March 21, 1950 H. B. CHATFIELD 2,501,029

VENETIAN BLIND BRACKET AND TOP MOUNTING MEANS THEREFOR

Filed April 21, 1948 2 Sheets-Sheet 1

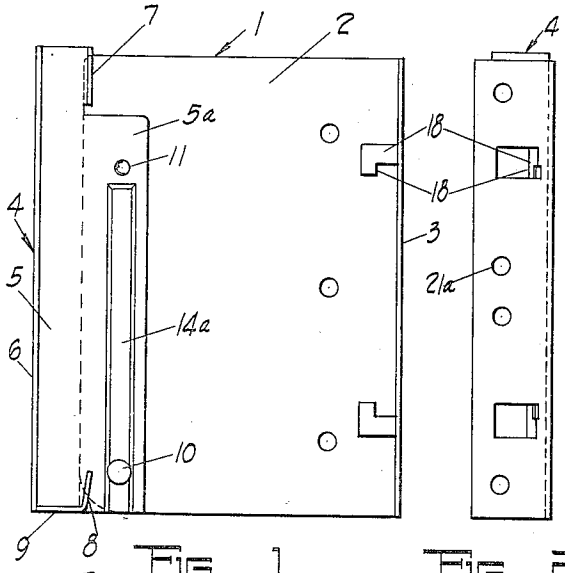


FIG. 1

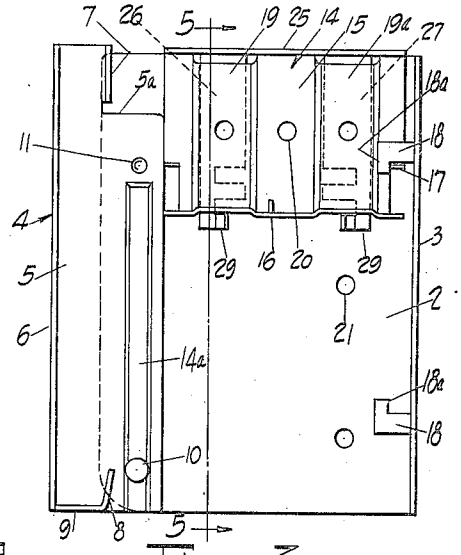


FIG. 2

FIG. 3

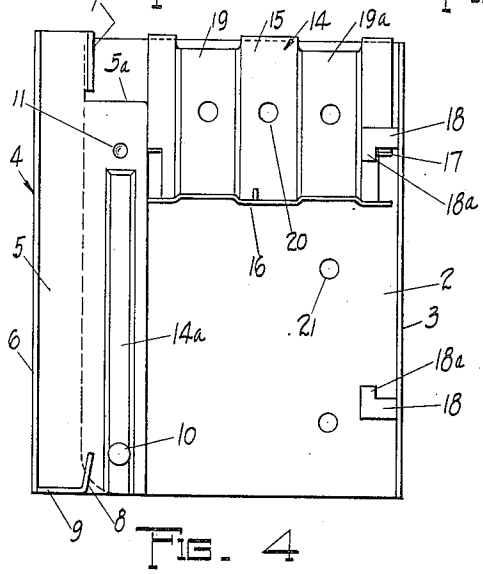


FIG. 4

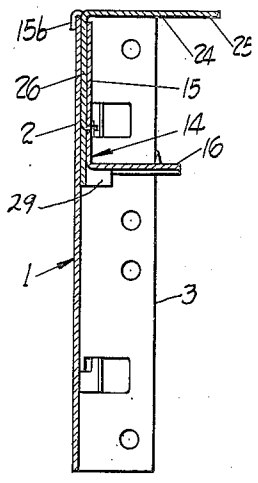


FIG. 5

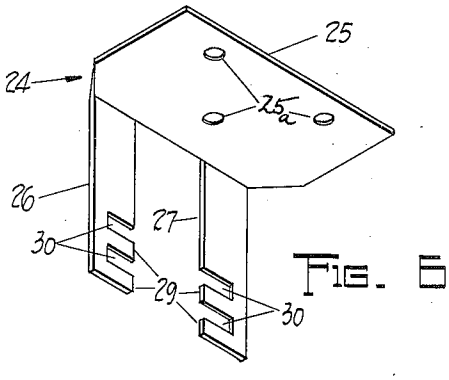


FIG. 6

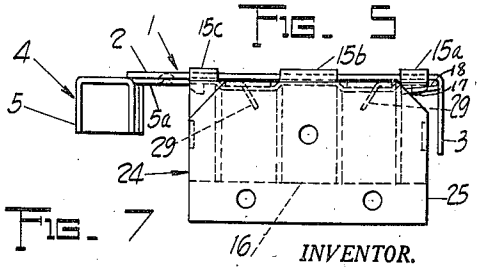


FIG. 7

INVENTOR.

BY H. B. Chatfield

Robb & Robb

