Jan. 18, 1966 J. R. JANUS 3,229,822

ADAPTER FOR ANGULAR SUPPORT MEMBER

Filed Jan. 20, 1964 2 Sheets-Sheet 1

Fig. 1

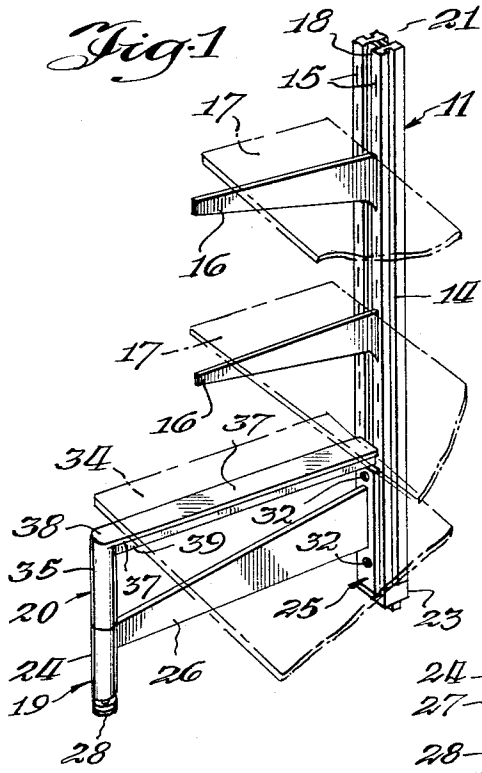


Fig. 2

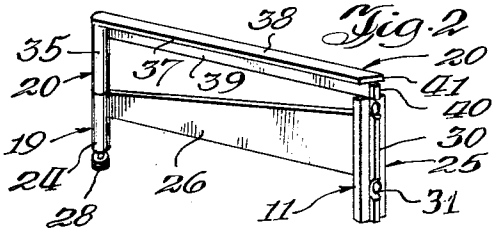
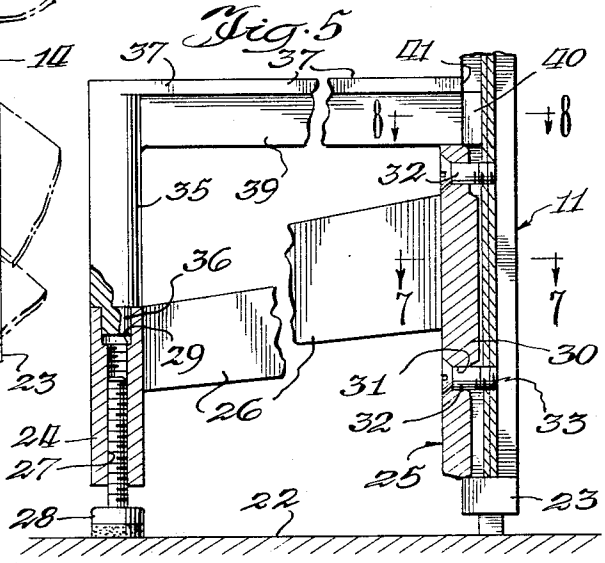


