Dec. 18, 1951 S. LEVINE 2,579,197

VENETIAN BLIND SUPPORTING BRACKET

Filed March 13, 1947

Fig. 1.

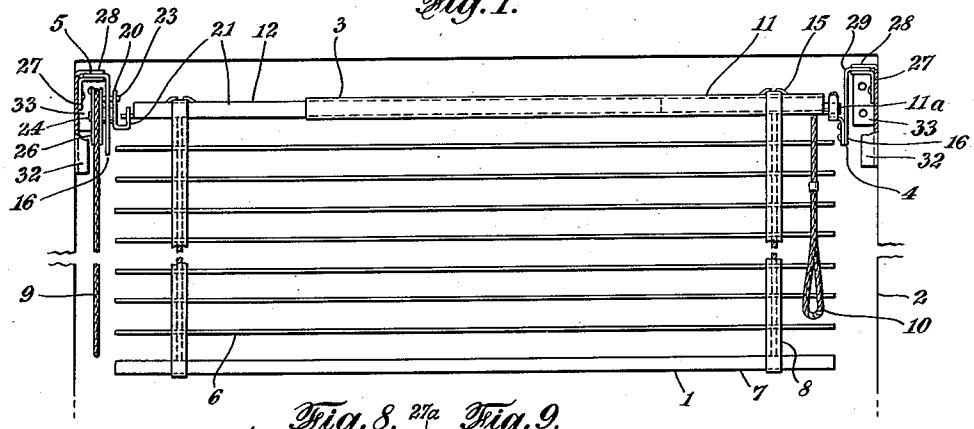


Fig. 8.

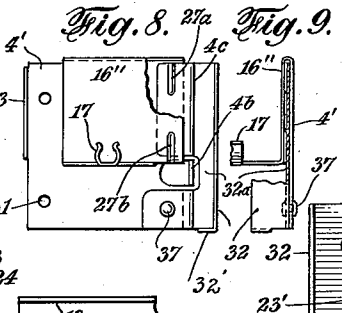


Fig. 9.

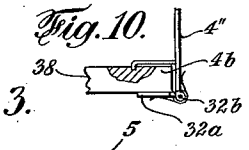


Fig. 2.

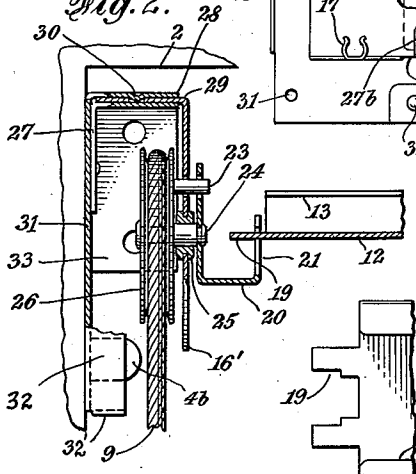


Fig. 3.

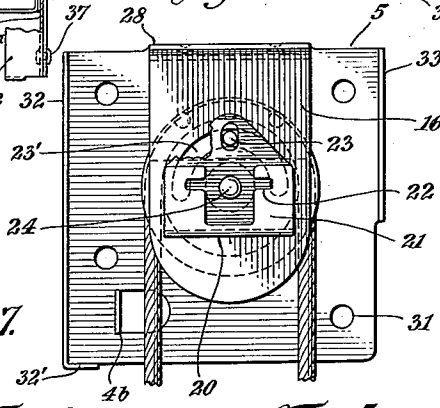


Fig. 7.

Fig. 6.

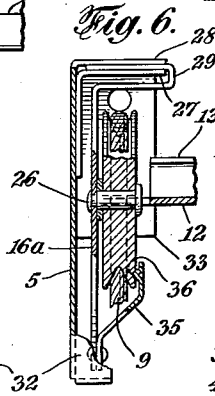


Fig. 5.

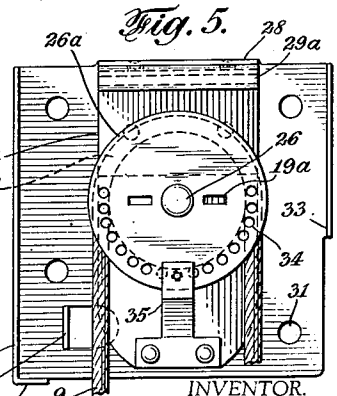
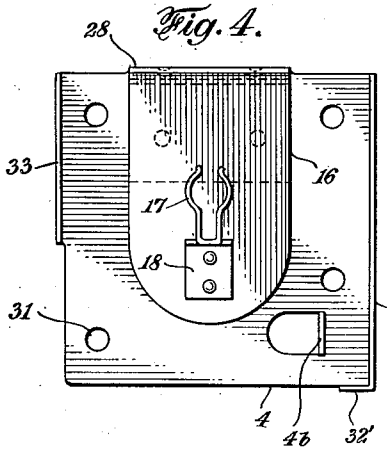


Fig. 4.