Attorneys

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VENETIAN BLIND BRACKET AND TOP MOUNTING MEANS THEREFOR

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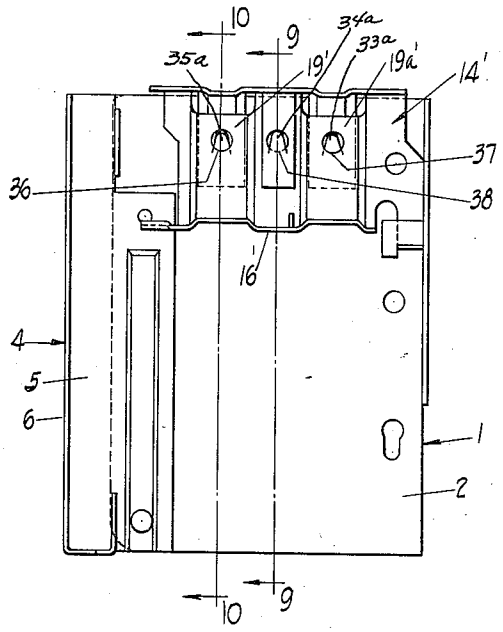


FIG. 8

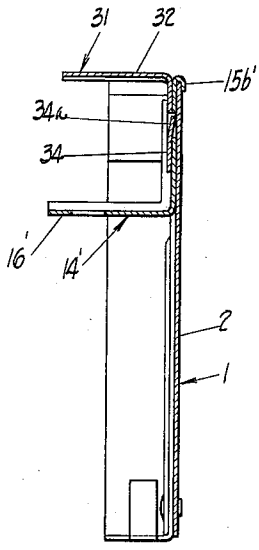


FIG. 9

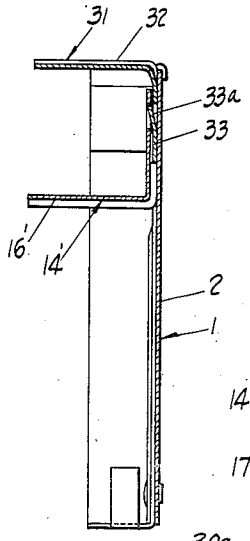


FIG. 10

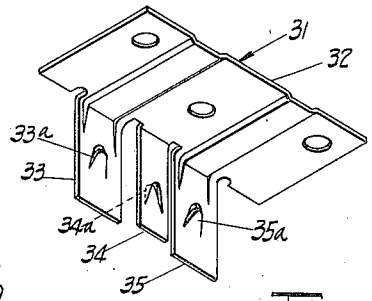


FIG. 11

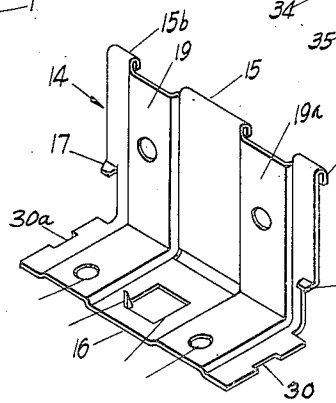


FIG. 12

INVENTOR.
H. B. Chatfield
BY Robb & Robb
Attorneys.