Fig. 5



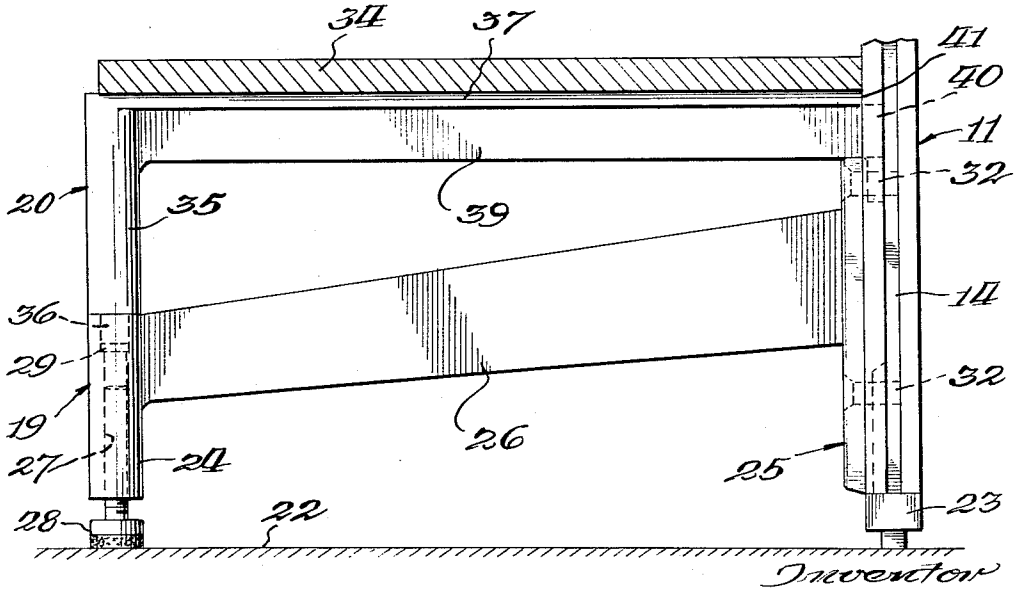


Fig. 3

Inventor
John R. Janus
By Dressler, Goldsmith, Clement, Gordon & Ladd
Attorneys

Jan. 18, 1966 J. R. JANUS 3,229,822

ADAPTER FOR ANGULAR SUPPORT MEMBER

Filed Jan. 20, 1964 2 Sheets-Sheet 2

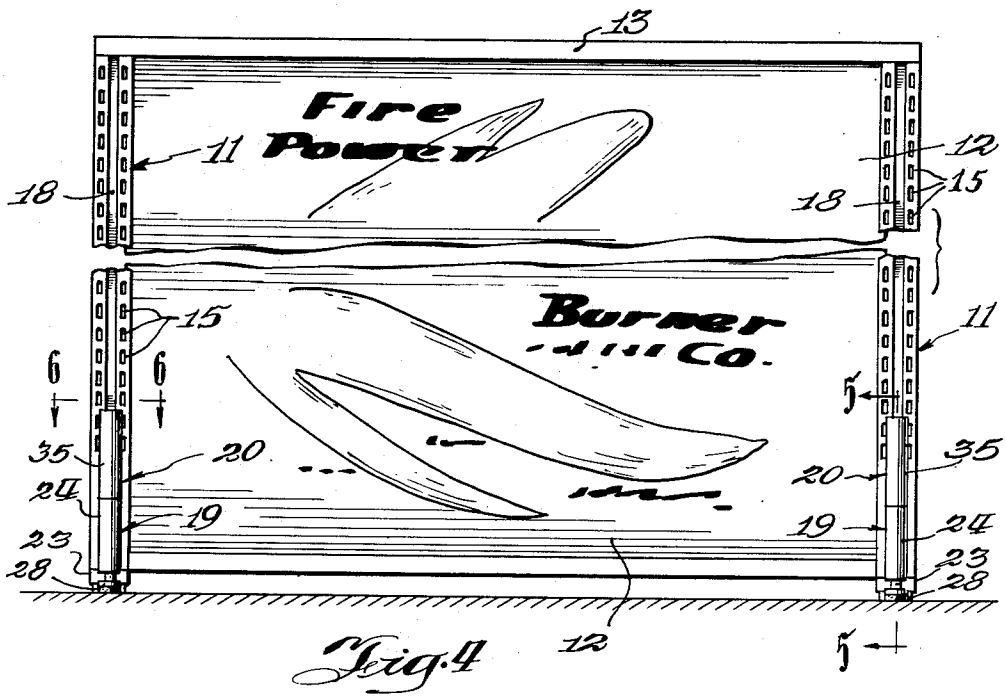


Fig. 4

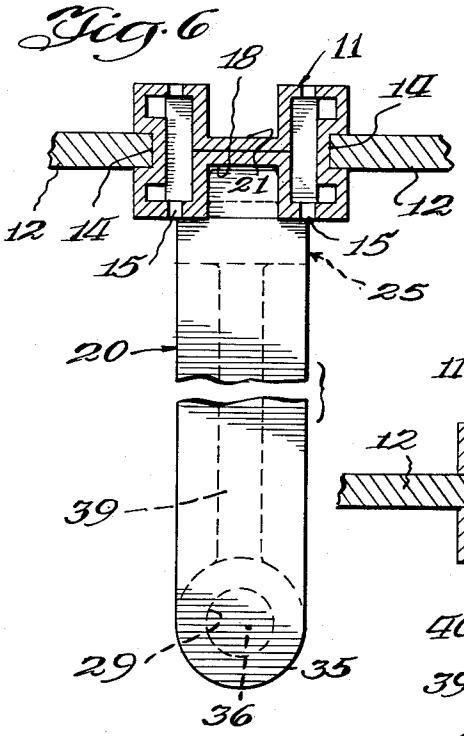


Fig. 6

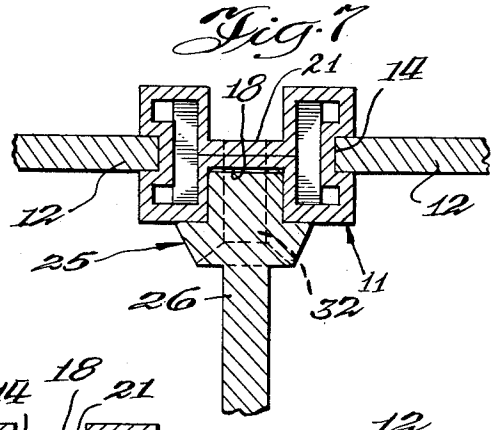


Fig. 7

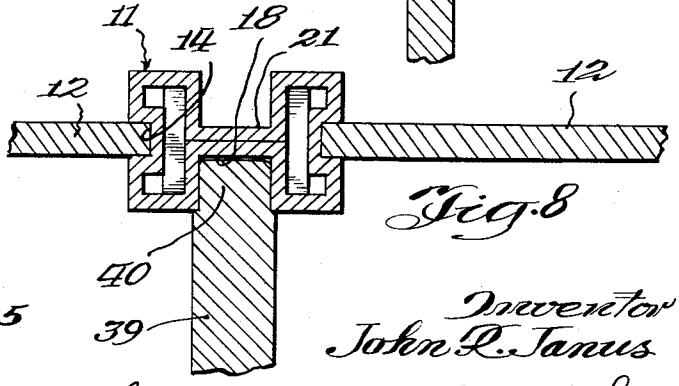


Fig. 8

Inventor
John R. Janus

By Dressler, Goldsmith, Clement, Gordon & Ladd
Attorneys

United States Patent Office 3,229,822 Patented Jan. 18, 1966

3,229,822

ADAPTER FOR ANGULAR SUPPORT MEMBER

John R. Janus, Barrington, Ill., assignor to Garcy Corporation, a corporation of Illinois

Filed Jan. 20, 1964, Ser. No. 338,721
11 Claims. (Cl. 211—134)

This invention relates to an adapter for an angular support member, and is particularly concerned with detachable means for converting a support having an angular top to a flat topped support capable of supporting a display shelf upon which merchandise may be displayed.

Display racks of the type comprising a plurality of vertical pilasters supporting brackets upon which display shelves are mounted require a base support capable of holding the pilasters in upright position. A common form of base support comprises a plurality of laterally spaced support members, each comprising an upright adapted to be positioned adjacent one of the pilasters, a support leg spaced from said upright, and a connecting bar integral with said upright and said support leg. The upright has a rearwardly extending projection adapted to fit within a channel in the front or rear surface of said pilaster and a plurality of apertures in registration with apertures or recesses in the pilaster so that it may be secured to the pilaster by fastening elements. A leveling screw inserted into the bottom of the support leg is adjustable to hold the pilaster in upright position. A plurality of the support members secured to the pilasters in laterally spaced relationship cooperate to produce a rigid base support for the display rack.

