Feb. 21, 1950

H. B. CHATFIELD

VENETIAN BLIND BRACKET AND EXTENSION MOUNTING MEANS THEREFOR

2,498,068

Filed April 21, 1948

3 Sheets-Sheet 1

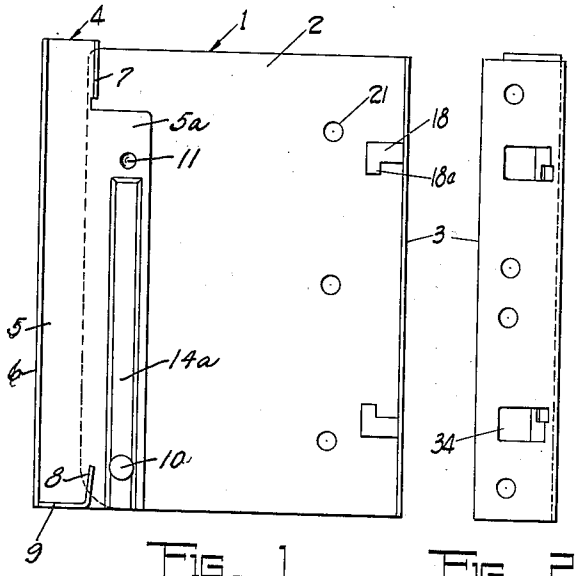

FIG. 1

FIG. 2

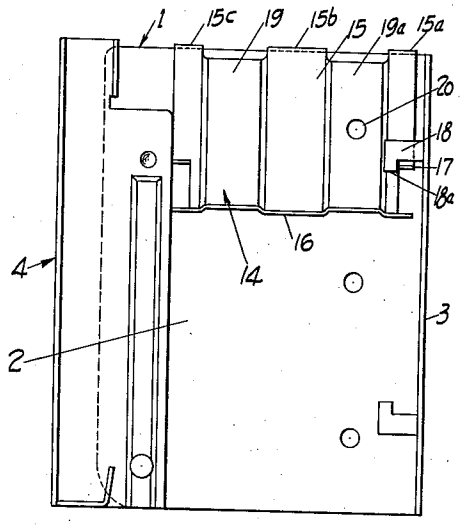