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UNITED STATES PATENT OFFICE

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VENETIAN BLIND BRACKET AND TOP MOUNTING MEANS THEREFOR

Henry E. Chatfield, Cleveland, Ohio, assignor to The Guarantee Specialty Manufacturing Company, Cleveland, Ohio, a corporation

Application April 21, 1948, Serial No. 22,438

9 Claims. (Cl. 248—264)

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This invention relates to Venetian blind brackets of the type adapted for supporting Venetian blind structure at either end thereof for mounting adjacent to a window or the like, and more particularly my present invention relates to an attachable ceiling mounting means for such brackets.

A primary object of my invention is to provide an attachable ceiling mounting means for such brackets which is adapted to be attached thereto, when it is desired to attach the bracket from above.

Another object of the invention is to provide an attachable ceiling mounting means for such brackets which may be readily detachably secured thereto.

Still another object of my invention is to provide such a ceiling mounting means for attachment to such bracket, which ceiling mounting means is designed especially for attaching cooperation with the attachable head rail supporting means of my invention as disclosed in my copending application Serial No. 22,437, filed April 21, 1948, for Venetian blind bracket.

Under various conditions of use of the brackets of the type referred to, it is sometimes desired to utilize a side mounting of the bracket or a rear mounting of the brackets, and on other occasions it is desired to use a top mounting or a ceiling mounting of the brackets. To suit various conditions, the brackets of the type here referred to are usually provided with means whereby the main body of the bracket may be secured to some part of the wall or window frame for a side mounting of the bracket, and there is ordinarily provided a rear flange on the bracket for facilitating the rear mounting of the bracket, the flange and body portions having provision for receiving screws or the like in these respective portions. For the purposes of providing a ceiling mounting or top mounting of the brackets of this type there have usually heretofore been provided on such brackets a horizontally disposed flange member welded or otherwise secured to the bracket in a permanent manner and having apertures for receiving screws or like fastenings for facilitating the attachment of the bracket to the ceiling or top of the window frame where the top mounting was availed of. Under some conditions in the past a top or ceiling mounting member was formed integrally with the head rail supporting means including a shelf or offstanding flange for supporting the head rail of the Venetian blind unit.

In the various forms in which the top or ceiling mounting means was provided on such brackets in the past, it was, or intended to be a permanent part of the bracket. Since it was only occasionally, or under certain circumstances, that the top or ceiling mounting was desired to be availed of, the provisions for this type of mounting in the brackets heretofore provided necessarily unduly increased the cost where such top mounting or ceiling mounting means was not to be utilized in the bracket installation of the Venetian blind unit.

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In accordance with my invention, therefore, I contemplate the provision of attachable top or ceiling mounting means which will be utilized in conjunction with the main supporting bracket only where the top or ceiling mounting is to be availed of in the final installation, and under such condition, the person making the installation can readily attach the ceiling mount on the job.

Another especial object of my invention is to provide attachable ceiling or top mount which may be attached to the supporting bracket without the use of tools.

Other objects, advantages and features of the invention will appear from the following detail description taken in conjunction with the accompanying drawings, in which—

Figure 1 is a side view of the main supporting bracket of my invention alone, looking toward the inside thereof, and with the Venetian blind head rail supporting means omitted.

Figure 2 is a rear end view of the bracket shown in Figure 1, looking toward the right side of Figure 1.

Figure 3 is a side elevation, similar to Figure 1 but showing the attachable head rail supporting means in attached relation to the main supporting bracket, and showing a top or ceiling mounting means attached to the main supporting bracket in cooperative relation to the head rail supporting means.

Figure 4 is a view similar to Figure 3 but showing the head rail supporting means attached to the main supporting bracket and before the top or ceiling mounting means has been assembled in cooperative relation therewith.

Figure 5 is a sectional view taken on the line 5—5 of Figure 3.

Figure 6 is a perspective view of the top or ceiling mounting means alone, of the form illustrated in Figures 3, 5, and 7.

Figure 7 is a top plan view of the assembled structure shown in Figure 3.

Figure 8 is a view like Figure 3 but illustrating

a modified form of attachable head rail supporting means and a modified form of top or ceiling mounting means in assembled relation therewith.

