Sept. 9, 1941. L. MINTZ 2,255,326

VENETIAN BLIND

Filed Sept. 4, 1940

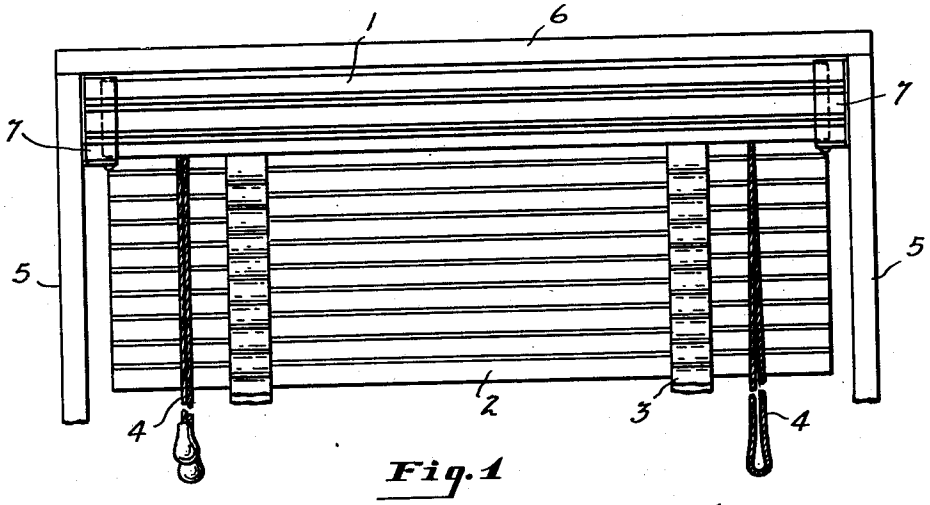


Fig. 1

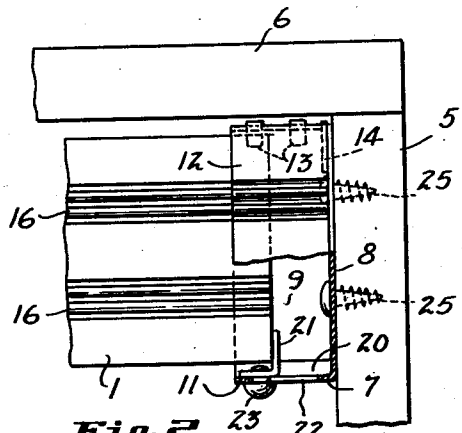


Fig. 2

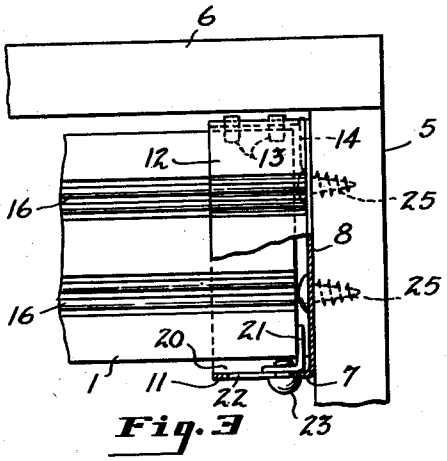


Fig. 3

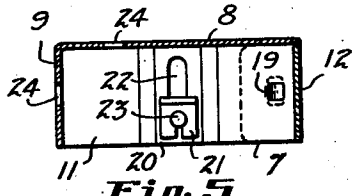


Fig. 5

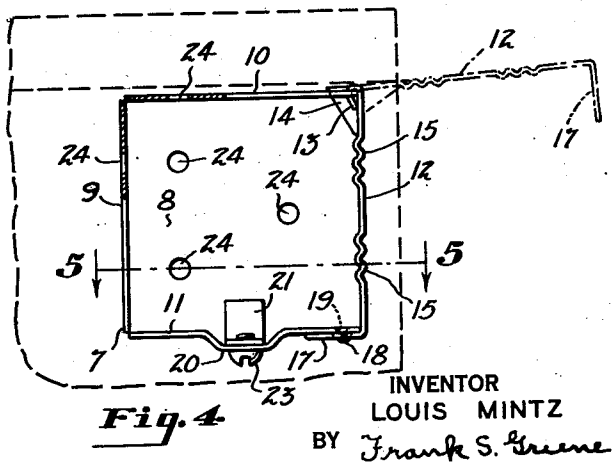


Fig. 4

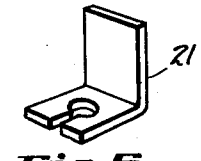


Fig. 6

INVENTOR
LOUIS MINTZ
BY Frank S. Greene
ATTORNEY

Patented Sept. 9, 1941 2,255,326

UNITED STATES PATENT OFFICE

2,255,326

VENETIAN BLIND

Louis Mintz, Cleveland, Ohio

Application September 4, 1940, Serial No. 355,286

3 Claims. (Cl. 156—17)

This invention relates to Venetian blinds and more particularly to means for supporting and positioning the head rail of the blind.

