

April 16, 1968

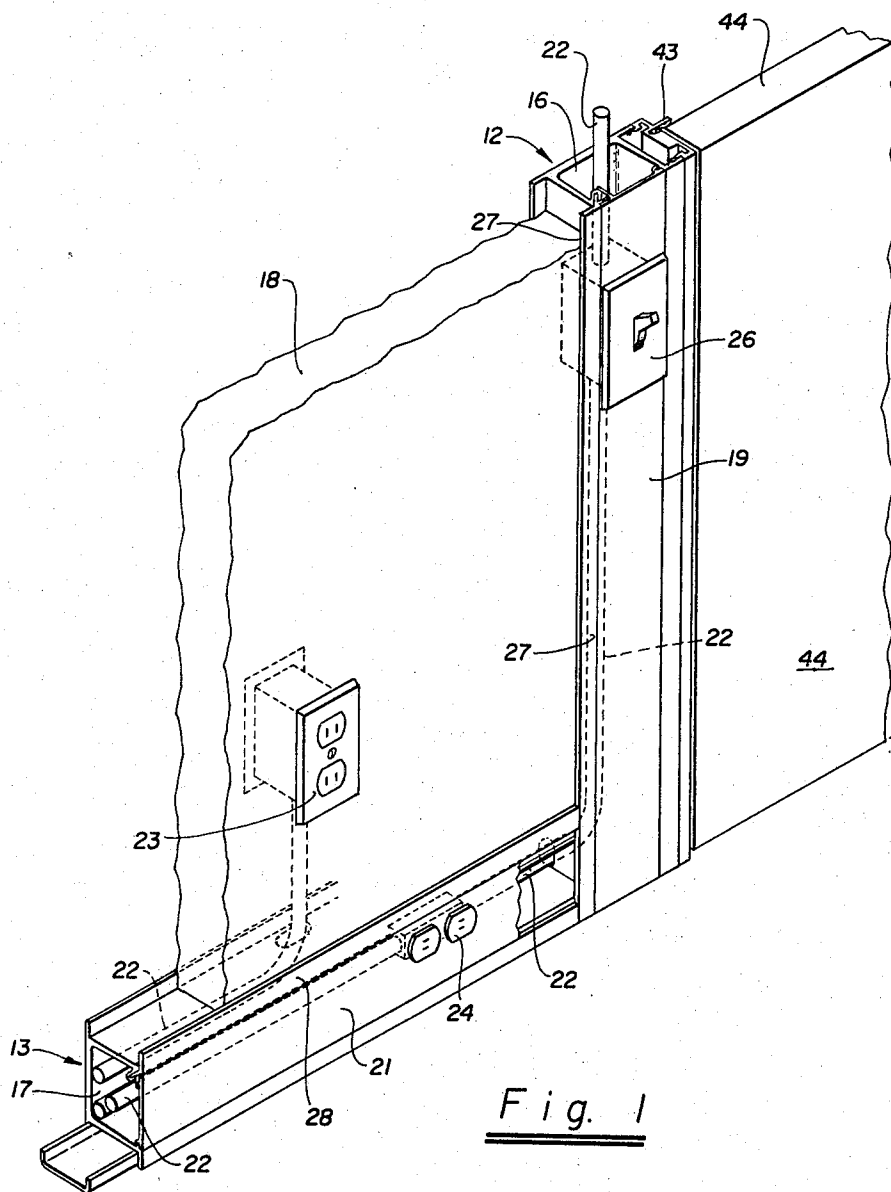
H. M. POLHAMUS

3,377,756

DEMOUNTABLE BUILDING PARTITION CONSTRUCTION

Filed Oct. 22, 1964

2 Sheets-Sheet 1



INVENTOR.

