April 19, 1932. T. V. BALCH ET AL 1,855,164

GLAZING CONSTRUCTION FOR METAL PARTITION PANELS

Filed Sept. 7, 1929 2 Sheets-Sheet 1

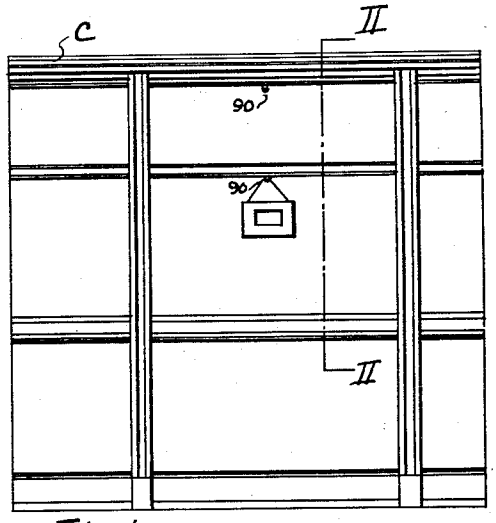


Fig. 1

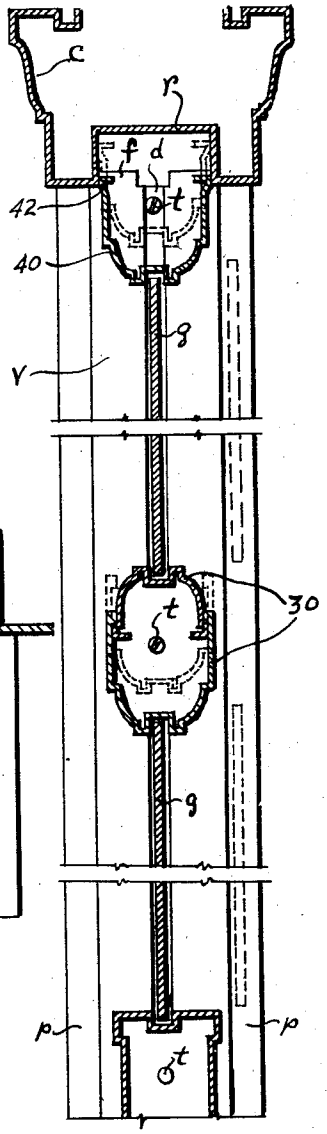


Fig. 2

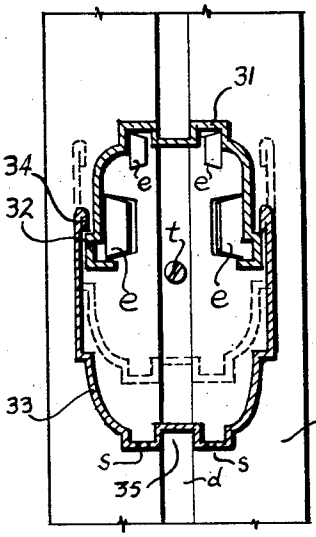


Fig. 3

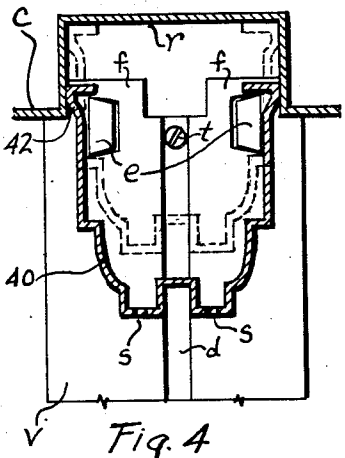


Fig. 4

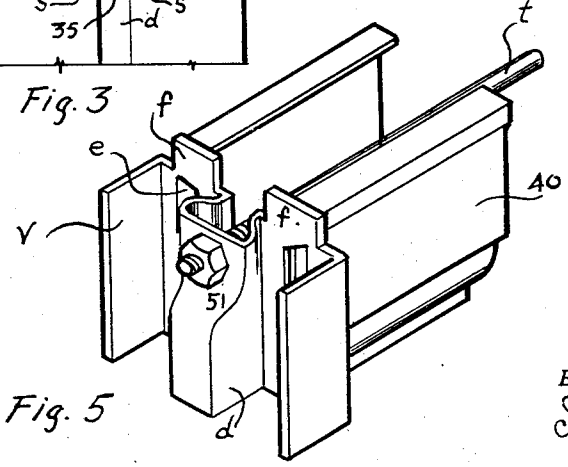


Fig. 5

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GLAZING CONSTRUCTION FOR METAL PARTITION PANELS