Generally, it is preferred to use short support legs because they provide a neat appearance for the base support. The upright requires at least two vertically spaced apertures for the fastening elements that secure it to the pilaster. Since the lower aperture must be spaced above the bottom of the pilaster, the upright is longer than the support leg, and the upper edge of the connecting bar is inclined upwardly from the horizontal plane of the top of the support leg to enhance the appearance of the base support. The inclined top surface of the connecting bar is satisfactory from an esthetic point of view, but does not provide a suitable support for a display shelf.

In accordance with the present invention, an adapter, comprising a flat top bar and a post depending from the front end of said bar, has its rear end adapted to seat on top of the upright. The rear end of the adapter is held against lateral displacement by a rearwardly extending projection that fits in the channel in the adjacent surface of the pilaster. The post depending from the front end of the adapter has a projection depending therefrom. The projection extends into a recess in the top of the support leg when the rear end of the adapter is positioned on top of the upright with the reawardly extending projection in the channel of the pilaster. The interengagement of the projection extends into a recess in the top of a support vents accidental lateral displacement of the front end of the adapter.

The post depending from the front end of the adapter extends below the lower edge of the flat bar a distance equal to the vertical distance between the top of the upright and the top of the support leg. Therefore, when the adapter is positioned with the rear end of the flat bar on top of the upright and the projection fitted within the recess in the top of the support leg, the top surface of the flat bar is disposed in a horizontal plane. A plurality of support members positioned in this manner cooperate to provide a level support for an extra display shelf near the bottom of the display rack. If the extra display shelf is not required, the adapter may be readily removed to restore the original appearance of the base support.