Harry M. Polhamus

BY

Manfred M. Warren

His Attorney

April 16, 1968

H. M. POLHAMUS

3,377,756

DEMOUNTABLE BUILDING PARTITION CONSTRUCTION

Filed Oct. 22, 1964

2 Sheets-Sheet 2

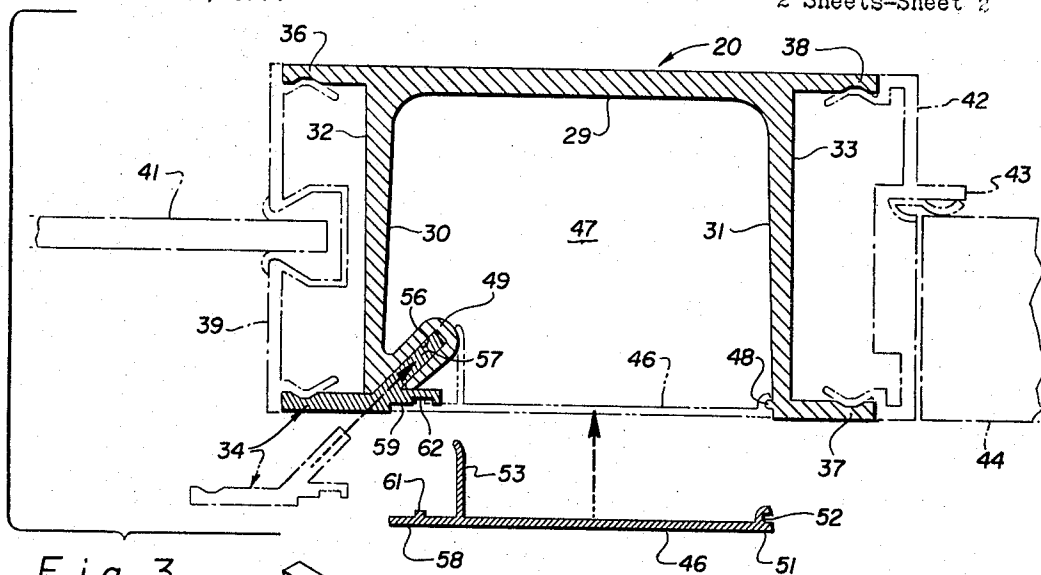


Fig. 3

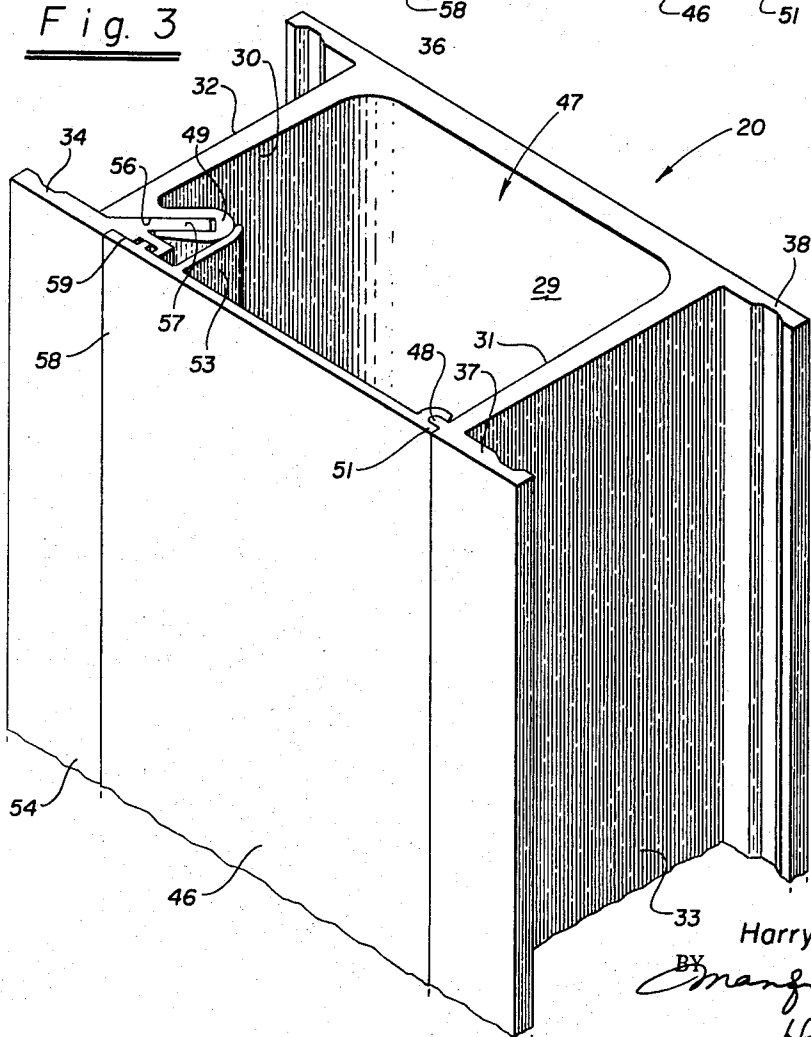


Fig. 2

INVENTOR

Harry M. Polhamus

BY

Manfred H. Harven
His Attorney

1

3,377,756

DEMOUNTABLE BUILDING PARTITION
CONSTRUCTION

Harry M. Polhamus, Orinda, Calif., assignor to Movable
Interior Products, a corporation of California
Filed Oct. 22, 1964, Ser. No. 405,807
3 Claims. (Cl. 52-220)

This invention relates generally to the art of building construction, and more particularly to the construction of interior partition structures including solid panels, doors, glass panels, and the like.

In modern office buildings and similar structures, there is a frequent need to rearrange and improvise floor plans and room designs to accommodate the particular requirements of different building tenants. This accommodation often involves moving interior walls, substituting different types of partition panels, doors, etc., for existing structures, and modifying electrical wiring or other utility services.

A difficulty often encountered in providing movable or demountable partition structures is that there is limited service access for electrical wiring, telephone connections or the like. Consequently, electrical wiring conduit and similar provisions must be installed at the time the building partition is being constructed, and cannot be easily modified or serviced after the structure is completed. Another difficulty sometimes presented is in the substitution of one type of partition member for another, which may require extensive dismantling of otherwise unaffected adjacent partition members. For example, if a glass panel or a door is to be substituted for an existing solid panel, it may be necessary to substantially disassemble the partition structures adjacent either side of the solid panel being replaced.

