Nov. 29, 1938. J. M. NORDSTROM, JR., ET AL 2,138,502

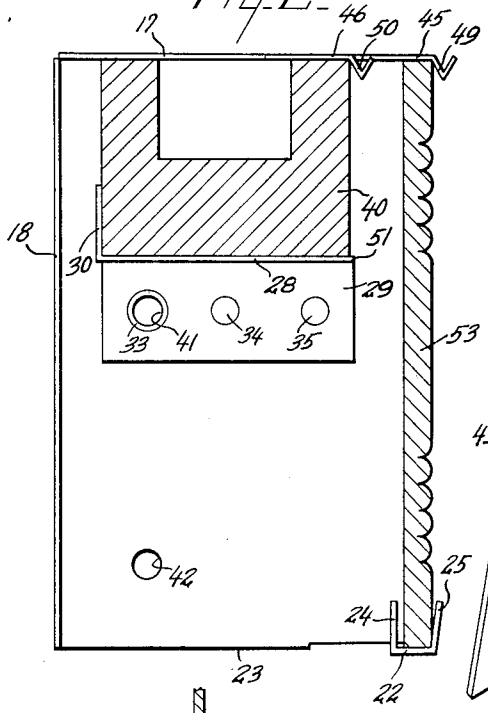
END SUPPORTING BRACKET FOR A VENETIAN BLIND HEAD BRACKET

Filed May 16, 1938



FIG. 1

FIG. 2



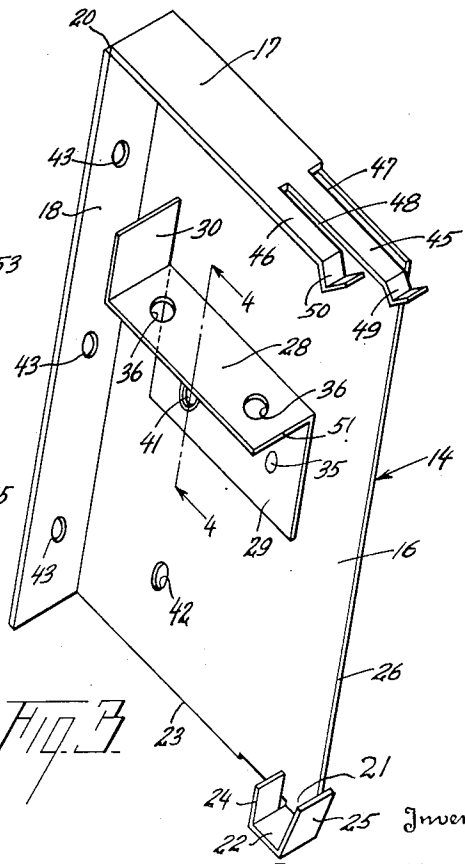


FIG. 3

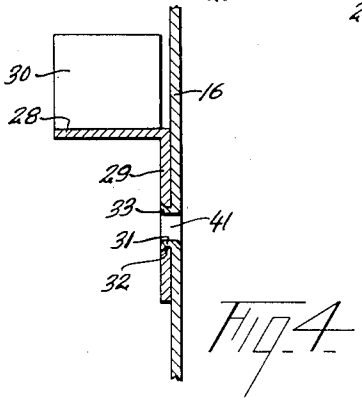


FIG. 4

Inventors
Jean N. Kirch
John M. Nordstrom, Jr.
By Carl Miller
Attorney

Patented Nov. 29, 1938

2,138,502

UNITED STATES PATENT OFFICE

2,138,502

END SUPPORTING BRACKET FOR A VENETIAN BLIND HEAD BRACKET

John M. Nordstrom, Jr., New York, N. Y., and Jean N. Kirch, Chicago, Ill.

Application May 16, 1938, Serial No. 208,182

10 Claims. (Cl. 156—17)

This invention relates to Venetian blinds and more particularly to a bracket attachment therefor.

