

[54] **MOVABLE WALL PARTITION INCLUDING SHELF OR SIMILAR OBJECT SUPPORTING BRACKETS**

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[75] Inventor: **Norman E. Hogue**, Niles, Mich.

Primary Examiner—J. Karl Bell

[73] Assignee: **Packard Industries, Inc.**, Niles, Mich.

Attorney, Agent, or Firm—Oltsch & Knoblock

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[57] **ABSTRACT**

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A movable wall partition which includes a panel having a spacer strip overlying one end edge of the panel. A retainer member which constitutes a part of the wall partition overlies the spacer strip. The end edge of the panel over which the spacer strip lies has an opening formed therein into which the lip of a bracket support is fitted. Biasing means connect the panel and retainer member and serve to retain the spacer strip in a compressed state between the panel and retainer member with the support bracket being locked in a supporting position.

[52] **U.S. Cl.** **52/36; 211/134; 211/148; 248/243**

[51] **Int. Cl.²** **E04B 2/82**

[58] **Field of Search** 52/36, 238, 241, 243, 481, 52/720, 729-732; 248/218, 221, 240, 243; 211/134, 148; 108/108

[56] **References Cited**

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4 Claims, 9 Drawing Figures

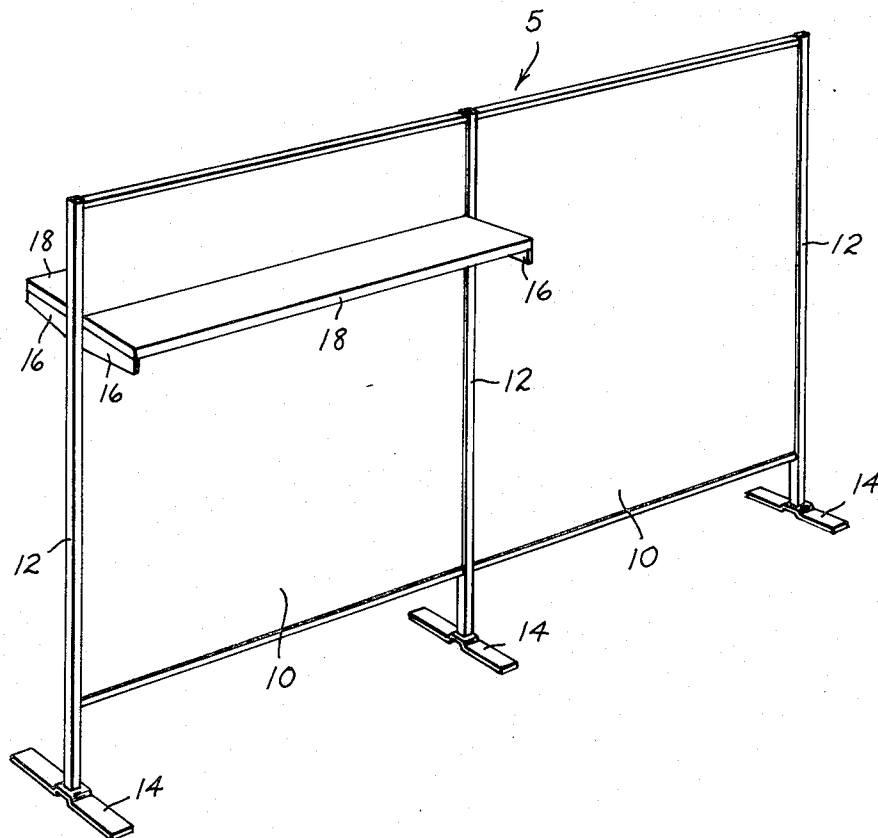