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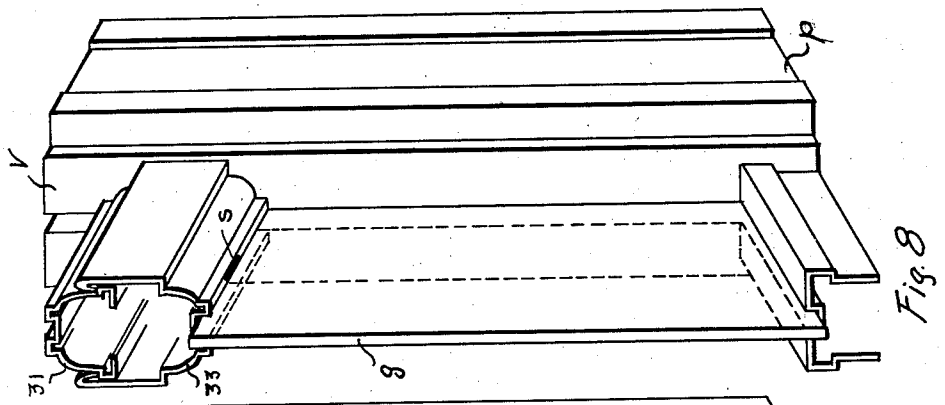


Fig. 8

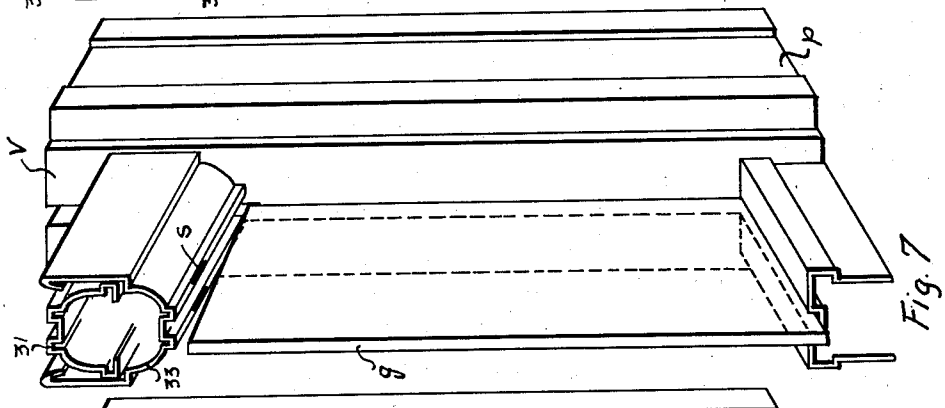


Fig. 7

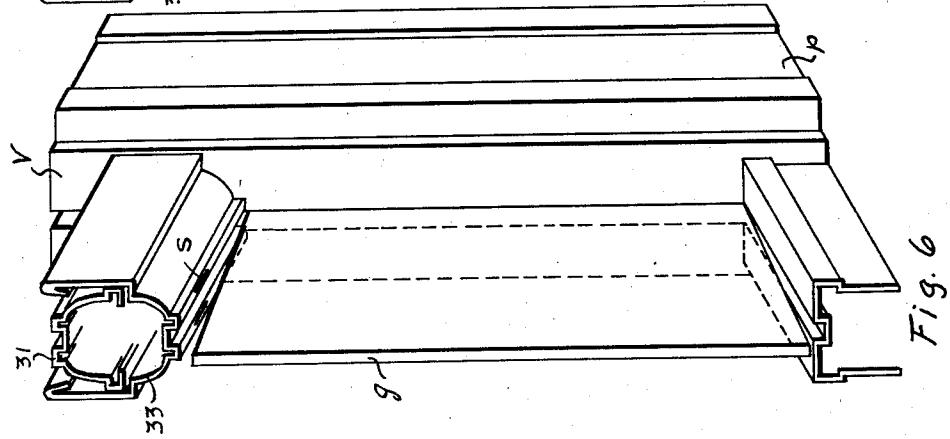


Fig. 6

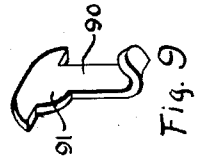


Fig. 9

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Patented Apr. 19, 1932 1,855,164

UNITED STATES PATENT OFFICE

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GLAZING CONSTRUCTION FOR METAL PARTITION PANELS

Application filed September 7, 1929. Serial No. 390,934.