FIG. 3

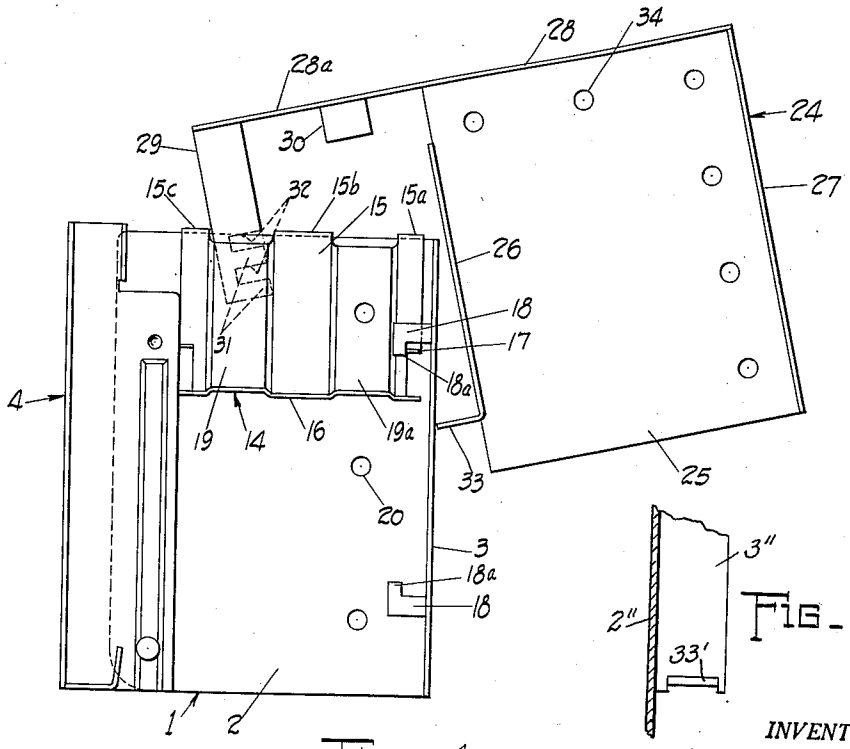

FIG. 4

FIG. 13

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3 Sheets-Sheet 2

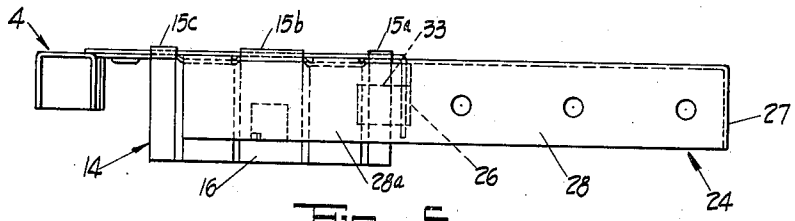

FIG. 5

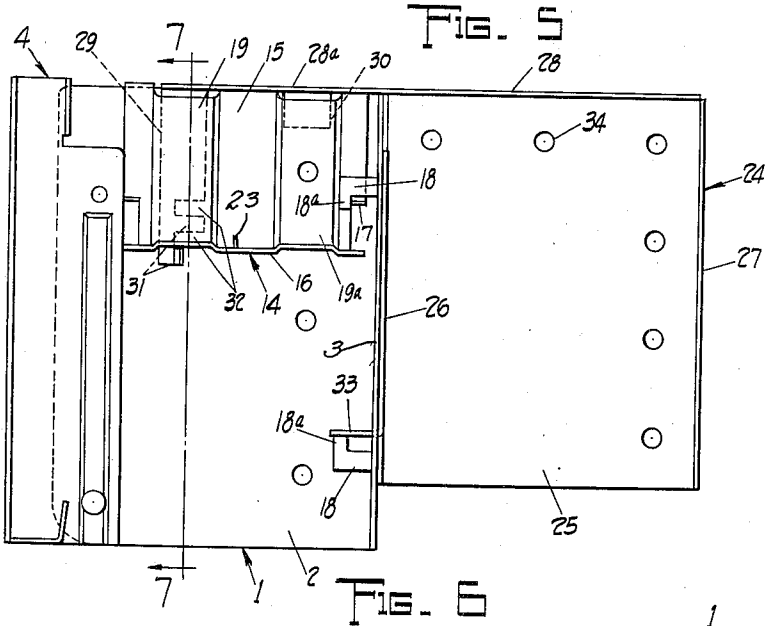

FIG. 6