Figure 9 is a sectional view taken on the line 9—9 of Figure 8.

Figure 10 is a sectional view taken on the line 10—10 of Figure 8.

Figure 11 is a perspective view of the top or ceiling mounting means, alone, of the modified form shown in Figures 8 and 10.

Figure 12 is a perspective view of the head rail supporting means, alone, of the form shown in Figures 3, 4 and 7.

The accompanying drawings illustrate the embodiment of my invention in conjunction with a Venetian blind supporting bracket having a pivoted or movable front facia supporting member or clip.

Now referring more specifically to the drawings, the main Venetian blind supporting bracket member generally designated by the numeral 1 comprises a main body portion 2 having a rear flange member 3 offstanding inwardly from the main body portion 2 at substantially a right angle thereto. A facia board supporting member generally designated by the numeral 4 has a main body portion 5 having an offstanding front flange portion at the front edge thereof offstanding inwardly at substantially a right angle to the main body portion 5 of the facia holder 4, the front flange portion being designated 6. The facia carrier or holder 4 is also provided with rear flange portions 7 and 8 at the top and bottom thereof spaced rearwardly from the front flange portion 6 and disposed at substantially right angles to the main body portion 5. The facia holder 4 also includes a bottom or supporting flange 9 likewise disposed at substantially right angles to the body portion 5. The facia holder 4 is an integral member with the flange portions 6, 7, 8, and 9 formed integrally with the main body portion 5, the flange 9 being a downward extension of the body portion 5 and bent at right angles thereto, and the flange portion 8 being a rearward extension of the flange portion 9 and bent at right angles thereto. The body portion 5 of the facia holder includes a rearwardly extending portion 5a extending rearwardly of the flange portions 7 and 8 and the facia holder 5 is pivoted to the main body portion 2 of the supporting bracket 1 by means of a pivot pin 10 passing through the rearward extension 5a of the facia holder.

In the closed position of the facia holder 4 shown in Figure 1 and Figure 3, the rearward extension 5a lies against the inner side of the main body portion 2 of the supporting bracket 1, the flange portions 7 and 8 are disposed adjacent the front edge of said body portion 2 and the flange portion 6 is disposed somewhat forwardly of the front edge of the body portion 2 of the main supporting bracket 1.

Cooperating locking means are provided on the facia holder 4 and the main body portion 2 of the supporting bracket 1, said locking means comprising an outstruck projection 11 on the rearward extension 5a of the facia holder intended to cooperate with a dimple or aperture (not shown) provided in the body portion 2 of the main supporting bracket 1. To facilitate the closing action of the facia holder, in reference to engagement of the projection 11 with the main body portion 2 of the main supporting bracket 1, the latter is provided with a flared depression

(not shown) leading from the front edge of the same toward the aforesaid aperture and flared outwardly toward the front edge of the body portion 2, so that in closing of the facia holder the projection 11 engages smoothly with the depression portion 13.

The rearward extension 5a of the facia holder 4 is strengthened by the provision of a longitudinal rib 14a.

The Venetian blind head rail or head bar supporting means comprises an integral member fabricated separately from the main supporting bracket 1, the head rail supporting means being generally designated 14 and seen best in Figures 3, 5 and 7. This integral or unitary head rail supporting means is pressed out of a single piece of metal and comprises a generally vertically disposed main bracket engaging portion 15 and a generally horizontally disposed shelf or head rail supporting portion 16, the shelf portion 16 being bent at substantially right angles to the portion 15 in the forming operation. At the upper or free edge of the bracket engaging portion 15 the same is provided with hook portions 15a, 15b, and 15c which are adapted to engage over the upper edge of the main body 2 of the bracket member 1, as seen best in Figures 5 and 7, for supporting the member 14 upon the bracket member 1. Cooperating locking means are provided on the member 14 and the main bracket member 1 for locking the member 14 in proper position on the bracket member 1. Said latter locking means comprise the locking member or projection 17 bent inwardly from the bracket engaging portion 15 adjacent the rear edge thereof and adapted to interlockingly cooperate with a locking member or lug 18 bent inwardly from the rear flange 3 of the main bracket 1. This locking lug 18 extends from the rear flange 3 at an acute angle to the plane of the main body portion 2 and the lug 18 has a downwardly extending portion 18a formed by cutting away the metal rearwardly thereof between the same and the flange 3.

