

C. B. HINRICHS ET AL

SUPPORT STRUCTURE ASSEMBLIES

2 Sheets-Sheet 1

Fig. 2

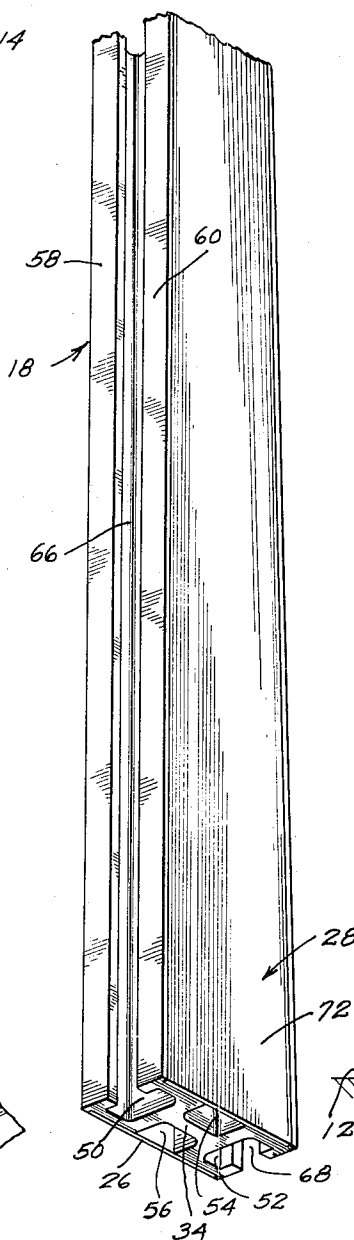
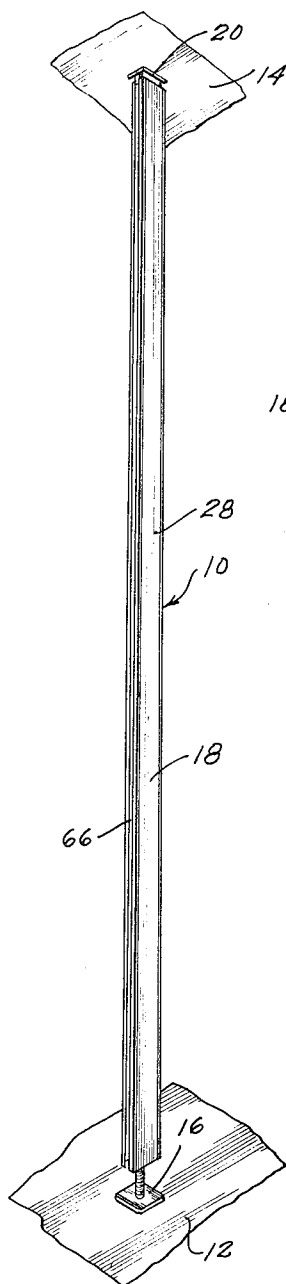
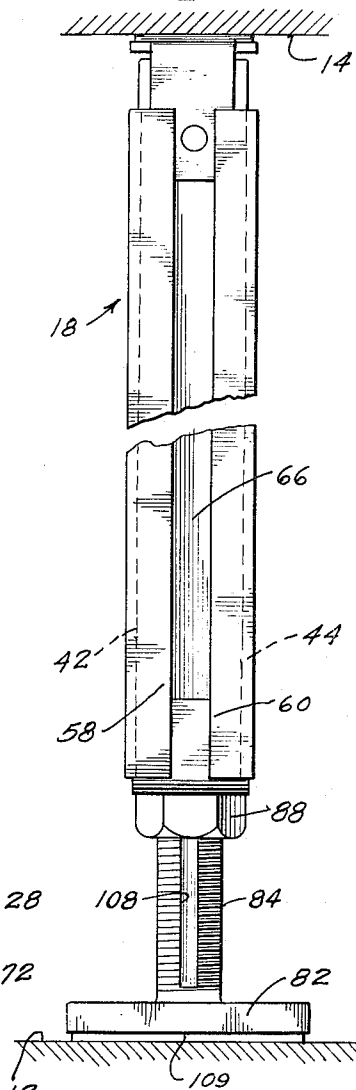