A structure by means of which the above mentioned

and other advantages of the invention may be attained will be described in detail in the following specification, taken in conjunction with the accompanying drawings showing a preferred illustrative embodiment of the invention, in which:

FIG. 1 is a fragmentary perspective view of a display rack showing an adapter positioned to support a display shelf;

FIG. 2 is a perspective view of an adapter positioned on a support leg;

FIG. 3 is an enlarged side elevational view of an adapter positioned on a support leg and a display shelf supported on the adapter;

FIG. 4 is a fragmentary front elevational view of a display rack with a base support embodying the inventon;

FIG. 5 is a fragmentary vertical sectional view, taken along the line 5—5 of FIG. 4;

FIG. 6 is an enlarged cross sectional view, taken along the line 6—6 of FIG. 4;

FIG. 7 is an enlarged cross sectional view, taken along the line 7—7 of FIG. 5; and

FIG. 8 is an enlarged cross sectional view, taken along the line 8—8 of FIG. 5.

In the drawings, a plurality of pilasters **11** are spaced laterally to support a panel **12** between adjacent pilasters. In FIG. 4 a top stretcher **13** connects the upper ends of adjacent pilasters, but it will be understood that such structure is optional. The pilaster structure will not be specifically described since pilasters of any suitable construction may be used. Each pilaster is provided with a longitudinal recess **14** on each side for supporting one edge of a panel in each recess. The pilaster is also provided with vertically aligned slots **15** for supporting brackets **16** upon which display shelves **17** are mounted. Each pilaster is also provided with a longitudinal channel **18** in its front surface to engage one end of an angular support member **19** and one end of an adapter **20** positioned on top of the support member. A similar channel **21** is provided in the rear surface of the pilaster for engagement with a support member and an adapter if a base support is to extend from the rear of the display rack. The width of channel **21** is the same as the width of channel **18**, and the angular support and adapter will fit equally well in either channel. Each pilaster may rest directly on the floor **22**, but preferably is provided with a leveling device **23**.

The angular support member **19** comprises a support leg **24**, an upright **25**, and a connecting bar **26**. The support member may be an integral member, such as a casting or forging, or the parts may be welded or brazed together to form a unitary structure. The support leg **24** is preferably cylindrical, and is provided with an axial bore **27** having its lower portion threaded for reception of a leveling screw **28**. The upper portion of the bore **27** is counterbored, as indicated at **29**, for a purpose hereinafter disclosed.

The upright **25** has an integral rib **30** extending rearwardly along its longitudinal center. The rib **30** has a width approximately equal to the width of the channel **18** into which it fits. The upright also has a plurality of vertically aligned apertures **31** for reception of screws **32** by means of which the upright is secured to the pilaster **11**. The front end of each aperture **31** is preferably counterbored so that the heads of the screws **32** are flush with the front surface of the upright. The screws **32** are threaded into threaded apertures **33** provided therefor in the pilaster.

When the support members are secured to the pilasters they extend at right angles to the plane of the panel **12**. Connecting bar **26** has its upper edge inclined downwardly between the upright **25** and the support leg **24** to provide a neat appearance for the display rack. The

adapters **20** cooperate to provide a suitable top surface for supporting an extra display shelf **34** parallel to the shelves **17** adjacent the bottom of the display rack.

Each adapter comprises a front vertical post **35** having a projection **36** depending therefrom and an arm **37** extending laterally from the upper end of the post **35**. The projection **36** fits into the counterbore **29** of the support leg **24** and prevents any accidental lateral displacement of the front end of the adapter. Projection **36** and counterbore **29** are preferably cylindrical, but may be of any desired shape. The arm **37** is preferably integral with the post **35**, but may be welded or brazed thereto. The arm **37** is provided with a flat top surface **38** and with a reinforcing bar **39** which may be integral with the arm **37**, or may be welded to the underside of the arm and to the upper edge portion of the post **35**. The bottom of the bar **39** rests on the top surface of upright **25** adjacent its rear end. The vertical distance between the lower surface of the reinforcing bar **39** and the bottom of the post **35** is substantially equal to the difference between the heights of support leg **24** and upright **25**. The length of post **35** depending below the bottom of the bar **39** is just enough to position the top surface **38** of arm **37** in a horizontal plane when the bottom of post **35** is seated on the top of the support leg **24** and the rear end **40** of the bar **39** is seated on the top of the upright **25**.