Thus, when it is desired to attach the head rail supporting member 14 to the main bracket 1, the hook portions 15a, 15b, and 15c are engaged over the upper edge of the body portion 2 of the main bracket 1 in the manner shown by Figures 3, 5, and 7, but with the member 14 disposed forwardly of the position there shown. When the hook portions of the member 14 are engaged over the upper edge of the body 2, the member 14 is then slid rearwardly to the position shown in Figures 3 and 4, in the course of which operation the locking member or projection 17 will engage and press inwardly the portion 18a of the locking lug 18 until the member 17 passes rearwardly of the portion 18 and is locked therebehind when the member 14 is finally positioned as in Figures 3 and 4 due to the spring action of the metal of the lug 18 which tends to restore the latter to its original position slightly farther toward the main body 2 than the extreme inner edge of the projection 17, upon the slight inward pressure of the member 17 exerted upon the portion 18a of the lug 18, being relieved after projection 17 passes behind the portion 18a.

The attachable head rail supporting means 14 of my invention may be provided with one or more apertures 20 for registry with similar apertures 21 provided in the main bracket member 1 for receiving screws or like fastening means for securing the bracket member to a window frame or the like upon which the Venetian blind unit as

a whole is to be supported. The shelf portion 16 of the member 14 is likewise provided with apertures 22 for receiving screws or like fastening means adapted to secure the head rail of a Venetian blind to the head rail supporting means 14.

Shelf portion 16 is also provided with a struck up short projection 23 adapted to initially position the Venetian blind head rail in supporting engagement with the shelf portion 16. When the bracket assembly has been mounted in place to the window frame, the Venetian blind head rail is laid in place on the shelf 16 supported thereby and the projection 23 caused to penetrate the wood of the head rail for initial positioning of the head rail on the shelf member 16, after which the head rail may be permanently secured to the shelf 16 by means of screws inserted through the apertures 22 screwed into the head rail.

The structure thus far described is the subject matter of my copending application Serial No. 22,437, filed April 21, 1948 for Venetian blind bracket. I now come to a description of the top or ceiling mounting means of my invention, which, in association with the bracket structure of the type above described is the particular subject matter of claims herein.

The top or ceiling mounting means, according to one embodiment of my invention, is illustrated in Figure 6 and its manner of association with the main bracket member and head rail supporting means is shown in Figures 3, 5, and 7. As shown, this top or ceiling mounting means comprises a member generally designated 24, the same consisting of a body portion 25 which is adapted to be horizontally disposed when it is in its cooperative association with the supporting bracket member 1, said member 24 having depending legs 26 and 27 extending from one edge of the body portion 25 at substantially right angles thereto. The body portion or ceiling flange 25, sometimes referred to as the top mounting flange, is provided with apertures 25*a* for receiving screws or like fastening means. The legs 26 and 27 are provided at their lower ends with locking lugs 29 which are provided by forming the legs with cut-outs or slots 30. Each of the legs 26 and 27 may be provided with one or more of the locking lugs 29, as shown, by cutting out a portion of the metal of the legs to form the slots 30.

It will be noted that the head rail supporting member 14 may have its main bracket engaging portion 15 provided intermediate the hook portions 15*a*, 15*b* and 15*c* with the inwardly pressed portions 19*a* and 19 which are spaced inwardly from the body portion 2 of the main bracket 1 and from the plane of the bracket engaging portions of the member 14. These inwardly pressed portions 19 and 19*a* provide channels for receiving the depending legs 26 and 27 of the top or ceiling mounting 24 when the head rail supporting means 14 is attached to the main bracket member 1 as shown in Figures 3, 5 and 7.