Fig. 3



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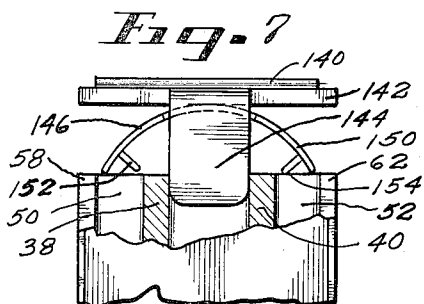
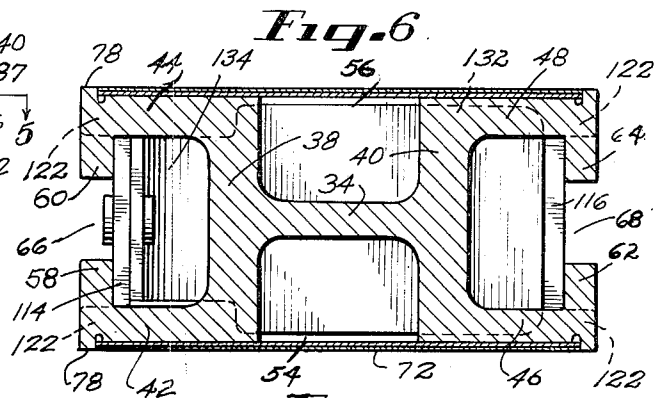
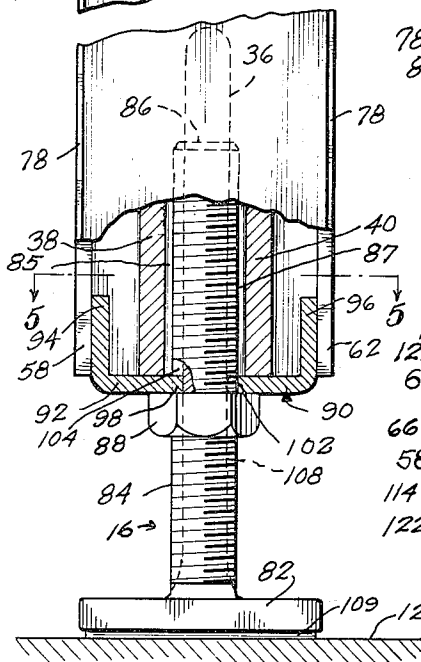
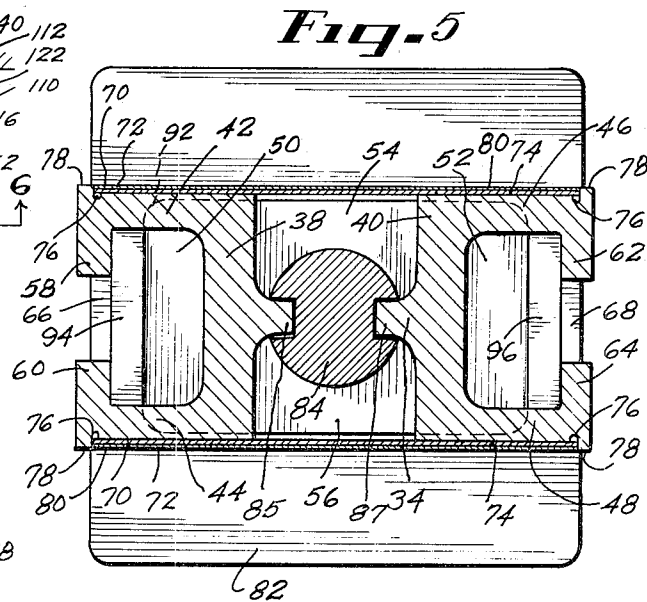
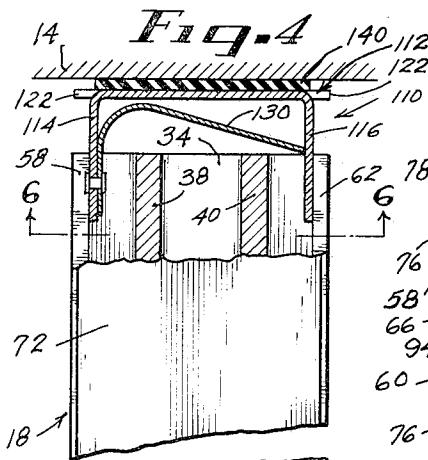
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3,228,646

SUPPORT STRUCTURE ASSEMBLIES

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2 Sheets-Sheet 2



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3,228,646

SUPPORT STRUCTURE ASSEMBLIES

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This invention relates to adjustable support structures, and is more particularly directed to support structure assemblies which includes trim strips, pedestals and top adaptors for support of fixtures, such as shelves, counter-tops, desks and the like.