Accordingly, one object of the present invention is to provide a building partition construction in which electrical wiring and the like can be installed at any time during or after the assembly of a wall partition structure, and can be readily serviced or changed without disassembling or otherwise modifying the existing wall structure.

Another object of the invention is to provide a building partition construction in which various partition members can be readily replaced or rearranged without disassembling adjacent unchanged portions of the partition construction.

A further object of the invention is to provide a building partition structural support member that houses electrical wiring or similar utility conduit and retains various types of partition members such as solid panels, glass, doors, etc., and which enables installation or modification of such conduit and replacement of such partition members without disassembly or modification of otherwise unchanged portion of the partition construction.

Still another object of the invention is to provide a structural support member as described above that utilizes a removable retaining portion and a removable cover portion, and which provides secure retention of such removable portions without threaded fasteners or other separate fastening devices.

The invention possesses other objects and features of advantage, some of which of the foregoing will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of this specification. It is to be understood however, that variations in the showing made by said drawings and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawings:

2

FIGURE 1 is a fragmentary perspective view of a building partition construction comprising a preferred embodiment of the present invention.

FIGURE 2 is a fragmentary perspective view of a support member utilized in the structure shown in FIGURE 1.

FIGURE 3 is a partially exploded transverse cross-sectional view of the member shown in FIGURE 2.