In metallic partition construction, it has been customary to provide panels having permanently connected frames, usually welded together, and providing an abutment or shoulder around the perimeter of the glass opening. After inserting the glass against such stops or shoulders, a loose stop or moulding is generally applied by means of screws, and this retains the glass.

It is among the objects of the present invention to provide a panel unit which may be disassembled or assembled at will, and which will have no separate glass-retaining molds. Another object is the provision of glazing construction involving no exposed screws or fastenings. Other objects and advantages will appear as the description proceeds.

To the accomplishment of the foregoing and related ends, 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 in detail certain structures embodying the invention, such being illustrative however of but one of the various ways in which the principle of the invention may be employed.

In said annexed drawings:

Fig. 1 is a front elevational view showing a portion of wall or partition constructed in accordance with the invention; Fig. 2 is a vertical section taken on a plane substantially indicated by line II—II, Fig. 1, and on enlarged scale, parts being broken out on account of space limitations; Figs. 3 and 4 are enlarged sectional details of structure shown in Fig. 2; Fig. 5 is an isometric view of the upper corner of the panel unit showing the manner in which the unit is assembled; Figs. 6, 7 and 8 are isometric views showing a panel in successive stages of glazing, one end vertical being omitted for clarity; and Fig. 9 is a perspective view of the pendant hook.

The partition preferably is made up of panel units which may be placed end to end and be capped and supported by a horizontal cornice C, as indicated in the elevation, Fig. 1, and the vertical section, Fig. 2. A recess or longitudinal groove *r* may be provided in the lower side of the cornice. The panel units may have stiles or end verticals *v*, and the joint between stiles of adjacent panels may advantageously be covered by a facing member or post cap *p*.

We prefer to provide a longitudinal groove *d* on the panel stiles to receive the edges of a stretcher *g* which may be of glass, steel, wire mesh or other desired material. The panel stiles are also provided with cleats, semi-punchings or extrusions *e*, which serve to position the horizontal members. The panels may be assembled by means of tie rods *t* which may extend from one vertical stile to the other and clamp the horizontal members therebetween. In order to preserve the utility of the space within the verticals for wiring and other purposes, the nuts at the ends of the tie rod are preferably inset within the line of the groove *d*. This may be accomplished by compressing or flattening the groove as at 51, or other means may be employed, for instance a large hole provided with a cup washer.

The upper end of the panel stile may be notched to leave upstanding ears *f* which will project into the cornice recess and align the cornice with the stile and prevent one corner of the stile from slipping askew to one side of the recess. If these upstanding ears on the stiles of adjacent panels are so positioned that the dimension between them is greater than the width of the cornice, it will be possible to position a panel at right angles to any post of a partition without interference.

The transom rail 30 may conveniently be made up of a fixed portion 31 and a movable portion 33. The fixed portion is positioned by means of the cleats *e* and is provided with shoulders or stops 32. The movable portion 33 is slightly shorter than the fixed portion and is provided with abutments 34 to engage with the shoulders 32. It will be seen that the movable portion is slidable transversely of the axis of the fixed portion, and when in the raised position will permit of the insertion of the stretcher *g* beneath it, and when lowered will overlap such stretcher, receiving its edge in the groove 35.

The top rail 40 is similar in function to the movable portion of the transom rail except that instead of embracing a fixed member, it slides within the recess *r* of the cornice. Offsets or beads 42 may be arranged so as to prevent marring of the paint or finish on the exposed surfaces of the top rail from sliding engagement. The extrusions *e* act as stops to position the rail when in its normal lowered position.

To facilitate pulling the rails down, slots or openings *s* are located in the lower faces or soffits in which hooks 90 may be inserted. Such hooks may preferably be of T-shape, the head being off center and a fillet 91 provided in one corner. Insertion may be readily had by introducing the longer side of the head angularly into the slot and then tilting back into centering position. Such hooks will bear considerable weight, and are not only useful in manipulating the movable members during the glazing, but they may be left in position when desired to serve as picture hooks.