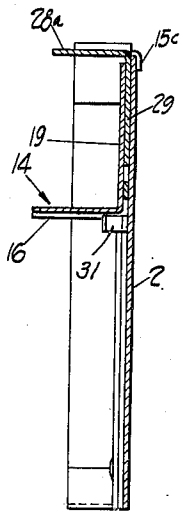

FIG. 7

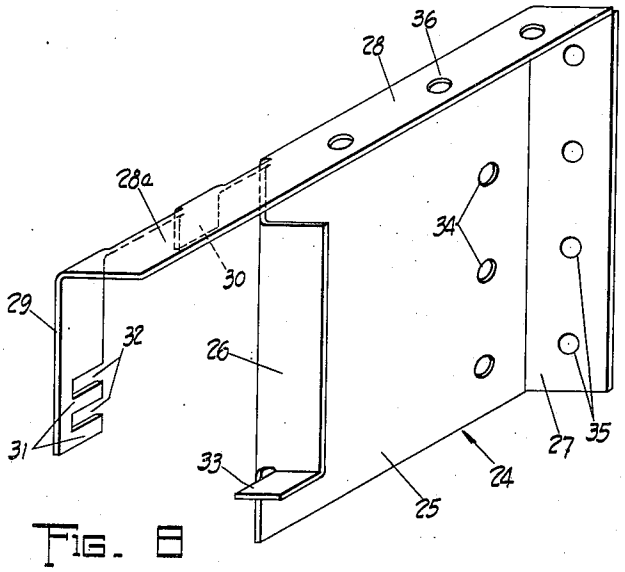

FIG. 8

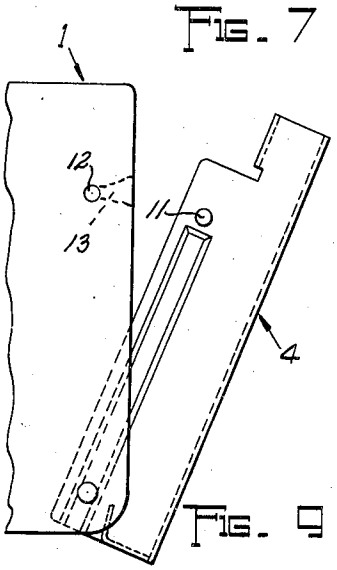

FIG. 9

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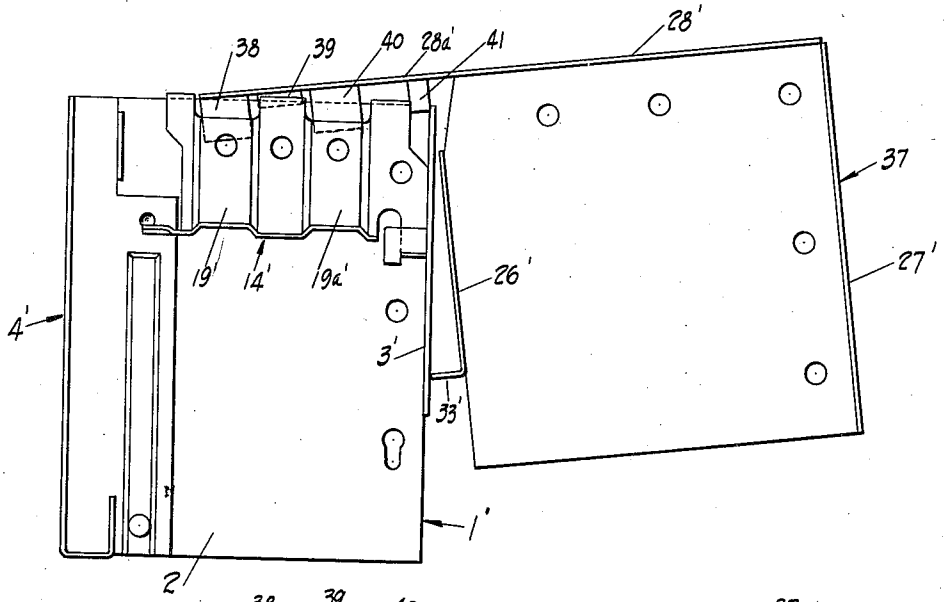
FIG. 10