Heretofore, difficulty has been encountered in the design of such support structures. For example, consumer cost is a significant factor in such design, since this cost should be low enough to attract the demand markets at all levels of income. Attempts to design such support structures by reducing the cost of the structures without a sacrifice in appearance have not met with much success. It will, of course, be appreciated that demand for such structures is not totally dependent upon cost, but is dependent also upon appearance and universality of application. Prior attempts to design such prior art structures have resulted in support structure designs in which the support structure has a fixed configuration which is not adaptable to change in appearance. In such cases, the individual tastes of particular consumers could not be accommodated because of the fixed configuration and design. Moreover, the fixed configuration, while it may have reduced expense of the structure, limited the uses for which the support structure could be employed.

With the present invention, the aforementioned problems and difficulties of the prior art are substantially overcome by the provision of a support structure and support structure assembly wherein cost is minimized by a reduction in the amount of material employed in the construction of the structure without a sacrifice in either the appearance or adaptability of the support structure assembly for different applications as well as a support structure assembly, the appearance of which can be readily adapted for different applications. By employing trim strips with the support member, the trim strips may be used not only to improve the appearance of the support member, but also to mask channels provided in the support member to reduce the material requirement. Moreover, such channels need not be masked, and the support member may be employed without trim strips for different applications. Embodiments of the present invention also encompass and feature top adaptor assemblies and base pedestal assemblies which, when assembled with the support member, permit adjustment of the height of the support member.

It is therefore an object of the present invention to provide new and improved support assemblies for fixtures, such as shelves, countertops and the like.

Another object of the present invention is to provide new and improved support assemblies including a support member and trim strips carried by the support member.

Still another object of the present invention is to provide a support structure assembly including a support member having side channels which minimize the quantity of material required in the construction of the support member and including trim strips spanning the side channels to enhance the appearance of the support member.

A further object of the present invention is to provide a support member having a cross-sectional configuration which minimizes the quantity of material required to construct the support member without a substantial sacrifice in strength of the support member.

A still further object of the present invention is to pro-

vide an extruded support structure of a predetermined cross-sectional configuration which minimizes the quantity of material used in its construction without reducing the strength of the structure.

Another object of the present invention is to provide an extruded support structure assembly.

Still another object of the present invention is to provide a support structure assembly including a support member of predetermined cross-sectional configuration, and a top adaptor assembly cooperable with the member to maintain the support member in contact with a holding surface such as the ceiling of a room.

A further object of the present invention is to provide an adjustable support structure assembly including a support member of predetermined cross-sectional configuration, a top adaptor and a base pedestal, the top adaptor and pedestal being easily assembled with the support member.

A still further object of the present invention is to provide a new and improved top adaptor for a support structure assembly.

Another object of the present invention is to provide a new and improved pedestal for a support structure assembly.

These and other objects, features and advantages of the present invention will become readily apparent to those versed in the art from a careful consideration of the following detailed description, when considered in conjunction with the drawing, illustrating preferred embodiments of the present invention, wherein like reference numerals and characters refer to like and corresponding parts throughout the several views and wherein;

FIG. 1 is a perspective view of a support structure assembly constructed in accordance with the principles of the present invention;

FIG. 2 is a view in perspective of a support member constructed in accordance with the present invention;

FIG. 3 is a front view in elevation of the support assembly of FIG. 1, broken to facilitate illustration;

FIG. 4 is an enlarged fragmentary view in side elevation of the support assembly of FIG. 3, illustrating the base pedestal and top adaptor;

FIG. 5 is a view taken along line 5—5 of FIG. 4;

FIG. 6 is a view taken along line 6—6 of FIG. 4;

FIG. 7 is an enlarged fragmentary view in partial section illustrating another embodiment of a top adaptor constructed in accordance with the principles of the present invention; and

FIG. 8 is a view similar to FIG. 7 illustrating the cooperative relationship between the top adaptor and the support member.