Fig. 1

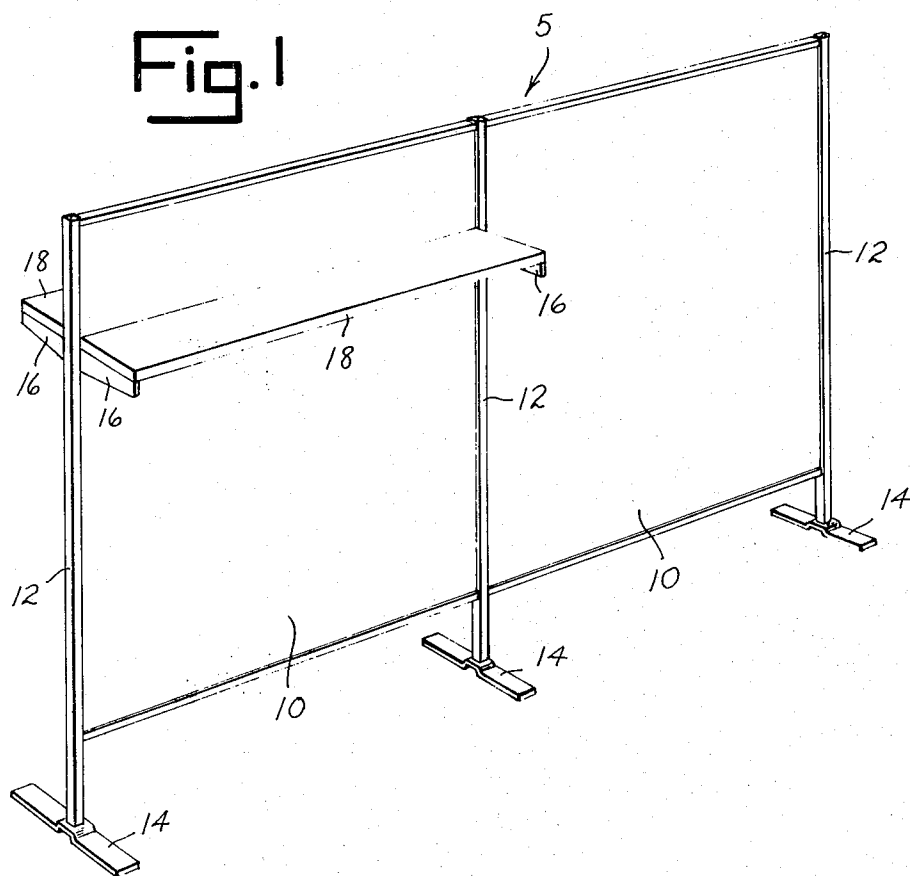


Fig. 2

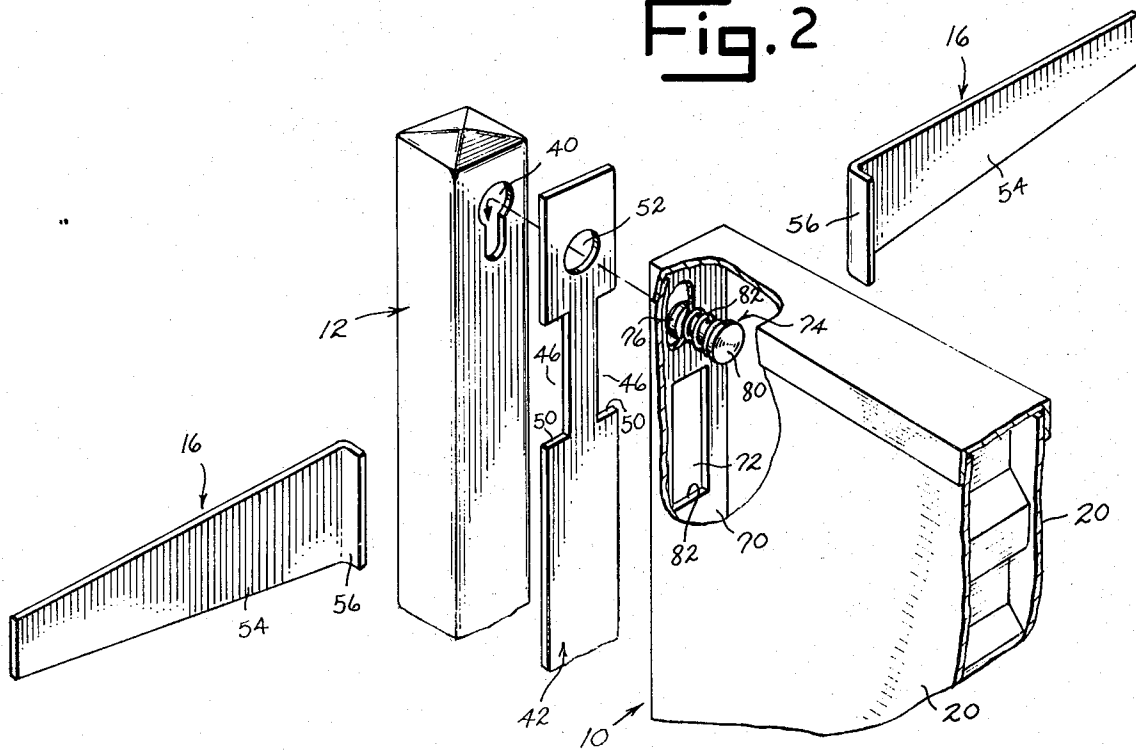


Fig. 3

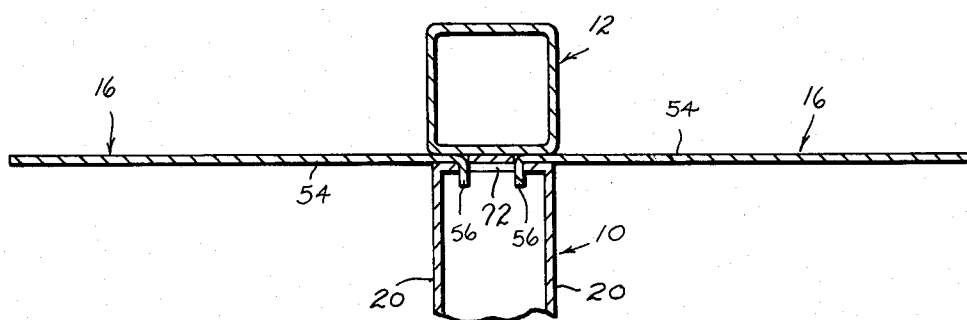


Fig. 4

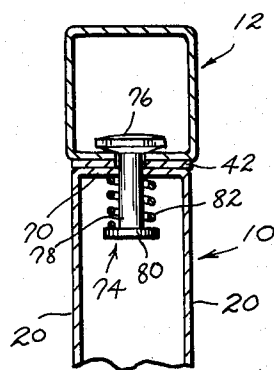


Fig. 5

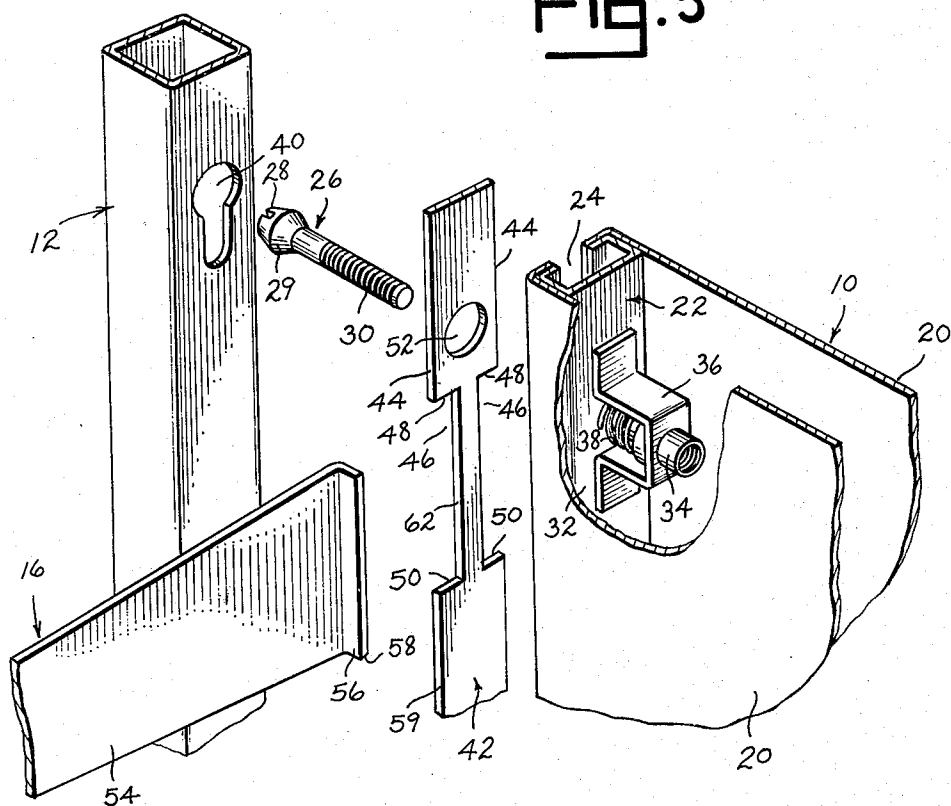


Fig. 6

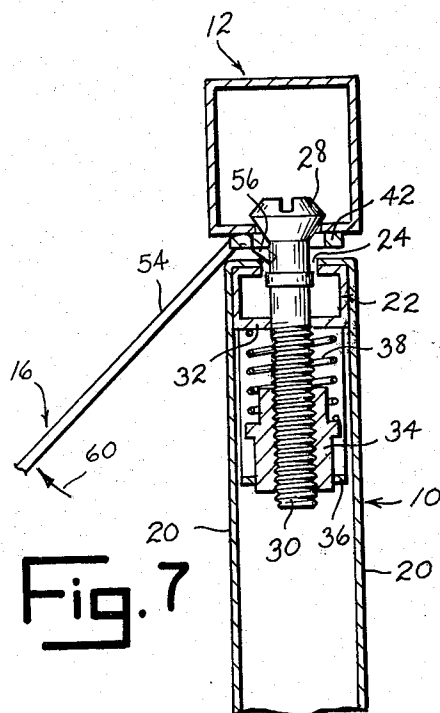
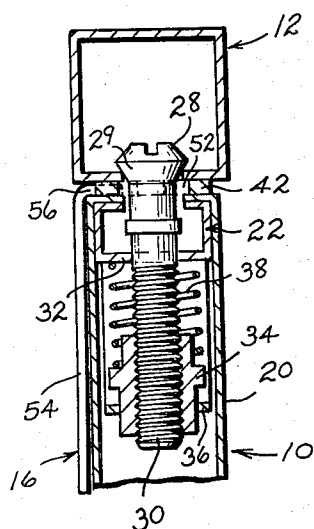


Fig. 8

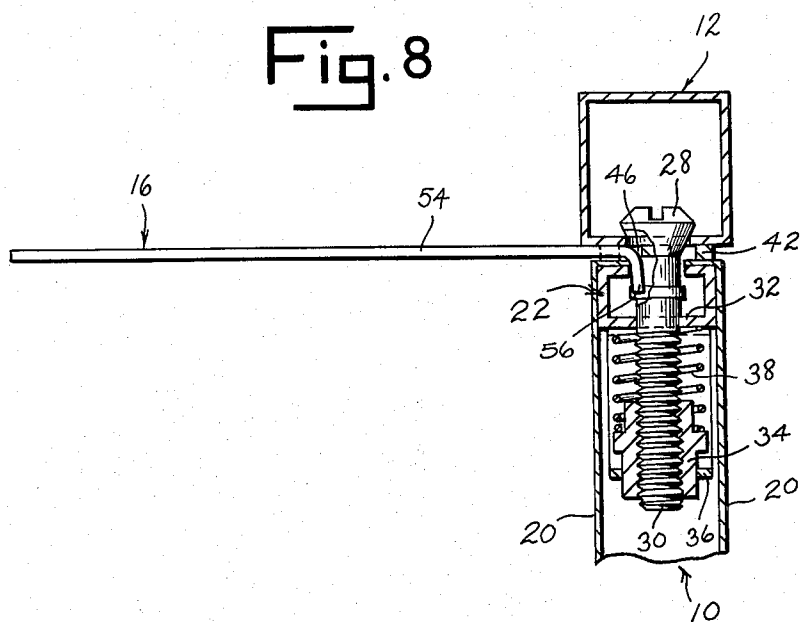
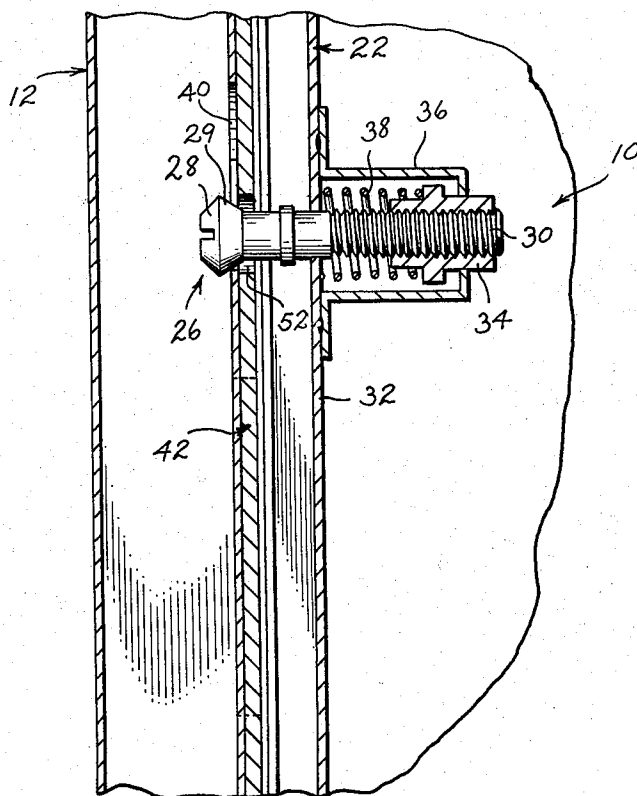