In the use of my invention in actual practice, the head rail supporting member 14 will be attached to the main bracket member 1 as hereinbefore described. Then the top or ceiling mounting member 24 will be attached by inserting the depending legs 26 and 27 in the channels provided by the inwardly pressed portions or ribs 19 and 19*a*, the legs 26 and 27 thus being disposed between the body portion 2 of the main bracket 1 and the outwardly pressed rib portions 19 and 19*a* in the manner indicated in Figures 3, 5, and 7. The legs 26 and 27 are of such length that when disposed in the channels provided by the ribs 19 and 19*a*, as just described, one or more of the lugs 29 of each leg will extend below the shelf portion 16 of the head rail supporting member 14. The metal of the legs 26 and 27 is sufficiently flexible or resilient as to enable the lugs 29 to be displaced from the plane of the main portions of the legs by the insertion of a tool, such as a screw driver or the like, between the main body 2 of the bracket 1 and the lugs 29. By so displacing the lugs 29 extending below the shelf portion 16 of the member 14, the said displaced lugs 29 are caused to have locking engagement with the underside of the shelf 16, whereby the top or ceiling mounting member is thus securely attached to the main supporting bracket 1 in cooperation with the head rail supporting means 14. When the top or ceiling mounting means 24 is thus secured to the main bracket 1, it will be apparent that screws or other fastening means may be inserted through the apertures 25*a* for screwing the top mounting flange 25 to the ceiling or upper part of the window frame or the like to thereby support the bracket assembly.

It will be apparent that the top or ceiling mounting member 24 may be detached from the assembly after having been secured in the manner described, if desired, by redisposing the displaced lugs 29 into their original planes, and withdrawing the member 24 upwardly thereafter.

Now referring to the modification of the invention illustrated in Figures 8 to 11, there is shown a slightly modified form of head rail supporting means which is similar in all essential characteristics to the member 14 previously described, the head rail supporting member 14' of Figures 8 to 10 being especially designed to cooperate with the particular form of three-legged construction of top or ceiling mounting means disclosed in these latter figures. This modified form of top or ceiling mounted means generally designated by the numeral 31 consists of a body portion 32 comprising the top or ceiling flange adapted to be horizontally disposed when the member 31 is assembled in attached relation to the main bracket 1. The member 31 has the depending legs 33, 34, and 35 extending downwardly from one edge of the body portion 32 at substantially right angles thereto. The depending legs 33 and 35 are disposed substantially in a common plane, and the leg 34 is inwardly offset from the plane of the legs 33 and 35.

The member 31 is designed to be assembled in attached relation to the main bracket 1 and head rail supporting means 14', in a manner similar to that described in reference to the assembly of member 24, to the extent that the legs 33 and 35 are adapted to be inserted in the channels formed by the inwardly pressed ribs 19' and 19*a*' of the member 14'. However, the legs 33 and 35 of the member 31 are provided with inwardly struck projections 33*a* and 35*a* respectively, which are adapted to cooperate with apertures 36, and 37, respectively, in the inwardly pressed ribs 19' and 19*a*'. In assembly of the top mounting member 31 in conjunction with the head rail supporting means 14' and main bracket 1, the leg 34 engages the main body of the member 14' intermediate the ribs 19' and 19*a*', the leg 34 being formed with an outwardly struck projection 34*a* designed to cooperate with an aperture 38 in the main body 15 or vertically disposed portion of the member 14'.

When the top mounting 31 is assembled in attached relation as above described, the projections 33*a*, 34*a*, and 35*a* having their free edges

generally facing upwardly will cooperate with the apertures 36, 38, 37 to prevent upward displacement of the mounting 31 and thus lock the same in the assembled or attached relation. Said projections are struck out of the metal of the legs 33, 34, 35 and sufficiently flexible or resilient to have a spring-like action to yieldingly engage the portions of the member 14' while being moved downwardly thereof and then springing into the apertures 36, 37, 38 when coming into registry therewith.