Although the present invention has a variety of applications, the embodiment thereof appearing in FIG. 1 of the drawing is illustrated as a support structure assembly, generally indicated by the numeral 10 in FIG. 1, supported by engagement with the floor 12 and the ceiling 14 of a room. It will be appreciated, of course, that the support structure assembly 10 may be employed for supporting counter tops and the like and is not necessarily limited to a support structure assembly for room dividers and the like.

The support structure assembly 10 includes a support member base pedestal assembly 16, a support member 18, and a top adaptor assembly 20, as appears in FIG. 1.

Referring to FIGS. 2-6, the support member 18 is an elongated member provided with a pair of slotted primary channels 50 and 52 which extend, in the embodiment shown in the drawing, the full length of the member. The channels 50 and 52 are provided for receiving therein bracket mounting means (not shown), such as the bracket mounting means described in Beal U.S. Patent No. 2,940,718. The channels 50 and 52 provide means for

adjustably locating and securing brackets to the support member 18.

Masking one or, as shown in the drawing, both of the wider sides of the support member 18 are elongated trim strips 28.

The trim strips 28 are preferably decorative strips which are provided not only for enhancing the appearance of the support structure member 18 but also as means for masking a pair of oppositely located side channels 54 and 56 (FIGS. 5 and 6) formed in the support member 18. The trim strips may be provided in any pattern or color, or any combination thereof, to increase the variety of applications for which the structure support assembly 10 may be employed and to satisfy the personal tastes of different individuals employing such structural support assemblies. It will be appreciated, of course, that if side panels, such as room divider panels or the like, are to be employed with the structural support member 18 and seated in the side channels 54 and 56, the trim strips 28 would not be employed.

Referring to FIGS. 2 and 6, the structural support member 18 is preferably extruded from metal, such as aluminum, or like material and has a pair of oppositely opening channel members which define the primary channels 50 and 52 and which channel members are connected by a web 34. The web 34 is rectangular in cross-section and extends the length of the support member 18. The web 34 has a slot 36 (FIG. 4) opening to the periphery of the member 18 at one end thereof. The slot 36 is provided for receiving a portion of a pedestal or base assembly as more fully described hereinafter.

The web 34, in the embodiment appearing in the drawing (FIG. 6), intersects and spaces a pair of body portions 38 and 40, respectively, of the two oppositely opening channel members. Each channel member includes a body portion, body portions 38 and 40, respectively, which extend parallel to each other. The body portion 38 has a pair of substantially parallel arms 42 and 44 radiating from opposite ends thereof to define a primary channel 50, whereas the body portion 40 has a similar pair of substantially parallel arms 46 and 48 radiating from the opposite ends thereof to define a primary channel 52. Channels 50 and 52 are provided to receive bracket means, such as those disclosed in the above mentioned Beal patent.

Web 34 and the body portions 38 and 40 define therebetween a pair of oppositely opening side channels 54 and 56 which may be masked by the trim strips 28 or may be employed to receive side panels.

Each of the arms 42, 44, 46, and 48 carries a radial flange, flanges 58, 60, 62 and 64, respectively, at the outer ends thereof. The flanges 58 and 60 are substantially parallel to the corresponding body portion 38, whereas the flanges 62 and 64 are substantially parallel to the corresponding body portion 40. The flanges 58 and 60 extend toward each other as do the flanges 62 and 64. Each pair of flanges, 58 and 60, and 62 and 64, terminates in spaced relation to each other to define the pair of slots 66 and 68, respectively, which communicate with the corresponding primary channels 50 and 52. The flanges 58-64 and the slots 66 and 68 extend the full length of the structural support member 18.

The slots 66 and 68 are provided for receiving bracket support means, such as the bracket support means disclosed in the Beal Patent No. 2,940,718.

The design of the structural support member 18 described herein provides a member having a requisite degree of strength for use as a support and constructed with a minimum amount of material.

Each of the trim strips 28, as clearly appears in FIGS. 5 and 6, may be constructed in two parts including a first part, which in the embodiment appearing in FIGS. 5 and 6, is a thin rectangular metal backing plate 70 having flat surfaces which carries an outer decorative cover 72

which may be constructed of metal, plastic, cloth or the like.

The cover 72 may be glued or otherwise secured to the backing plate 70 to form the strip 28 before assembly of the backing plate and cover to the structural support member 18.