When the adapter is positioned on top of the angular support member, the rear end portion **40** of the bar **39** fits into the channel **18** to prevent accidental lateral displacement of the rear end of the adapter when it is in shelf supporting position. The rear end **41** of the arm **37** terminates short of the rear end of the bar **39** and fits flush against the front surface of the pilaster to provide a neat, smooth finish for the rear end of the top surface **38** of the arm **37**. The adapter may be removed easily if it is desired to remove the bottom display shelf and restore the display rack to its original appearance.

The adapter may be secured in place by means other than the interfitting projection **36** and counterbore **29**. For example, the counterbore may be threaded, or the bore **27** may be threaded all the way to the top of support leg **24**. The post **35** may be provided with an axial bore large enough to drop the headed end of a screw therein. An internal shoulder in the bore of the post **35** would define an aperture larger in diameter than the shank of the screw and smaller than the head of the screw. A screw can be dropped into the bore of the post **35** so that its shank will pass through the aperture. The screw is threaded into engagement with the threaded counterbore or with the axial bore **27** of support leg **24**, and is turned until the head of the screw is tightened against the internal shoulder.

Although I have described a preferred embodiment of the invention in considerable detail, it will be understood that the description thereof is intended to be illustrative, rather than restrictive, as many details of construction may be modified or changed without departing from the spirit or scope of the invention. Accordingly, I do not desire to be restricted to the exact structure disclosed.

I claim:

1. In a display rack, a pilaster, an angular support member having an upright secured against lateral movement relative to said pilaster and a support post spaced from said upright, an adapter comprising a vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of said upright and said support post, and an arm extending laterally from the upper end of said vertical post, said arm having a length substantially equal to the distance between said support post and said pilaster, and separate means holding each end of said adapter against accidental lateral displacement relative to said support member.

2. In a display rack, a pilaster, an angular support member having an upright secured against lateral movement relative to said pilaster and a support post spaced from said upright, an adapter comprising a vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of said upright and said support post, an arm extending laterally from the upper end of said vertical post, said arm having a length substantially equal to the distance between said support post and said pilaster, means on said pilaster engaged with one end of said arm to hold it in vertical alignment with said upright, and means for holding said vertical post in vertical alignment with said support post.

3. In a display rack, a pilaster, an angular support member having an upright secured against lateral movement relative to said pilaster and a support post spaced from said upright, an adapter comprising a vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of said upright and said support post, an arm extending laterally from the upper end of said vertical post, said arm having a length substantially equal to the distance between said support post and said pilaster, means on said pilaster engaged with one end of said arm to hold it in vertical alignment with said upright, said support post having a recess in its top surface, and a projection depending from said vertical post, said projection being engaged with said recess to prevent accidental lateral displacement of said post relative to said support member.

4. In a display rack, a pilaster, an angular support member having an upright secured against lateral movement relative to said pilaster and a support post spaced from said upright, an adapter comprising a vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of said upright and said support post, an arm extending laterally from the upper end of said vertical post, said arm having a length substantially equal to the distance between said support post and said pilaster, said pilaster having a channel engaged with the outer end of said arm to hold it in vertical alignment with said upright, and means for holding said vertical post in vertical alignment with said support post.

5. In a display rack, a pilaster, an angular support member having an upright secured against lateral movement relative to said pilaster and a support post spaced from said upright, an adapter comprising a vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of said upright and said support post, an arm extending laterally from the upper end of said vertical post, said arm having a length substantially equal to the distance between said support post and said pilaster, said pilaster having a vertically disposed channel, the outer end of said arm having a thickness approximately equal to the width of said channel, whereby said arm is held against lateral displacement by engagement with said channel, and a projection depending from said vertical post and engaging said support post for holding said vertical post against accidental lateral displacement relative to said support post.

6. In a display rack, a pilaster, an angular support member engageable with said pilaster to hold it in vertical position, and an adapter engageable with said support member to provide a surface for supporting a display shelf in horizontal position, said pilaster having a vertically disposed channel in one surface thereof, said angular support member comprising an upright secured against lateral movement relative to said pilaster and a support post spaced from said upright, said adapter comprising a vertical post and an arm extending laterally from the upper end of said vertical post, said arm having a length substantially equal to the distance between said support post and said pilaster and a thickness at its outer end approximately equal to the width of said channel, and means holding said vertical post in axial alignment with said support post when the outer end of said arm is positioned in said channel, said vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of said upright and said support post,

whereby said arm will be horizontally disposed when its outer end is positioned on top of said upright and its vertical post is positioned on top of said support post.