It will be seen from the foregoing that the head rail supporting member with its vertical main bracket engaging portion having parts spaced from the latter to provide channels constitutes receptacle means for receiving the legs of the top mounting member, which receptacle or receiving means is engageable with the flange of the top mounting member for supporting the latter on the main bracket when the legs are inserted in the channels.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. Venetian blind bracket means of the class described, comprising, in combination, a main supporting bracket member, a separate top mounting member attachable thereto and having a mounting flange disposed horizontally when the mounting member is attached to the said main bracket member, and means on said members for securing the same together, the top mounting member comprising a body portion constituting said flange and leg members depending therefrom, said main bracket member having a main vertically disposed body portion and parts spaced from the plane thereof and constituting respective channels for receiving the respective leg members between said parts and said body portion of said main bracket member, said leg members having flexible locking lugs movable into locking engagement with said parts to prevent upward withdrawal of said leg members from said channels.

2. Venetian blind bracket means of the class described, comprising, in combination, a main supporting bracket member having a plane body portion, a separate top mounting member attachable thereto and having a mounting flange disposed at substantially right angles to the plane of said body portion and having leg members depending from said flange, and Venetian blind head rail supporting means carried by said main bracket and including parts spaced from the plane of said main bracket body portion and extending substantially parallel thereto, said parts constituting respective channels for receiving the respective leg members between said parts and said body portion of said main bracket member, and said means including a shelf portion having its plane disposed at substantially right angles to the plane of said body portion.

3. Venetian blind bracket means as claimed in claim 2, wherein the leg members have flexible locking lugs movable into locking engagement with said shelf portion to prevent upward withdrawal of said leg members from said channels.

4. Venetian blind bracket means of the class described, comprising, in combination, a main supporting bracket member having a plane body portion, and a separate top mounting member attachable thereto and having a mounting flange disposed at substantially right angles to the plane of said body portion and having leg members depending therefrom, receiving means on said main member for receiving said leg members for holding the top mounting member in supported relation to the main bracket, and locking means for preventing withdrawal of said leg members from said receiving means.

5. Venetian blind bracket means as claimed in claim 4, wherein the locking means includes flexible locking members on the leg members lockingly cooperable with said receiving means.

6. Venetian blind bracket means as claimed in claim 4, wherein the locking means includes spring-like locking members on the leg members and the receiving means is provided with recesses for locking cooperation with said locking members, the latter being yieldably engageable with said receiving means when the leg members are inserted thereinto, said locking members springing into locking relation with said recesses when coming into registry therewith during insertion of said leg members.

7. Venetian blind bracket means as claimed in claim 2, wherein the head rail supporting means comprises a member separate from the main bracket member and attachable thereto, and means on said main bracket member and said head rail supporting means for securing the same together.

8. Venetian blind bracket means of the class described, comprising, in combination, a main supporting bracket member, a separate top mounting member attachable thereto and having a mounting flange disposed horizontally when the mounting member is attached to the said main bracket member, and means on said members for securing the same together, the top mounting member comprising a body portion constituting said flange and leg members depending therefrom, said main bracket member having a main vertically disposed body portion and parts spaced from the plane thereof and constituting respective channels for receiving the respective leg members between said parts and said body portion of said main bracket member, said leg members extending below the lower ends of the parts forming said channels when the legs are received therein, and said leg members having flexible locking members at their lower ends movable into locking engagement with said parts below the same to prevent upward withdrawal of said leg members from channels.

9. Venetian blind bracket means of the class described, comprising, in combination, a main supporting bracket member, a separate top mounting member attachable thereto and having a mounting flange disposed horizontally when the mounting member is attached to the said main bracket member, and means on said members for securing the same together, the top mounting member comprising a body portion constituting said flange and leg members depending therefrom, said main bracket member having a main vertically disposed body portion and parts spaced from the plane thereof and constituting respective channels for receiving the respective leg members between said parts and said body portion of said main bracket member, said channel parts having apertures in the sides thereof, and said leg members having spring-like locking members thereon for locking cooperation with said apertures, said spring-like locking members being yieldably engageable with said channel parts where the leg members are inserted therein and said locking members springing into locking relation with said apertures

when coming into registry therewith during insertion of said leg members.

HENRY B. CHATFIELD.

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