The strips 28 span the side channels 54 and 56 thereby masking these channels. The backing plate 70 is seated against and secured, as by glue, to the planar outer sides 74 of corresponding arms 42 and 46 or 44 and 48 of the structural support member, as appears in FIG. 5. Grooves 76 are formed in the outer sides 74 of the structural support member 18 to provide excess glue accumulation areas adjacent the ends of the plates 70. It will be observed that the flanges 58-64 extend outwardly beyond the outer surfaces 74 of the arms 42, 44, 46 and 48 and cooperate with these outer surfaces 74 to provide recesses between ribs 78 for receiving the trim strips 28 so that the outer surfaces of the ribs 78 of the flanges 58, 60, 62 and 64 and the outer surfaces 80 of the decorative covers 70 have a flush surface continuity therebetween which enhances the appearance of the structural member 18.

It will be appreciated that there may be applied to mask the side channels 54 and 56 and to provide a decorative appearance any type of a trim construction which is desired and suitable for the tastes of the individual consumer.

Thus, with the present invention, there is provided a structural support member and trim strip assembly which not only enhances the appearance of the structural support member but permits the use of the structural support member for different applications without detracting from the appearance of the support member while permitting masking of the undesirable appearance features of the support member.

The support member 18, when employed with the trim strips 28 is, as appears in FIG. 4, mounted on a pedestal assembly 16 which provides means for adjusting the height of the structural member 18 relative to the floor 12. The pedestal assembly 16 comprises a base 82, carrying an upright and externally threaded rod 84, a pedestal guide collar 90 having a body portion 92 carrying depending end flanges 94 and 96, and a nut 88.

The end flanges 94 and 96 are offset from the ends of the body 92 and sized to bear against the inner, channel-defining surfaces of the flanges 58-64 and the adjacent portions of the arms 42-48 of the member 18. The body 92 is centrally apertured and extends partially into the aperture are keys 98 and 102 which radiate from the guide body 92 (FIG. 4). These keys 98 and 102 are slidably disposed in complementary longitudinal grooves 104 and 108 formed in the rod 84. The keys 98 and 102 and grooves 104 and 108 cooperate to prevent rotation of the pedestal guide 90 and to locate the guide 90 on the rod. To prevent rotation of the member 18, the web is provided with tangs 85 and 87 (FIGS. 4 and 5) which are also slidably disposed in grooves 104 and 108.

In assembling the pedestal assembly 16 with the support member 18, the nut 88 is threaded to the rod 84 and the pedestal guide member 90 slipped on the rod with the keys 98 and 102 slidably fitted in the complementary grooves 104 and 108 of the rod 84. The pedestal assembly is then mounted to the support member 18 in such a manner that the rod 84 is inserted and disposed in the slot 36 with the tangs 85 and 87 and the keys 98 and 102 disposed in the grooves 104 and 108 and with the guide arms or flanges 94 and 96 extending into the channels 50 and 52.

Adjustment of the structural support member 18 relative to floor 12 is provided by threading of the nut 88. It will be observed that the guide member 90 supports the structural support member 18 by contact of the bodies 38 and 40 with the inner surface of the body 92 of the pedestal guide 90, as clearly appears in FIG. 4. A cushion-

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ioning pad 109 constructed of rubber or like material may be glued or otherwise secured to the base 82 of the pedestal assembly to prevent marking of the floor 12.

The structural support assembly may include also, as appears in FIGS. 4 and 6, a top adaptor assembly, generally indicated by the numeral 110, which is provided when the structural support assembly is employed between the floor and ceiling of the room or in like applications in which both the bottom and top of the structural support assembly contact other members.

Referring to FIG. 4, the top adaptor assembly 110 comprises a body portion 112 which is a flat plate. The body 112 carries a pair of opposite radially depending side flanges 114 and 116 which are inset from the ends 122 of the body portion (FIG. 4). The ends 122 of the body portion define flanges at each corner of the body portion 112 as clearly appears in FIG. 6. The flanges 114 and 116 are sized to slip fit in the channels 50 and 52 and one of the flanges, such as flange 114, has riveted thereto a leaf spring arm 130.

The leaf spring arm 130 is preferably of uniform cross-sectional thickness and extends from the flange across the top adaptor toward flange 116. The spring arm 130 is substantially longitudinally aligned with the body 112 and, as appears in FIG. 6, is provided with a first rectangular section 132 connected to a reduced curved area section 134 which is riveted to the flange 114.