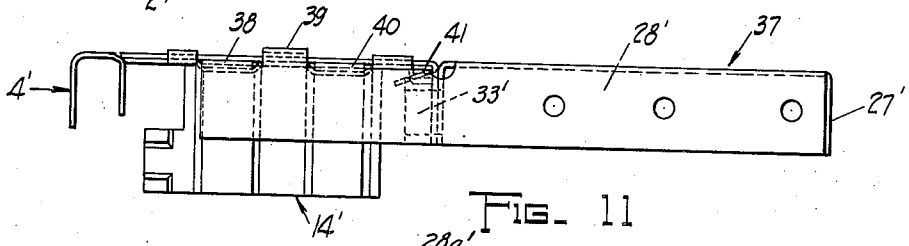


FIG. 11

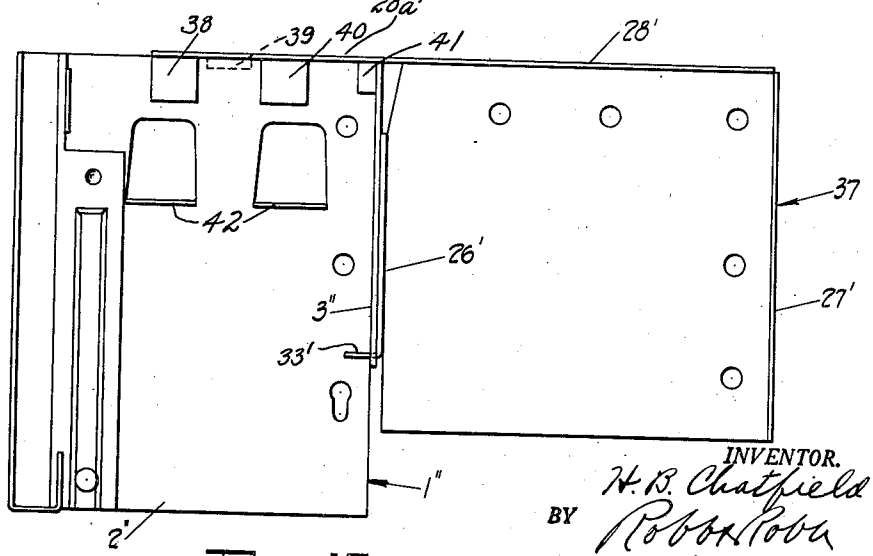


FIG. 12

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UNITED STATES PATENT OFFICE

2,498,068

VENETIAN BLIND BRACKET AND EXTENSION MOUNTING MEANS THEREFOR

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Application April 21, 1948, Serial No. 22,439

13 Claims. (Cl. 248—264)

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

In the installation of Venetian blinds it is quite common to provide a bracket member at each end of the blind, which brackets are directly mounted to adjacent portions of the window frame or other frame structure adjacent which the Venetian blind is to be located. These brackets include means for supporting the head rail of the Venetian blind, and in many instances also include a carrier or support for a facia board or valance. Under some conditions of installation of Venetian blind units, the supporting bracket members which directly carry the Venetian blind structure cannot be directly mounted to the window frame or other structure adjacent which the Venetian blind is to be located, and it is necessary in those circumstances to use an extension bracket of some sort for directly mounting to the window frame or like structure to which the above mentioned Venetian blind supporting bracket may be attached.

Heretofore the use of such extension bracket in connection with the main Venetian blind supporting bracket has required that the attachment be effected by means of bolting the extension and main bracket together, or the use of some other similar type of fastening means.

It is a principal object of my present invention to provide an attachable extension bracket which may be readily attached to the main Venetian blind supporting bracket without the use of intermediate fastening means such as bolts or the like.

Another object of my invention is to provide an attachable extension bracket for Venetian blind supporting brackets whereby the extension bracket may be detachably secured to the main supporting bracket.

A further object of my invention is to provide such attachable extension bracket means which may be secured to the main supporting bracket either detachably or more or less permanently without the use of special tools.

A special object of the invention, of course, is to provide an extension bracket which is quickly attachable to the main supporting bracket.

Still another object of my invention is to provide an attachable extension bracket especially designed for cooperation with a main supporting

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bracket provided with attachable head rail supporting means of my invention, the latter being subject matter of my copending application Serial No. 22,437, filed April 21, 1948, for Venetian brackets.

Other objects, advantages and features of my invention will become apparent from the following detail description taken in conjunction with the accompanying drawings, in which:

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

Figure 2 is a rear end view of the main 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.

Figure 4 is a view similar to Figure 3, showing the main bracket, and also showing the extension bracket of my present invention as when being assembled or attached to the main bracket, showing the interengaging portions of the main and extension brackets partially interengaged and illustrating the manner in which the attaching interengagement is effected.

Figures 5 and 6 show the main bracket and extension bracket structure of Figure 4 as when the same are fully assembled in attached relation, Figure 5 being a top view of this structure, and Figure 6 being a side elevation similar to Figure 4.

Figure 7 is a sectional taken on the line 7—7 of Figure 6.

Figure 8 is a perspective view of the extension bracket of my invention, alone, of the structure illustrated in Figures 4 to 7.

Figure 9 is a partial side elevation of the main supporting bracket alone, looking toward the opposite side of the structure from that shown in Figure 1.

Figure 10 is a view similar to Figure 4, but showing a slightly modified form of extension bracket and its manner of attachment to a slightly modified form of head rail supporting means attached to the main bracket.

Figure 11 illustrates the main bracket and extension bracket structure of Figure 10 as when the same are assembled in fully attached relation, Figure 11 being a top plan view.

Figure 12 is a side elevation showing the extension bracket of Figures 10 and 11 assembled in fully attached relation to a slightly different

form of main bracket, Figure 12 being also illustrative of the manner in which this form of extension bracket cooperates with the form of main bracket shown in Figure 10, in fully assembled relation.