Variations in the width of window frame openings often make it necessary either to provide blinds specially constructed to fit the window openings or to provide overlength head rails which may be made to fit the width of the opening when the blinds are installed by sawing off the ends of the rails.

It is an object of the present invention to provide supporting and positioning means for the head rail of the blind which will permit the use of head rails of a length less than the window opening and which has parts adjustable to properly position the blind in the window opening.

More specifically stated, the objects of the present invention are: to provide supporting brackets which are adapted to receive the ends of the head rail and which are shaped to conform to the form of the head rail and to conceal the gap between the ends of the head rail and the side members of the window opening; to provide brackets which are so constructed that they may be quickly and easily secured in place in the window opening and so constructed that the head rail may be quickly and easily inserted into brackets and to provide connection to the brackets; and to provide releasable means for holding the head rail in the brackets and adjustable means for adjusting the head rails longitudinally to properly position the blind in the window opening.

With the above and other objects in view, the invention may be said to comprise the device illustrated in the accompanying drawing, hereinafter described and particularly set forth in the appended claims, together with such variations and modifications thereof as will be apparent to one skilled in the art to which the invention pertains.

Reference should be had to the accompanying drawing forming a part of this specification, in which:

Figure 1 is a front elevational view showing a Venetian blind supported in a window opening by means of the device of the present invention;

Fig. 2 is a fragmentary elevational view on a large scale showing one of the rail supporting brackets and its adjustable head rail positioning means;

Fig. 3 is a view similar to Fig. 2 showing the adjustment for a rail longer than that shown in Fig. 2;

Fig. 4 is a plan view of one of the brackets viewed from the interior of the window frame;

Fig. 5 is a sectional view taken on the line indicated at 5—5 of Fig. 4; and

Fig. 6 is a detail view showing one of the head rail position clips.

Referring to the accompanying drawing, the invention shown is applied to a Venetian blind having a head rail 1 from which usual tiltable slats 2 are supported by means of tapes 3, the usual operating cables 4 being provided for tilting the slats and lifting the blind. The blind is shown mounted in a window frame having stiles 5 and a top rail 6. The blind is supported in the window frame by means of sheet metal brackets 7, which receive the ends of the head rail 1 and which are of a rectangular shape corresponding to that of the head rail. The two brackets are of identical construction, each formed of sheet metal and having a flat base portion 8 and rear, top and bottom flanges 9, 10 and 11 which are integral with the base portion 8 and which form the rear, top and bottom walls of a socket in which an end of the head rail fits, the flanges closely overlying the rear, top and bottom faces of the head bar when the head bar is inserted into the bracket through the open front thereof.

For retaining the head bar in the bracket a front closure plate 12 is provided which is of a width corresponding to that of the flanges 9, 10 and 11, and which is hinged at one end to the forward end of the top flange 10, the hinge being formed by means of tongues 13, formed integrally with the closure plate 12 and extending through openings formed in the flange 10 adjacent its forward end and bent back upon themselves to form the hinge knuckle. A brace flange 14 is formed on the inner edge of the plate 12 adjacent its upper end and this flange is adapted to bear against the face of the base portion 8 of the bracket during pivotal movement of the closure plate 12. The closure plate 12 is adapted to swing upwardly to clear the opening at the front of the bracket and permit the end of the head bar 1 to be inserted into the bracket and moved rearwardly into engagement with the rear flange 9. The closure plate 12 is shaped to conform to the front face of the head bar 1 and as herein shown is provided with corrugations 15 which conform to ornamental beads 16 formed on the front face of the head bar. The free end of the closure plate 12 is provided with a flange 17 which underlies the bottom flange 11 when the closure plate is in closed position. To retain the closure plate in closed position the flange 17 is provided with a stamped depression 18 which is adapted to receive stamped projection 19 formed