The leaf spring arm 130 is provided to assure the maintenance of a tight fit between the structural support assembly and the floor and ceiling. It will be appreciated that, after the structural support assembly is fitted between the floor and ceiling and fixtures, such as shelves, mounted thereon, that the weight of the items carried by the shelves will apply the weight of such items on the floor. If the floor is covered with rugs or carpeting the weight of the items on the shelves may compress the rug or carpeting to an extent sufficient to move the top adaptor from contact with the ceiling and thereby cause the structural support assembly and items to fall to the floor. Similarly, the result may occur in new homes where the house structure has not completely settled. The leaf spring arm 130, therefore, when the structural support assembly is initially installed, is placed under compression which tends to urge the top adaptor assembly from the structural support member. Thus, even if the structural support member should move downwardly, as viewed in FIG. 4, the top adaptor would be maintained in tight contact with the ceiling and the structural support assembly maintained in proper position between the floor and ceiling because the leaf spring arm would continue to urge the top adaptor in contact with the ceiling while the flanges 114 and 116 remain in contact with the structural support member 18 as the member 18 moves downwardly.

The leaf spring arm 130 is thus provided to assure a tight fit between the top adaptor assembly and the structural support member 18. Use of the leaf spring arm 130 will also assure that the tight fit of the top adaptor assembly with the structural support member is provided regardless of the position of the top adaptor assembly relative to the structural support member. A cushioning pad 140 may be glued or otherwise mounted to the top adaptor assembly to prevent marring of the ceiling 14.

In an alternative embodiment of a top adaptor assembly appearing in FIGS. 7 and 8, the top adaptor assembly comprises a flat rectangular plate 142 carrying a pair of spaced depending arms 144 each of which is sized to fit in the corresponding one of the two side channels 54 and 56 of the structural support member. Centrally connected to the top plate 142 is a flat leaf spring having one arcuate arm 146 extending from one side of the point of connection to the top plate 142 and adapted to seat on the top edge surface of the channel member defining the channel 50 and a second arcuate arm 150 extending from the other side of the point of connection and adapted to seat on the top edge surface of the channel

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member defining the channel 52 of the structural support member. These spring arms 146 and 150, as shown in FIG. 7, bear against the flanges 42, 44, 46 and 48 of the structural support member 18. As the structural support member approaches the bottom surface of the top plate 142 the spring arms 146 and 150 will tend to flare outwardly and slide in contact with flanges 42, 44, 46 and 48 until, at some point in the movement of the structural support member, the contact of the spring leaf portions 146, 150 with the body portions 38 and 40 and flanges 42, 44, 46 and 48 tends to force the spring arms 146 and 150 flat, as clearly appears in FIG. 8. Stop guides 152 and 154 are carried by the arm 146 and 150 to prevent shifting of the spring leaf arms 146 and 150 at the point of contact thereof with the body portions 38 and 40 and flanges 42, 44, 46 and 48 by engagement of the stops 152 and 154 with the surfaces defining the channels 50 and 52. The spring leaf arms 146 and 150, it will be appreciated, maintain a snug fit between the top adaptor assembly and the structural support member. This top adaptor assembly also maintains a tight fit between the structural support assembly and the floor and ceiling because the tension on the arms 146 and 150 when assembled with the structural support member 18 tends to urge the top adaptor assembly from the member 18 in a manner similar to the manner described above in connection with the top adaptor assembly of FIGS. 4 and 6.

Although various minor modifications of the present invention will become readily apparent to those versed in the art, it should be understood that what is intended to be encompassed within the scope of the patent warranted hereon are all such embodiments as reasonably and properly come within the scope of the contribution to the art hereby made.