It is the principal object of this invention to provide a bracket for each end of the Venetian blind which is so formed as to hold by a spring clamping action both the head rail and the valance of the Venetian blind in fixed relation to said brackets without the use of nails, screws or bolts; which brackets are further so constructed as to permit the attachment thereof to a window frame either on the outside thereof or on the inside of the window jambs, and which brackets function to form with the attached valance and head rail an enclosed separable head bracket taking the place of the conventional enclosed fixed head blind thus permitting by virtue of its construction instant access to all moving parts by simply pulling or lifting off the front or valance.

Another object of the invention relates to forming the end brackets from sheet metal stampings, each bracket being formed of two separate sheet metal stampings attached together one receiving the head rail and the other the valance, the former being supported by the latter and the latter being so formed as to provide integral spring fingers for applying the spring clamping pressure to hold the head rail and valance in position; said bracket being of neat appearance, simple in construction, cheap to manufacture and efficient and satisfactory in use.

With the foregoing and other objects in view, the invention resides in the novel arrangement and combination of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:—

Figure 1 shows in elevation the head bracket of a Venetian blind mounted in the upper part of a window frame.

Figure 2 is a cross sectional view thereof taken on line 2—2, Figure 1.

Figure 3 is a perspective view of the right hand end bracket.

Figure 4 is a detail sectional view taken on line 4—4, Figure 3.

Referring to the drawing by characters of reference:—

The Venetian blind enclosed head bracket construction constituting this invention is an improvement over that shown in the application of Jean N. Kirch, Serial Number 178,229, filed December 6th, 1937, is indicated generally in Figure 1 by the reference character 10, and is shown mounted between the jambs 11 of a window frame 12, said head bracket supporting a Venetian blind (not shown) and housing the operating and tilting mechanism (also not shown) for said Venetian blind, all in the manner well known.

At each end there is provided end supporting brackets 13 and 14 that attach to the window frame 12 and which further support the head rail and valance of the Venetian blind in the manner to be hereinafter described. The brackets 13 and 14 may be respectively designated as a left end bracket and a right end bracket viewing Figure 1. As both end brackets 13 and 14 are structurally identical, one being but the reverse of the other, a detailed description of only the right end bracket 14 will be given.

In Figure 3 the right end bracket 14 is shown in perspective and in the main is formed as a stamping from a single sheet of relatively heavy sheet metal to provide a substantially rectangular flat side wall 16 which at its upper edge and at its rear edge is formed with bent over portions normal to the plane of said side wall 16 to define, respectively, a top wall 17 and a back wall 18; both of said walls being of equal width and extending for the full length of the adjacent edges of said side wall, with the opposed end edges of said top and back walls in abutting engagement to define a right angle corner 20. At the corner 21 of the side wall 16 diagonally opposite the corner 20 there is provided a seat 22 constituting an integral part of said side wall normally extending from the lower edge 23 thereof and bent over, as clearly shown. The seat 22 lies horizontal and is parallel to the top wall 17, and is provided with an upstanding vertical lug 24 at its rear end and at its front end with an upstanding slightly outwardly inclined lug 25 that lies wholly outwardly beyond the front edge 26 of the side wall 16, for a purpose to be hereinafter described.

Positioned below the top wall 17 and between the front and rear edges of the side wall 16 is a shelf 28 formed of sheet metal and having a depending attaching flange 29 and at its rear transverse edge an upstanding abutment 30. In order to properly position the shelf on the side wall 16 said side wall is provided with a tubular boss 31 which is adapted to fit within an open-

ing 32 in the flange 29, which opening is countersunk to allow the edge of the boss to be flared or peened out as at 33 in the manner of a tubular rivet to securely fasten this portion of the flange in place. The boss 31 and opening 32 are positioned at predetermined points whereby to properly space the shelf 28 from the top wall 17 and back wall 18. With the shelf 28 fastened at one end as above indicated, the flange 29 may be secured at other points as at 34 and 35 by riveting or spot welding, see Figure 2. When so fastened the shelf 28 is parallel to the top wall 17 and the abutment 30 is parallel to the back wall 18. Formed in the shelf 28 are openings 36 to receive fastening elements such as screws, if its is desired to securely attach the bracket to an end of a head rail 40 to be seated on said shelf.

