Feb. 23, 1954 H. NELSON 2,670,167

VENETIAN BLIND INSTALLATION BRACKET

Original Filed Oct. 4, 1947

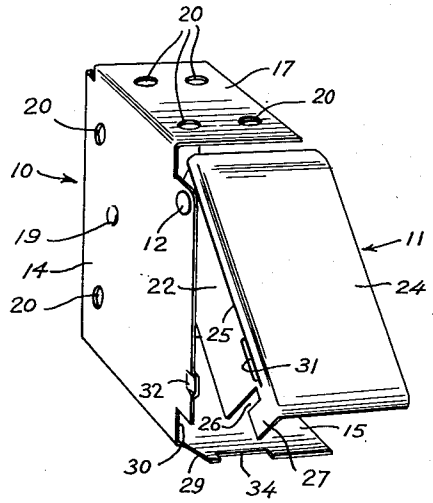

FIG. 1

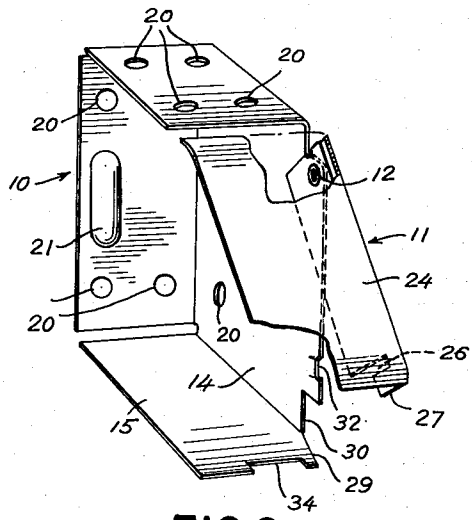

FIG. 2

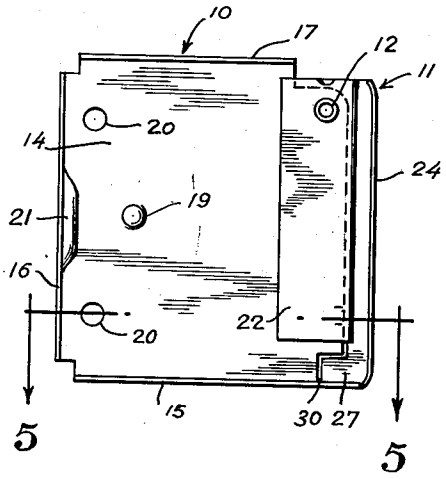

FIG. 3

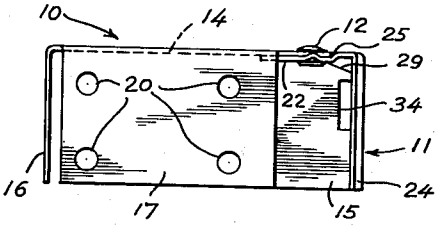

FIG. 4

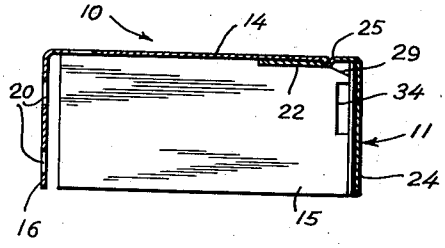

FIG. 5

INVENTOR
HARRY NELSON
BY
Ramsay, Chisholm & Hilder
HIS ATTORNEYS

Patented Feb. 23, 1954

2,670,167

UNITED STATES PATENT OFFICE

2,670,167

VENETIAN BLIND INSTALLATION BRACKET

Harry Nelson, New York, N. Y., assignor to Lorentzen Hardware Mfg. Corp., New York, N. Y., a corporation of New York

Original application October 4, 1947, Serial No. 778,002. Divided and this application April 27, 1949, Serial No. 89,881

5 Claims. (Cl. 248—264)

1

This invention relates to Venetian blinds, and more particularly to a so-called "installation bracket" for removably supporting a blind in position adjacent a window or door opening. The present invention is a division of my copending application Serial No. 778,002, filed October 4, 1947, now Patent No. 2,629,434.

A Venetian blind is essentially an assembly of superimposed articulated slats which are suspended from a headbar extending across the top of the blind and on which is mounted mechanism for raising and tilting the slats of the blind. This arrangement facilitates installation of the blind as a unit. In the usual construction, installation brackets, which are secured to the window jamb, are used to removably support the ends of the headbar.

The installation bracket of the present invention is particularly adapted for supporting a so-called "enclosed head" in which the headbar is hollow, often being formed of a light gauge sheet metal channel and more or less enclosing the lifting and tilting mechanism of the blind. Such headbars usually much larger in cross section than wooden headbars, in which the slats of the blind are suspended from a tilt bar rotatably mounted on the underside of the headbar.