Figure 13 is a detail sectional view looking rightwardly in Figure 12 toward the lower end of the rear flange of the main bracket, parts being shown broken away, illustrating the locking cooperation of the locking lug of the extension bracket with the recess in the lower end of the rear flange of the main bracket.

The attachable extension bracket of my present invention is especially designed, as to one of its forms particularly, for association with a main supporting bracket equipped with an attachable head rail supporting means of my invention, which, together with its manner of association with the main supporting bracket, forms the subject matter of claims in my copending application Serial No. 22,437, filed April 21, 1948, for Venetian blind brackets. I will therefore first describe the main bracket and attachable head rail supporting means so that the manner of association of my novel extension bracket therewith will be better understood.

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 12 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 13 leading from the front edge of the same toward the opening or dimple 12 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, 4, 5, 6, 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, 6, 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 6 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 6 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 in-

ward 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 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 and screwed into the head rail.

The construction thus far described forms the subject matter of my copending application Serial No. 22,437, above referred to. I now come to a description of the attachable extension bracket and its manner of association with the main supporting bracket which comprises the particular subject matter of my present invention. I will first describe the construction of extension bracket as shown in Figures 4 to 8 inclusive.

As seen best in Figures 4 and 8, the extension bracket generally designated by the numeral 24 comprises a main body or plate member 25 which is formed at its forward and rearward edges with offstanding flanges 26 and 27, respectively, extending in the same direction from the main body or plate 25 at right angles thereto. The member 24 is also provided with a top or ceiling mounting flange 28 extending from the top edge of the body 25 in the same direction therefrom as the flanges 26 and 27 and disposed at substantially right angles to the plane of the main body 25. The flange 28 has a portion 28a which extends forwardly of the front or forward edge of the main body portion 25. Formed integrally with the portion 28a are the depending legs 29 and 30 downwardly extending from the outside edge of the flange portion 28a at substantially right angles thereto. The depending leg 30 may be a relatively short leg, as shown, while the leg 29 is preferably relatively longer and is formed adjacent its lower end with one or more locking lugs 31 formed by cutting out a portion of the metal of the leg 29 to form the slots indicated at 32.

The lower portion of the flange 26 is separated from the body portion 25 and bent forwardly at substantially right angles to the remainder of the flange 26 to form the latch or locking lug 33. The extension bracket 24 is provided with apertures 34 in the main body 25, apertures 35 in the rear flange 27, and apertures 36 in the top flange 28, these apertures being provided for the purpose of receiving screws or like fastening means for attaching the extension brackets to

the wall or ceiling or window frame portion, or the like, from which the Venetian blind unit as a whole is to be supported, the particular apertures to be employed for the purpose being dependent upon the particular conditions of the installation.

It will be noted that the vertical or main bracket engaging portion 15 of the head rail supporting member 14 is formed with inwardly pressed portions 19 and 19a intermediate the hook portions 15b and 15c and intermediate the hook portions 15a and 15b. These inwardly pressed portions 19 and 19a are spaced inwardly from the plane of the main portion of the vertical part 15 and thus provide ribs forming channels between the same and the main body 2 of the bracket 1 when the head rail supporting member 14 is in attached relation thereto as shown in Figures 3 and 4.

For the purposes of attachment of the extension bracket 24 to the main bracket 1, the depending legs 29 and 30 of the extension bracket 24 are adapted to be received in the channels formed by the ribs 19 and 19a. For the purposes of attaching the extension bracket 24, the latter is initially positioned as shown in Figure 4, the leg 29 being inserted in the channel formed between the rib 19 and the main bracket 1, and the extension bracket 24 cocked slightly relative to the main bracket 1. In this position the forward edge of the lug 33 engages the rear flange 3 of the main bracket 1, and as the extension bracket 24 is moved downwardly relatively to the main bracket 1, the lug 33 is caused to enter the opening 34a in the rear flange 3 of the main bracket 1 when the extension bracket 24 has been moved downwardly relatively to the main bracket 1 sufficiently for this purpose. At that time the parts will assume the position illustrated by Figure 6, with the lower locking lug 31 on the leg 29 disposed below the shelf portion 16 of the head rail supporting means 14, and the leg 30 received in the channel formed between the rib 19a and the main body 2 of the bracket 1. The lug 33 is positioned in such manner that when the legs 29 and 30 are fully received in the channels formed by the ribs 19 and 19a the lug 33 will engage the upper edge of the opening 34. The metal forming the bracket 24 to provide the locking lugs 31 and 33 has sufficient resiliency to permit yielding action of the lug 33 as it enters into the opening 34 and thereafter resiliently engages the upper edge of said opening.