in the flange 11 adjacent its forward end. The flange 17 is sufficiently resilient to ride over the projection 19 until the projection snaps into the depression 18 of the flange to releasably latch the closure plate in closed position. By reason of the fact that the top flange 10 closely overlies the top face of the head bar, the hinged closure plate 12 is capable of resisting a heavy thrust tending to force the head bar out of the bracket so that the head bar will not be displaced from the brackets by reason of any pull which may be exerted upon the cables 4. The effective resistance of the hinged closure plate 12 to dislodgment of the head bar from the bracket is due to the fact that any outward force applied to the head bar is exerted upon the closure member by the upper front corner of the head bar at a point very close to the pivotal axis about which the closure plate swings and has so little leverage upon the closure member that there is very little outward thrust upon the latch which holds the closure member in closed position. The latch members 18 and 19 may, therefore, be so formed that the closure member can be easily opened manually by pulling the lower end thereof outwardly to permit removal of the head bar.

The bottom flange 11 of the bracket is provided with a central depressed portion 20 which extends from the base to the edge of the flange and which is of a width sufficient to receive a slidable head rail positioning member 21, which is in the form of an angle clip. The depressed portion 20 of the flange 11 is provided with a slot 22 which extends from near the base of the flange to near the edge thereof. A screw 23 extends through the slot 22 and is threaded into an opening in the clip 21. The upwardly extending flange of the clip 21 is engageable with an end of the head bar 1, as shown in Figs. 2 and 3 of the drawing. By loosening the screw 23 the clip may be adjusted toward or away from the base portion 8 of the bracket and when the screw 23 is tightened the clip 21 is secured in adjusted position. By adjusting the clips 21 of the two brackets supporting the opposite ends of the head bar, the head bar may be adjusted longitudinally and secured in a position in which the blind is properly centered with respect to the window opening.

The brackets 7 which are shaped to conform to the head bar 1 conceal any gaps between the ends of the head bar and the stiles 5 of the window frame. The head bars may be cut at the factory to even inch lengths and a given length of head bar may be used in any window frame having an opening of a width up to about an inch greater than the length of the head bar, thus making it unnecessary to cut the head bar to length when the blind is installed. The base portion 8, the top flange 10, and the rear flange 9 of the bracket are provided with holes 24 adapted to receive screws 25 by which the bracket may be secured to the stile, top rail, or stop of a window frame, whichever may be the most convenient in the particular window in which the bracket is installed.

It is to be understood that variations and modifications of the specific device herein shown and described for purposes of illustration may be made without departing from the spirit of my invention.

What I claim is:

1. The combination with the head rail of a Venetian blind, of brackets adapted to be mounted within a window frame at opposite sides of the frame opening, each bracket comprising a sheet metal member having inwardly extending top and bottom flanges spaced to receive an end of the head rail between them, a front closure plate extending across the space between the front ends of the top and bottom flanges of each bracket and shaped to conform to the front face of the head rail, a hinge connection between one end of each closure plate and the forward end of one of said flanges of a bracket whereby each closure plate may be swung to an open position to permit an end of the head rail to be inserted between the top and bottom flanges of its bracket, a latching connection between the free end of each closure member and the other flange of its bracket for holding the closure plate in head rail retaining position, a head rail positioning member mounted on one of the flanges of each bracket and engageable with an end of the head rail, each positioning member being mounted for movement in the direction of the length of the head rail with which it engages, and means for securing each of said positioning members in various adjusted positions on its flange.

2. A bracket for supporting the head rail of a Venetian blind comprising a sheet metal member having a base portion and rear and top and bottom flanges forming a socket with a side opening to receive an end of a head rail, a closure plate hinged at one end to the end of one of said flanges at the open side of the socket so that it may be swung to a position clear of the opening, latching means for releasably holding the closure member in closed position, a head rail positioning member carried by one of said bracket flanges, having a rail engaging portion projecting inwardly from the inner face of the latter flange and mounted for adjustment toward or away from the outer edge of the flange, and means for securing said positioning member in various adjusted positions on its flange.

3. A bracket for supporting the head rail of a Venetian blind comprising a sheet metal bracket having a base portion and rear and top and bottom flanges forming a head rail receiving socket with a front opening to receive an end of a head rail, one of said flanges having a transverse slot therein, a head rail positioning member slidable in said slot and having a rail engaging portion projecting inwardly from the inner face of the slotted flange, means for securing said positioning member in adjusted positions, a head rail retaining closure plate having one end hinged to the end of one of said bracket flanges at one side of the side opening, and cooperating latch members carried by the closure plate and the bracket flange at the opposite side of the opening for releasably holding the closure plate in head rail retaining position.

LOUIS MINTZ.