Fig. 9



MOVABLE WALL PARTITION INCLUDING SHELF OR SIMILAR OBJECT SUPPORTING BRACKETS

SUMMARY OF THE INVENTION

This invention relates to a wall partition and has specific application to a removable wall panel which includes object supporting brackets.

The wall partition of this invention includes a panel having oppositely spaced side faces and vertical end edges. At least one of the end edges of the panel has a vertically aligned opening formed therein. A spacer strip overlies the panel at its end edge having the vertically aligned opening therein. A retainer member, which may constitute another panel forming a continuation of the partition, overlies the spacer strip. A yieldable biasing means serves to connect the panel and retainer member together and causes the spacer strip to be compressed between the panel and retainer member. One or more support brackets are fitted into the vertically aligned opening in the panel end edge by causing the retainer member to be temporarily sprung away from the panel. The support brackets are supported by either the spacer strip or panel end edge to allow shelving, filing cabinets, desk tops, storage bins, blackboards, and even articles of clothing to be carried or hung upon the brackets.

Accordingly, it is an object of this invention to provide a wall partition which is movable and which includes selectively positioned brackets for supporting shelving and similar items.

Another object of this invention is to provide a wall partition which can be assembled in a simple and rapid manner with ordinary hand tools and which includes variably located object supporting brackets.

Still another object of this invention is to provide a wall partition which is of pleasing design and appearance and which includes means for supporting various objects, such as shelving, desk tops, filing cabinets and tubs, storage bins and articles of clothing.

Other objects of this invention will become apparent upon a reading of the invention's description.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the partition of this invention shown in its assembled form.

FIG. 2 is a view of one embodiment of the partition of this invention showing the component parts thereof in exploded form.

FIG. 3 is a fragmentary cross sectional view in the horizontal plane showing component parts of the partition embodiment of FIG. 2 in assembled form.

FIG. 4 is a fragmentary cross sectional view in the horizontal plane also showing component parts of the partition embodiment of FIG. 2 in assembled form.

FIG. 5 is a fragmentary view of another embodiment of the partition of this invention showing the component parts thereof in exploded form.

FIGS. 6-8 are sequential cross sectional views showing a support bracket being attached to the partition of FIG. 5.

FIG. 9 is a fragmentary sectional view in the vertical plane showing the partition in FIG. 5 in assembled form.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The preferred embodiments illustrated are not in-

tended to be exhaustive or to limit the invention to the precise forms disclosed. They are chosen and described in order to best explain the principles of the invention and its application and practical use to thereby enable others skilled in the art to best utilize the invention.

In FIG. 1 partition 5 is shown in its assembled form and includes joined panels 10 supported by vertical tubular posts 12 having attached feet 14. It is to be understood that depending upon the length and location of panels 10 not all posts 12 need to extend to the floor and carry feet 14. Forming a part of the partition are support brackets 16 which may assume a variety of configurations and which are utilized to support such objects as shelves 18. Depending upon their use, brackets 16 may extend outwardly from both sides of panels 10, as illustrated in the embodiment shown in FIGS. 2-4, or from only one side of the panels, as illustrated in the embodiment shown in FIGS. 5-9.