For ensuring against accidental displacement of the parts when assembled in the position illustrated in Figure 6, the lowermost lug 31 on the leg 29 may be displaced from the normal plane of the leg so as to cause the same to engage the lower side of the shelf 16 of the head rail supporting member 14, as shown in Figure 6. When the extension bracket is in the attached relation there shown, it is to be noted that the top flange portions 28 and 28a are disposed adjacent the upper edge of the main bracket 1.

In detaching the extension bracket 24 from the main bracket 1, the lower lug 31 may be again disposed in the normal plane of the remainder of the leg and the extension bracket 24 as a whole cocked slightly counterclockwise to withdraw the lug 33 from the opening 34, whereupon upward movement of the extension bracket 24 relatively to the main bracket 1 will cause or enable the extension bracket to be separated from the main bracket.

Now referring to the modified construction

shown in Figures 10 and 11, the main bracket 1' is practically the same as that previously described except that the rear flange 3' is shorter and extends downwardly only to approximately the point at which the lower edge thereof may be engaged by the locking lug 33' of the slightly modified form of extension bracket 37. This extension bracket 37 is similar to that previously described, having the front and rear flanges 26' and 27' and the top or ceiling mounting flange 28'. However, this construction has four depending legs 38, 39, 40, and 41 extending downwardly from the outer edge of the forwardly extending flange portion 28a'.

This construction is designed especially for cooperation with the slightly modified design of head rail supporting member 14' shown in these figures. The depending legs 38, 40, and 41 are disposed in a common vertical plane, while the depending leg 39 is disposed in a parallel plane outwardly of the plane of the other depending legs, whereby the depending leg 39 is adapted to extend outwardly alongside the outer face of the main bracket 1' while the legs 38, 40, and 41 are adapted to extend inwardly of the main bracket 1' in engagement with the inner face of the body portion 2, when the extension bracket 37 is assembled in attached relation to the main bracket 1'.

The head rail supporting member 14' shown in these figures is similar in all essential aspects to the head rail supporting member previously described, except that it has slightly different shape and is cut out at its rear edge to enable the leg 41 to be received between the rear flange 3' and the rear edge of the vertical portion of the head rail supporting member 14' with the leg 41 in engagement with the inner surface of the body 2 when the parts are assembled in attached relation.

When the parts are assembled as shown in Figures 10 and 11, it will be understood that the legs 38 and 40 are respectively received in the channels formed between the ribs 19' and 19a' and the main body portion 2, in a manner similar to that previously described in reference to the legs 29 and 30 of the extension bracket 24. However, in reference to the assembly of Figures 10 and 11, the depending leg 39 will be disposed outwardly of the main bracket 1' and engage a downwardly extending portion of the adjacent hook part of the head rail supporting member 14'. The bottom edge of the flange 3' and the main bracket 1' is provided with a recess or cut-out portion receiving the locking lug 33' when the extension bracket 37 is assembled in fully attached relation to the main bracket 1'. The bottom recess in the rear flange 3' receiving the lug 33', as best illustrated in Figure 13, prevents the parts from being laterally displaced when in fully assembled relation.

In Figure 12 the same construction of extension bracket 37 as that shown in Figures 10 and 11 is used in conjunction with a slightly different form of main bracket generally designated by the numeral 1''. This type of bracket does not employ any attachable head rail supporting means, but instead utilizes lanced out lugs 42. It will be apparent from an examination of Figure 12 how the extension bracket 37 is attached to the main bracket 1'', the locking lug 33' being received in the recess at the lower edge of the rear flange 3'' of the main bracket 1'' and the legs 38, 40, and 41 being disposed on the inner side of the main bracket 1'' and in engagement with the inner

surface of the body 2'' while the depending leg 39 is disposed outwardly of the main bracket 1'' in engagement with the outer surface of the body 2''.