To insert a light of glass, the movable portion of the transom rail is lifted, as indicated in Fig. 6, and the glass is inserted to full depth of one vertical groove. The width of the glass is such that it will then just clear the face of the opposite vertical, and the height is such that it will also then pass between the horizontal rails. On now swinging the glass into the plane of all of the grooves, it may be dropped into the comparatively shallow groove of the rail below, and by then moving laterally, it may be centered equally between the vertical grooves, engaging both securely. The movable rail is then lowered to lap over and secure the top edge of the glass. Putty, felt or like material may be applied on all sides to insure tightening of the glass and prevent rattling. Conversely, where it is desired to remove a glass or stretcher element, the movable top rail member may be pushed up, and the glass then be decentered laterally so that one margin may clear one vertical groove, and then by lifting suddently to clear the lower groove, the glass may be swung around and be withdrawn completely.

Other modes of applying the principle of the invention may be employed, change being made as regards the details disclosed, provided the means stated in 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 panel having framing members presenting stretcher-receiving grooves and forming a stretcher-receiving opening, one such member being displaceable transversely of its axis and in the plane of the grooves, means limiting the extent of such displacements, and a stretcher of greater width than the stretcher-receiving opening but narrower than the extreme distance between the corresponding grooves and being engaged in the grooves on all sides and disengageable by displacement of such movable member.

2. In partition construction, a panel frame presenting an opening, a bipartite member forming one side of such opening and comprising a fixed portion securely held in position and a slidable portion engaging such fixed portion and presenting a groove on the face next the opening, grooves on the remaining sides of said opening, and a stretcher of greater width than the stretcher-exposing opening, but narrower than the extreme distance between the bases of opposite grooves and being engaged in such grooves and disengageable by moving said slidable member.

3. In partition construction, a panel frame presenting an opening, stretcher-receiving grooves on all sides of such opening, a bipartite member forming one side of such opening and comprising a fixed portion securely held in position and a movable portion engaging the fixed portion and being slidable transversely thereon, means exposed on said movable portion to be grasped for moving the same, longitudinal shoulders limiting the extent of such slidable motion, and a stretcher engageable in such grooves by displacement of said movable portion.

4. In partition construction, a panel frame presenting an opening, stretcher-receiving grooves on all sides of such opening, a bipartite member forming one side of such opening and comprising a fixed portion clamped between positioning cleats on the panel framing members, a movable portion engaging such fixed portion and slidable transversely thereon, and a stretcher engageable in said grooves by displacement of said movable portion.

5. In partition construction, a panel frame presenting an opening, the members forming the opening having stretcher-receiving grooves, a bipartite member forming one side of such opening and comprising a fixed portion clamped between positioning cleats by means of a longitudinal tie rod and a movable portion engaging such fixed portion and slidable transversely thereon, longitudinal shoulders limiting the extent of such motion, and a stretcher engageable in said grooves by displacement of said movable portion.

6. In partition construction, a panel frame presenting an opening, a rail member forming one side of such opening and being slidable, positioning cleats limiting the extent of such sliding motion, and tie rods holding said rail member in engagement with said positioning cleats.

7. In partition construction, a panel frame presenting an opening, a rail member form-

ing one side of such opening and being slidable, with respect to the members on the other sides of such opening, and a member positively engaging the fixed elements of the panel frame and slidably engaging said slidable rail and having a recess into which said slidable rail may be received.

8. In construction of the character described, a slidable rail member, an engaging member having a recess for receiving said slidable rail and longitudinal shoulders on said rail engaging such recess.

9. In partition construction, a panel member having a slidable top rail, a cornice member engaging said panel member and having a recess to engage said rail member, and upstanding ears on the stiles of said panel engaged in such cornice recess.

10. In partition construction, a panel member, a cornice member engaging said panel member and having a recess in which the top rail is received, and upstanding ears on the stiles of said panels received in such cornice recess, said ears being formed by notching the panel stiles.

11. In partition construction, a panel frame presenting an opening, a movable framing member forming one side of such opening, positioning cleats limiting the extent of motion of said movable member, tie rods for holding such member in engagement with said cleats, and a recessed member for receiving said movable member.

12. In partition construction, a panel having grooved verticals, and horizontal members held between such verticals by means of screw threaded members projecting through holes in such grooves, the groove base being displaced inwardly adjacent each such hole to seat the nuts and heads of the threaded members.

13. In partition construction, a panel having grooved verticals, horizontal members therebetween, and tie rods projecting through holes in such grooves, such grooves being shallower about such holes.

Signed by us this 30th day of Aug., 1929.

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