We claim:

1. In a structural support assembly adapted for mounting of shelves, cabinets and the like, including an elongated substantially rectangular structural support member and an end plate assembly for said support member, the improvement comprising an extruded one-piece structural support member having a pair of primary channel members forming a pair of oppositely facing open primary channels, each of said primary channel members including a body portion and a pair of substantially parallel arms radiating from the ends of the body portion to define one of said primary channels, a rectangular web carried by, interconnecting, and spacing said primary channel members, said web and the body portions of said primary channel members forming therebetween a pair of oppositely facing open side primary channels, a radial flange carried on the outer end of each of the arms of each of said primary channel members, each of said radial flanges being substantially parallel to the corresponding body portion, said radial flanges on opposite arms of each primary channel member extending toward and terminating in spaced relation to each other to define an internally shouldered slot communicating with the primary channel of the corresponding primary channel member, an exterior mounting surface on each arm of each of said pairs of arms, one pair of said mounting surfaces lying in a common plane spanning one of said side primary channels and another pair of said mounting surfaces lying in a common plane spanning the other of said side primary channels, and a trim strip spanning each of said side primary channels, each of said trim strips being secured to one pair of said pairs of mounting surfaces to mask the corresponding side primary channel.

2. An extruded structural support assembly comprising: a pair of primary channel members forming a pair of oppositely facing open primary channels, each of said primary channel members including a body portion and a pair of substantially parallel spaced arms radiating from the ends of the body portion to define one of said primary channels, a rectangular web carried by, interconnecting, and spacing said primary channel members, said web

and the body portions of said primary channel members forming therebetween a pair of oppositely facing open side primary channels, a radial flange carried on the outer end of each of the arms of each of said primary channel members, each of said radial flanges being substantially parallel to the corresponding body portion, said radial flanges on opposite arms of each primary channel member extending toward and terminating in spaced relation to each other to define an internally shouldered slot communicating with the primary channel of the corresponding primary channel member, each of said flanges being intersected by the corresponding arm to define ribs projecting from the plane of the outer side of the corresponding arm, a trim strip spanning the opening of each of said side primary channels, to lie within a pair of said ribs, each of said trim strips being secured to the outer sides of the adjacent arms of the primary channel members, said trim strips each being of sufficient thickness to provide a planar surface continuity between the outer surface of the trim strip and the corresponding outer surfaces of the ribs between which the trim strip lies.

3. An extended structural support assembly comprising a pair of primary channel members forming a pair of oppositely facing open primary channels, each of said primary channel members including a body portion and a pair of substantially parallel spaced arms radiating from the ends of the body portion to define one of said primary channels, a rectangular web carried by, interconnecting, and spacing said primary channel members, said web and the body portions of said primary channel members forming therebetween a pair of oppositely facing open side primary channels, a radial flange carried on the outer end of each of the arms of each of said primary channel members, each of said radial flanges being substantially parallel to the corresponding body portion, said radial flanges on opposite arms of each primary channel member extending toward and terminating in spaced relation to each other to define an internally shouldered slot communicating with the primary channel of the corresponding primary channel member, and a trim strip spanning the opening of each of said side primary channels, each of said trim strips being secured to the outer sides of the adjacent arms of the primary channel members, and each of said trim strips comprising an inner metal backing member and an outer decorative member carried by the backing member.

4. The structural support member of claim 2 including a groove formed in the outer side of each of said arms adjacent the ribs for receiving excess adhesive bonding the strip to said arms.

5. The structural support member of claim 2 wherein each of said trim strips comprises an inner metal backing member and an outer decorative member carried by the backing member.

6. The structural support member of claim 4 wherein each of said trim strips comprises an inner metal backing member and an outer decorative member carried by the backing member.

7. The structural support assembly of claim 1 wherein said web is rectangular in cross section and bisects the body portions of said channel members.

8. An extruded structural support assembly comprising: a structural support member including a pair of oppositely open primary channel members, each of said primary channel members including a body portion and a pair of substantially parallel arms radiating from the ends of the body portion, a rectangular web carried by and interconnecting and spacing said primary channel members, said web and the body portions of said primary channel members forming therebetween a pair of oppositely facing open side primary channels, and a radial flange carried on the outer end of each of the arms of said primary channel members each of said radial flanges being substantially parallel to the corresponding body portion, said radial flanges on opposite arms of each primary channel mem-

ber extending toward and terminating in spaced relation to each other to define an internally shouldered slot communicating with the primary channel of the corresponding primary channel member, and a base plate assembly, said base plate assembly including a base carrying an upright threaded rod, said rod being adapted for insertion in a recess formed in the support member, a locking guide collar slidably carried by the rod and having a body portion carrying depending arms insertable in the primary channels of the support member, and a nut disposed on said rod for adjusting the height of said structural support member, said nut carrying said collar between it and the body portion of said collar.

