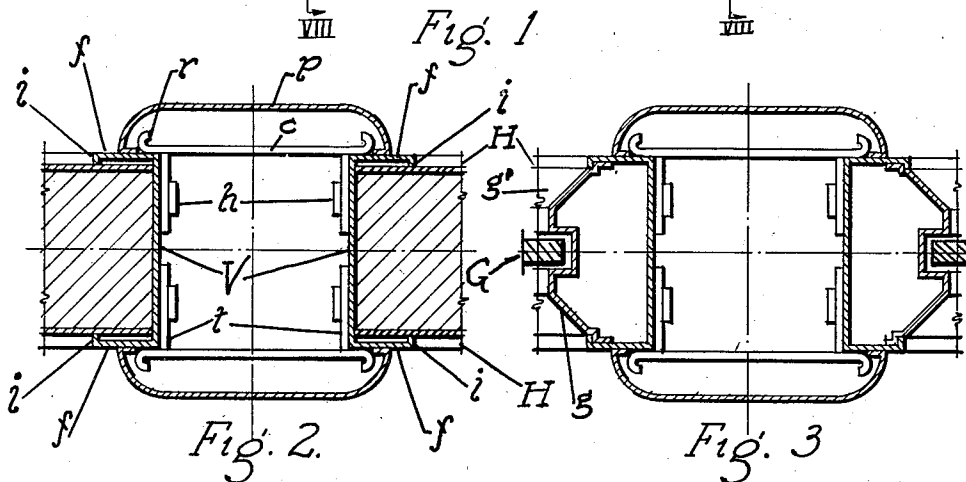
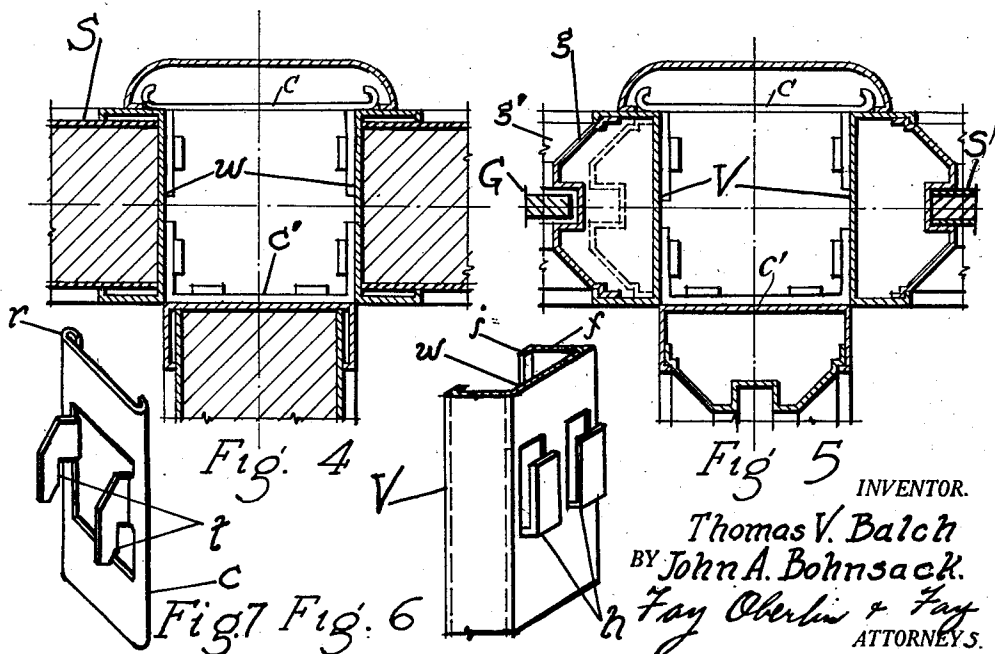
T. V. BALCH ET AL