In line with the opening 41 as defined by the tubular boss 31 and adjacent the lower edge 23 of the side wall is another opening 42, both of which are adapted to receive fastening elements for attaching the bracket 14 to a supporting structure such as the jamb 11 of the window frame 12. Similar openings 43 are provided in the back wall 18 to receive fastening elements for attaching the bracket 14 to the face of a window frame or to a wall or any other supporting structure.

To provide the resilient or spring clamping action as contemplated by this invention there is provided on the top wall 17 two forwardly extending spring fingers 45 and 46 formed by slotting said top wall as at 47 and 48 from a point substantially midway of the length of said top wall to the forward edge thereof. The spring fingers 45 and 46 are preferably of the same width, the spring finger 45 being made longer than the spring finger 46. At their free ends the spring fingers 45 and 46 are provided with depending V-shaped terminals 49 and 50, respectively, which serve as locking or holding elements in a manner to be hereinafter described. Preferably the length of the spring finger 45 is such that the locking terminal 49 projects outwardly beyond the front edge 26 of the side wall 16, in the manner clearly shown in Figure 3. The locking terminal 50 on the spring finger 46 is disposed substantially in the vertical plane of the front edge portion 51 of the shelf 28. To provide a proper degree of spring pressure the spring fingers 45 and 46 are normally bent or depressed downwardly from the plane of the top wall 17. If desired the spring fingers 45 and 46 may be suitably hardened and tempered, however the inherent resiliency of the sheet metal out of which the bracket is formed will provide the requisite degree of resiliency necessary in the spring fingers particularly when depressed as above indicated.

As pointed out above, the two complemental left and right end brackets 13 and 14 constitute a pair of brackets for supporting and attaching the valance 53 and head rail 40 of a Venetian blind, and are each suitably attached as for example to the jambs 11 of the window frame 12. The head rail 40 of the type well known carrying the Venetian blind proper as well as the operating and tilting mechanism therefor is supported at its ends on the shelf 28 of each bracket, being placed thereon with the inside face of the head rail contacting the abutment 30. When so positioned the spring finger 46 will bear on the top face of the head rail 40 to tightly press the same on the shelf 28 to thus hold the same in place. The locking terminal 50 of the spring finger 46 will overhang the upper edge of the head rail, see Figure 2, and will prevent outward movement of the head rail 40. Thus it is seen that the head rail is retained on the brackets 13 and 14 without the use of fastening elements such as screws, bolts or nails.

In a like manner the valance 53 is supported on the seats 22 of the end brackets 13 and 14, lateral movement of the same on said seats being prevented by the lugs 24 and 25. The valance 53 is held in upright position by the spring pressure exerted thereon by the spring finger 45, the locking terminal 49 acting to prevent outward movement of said valance relative to the brackets. By virtue of the inclination of the lug 25, the valance is applied in position by placing the lower edge of the same on the seat 22 of each bracket and pushing the top edge of the valance rearwardly to a vertical position against the action of the spring fingers 45 in the manner readily apparent.

It will be appreciated that the form of end brackets as described and shown will permit ready access to the interior of the head bracket by simply pulling the valance 53 off the brackets 13 and 14. In a like manner the head rail 40 may be removed for repair or replacement. The construction is such that no screws or other fastening elements are required, each bracket constituting a self-contained unit of great simplicity. As all of the parts of the end brackets are disposed on the inside of the side wall the same on its outer side presents a smooth and neat appearance that harmonizes with any type of window, wall or frame structure as well as with the decorative scheme thereof.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:—

1. An end bracket for supporting one end of the head rail and valance of a Venetian blind comprising a side wall, a shelf on said side wall adapted to seat said one end of the head rail, a seat on said side wall arranged below and forwardly of said shelf adapted to seat said one end of the valance, and resilient means carried by said side wall arranged to provide said head rail and valance to provide a resilient clamping action for holding said head rail and valance in place.