In the form shown of the present invention, the bracket comprises a sheet metal stamping consisting of a generally rectangular flat metal plate having bottom, rear and top flanges extending inwardly at right angles to the plate. A retainer is swingably mounted adjacent a front corner of the plate and may be swung into closed position, in which a front flange of the retainer lies in front of and retains the headbar on the lower flange of the plate. One feature of the present invention is that the retainer, when swung to closed position, engages an inclined cam surface of the lower flange so as to force the free end of the retainer tightly against the plate, a latch being provided between the retainer and the plate which is maintained in tight engagement by the cam action of the lower flange on the retainer.

A general object of the present invention is to provide an improved installation bracket for enclosed headbars which is adapted for economical quantity production and which is of pleasing appearance.

Among the other objects of the invention are the provision of an improved bracket in which the retainer is held tightly against the plate even after normal wear has occurred after a period of use, and in which the retainer when in closed position is maintained tightly latched against the plate.

2

Further objects and objects relating to details and economies of construction, manufacture and use will more definitely appear from the detailed description to follow.

My invention is clearly defined in the appended claims. Where parts are, for clarity and convenience, referred to on the basis of their oriented position shown in the accompanying drawing, no limitation as to positioning of the entire structure is to be implied, since it will be understood that the structure may be inverted. Also in both the description and the claims, parts at times may be identified by specific names for clarity and convenience, but such nomenclature is to be understood as having the broadest meaning consistent with the context and with the concept of my invention as distinguished from the pertinent prior art. The best form in which I have contemplated applying my invention is illustrated in the accompanying drawing forming part of this specification, in which:

Fig. 1 is a perspective view of a left-hand bracket, the retainer being shown in partly open position.

Fig. 2 is a perspective view of a right-hand bracket, the retainer being shown in partly open position and portions of the front flange of the retainer being broken away to show details of construction.

Fig. 3 is a left side elevation of the right-hand bracket shown in Fig. 2.

Fig. 4 is a top plan view of the bracket shown in Fig. 2.

Fig. 5 is a horizontal section of the bracket, taken on the line 5, 5 of Fig. 3.

The brackets are sold and used in pairs, one bracket for the left-hand end of the headbar, and one for the right-hand end of the headbar. The bracket shown in Fig. 1 is adapted to receive the left-hand end of a headbar and the bracket shown in Fig. 2 to receive the right-hand end of the headbar. These brackets are of the same construction but of opposite hand. The corresponding parts of both brackets will be given the same reference numerals.

The brackets consist of only three parts, which, for convenience, will be called the body, the retainer and the pivot. The body, which is designated as a whole by 10, comprises a one-piece sheet metal stamping. The retainer, designated as a whole by 11, is also a one-piece sheet metal stamping. The pivot is formed of a suitable, conventional rivet 12.

The bracket body 10 comprises a flat metal plate 14 having a bottom flange 15 to support the weight of the blind, a rear flange 16 and a top flange 17, all of which extend inwardly at right angles (towards the other bracket when in mounted position) to the plate 14. The plate 14 may be provided with a small, inwardly-projecting bump 19 to act as a separator during electroplating to prevent parts of the bracket from nesting tightly so as to interfere with proper plating.

Screw holes 20 are provided in the plate 14 and the top and rear flanges 16 and 17 to receive screws or other fasteners for mounting the bracket on the lintel of a window frame or on the side of the jamb for a so-called "inside mounting" of the blind; or on a vertical wall or the front of the window jamb for a so-called "outside mounting" of the blind. In addition, a forwardly-projecting filler or spacer 21 may be provided in the rear flange 16 so that a headbar will be tightly retained within the bracket without necessitating countersinking of the fasteners, and whether round or flat head screws be used, or even if no screws at all are used in the rear flange 16 as in the "inside mounting." In this connection, see my application Serial No. 674,265, now Patent No. 2,526,393.

The retainer 11 may be swingably mounted on the front top corner of the plate 14 by the rivet 12, the rivet being received in round holes provided in the plate and the retainer to provide a pivotal mounting of the retainer. The retainer 11 is generally L-shaped in transverse cross section one side leg or flange 22 lying closely against the inside of the plate 14 and the front flange extending inwardly from the plate 14 at right angles and overlying the front wall of a headbar when the retainer is in closed position. The rivet 12 passes through the top portion of the side flange 22.

The side flange 22 of the retainer may be offset slightly inwardly adjacent its forward edge to provide a narrow shoulder 25 adapted to lie in front of and conceal the front edge of the plate 14. This shoulder also contacts the top front corner of the plate 14 adjacent the rivet 12 to limit opening movement of the retainer 11, a portion of the upper front portion of the plate being cut away above the rivet 12 for passage of the shoulder.

A slot 26 formed in the lower portion of the retainer side flange 22 defines a projection 27 at the lower or free end of the retainer of length somewhat shorter than the balance of the flange. The projection 27 may extend rearwardly in the plane of the shoulder 25 to place the projection 27 more or less in the plane of the plate 14, the remainder of the flange being offset slightly inwardly as above described.