Referring first to the embodiment of the partition shown in FIGS. 5-9, panels 10 each include side faces 20 which may be in the form of sheeting. Side faces 20 are joined at the vertical end edges of each panel by C-shaped channel parts 22. Each channel part 22 preferably extends the full height of its panel 10 and forms an elongated vertically oriented opening 24 at the edge of the panel. A plurality of vertically spaced spring biased attachment screws 26 (only one shown) are carried by each channel part 22 and extend from near the top to near the bottom of the panel 10. Each screw 26 has an enlarged tapered head 28 and a threaded shank 30. Shank 30 of each screw extends through an opening in the web 32 of the channel part and is turned into a shouldered nut 34. Nut 34 is retained slidably within a U-shaped bracket 36 which is secured to web 32 of the channel part. A helical spring 38 is positioned within bracket 36 and has one end abutting channel part web 32 and its opposite end abutting the shoulder of nut 34 so as to cause screw 26 to be normally urged toward opening 24 in the channel part.

Each tubular post 12 has a plurality of key-hole slots 40 formed in its side walls at selected spaced intervals corresponding to the spacing between screws 26 carried by panels 10. In assembling posts 12 to panels 10 the heads 28 of screws 26 are fitted into the enlarged openings in slots 40 and either the panel urged downwardly or the posts urged upwardly to cause the tapered base portion 29 of each screw head to become wedged within the narrow portion of its corresponding slot 40 and a compression of the spring 38 associated with the screw. This compression of springs 38 causes the screw heads 28 to draw the posts 12 and panels 10 together.

Between each post 12 and connected panel 10 is a spacer member 42. Each spacer member 42 (only one shown) is of a strip like configuration having end edges 44 which are interrupted by oppositely located slots 46. Slots 46 are selectively spaced apart along the longitudinal dimension of the spacer member 42. Each slot 46 has an upper shoulder 48 and a lower shoulder 50. Each spacer member 42 also has a plurality of openings 52 formed in it. Openings 52 are spaced apart along the longitudinal dimension of the spacer member and correspond in location to the spacing between screws 26 carried by panels 10. Screws 26 along the panel side edge extend through openings 52 in a spacer member 42 and serve when interlocked within slots 40 of a post 12 to draw the post toward the panel end edge and to

compress the spacer member between the post and panel, as illustrated in FIG. 6.

The manner in which support brackets 16 are connected to the partition will now be described. Each bracket 16, regardless of exterior configuration and use, will include a flange part 54 which terminates in a right angular formed lip 56. The thickness of each bracket 16 at its lip 56 is preferably slightly less than the thickness of spacer members 42. Each bracket 16 is attached by being positioned with its flange generally paralleling a side face 20 of a panel 10 and with its lip 56 fitted between the panel and attached post 12 and into a selected slot 46 in the spacer member, as shown in FIG. 6. The spacing between shoulders 48 and 50 of the slot exceeds the length of bracket lip 56. At this time spacer member 42 remains compressed between panel 10 and post 12. The bracket is then pivoted outwardly as illustrated by arrow 60 in FIG. 7, causing panel 10 and post 12 to be wedged apart in conjunction with the compressive yielding of springs 38 surrounding the screws 26 carried by the panel. As bracket 16 is pivoted into a generally perpendicular position relative to panel 10 as illustrated in FIG. 8, its lip 56 slips into opening 24 in channel part 22 and becomes fitted into the channel part, and springs 38 cause spacer member 42 to be compressed between the post 12 and the panel 10. The lower edge 58 of bracket 16 rests upon lower shoulder 50 of the spacer member and in this manner is supported in a fixed vertical location. The depth of each slot 46 in spacer member 42 as measured between its outer edge 59 and its base 62 is such that, with the spacer member overlying opening 24 in channel part 22, base 62 will be located between the edges of opening 24 to allow lip 56 of each bracket 16 to pass between the slot base and adjacent edge of the channel part as shown in FIGS. 7 and 8 when the bracket is swung into its outwardly extending position.

