Sept. 22, 1964 G. VARLONGA 3,149,436

PANEL CONSTRUCTION FOR COVERING WALLS AND THE LIKE

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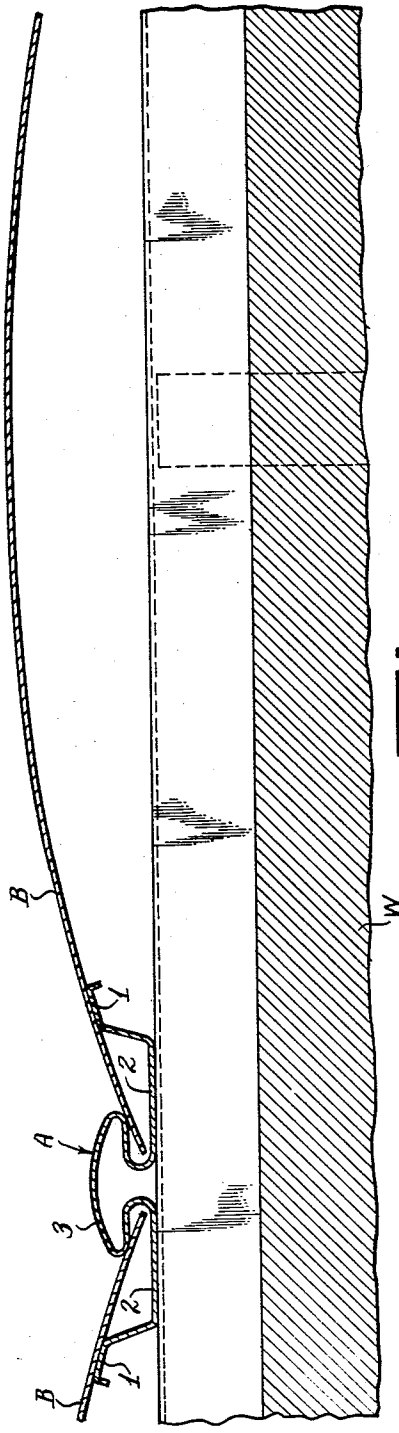


Fig. 1.

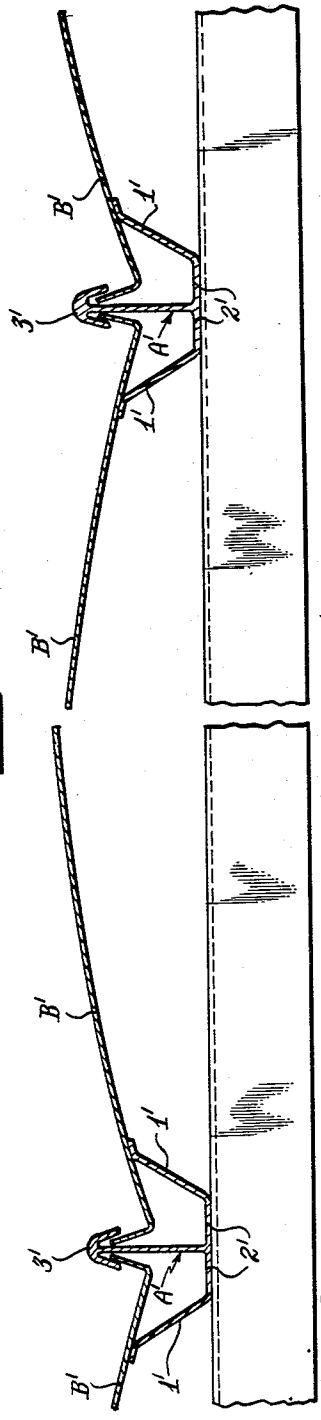


Fig. 2.

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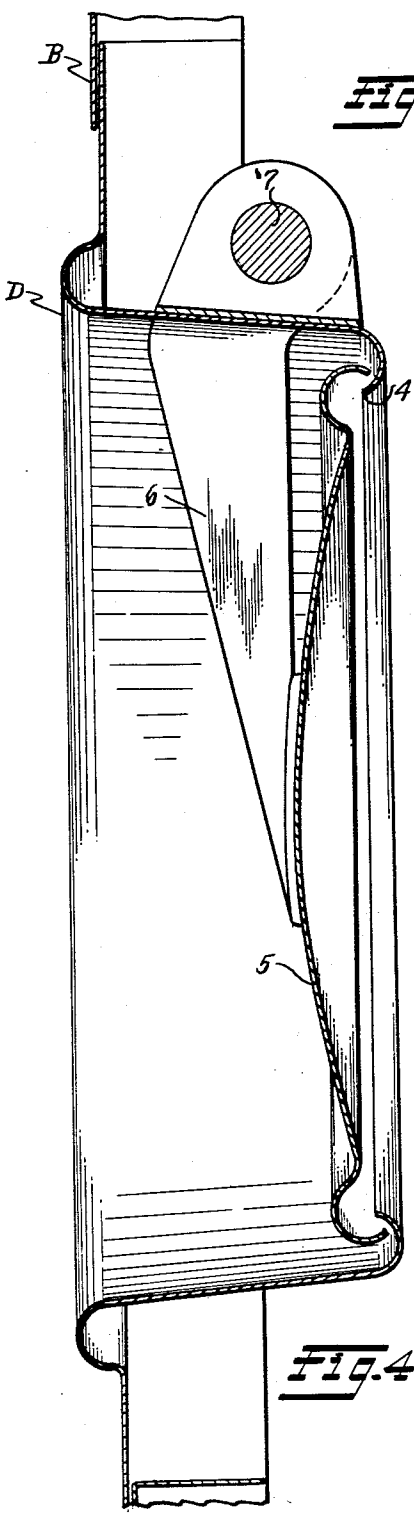