9. The structural support assembly of claim 8 wherein the width of said depending arms is sufficient to engage the inner sides of said flanges of the arms of the primary channel members, and said collar includes means to prevent rotation of said support member relative to the base assembly.

10. The structural support assembly of claim 8 wherein said rod is provided with longitudinal grooves, and said locking collar has a pair of complementary keys slidably disposed in said grooves.

11. The structural support assembly of claim 10 wherein said recess is in said web, and said web carried tangs extending into said recess, said tangs being slideably disposed in the grooves of said rod.

12. An extruded structural support assembly comprising: a structural support member including a pair of oppositely open primary channel members, each of said members including a body portion and a pair of substantially parallel arms radiating from the ends of the body portion, a rectangular web carried by and interconnecting and spacing said primary channel members, said web and the body portions of said primary channel members forming therebetween a pair of oppositely facing open side primary channels, and a radial flange carried on the outer end of each of the arms of each of said primary channel members, each of said radial flanges being substantially parallel to the corresponding body portion, said radial flanges on opposite arms of each primary channel member extending toward and terminating in spaced relation to each other to define an internally shouldered slot communicating with the primary channel of the corresponding primary channel member; and a top adaptor assembly, said top adaptor assembly including a body portion having depending arms disposed in the primary channels of the support member, and spring means carried by the body portion and spanning the web for contact with the primary channel members to bias the top adaptor assembly from the support member.

13. An extruded structural support assembly comprising: a structural support member including a pair of oppositely open primary channel members, each of said members including a body portion and a pair of substantially parallel arms radiating from the ends of the body portion, a rectangular web carried by and interconnecting and spacing said primary channel members, said web and the body portions of said primary channel members forming therebetween a pair of oppositely facing open side primary channels, and a radial flange carried on the outer end of each of the arms of each of said primary channel members each of said radial flanges being substantially parallel to the corresponding body portion, said radial flanges on opposite arms of each primary channel member extending toward and terminating in spaced relation to each other to define an internally shouldered slot communicating with the primary channel of the corresponding channel member; a recess formed in an end of said support member; a base plate assembly, said base plate assembly including a base carrying an upright threaded rod, said rod being sized and shaped for insertion into said recess in the support member, a locking collar slidably carried by the rod and having a body portion carrying arms insertable in the primary channels of

the support member, and a nut disposed on said rod for adjusting the height of said structural support member, said nut carrying said locking collar between it and the body portion of said collar, and a top adaptor assembly, said top adaptor assembly including a body portion having depending arms disposed in the primary channels of the support member and spring means carried by the body portion and spanning the web for contact with the primary channel members to bias the top adaptor assembly from the support member.

14. A base plate assembly including a base carrying an upright threaded rod, said rod being adapted for insertion in a recess formed in a support member a locking guide collar slidably carried by the rod and having a body portion carrying arms insertably in other recesses formed in said support member and a nut disposed on said rod between the base and said collar for supporting the collar, said nut being threadable for adjusting the relative position of said collar with respect to said base.

15. The base plate assembly of claim 14 wherein said rod is provided with at least one groove, and said locking collar has a complementary key slideably disposed in said groove.

16. The base plate assembly of claim 14 wherein said rod is provided with at least a pair of longitudinal grooves, and said locking collar has a pair of complementary keys slideably disposed in said grooves.

17. In a structural support assembly including a support member having a pair of primary channel members forming a pair of spaced oppositely facing primary channels, each primary channel having at least one internal surface at one end thereof, the improvement comprising a top adaptor assembly having a body portion adapted for engagement with a fixed surface, at least two, spaced-apart, depending arms carried on said body portion for abutting contact with said two internal surfaces of said support member, and spring means carried by said top adaptor assembly between said depending arms for abutting with said support member to bias said top adaptor assembly from said support member.

18. The improvement of claim 17 wherein said spring

means is a spring leaf having one end secured to one of said depending arms and its opposite end disposed between said arms.

19. The improvement of claim 18 wherein said spring leaf is arcuate in cross section between said point of securement and the terminal edge of said opposite free end thereof.

20. The improvement of claim 17 wherein said spring means is a spring arm carried by said body portion.

21. The improvement of claim 17 wherein said spring arm is an arcuate arm centrally connected to the body portion and having two free edge portions, each curved away from the body portion.

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