A building partition construction comprising a preferred embodiment of the invention is illustrated in FIGURE 1, and is seen to include a vertical support member 12, a horizontal support member 13 having an end 14 disposed adjacent the vertical member 12, the members 12 and 13 each respectively having elongated raceways 16 and 17 for housing utility conduits, a solid panel partition member 18 retained by each of the support members, the members 12 and 13 each respectively including selectively removal cover portions 19 and 21 for providing access to the raceways 16 and 17, the cover portions being removable from their respective support members without movement of the partition member 18. The aforesaid utility conduit as shown consists of electrical wiring conduit 22 which extends through the raceways 16 and 17 and connects with outlet sockets 23 and 24 and a switch 26.

Each of the support members 12 and 13 further includes a removable retaining portion 27 and 28 for securing the panel member 18 in place. As will be described more fully hereinafter, the cover portions 19 and 21 respectively engage the retaining portions 27 and 28 with the latter being removable only when the corresponding cover portion is removed. The cover portions, however, are removable while the retaining portions remain in position securing the panel member. It thus will be seen that the electrical conduit 22 can be installed or serviced after the panel 18 is secured in place simply by removing the cover portions to provide access to the raceways. The panel 18 can be removed from the support members by removing the retaining portions 27 and 28 after the corresponding cover portions are removed.

Support member 12 and 13 are of identical construction and are formed to accommodate a variety of partition arrangements as illustrated in the drawings. The detailed description of these main support members with reference to a typical member 20 illustrated in the enlarged views FIGURES 2 and 3 will accordingly suffice for a description of members 12 and 13. As will be observed from FIGURES 2 and 3, the support member 20 is of generally elongated channel shape having a central wall portion 29 and a pair of spaced side walls 30 and 31 extending perpendicularly from wall 29 internally from opposite side edges 36 and 38 which project as flanges perpendicularly from the side walls 30 and 31. These flanges cooperate with flanges 34 and 37 at the outer extremities of side walls 30 and 31, for retaining wall partition members extending away from the channel member 20. In FIGURE 1 a partition panel 18 is shown as being retained by similar spaced flanges on members 12 and 13. A snap-in bracket 39 is shown in FIGURE 3 removably secured between the flanges 34 and 36, and is adapted to retain a glass panel 41 or similar member. Another snap-in bracket 42 is secured between opposed flanges 37 and 38, and includes a portion of 43 that forms a door jamb for a door 44. A similar door and door jamb are illustrated in FIGURE 1 adjacent the vertical support member 12.

An elongated front wall cover portion 46 is removably secured across the outer ends of the side walls 30 and 31 in spaced relation with central portion 29 to define a service raceway 47 within the channel mem-

ber 20. The cover portion 46 is removable from the side wall portions independently of the spaced flange retaining means. In the preferred form of the invention as shown in FIGURES 2 and 3, the removable cover portion 46 is secured in place by means of an elongated ridge 48 provided longitudinally on the said wall 31 in confronting relation with the side wall 30 and an elongated ridge or boss 49 provided longitudinally on the side wall 30 in confronting relation with ridge 48. The edge 51 of the cover portion 46 has an elongated groove 52 therein that is engageable with the ridge 48, and an elongated flexible resilient flange or clasp 53 extends inwardly from the cover portion 46 for engagement with the boss 49. To insert the cover 46, the groove 52 is first engaged with the ridge 48, and the cover 46 is then pivoted about the axis of the ridge 48 until the flange 53 resiliently engages the ridge 49 and snaps into locking engagement therewith.

In accordance with the present invention and as an important feature thereof, flange 34 is provided by a separate slide-out member removably retained in position on the outer end of wall 30 by the front wall 46 when the latter is in closed position; and the flange member 34 may be removed as desired to repair or replace the partition member retained thereby only after the front wall member 46 is removed. The slide-out flange member 34 corresponds with the removable retaining portions 27 and 28 described in connection with the showing in FIGURE 1. As will be best seen in FIGURES 2 and 3, boss 49 is formed with a longitudinally extending diagonally outwardly opening slot 55; and flange member 34 is formed with a tongue 57 slidably mounted in slot 56 and arranged so that with the tongue retained in the slot, flange 34 will project perpendicularly from wall 30 in parallel opposed relation to flange 36 for retaining partition members, brackets, and the like of the type above described. An end portion 58 of cover 46 overlies and engages a portion of the flange member 34 outside of the tongue 57 so as to prevent the sliding out of the tongue from its engaged position in slot 56. As here shown, member 34 is formed with a recess 59 which received the edge portion 58 with the outer surfaces of the members substantially flush and neat fitting as seen in FIGURE 2. Also the slide out member 34 is prevented from being separated from the main channel member 20 by means of an internal ridge or shoulder 61 formed on the cover plate member 46 at the edge portion 58 and which is received within an interlocking groove 62 provided in recess 59.