The projection 27 on the retainer side flange 22 cooperates with an inclined cam surface 29 formed at the forward end of the bottom flange 15 (the flange remote from the retainer mounting) adjacent the plate 14 by cutting the flange at an angle, the surface 29 engaging the rear end of the projection 27 upon closing the retainer so as to force the side flange 22 of the retainer sidewise tightly against the plate 14. The lower, forward corner of the plate 14 may be cut away at 30, the projection 27 substantially filling this cut-away corner when the retainer is in closed position.

A latch is provided for securing the retainer against fortuitous displacement when in closed position. The latch includes a depression 31

formed adjacent the shoulder 25 of the retainer, the depression extending for a short distance beside the shoulder. Upon closing movement of the retainer, the depression 31 makes snap engagement with a projection 32 formed on the front edge of the plate 14 by displacing a portion of the front edge slightly inwardly. Sidewise movement of the retainer 11 against the plate 14 upon closing movement of the retainer causes firm engagement of these latching elements as well as maintaining the retainer side flange 22 tightly against the plate, even after normal wear from a long period of use. A notch 34 may be provided in the front edge of the bottom flange 15 to receive the blade of a screw driver or other prying instrument for facilitating unlatching and opening of the retainer 11. This notch is preferably located in the bottom flange close to the plate 14.

By making the flanges of the bracket body 10 and the flange 24 of the retainer a little over one inch in width, the headbar can have a tolerance of one inch in length without danger of dropping out of the brackets. Thus, by making the headbars in standard lengths in increments of one inch, all width windows between the shortest and longest headbar can be provided for.

I claim:

1. A bracket for supporting a Venetian blind headbar, said bracket comprising: a plate having a lower flange projecting from the inner face thereof and adapted to support one end of a headbar, and a retainer for retaining the headbar within the bracket, the retainer including a flange swingably mounted at its upper end for movement along the inner face of the plate, the forward edge of the lower flange of the plate having an inclined cam portion adjacent the plate engaged by the retainer flange to wedge it against the plate upon closing movement of the retainer.

2. A bracket for supporting a Venetian blind headbar, said bracket comprising: a generally rectangular plate having inwardly-projecting marginal lower and upper flanges, and a retainer having a flange swingably mounted against a front corner of the plate for retaining the headbar within the bracket, the retainer flange swinging along the inner face of the plate and the front end of the plate flange remote from the retainer mounting having an inclined cam portion adjacent the plate engaged by the free end of the retainer to wedge the retainer flange against the plate upon closing movement of the retainer.

3. A bracket for supporting a Venetian blind headbar, said bracket comprising: a plate having upper and lower marginal flanges projecting from the inner face thereof, and a retainer for retaining the headbar within the bracket, the retainer including a front flange adapted to overlie the front of a headbar when in closed position and a side flange swingably mounted at one end for movement along the inner face of the plate, the forward portion of the side flange being located substantially in the plane of the plate and the free end of the retainer side flange projecting rearwardly in the plane of the plate and engaging an inclined cam portion of the plate flange remote from the retainer mounting to force the retainer side flange tightly against the inside of the plate, a portion of the front corner of the plate being cut away to receive the projection on the free end of the retainer flange.

4. A bracket for supporting a Venetian blind headbar, said bracket comprising: a plate having a lower flange projecting from the inner face

thereof, and a retainer for retaining the headbar on the lower flange, the retainer including a front flange adapted to overlie the front of the headbar when in closed position and a side flange having its upper end swingably mounted on the upper front corner of the plate for movement along the inner face of the plate the forward portion of the side flange being located substantially in the plane of the plate and the free lower end of the retainer side flange projecting rearwardly in the plane of the plate and engaging an inclined cam portion of the lower flange to force the retainer side flange tightly against the inside of the plate, a portion of the front corner of the plate being cut away to receive the projection on the end of the retainer flange.

5. A bracket for supporting a Venetian blind headbar, said bracket comprising: a plate having a lower flange projecting from the inner face thereof and adapted to support one end of a headbar and a retainer for retaining the headbar on the lower flange, the retainer including a front flange adapted to overlie the front of the headbar when the retainer is in closed position and a side flange swingably mounted at its upper end on the upper front corner of the plate for movement along the inner face of the plate, the lower flange of the plate having an inclined cam portion engaged by the retainer to wedge the retainer side flange against the plate upon closing movement of the retainer and the retainer side flange and plate being provided with a latching means consisting of a projection on one of the parts and a depression on the other part which make snap engagement upon closing the retainer, the cam action of the lower flange aiding in maintaining the parts in latched position.

HARRY NELSON.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,200,510	Lorentzen	May 14, 1940
2,203,372	Trammell	June 4, 1940
2,255,326	Mintz	Sept. 9, 1941
2,267,160	McKerlie	Dec. 23, 1941
2,272,956	Stuber et al.	Feb. 10, 1942
2,296,625	Bird et al.	Sept. 22, 1942
2,526,393	Nelson	Oct. 17, 1950
2,560,765	Haynam	July 17, 1951