2,047,572

THICK PANELED METALLIC WALL STRUCTURE

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2 Sheets-Sheet 1



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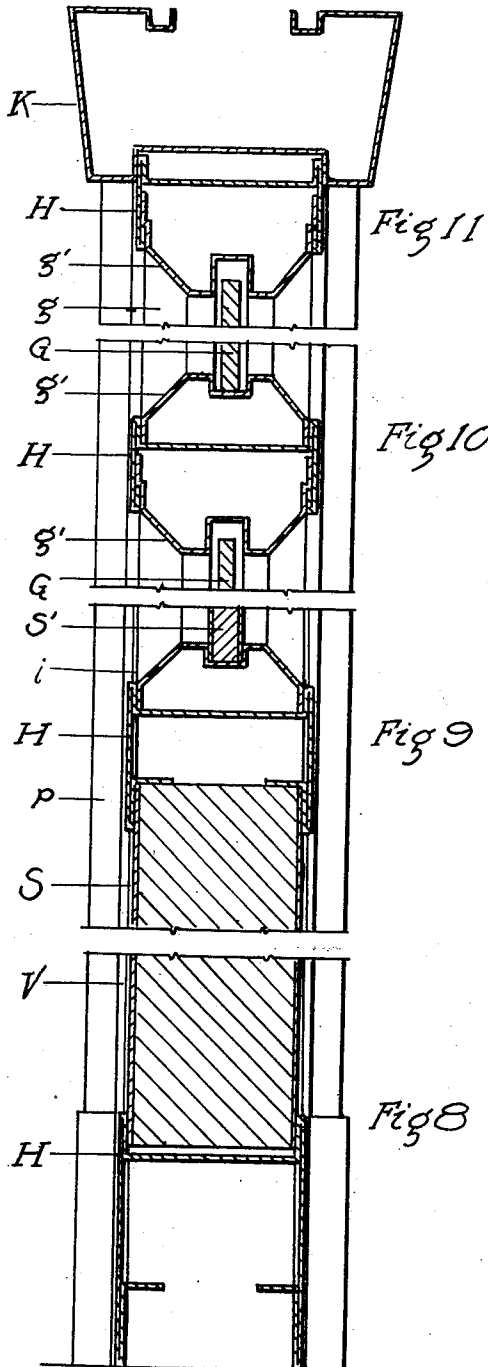
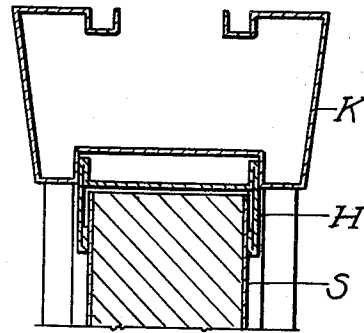
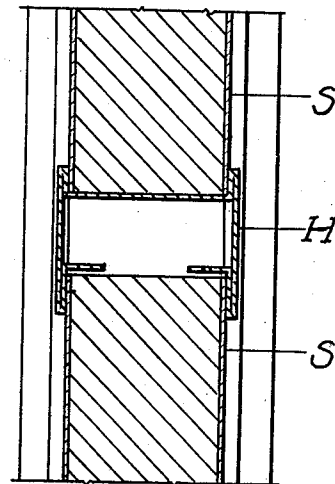
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THICK PANELED METALLIC WALL
STRUCTURE

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Application July 30, 1932, Serial No. 627,066

7 Claims. (Cl. 189—34)

The present invention relates to metallic wall structures and is particularly directed to a form of construction which will provide a relatively thick panel stretcher and a relatively high degree of resistance to sound transmission.

A further object is to provide a wall of relatively flush appearance, having projections or depressions, or both of a minimum depth. A further object is to provide a construction in which relatively thick solid panels and relatively thin glass panels may be mounted interchangeably. Other objects and advantages will appear as the description proceeds.

The invention then consists of the features hereinafter fully described and particularly pointed out in the claims; the following description and the annexed drawings, setting forth but one illustrative embodiment of the various forms in which the principle of the invention may be applied.

In said annexed drawings:—

Fig. 1 is a front elevational view of a metallic wall structure constructed in accordance with this invention; Fig. 2 is a section to larger scale taken along the horizontal plane II—II of Fig. 1 and illustrates the juncture between two metal panels or panel sections; Fig. 3 is a section taken along the horizontal plane III—III of Fig. 1 and illustrates the juncture between two glazed panels; Fig. 4 is a horizontal section illustrating the juncture of three solid panel partition sections; Fig. 5 is a horizontal section illustrating the juncture of three glazed partition sections; Fig. 6 is a detail in perspective of a portion of one of the panel framing members; Fig. 7 is a detail in perspective of a panel unit connecting clip; and Figs. 8, 9, 10, 11, 12 and 13 are sections taken in vertical planes along the lines indicated by the corresponding roman numerals in Fig. 1.

The wall is built up of a series of sections which may have relatively thick solid panels S or relatively thin glass panels G. Door sections are likewise employed, these being used interchangeably with the panel sections and equipped with the same type of stiles or end framing members. Each panel section is equipped with end vertical or framing members V which may conveniently take the form of channels having flanges *f* with inward rebends *i*.

The web portions *w* of the verticals or other portions thereof intermediate of the flanges *f* may be provided with clip securing means as hooks *h* stamped up from their general plane or attached thereto.

The panel plates or stretchers S are con-

veniently comprised of two sheets of steel, having a filling element therebetween but other materials may, of course, be employed as various acoustical properties are desired. The panel framing is completed by horizontal members H which may be secured to the vertical members in any desired manner. Preferably the margin of each horizontal member which is directed toward the panel is contoured to embrace the panel plate and the ends of these horizontals may abut the ends *i* of the flanges *f* of the vertical members.