As will be observed from the foregoing the cover 46 can be removed to provide access to the raceway 47 while the flange member 34 is left undisturbed in its support of the partition holding bracket 42. In the event it becomes necessary or desirable to repair or replace a particular partition member being secured to the flange member 34, the latter is simply removed by sliding the tongue 57 out of the slot 56. The parts may then be reassembled by repositioning the flange member 34 as illustrated in FIGURE 3 and then snapping the cover member 46. Preferably and as here shown, tongue 57 extends from the plane of flange member 34 at about 45 degrees and slot 56 is formed in boss 49 so as to open out diagonally at about 45 degrees with respect to wall 30 and front cover member 46. Accordingly to insert or remove flange 34 as depicted in FIGURE 3, the flange member is required to move diagonally with respect to wall 30 and cover member 46 as illustrated.

In the preferred form of the invention the channel member 27, the retaining portion 54, and the cover portion

46 are all constructed from extruded aluminum. It will be appreciated that aluminum has sufficient flexibility and resiliency to enable the flange 53 to engage the ridge 49 for selective snap-in positioning and removal of the cover portion 46.

In view of the foregoing it is seen that the present invention provides an improved and versatile building partition construction that affords the various objects and features described hereinabove.

I claim:

1. In a building partition construction, the combination comprising:

an elongate channel having a central wall and first and second spaced side walls extending therefrom at substantially right angles thereto, said side walls being located inwardly from the proximate side edges of said central wall, the first of said side walls having a boss formed at the free end thereof, said boss having a slot formed therein angularly disposed in respect to said central wall at an angle of less than 90° and extending longitudinally thereof;

a detachable flange including a tongue portion adapted to slidably mount into said slot for support by said boss wherein that portion of the detachable flange not entering said slot is disposed parallel to said central wall with the angle of said tongue portion relative to said central wall selected to cause the tongue to bind within the slot and remain secured in the event of movement of said detachable flange along a line normal to the central wall;

an elongate cover plate shaped to form a closure for said channel between said side walls and define a service raceway within the bosom of the channel; and means associated with said cover plate and said side walls for demountably securing the cover plate to the free edge of the second of said side walls and to said boss, said cover plate having one edge away from the second side wall overlapping and engaging a portion of said detachable flange so as to retain the latter when said tongue is engaged in said slot, said cover plate being moveable from the closure position without movement of said detachable flange and the latter being removable when said cover plate is disengaged from overlapping the flange.

2. In a building partition construction, the combination as claimed in claim 1 and wherein further said slot is angularly disposed in respect to said central wall at an angle of 45°.

3. In a building partition construction, the combination as defined in claim 1 and wherein further said means includes means hingedly securing one edge of said cover plate to the free edge of said second side wall, and a clasp carried by the front wall of said cover plate adjacent the one edge thereof proximate said boss and formed for detachable engagement with the boss.

References Cited

UNITED STATES PATENTS

3,016,993	1/1962	Owen	52—502 X
3,160,244	12/1964	Kushner	52—221 X
3,195,698	7/1965	Codrea	52—221 X
3,212,225	10/1965	Neal	52—501 X
3,221,453	12/1965	Lietart	52—209

FRANK L. ABBOTT, *Primary Examiner*.

M. O. WARNECKE, R. A. STENZEL,

Assistant Examiners.