Thus it will be apparent that while my form of extension bracket as illustrated in Figures 10 to 12 is designed especially for use with a main bracket employing the attachable head rail supporting means of my invention, my said extension bracket of this form is also adapted to be used with main supporting brackets not having that particular type of head rail supporting means.

It will be noted that when the extension bracket member is assembled in fully attached relation to the main bracket member as seen in Figures 6, 10, and 11, the top flange 28, 28a or 28', 28a' rests on the upper edge of the flange 3 or 3' or 3'', of the main bracket, in supporting engagement therewith.

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 Venetian blind bracket supporting member, a separate extension bracket member, and means for securing said members together including means on the latter member engageable with an upper edge of the first member for supporting said latter member on the first member, and mutually cooperable locking means on said members.

2. Venetian blind bracket means of the class described, comprising, in combination, a main Venetian blind supporting bracket member, a separate extension bracket member comprising a main body portion, a top mounting flange extending from the body portion at an angle thereto and having a portion extending beyond the body portion, and said latter portion of the top mounting flange having depending leg members cooperable with the main bracket for supporting the extension bracket thereon, and mutually cooperable locking means on said bracket members.

3. In Venetian blind bracket means of the class described, in combination, a main supporting bracket member, a separate extension bracket member, and means on said members for securing the same together, said means including a part on said extension member extending forwardly of the main body thereof and having portions engageable with the upper portion of said main bracket member for supporting the extension member thereon, and mutually cooperable locking means on said members.

4. Venetian blind bracket means as claimed in claim 3, wherein said portions comprise legs depending from said part, one of said legs engageable with one side portion of said main bracket and another of said legs engageable with an opposite side portion of said bracket.

5. Venetian blind bracket means as claimed in claim 3, wherein said portions comprise legs depending from said part, one of said legs engageable with one side portion of said main bracket and another of said legs engageable with an opposite side portion of said bracket, and wherein said locking means include a locking lug on one of said bracket members, and means on the other bracket member lockingly cooperable therewith.

6. In Venetian blind bracket means of the class described, in combination, a main supporting bracket member, a separate extension bracket member, and means on said members for securing the same together, said means including a part on said extension member extending forwardly

of the main body thereof and having depending legs thereon, means on said main bracket member for receiving said legs, and mutually cooperable locking means on said members.

7. Venetian blind bracket means as claimed in claim 6, wherein one of the legs has a relatively movable locking part engageable with said receiving means.

8. In Venetian blind bracket means of the class described, in combination, a main supporting bracket member, a separate extension bracket member attachable to said main member and comprising a main body, a top mounting flange extending from said body at substantially right angles thereto and having a portion extending forwardly of the body, depending legs on said portion, abutting flanges on said bracket members, and mutually cooperable locking means on said flanges, said portion cooperating with the flange on the main bracket member and said legs cooperating with the latter to support the extension bracket thereon.

9. A Venetian blind bracket means of the class described, in combination, a main supporting bracket member, a separate extension bracket member, and means on said members for securing the same together, said means including a part on said extension member extending forwardly of the main body thereof and having depending legs thereon, means on said main bracket member comprising parts spaced from the plane thereof and constituting respective channels for receiving the leg members between said parts and the body of said main bracket member, and mutually cooperable locking means on said members.

10. In Venetian blind bracket means of the class described, in combination, a main supporting bracket member, a separate extension bracket member, and means on said members for securing the same together, said means including a part on said extension member extending forwardly of the main body thereof and having depending legs thereon, a separate Venetian blind head rail supporting member attachable to said main bracket member and 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, and mutually cooperable locking means on said main bracket member and said extension bracket member.

11. Venetian blind bracket means as claimed in claim 10 wherein one of said leg members has a flexible locking lug movable into locking engagement with said parts to prevent upward withdrawal of said leg members from said channel.

12. Venetian blind bracket means as claimed in claim 9 wherein one of the legs has a relatively movable locking part engageable with said receiving means.

13. Venetian blind bracket means as claimed in claim 8, wherein the mutually cooperable locking means comprises a slot in one of said abutting flanges and an outwardly extending flexible locking lug on the other of said flanges cooperable with said slot.

HENRY B. CHATFIELD.

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