7. In a display rack, a pilaster, an angular support member secured to said pilaster to hold it in vertical position, and an adapter engageable with said support member to provide a surface for supporting a display shelf in horizontal position, said pilaster having a vertically disposed channel in one surface thereof, said angular support member comprising an upright having a rib projecting into said channel to secure said upright against lateral movement relative to said pilaster and a support post spaced from said upright, said support post having a recess in its top surface, said adapter comprising a vertical post and an arm extending laterally from the upper end of said vertical post, said arm having a length substantially equal to the distance between said support post and said pilaster, and a thickness at its outer end approximately equal to the width of said channel, said arm being engaged with the top of said upright with its outer end positioned in said channel, said vertical post having a projection depending therefrom, said projection fitting within said recess to hold said vertical post in axial alignment with said support post with the bottom of said vertical post seated on the top of said support post, said vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of said upright and said support post, whereby said arm will be horizontally disposed when its outer end is positioned on top of said upright and its vertical post is positioned on top of said support post.

8. The combination of an adapter and an angular support member, said adapter comprising a vertical post and an arm extending laterally from the upper end of said post and having means at the inner end of the arm adapted to engage a pilaster, said support member having means at its inner end adapted to engage a pilaster and an inclined top surface sloping downwardly from its inner end, the inner end of said arm being engaged with the upper end of said support member, the lower end of said post being engaged with the upper portion of the low end of said support member, said arm having a flat upper surface horizontally disposed when said adapter is engaged with said support member, and means for holding said adapter against accidental lateral displacement relative to said support member.

9. The combination of an adapter and an angular support member, said adapter comprising a vertical post and an arm extending laterally from the upper end of said post and having means at the inner end of the arm adapted to engage a pilaster, said support member having means at its inner end adapted to engage a pilaster and an inclined top surface sloping downwardly from its inner end, the inner end of said arm being engaged with the upper

end of said support member, the lower end of said post being engaged with the upper portion of the low end of said support member, said arm having a flat upper surface horizontally disposed when said adapter is engaged with said support member, and means depending from said post for cooperating with the upper section of the low end of said support member to prevent accidental lateral displacement of said post.

10. The combination of an adapter and an angular support member, said adapter comprising a vertical post and an arm extending laterally from the upper end of said post and having means at the inner end of the arm adapted to engage a pilaster, said support member having means at its inner end adapted to engage a pilaster and an inclined top surface sloping downwardly from its inner end, the inner end of said arm being engageable with the upper portion of the high end of said support member, and a projection depending from the bottom of said post, said projection being shaped for interengagement with means on said support member for holding said post against accidental lateral displacement, said arm having a flat upper surface horizontally disposed when said adapter is engaged with said support member.

11. The combination of an adapter and an angular support member, said support member having means at its inner end adapted to engage a pilaster and an inclined top surface sloping downwardly from its inner end, said adapter comprising a vertical post having a length substantially equal to the vertical distance between the uppermost surfaces of the high and low ends of said support member and an arm extending laterally from the upper end of said post, said arm having means at its inner end adapted to engage a pilaster, the inner end of said arm being adapted to be seated on the uppermost surface of the high end of said support member, means for interconnecting the bottom of said post with the low end of said support member to prevent accidental lateral displacement of said post relative to said support member.

References Cited by the Examiner

UNITED STATES PATENTS

1,324,537	12/1919	Belcher	108—108
1,932,794	3/1936	McArthur	297—421
2,620,023	12/1952	Molla	297—421
2,933,196	4/1960	Childs	211—183
2,971,805	2/1961	Weiss	312—108
3,115,367	12/1963	Gariepy	297—440

FOREIGN PATENTS

856,482	12/1960	Great Britain.

CLAUDE A. LE ROY, *Primary Examiner.*

FRANK L. ABBOTT, *Examiner.*

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,229,822 January 18, 1966

John R. Janus

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 1, line 54, for "reawardly" read -- rearwardly --; line 56, for "projection extends into a recess in the top of a support" read -- projection and the recess in the top of the support leg pre- --; column 2, line 15, for "inventon" read -- invention --.

Signed and sealed this 13th day of December 1966.

(SEAL)
Attest:

ERNEST W. SWIDER
Attesting Officer

EDWARD J. BRENNER
Commissioner of Patents