2. An end bracket for supporting one end of the head rail and valance of a Venetian blind comprising a side wall, a shelf on said side wall adapted to seat said one end of the head rail, a seat on said side wall arranged below and forwardly of said shelf adapted to seat said one end of the valance, and a pair of resilient means fixed to said side wall each arranged to independently engage said head rail and valance to provide a resilient clamping action for holding said head rail and valance in place, each of said resilient means including a locking means for preventing outward movement of said head rail and valance.

3. An end bracket for supporting one end of the head rail and valance of a Venetian blind comprising a side wall, a shelf fixed to said side wall adapted to seat said one end of the head rail, a seat formed on said side wall adapted to seat said one end of the valance, and a pair of spring fingers secured to said side wall each formed to respectively engage the upper portion of said head rail and valance to provide a resilient clamping action thereon for holding said head rail and valance in place.

4. An end bracket for supporting one end of

the head rail and valance of a Venetian blind comprising a rectangular side wall, a top wall along the upper edge thereof and a back wall along the rear edge thereof, a shelf fixed to said side wall and parallel to said top wall, a vertical abutment at one end of said shelf parallel to said back wall, a seat formed on the lower edge of said side wall adjacent the forward edge thereof and provided at each end with an upstanding lug, said shelf and seat being adapted to respectively seat said one end of said head rail and valance and a pair of spring fingers formed as an integral part of said top wall each arranged to respectively engage the upper portion of said head rail and valance to provide a spring clamping action thereon for holding said head rail and valance in position.

5. The end bracket as specified in claim 4, said top and back walls, shelf and seat being all disposed on the same side of said side wall and normal to the plane thereof, said shelf constituting a separate element and rigidly secured to said side wall.

6. An end bracket for supporting one end of the head rail and valance of a Venetian blind formed of sheet metal and comprising a rectangular side wall and a bent over top and back wall along the respective top and rear edges of said side wall, a shelf fixed to said side wall and parallel to said top wall including a vertical abutment at the end thereof opposite to said back wall, a seat formed integrally with said side wall arranged at the bottom edge and immediately adjacent the front edge thereof, upstanding lugs formed at the front and rear of said seat, the forward lug being slightly inclined outwardly of the plane of said front side wall edge, said shelf being adapted to seat one end of the head rail, said vertical abutment serving to position said head rail with reference to said bracket and said seat being adapted to seat one end of the valance in the plane of the front edge of said side wall, and a pair of spring fingers struck out from said top wall for resiliently engaging the head rail and valance for maintaining the same in clamped position on said bracket.

7. The end bracket as set forth in claim 6, said spring fingers being of unequal length and each provided at its free end with a depressed locking portion, the longer spring finger engaging the top of the valance with the locking portion thereon extending down over the face of the valance to prevent outward movement of the same, the shorter spring finger engaging the head rail in a like manner.

8. The end bracket as set forth in claim 6, said top and back walls, shelf and seat being all disposed on the same side of said side wall and normal to the plane thereof, said back wall and said side wall being provided with a plurality of openings to receive fastening elements for attaching said bracket to a supporting structure.

9. The end bracket as set forth in claim 6, including a tubular boss struck out from said side wall, said shelf including a depending flange provided with an opening adapted to receive said boss for properly positioning said shelf on said side wall, said boss being flared at its end to securely fasten said shelf to said side wall and additional fastening means connecting said shelf flange to said side wall, a plurality of openings provided in said back wall, at least one opening formed in said side wall below said boss, said openings and said boss being adapted to receive fastening elements for attaching said bracket to a supporting structure.

10. A Venetian blind head bracket including a head rail and a valance, and comprising complemental left and right supporting brackets for attaching the head bracket to a supporting structure, each supporting bracket being provided with a shelf for mounting an end of said head rail and a seat below and forwardly of said shelf for mounting an end of said valance, and spring means on said bracket individual to said head rail and valance so constructed and arranged as to resiliently engage said head rail and valance to hold the same in position, whereby said head rail and valance may be readily mounted on and removed from said end brackets, said spring means constituting the sole holding means for retaining said head rail and valance onto their respective shelves and seats.

JOHN M. NORDSTROM, JR.
JEAN N. KIRCH.