Fig. 4.

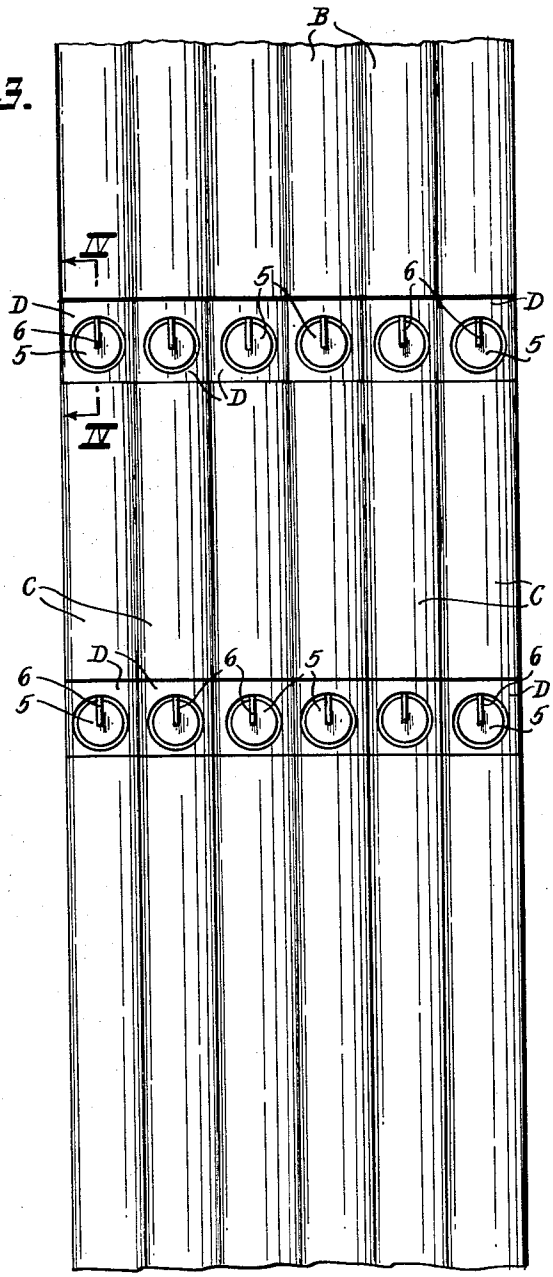


Fig. 3.

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PANEL CONSTRUCTION FOR COVERING WALLS AND THE LIKE

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3 Claims. (Cl. 50—202)

This invention relates to a panel construction for covering walls and the like.

It is an object of the invention to provide a wall covering panel construction which can be readily mounted in position by simply snapping the panel members into place.

Another object is to provide a panel construction wherein the individual panels are securely retained and are mounted in a flexed condition, thereby tending to hide any slight imperfections in the panels or in the positioning of the mounting brackets, even when using very thin panel members.

Another object is to provide a panel construction having a finished exterior appearance with the supporting structure and unsightly portions of the mounting brackets concealed from view.

Another object is to provide panel members including means for providing for the passage of air and/or light therethrough.

Other objects and advantages will be apparent from the following specification, when taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a sectional view disclosing panel members mounted in position on a wall in accordance with the principles of the present invention;

FIG. 2 is a similar sectional view showing a modification of the construction shown in FIG. 1;

FIG. 3 is a front elevation of a modified panel construction; and

FIG. 4 is a fragmentary sectional view taken on the lines IV—IV of FIG. 3.

Referring now more specifically to the drawings, the leter A is used to indicate generally a longitudinal sheet metal mounting bracket which is secured by any siutable means to a pre-fabricated wall structure W in order to mount wall panels in accordance with the principles of the present invention. Bracket A comprises two oppositely disposed longitudinal arm members 1 projecting outwardly from either side of a base 2, and having panel-engaging portions extending toward adjacent brackets on either side, which is in turn secured by any suitable means along the outside plane of a supporting structure or wall W. A projection 3 extends upwardly from the center of the base 2 between arms 1 and includes a recessed stem and an enlarged head which serves as a joint covering.