In FIGS. 2-4 a modified embodiment of the partition of this invention is shown. In this embodiment each panel 10 has its faces 20 joined by an end edge strip 70 which has a plurality of rectangularly shaped, vertically spaced openings 72 formed therein for the purpose of accommodating lips 56 of brackets 16. The biasing means 74 which serves to join post 12 and panel 10 with compressed spacer member 42 therebetween is of a simplified pin construction having an enlarged tapered head 76 and a shank 78 which terminates in an annular flange 80. Helical spring 82 surrounds shank 78 and is compressed between flange 80 of the shank and end edge strip 70. During assembly head 76 of biasing means 74 extends through opening 52 in spacer member 42 and is fitted within the reduced portion of key-hole slot 40 in post 12. Spacer member 42 includes slots 46 and the manner of assembling brackets 16 with flanges 54 and lip 56 is the same as that previously described for the embodiment shown in FIGS. 5-9.

In each of the embodiments above described and illustrated, spacer member 42 serves as a means of permitting brackets 16 to be selectively positioned between posts 12 and panels 10. Additionally, each spacer member 42 serves as a decor strip improving the aesthetic appearance of the assembled partition. In FIGS. 5-9 bracket 16 is supported in its selected vertical position by contact with a lower shoulder 50 of a spacer member 42. In FIGS. 2-4, each bracket 16 is supported in its selected vertical position by contacting either spacer member 42 at its shoulder 50 or the lower

edge 82 of opening 72 in the panel. Bracket 16 can be disconnected from the assembled partition by swinging the bracket inwardly toward panel 10 in a manner which reverses the operative procedure in attaching the bracket to the partition. The location of slots 46 in the spacer members 42 determines the selective position of brackets 16.

It is to be understood that the invention is not to be limited to the details above given but may be modified within the scope of the appended claims.

What I claim is:

1. A wall partition comprising a panel having first and second oppositely spaced side faces and vertical end edges at which said side faces terminate, said panel having at least one vertically aligned opening formed in one of its end edges, a vertical spacer member having opposite sides terminating in marginal edges, said spacer member at one of its sides overlying said panel one end edge, retainer means extending the length of said spacer member and overlying the other side of the spacer member, yieldable biasing means connecting said panel and retainer means for causing said spacer member to be compressed between said retainer means and panel at its one end edge, a shelf or similar object supporting bracket, said bracket including a flange terminating in a generally right angular lip means having a lower edge, said bracket lip means fitted into a said panel opening, said bracket having an assembly position in which said bracket flange generally parallels said one of said panel faces with its lip means fitted between said panel one end edge and retainer means, said bracket being shiftable from its assembly position into a supporting position in which the bracket flange extends outwardly from said one panel face and said lip projects into said panel end edge opening with said bracket being supported by one of said spacer member and panel, said biasing means yieldably permitting separation of said retainer means from said panel as said bracket is shifted from its assembly position into its support position.

2. A wall partition comprising a panel having first and second oppositely spaced side faces and vertical end edges at which said side faces terminate, said panel having at least one vertically aligned opening formed in one of its end edges, a vertical spacer member having opposite sides terminating in marginal edges, said spacer member at one of its sides overlying said panel one end edge, retainer means extending the length of said spacer member and overlying the other side of the spacer member, said spacer member having notch means formed in one of its marginal edges, said notch means having upper and lower spaced shoulders and extending transversely into said spacer member to a depth allowing communication of the notch means with a said opening in said panel one end edge, yieldable biasing means connecting said panel and retainer member for causing said spacer member to be compressed between said retainer means and panel at its one end edge, a shelf or similar object supporting bracket, said bracket including a flange terminating in a generally right angular lip means having a lower edge, said bracket having an assembly position in which said bracket flange generally parallels said panel first face with the lip means thereof extending into said notch means, said bracket being shiftable from its assembly position into a support position in which said bracket flange extends outwardly from said panel first face and

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said bracket lip means projects into said panel end edge opening with the lower edge of the lip means resting upon the lower shoulder of said notch means and being supported thereby, said biasing means yieldably permitting separation of said retainer means and panel as said bracket is shifted from its assembly position into its support position.

3. The partition of claim 2 wherein the thickness of said spacer member as measured between its opposite sides is at least equal to the thickness of said bracket flange where it terminates into said lip means.

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4. The partition of claim 2 wherein said biasing means includes an elongated securement member having an enlarged head at one end, said securement member extending through said spacer member and having its head anchored to said retainer means, the opposite end of said securement member being anchored to said panel, spring means associated with said securement member opposite end for urging said securement member head toward said panel one end edge.

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