Where glass panes are desired we employ glazing stops *g*. These are conveniently made of sheet metal having a groove to receive the glass pane and are nested within the flanges of the vertical members so as to permit of relative motion. Glazing stops *g'* are likewise fitted into the horizontal members H and these are preferably rigidly fixed to prevent relative movement.

The various panel units comprising the verticals, horizontals, and stretchers are assembled in any desired manner by bolting, welding or the like in order to provide a frame. A series of panel units may be set up in aligned spaced relation and suitable means such as a cornice or cornice facing K provided to hold the upper end of the panel units in aligned position. Clips *c* are employed to hold adjacent panel units in relation and lock the stiles or verticals of adjacent panel units together to comprise a post presenting two pairs of aligned flanges diverging from each other. These are preferably sheet metal stampings, having tongues *t* which engage behind the projections *h* on the verticals. The clips are further provided with rounded end portions *r* to resiliently receive post caps or pilasters *p* which are snapped on to the clips and close the juncture between adjacent panel units. Suitable means is provided for fastening the sections at the floor line, and an adjustable floor abutment mold and wall abutment means is also provided.

Intersecting partitions may be jointed to straight-away partitions at any juncture between panel sections. The vertical members of the panel sections are spaced apart a distance equal to their overall thickness so that an intersecting partition will just cover the juncture between the aligned panel sections. An inside clip *c'* locks the contiguous sections together. In the case of a three-way or T intersection this is preferably of channel shape and in the case of a two-way or L intersection would be of angle shape. It will thus be seen that the exposed portions of the panel section verticals at the inside

corners present a finished appearance and no trim mold is necessary.

Where glass is to be employed the pane is inserted in the grooves of the horizontal glazing stops *g'* after the vertical stops *g* have been displaced. The vertical stops *g* are then replaced thereby retaining the edges of the glass. It is of course possible to replace the glass with thin solid panels *s'* readily or the glass stops may be sprung out of place and thick solid panels inserted. It is, of course, desirable to have a removably assembled frame in order to accomplish this.

It will thus be seen that the various parts are capable of assembly to form any desired combination of glass or solid panels which are economically manufactured and easily erected in any desired arrangement. Without departing from the spirit of the invention it is possible to construct the verticals so that the solid panels and the glazed panes are of about the same thickness although in this instance a different type of glass stop of one of the conventional forms must be employed preferably along the horizontals.

Other modes of applying the principle of this invention may be employed instead of that described, change being made as regards the features as set forth, provided the means stated by any of the following claims, or the equivalent of such be employed.

We therefore particularly point out and distinctly claim as our invention:

1. In partition construction a post comprising two spaced uprights each having two parallel outside flanges with margins turned inwardly as finished edges for panel-engagement, said uprights being spaced apart with their flanges in alignment and directed away from each other, said uprights being secured in position by means of clips, a post cap removably secured to said clips and bridging such space; and panel members retained between the said panel-engaging edges of the flanges of each of said two uprights.

2. In partition construction, the combination of a plurality of sections, each section having two end verticals each having parallel outside flanges with margins turned inwardly as narrow panel-engaging edges and panel members embraced between the said panel-engaging edges of said flanges, the sections being erected in alignment with the end verticals of adjacent sections

spaced apart, clip members at intervals securing said adjacent uprights in position, and post caps covering the juncture and the clips.

3. In partition construction the combination of panel units having stiles of generally channel cross-section, the flanges whereof embrace panel fillers extending between associated stiles, spaced clips securing the webs of adjacent stiles in spaced relation by means of hooks on the one engaging the other, and facing members engageable over said clips.

4. In partition construction the combination of panel units having stiles of generally channel cross-section with flanges of adjacent stiles directed away from each other in aligned spaced position, individually applicable clips for connecting said units, said clips and the webs of said stiles having elements adapted directly to engage and positively lock the parts together upon relative movement therebetween, and a cover plate resiliently secured to said clips.

5. In partition construction the combination of panel units having stiles of generally channel cross-section with flanges of adjacent stiles directed away from each other in aligned spaced position, individually applicable clips having hook tongues fitted to punchings on the webs of said stiles, and face members secured to said clips by resiliency.

6. In partition construction the combination of panel units having stiles of generally channel cross-section, the flanges whereof embrace panel fillers extending between associated stiles, two of said units being assembled in aligned spaced relation, another similar panel unit perpendicularly disposed with respect to the juncture, spaced clips securing the adjacent perpendicular unit to the aligned units spaced clips securing the aligned panel units together, and facing members secured to said last mentioned clips.

7. A metallic partition panel unit comprising two uprights each with parallel flanges, such flanges being further folded back toward each other, the uprights at each side of the unit having their flanges directed toward the other side of the unit, stretchers embraced between the flanges of each of said uprights, and means between the flanges of each upright for receiving a connecting clip.

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