In assembly, a plurality of mounting brackets A are fixed in spaced parallel relation on the face of the supporting structure or wall W, and panels B are mounted therebetween. The mounting brackets A are spaced apart a distance less than the normal width of panels B and the panels are flexed or bulged when installed. The outer edge portions are received under the enlarged head of the particular bracket A at one side of the stem thereof and are engaged and held inwardly by an undersurface of said enlarged head. The undersurface of the panel is engaged and flared outwardly at a point spaced from the panel edge by means of a panel-engaging surface of the respective arm 1.

Panels B may be formed of any suitable material such as enameled steel, varnished light alloys, or the like.

In the embodiment of FIG. 2, similar mounting brackets A' are provided and corresponding members in the construction are identified by the same numbers distinguished by prime marks. Brackets A' may be formed

of any extruded light alloy material such as aluminum, and each includes arm members 1', bases 2' and a projection 3' including inturned flanges at the upper end thereof corresponding generally to the enlarged head portion of projection 3 of mounting bracket A. In this modification, projection 3' lies above the plane of arms 1' and the panels B' include side edges which are bent generally at right angles and received under the aforementioned inturned flanges of projection 3'.

From the foregoing, it is noted that each bracket includes opposed base members (2 or 2') having outwardly extending arms (1 or 1') terminating in panel-engaging portions extending away from the projections (3 or 3') toward the adjoining brackets. The panel-engaging portions act as cantilevers to support the bowed panels at points spaced from the ends, thereby reducing the likelihood of permanently bending or deforming the panel ends as might occur if the panel-engaging portions contacted the bowed panels at points close to the end supports. It should also be noted that the enlarged heads of the projections (3 and 3') are of modified T-shaped formations, having portions which overlie a substantial portion of the edges of the panels, thereby assuring that the edges engaged by the projections will not easily slip from engagement with the projections.

In the embodiment of FIGS. 3 and 4, metal panels B are employed for only a portion of the wall covering, another portion being provided by a plurality of translucent or transparent panels C, formed of re-inforced polyester or the like. The mounting brackets in this embodiment also serve to support metal panels D which include a circular opening or window 4. A closure 5 is provided for opening 4 and an arm 6 is secured thereto. The arm 6, in turn, is secured to the panel D by a hinge pin 7. Thus, the closure 5 may be pivoted between open and closed position in the same manner as a conventional port hole.

While the invention has been described above with respect to specific embodiments thereof, it will be understood that numerous changes can be made in the construction, size, configuration, and materials specified without departing from the spirit of the invention or the scope of the annexed claims.

I claim:

1. A panel construction for covering walls and the like, comprising: a plurality of longitudinal mounting brackets fixed in spaced, parallel relation on a supporting structure, said mounting brackets each including a base; a longitudinal member disposed substantially normal to said base projecting outwardly from the outer surface thereof midway between the side edges of said base, said longitudinal member including a stem having an enlarged head portion of modified T-shaped formation at the outer end thereof extending laterally outwardly on opposite sides thereof; rigid arms projecting outwardly from opposite sides of said base terminating in panel supporting end portions, said end portions being spaced laterally outwardly from said head portion; and flexible panels positioned in bowed, arcuate configuration between adjacent mounting brackets, said panels being bent outwardly adjacent the side edges thereof, the side edge of said outwardly bent portions of each of said panels being engaging and being held inwardly by an undersurface of the respective enlarged head, said supporting end portions engaging the lower surface of said respective panels at points spaced inwardly from said bent portions, said undersurface of said head and said panel supporting end portion of adjacent brackets engaging opposite sides of each of said panels being so proportioned and arranged as to constitute the sole support for said panels and serving to flex and maintain said panels in resiliently bowed, arcuate configuration, said panels, when unflexed and

disposed in a single plane having a width greater than the distance between adjacent longitudinal members and when mounted between adjacent brackets in a bowed, arcuate configuration, having a width less than the distance between adjacent longitudinal members and with the portion of each of said panels lying between said supporting end portions and said bends having substantially the same arcuate configuration as the portion of said panel extending between end portions of adjacent brackets.

2. The construction of claim 1 wherein at least some of said panels have centrally disposed ventilation apertures formed therein and include closure means for said apertures pivotally mounted on the respective panels for movement between open and closed positions.

3. The construction of claim 1 wherein said laterally extending portions of said enlarged head terminate in downwardly extending flange portions, said undersurface

of said head together with said stem and said flange portions defining parallel pockets on the inner surface of said head, said outwardly bent edge portions being received in said pockets and disposed in spaced relation to said stem.

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