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VENETIAN BLIND SUPPORTING BRACKET

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Application March 13, 1947, Serial No. 734,355

5 Claims. (Cl. 160—176)

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This invention relates to improvements in Venetian blinds; and particularly to fixtures or brackets for engaging the top bars by which the blinds are mounted upon the frame or casing of a window or similar opening.

An object of the invention is to provide an improved type of supporting bracket for a blind of this type, preferably of sheet metal having the required outline and bent into final shape, with the parts of such design as to be readily assembled and quickly secured in place and formed to engage the top bar of the blind so as to support it in operative position and permit all the required adjustments.

A further object is to provide a bracket for each end of the top bar of the blind that is inexpensive and simple in construction, and easy to produce in large quantities; as well as strong and durable and very efficient in use.

These and other objects and advantages are explained in the following description taken with the accompanying drawings, whereon:

Figure 1 is a front or inside view of a Venetian blind hung in a window frame.

Figure 2 is a view, partly in section, of one of the brackets for the upper bar thereof.

Figure 3 is a front view of said bracket.

Figure 4 is a front elevation of the bracket for mounting the opposite end of said bar.

Figure 5 is a front view showing a modification of the bracket of Figure 3.

Figure 6 is a side view thereof, partly in section.

Figure 7 shows a detail.

Figures 8 and 9 are respectively a front and side view partly in section, of a modification of the bracket of Figure 4; and

Figure 10 shows a detail of a further modification.

I use the numeral 1 to indicate the blind as a whole and 2 the window or other opening in which it is hung. The blind comprises a supporting bar 3 at the top, mounted in brackets comprising plates 4 and 5 at its two ends. These brackets can be affixed to the inner faces of the casing or opening 2, or against the faces thereof lying approximately in the plane of the wall or partition containing the window opening. The blind also comprises the slats 6 and a bottom rail 7 that are suspended from the top bar or rail 3 by means of bands or straps 8, of stout cloth or other material. Attached to one end of the bar 3 is a flexible operating element or cord 9 for rotating the bars and slats to adjust them so that the planes thereof can be turned towards vertical or horizontal positions; and at the opposite extremity of the bar 3 is another cord 10 for raising the blind, or letting it down.

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The length of the top bar can be adjusted, so that it can be utilized for openings of different sizes. It is made up of two channel-shaped metal sections 11 and 12 with overturned edges as shown at 13 along the flanges thereof, as shown on section 12, which telescopes into the section 11, having similar flanges. By pulling the section 12 out or pushing it in, the length of the bar 3 is varied accordingly. The two sections are secured in adjusted relation by means of notches in one edge 13 of the section 12, to receive a resilient catch fastened to the adjacent part of an edge of the section 11, as illustrated in my copending application Serial No. 734,354 for a blind, filed of even date herewith, and now forfeited. The bent-over edges are cut to form tongues 15 which are pressed down on the upper ends of the straps 8 to attach the straps to the bar 3, and these straps are also secured in the usual way to both edges of each slat 6 and the bottom bar 7.

The upper bar 3 has a trunnion or journal 11a on the extremity of the section 11, which is engaged by a socket or bearing formed by a pair of clips 17 with concave inner faces on an angle plate 18 affixed to another angle plate 16, that is held by the plate 4. The opposite extremity of the bar 3 has two flat projections 19, which serves as a key to rotate the bar 3. This key is received in a U-shaped hanger or rocker 20, having two separate upright projections 21, each having a notch or recess 22 at its inner edge; and the key fits into these recesses. The hanger is perforated to receive a stud 23 engaging a semi-circular slot 23' in another angle plate 16' that is held by the plate 5 and immovably mounted thereon. The rocker 20 is fixed to one end of a pivot stud 24 disposed in a bearing 25 on the plate 16', and carrying on its opposite end a grooved wheel 26. The stud is fixed to this wheel and passes through the slot 23', thus connecting the rocker 20 and wheel 26 so that they must move together. The cord 9 is looped upon this wheel and fastened thereto at a point on the circumference thereof. When the cord is pulled the top bar 3 is rotated by means of the wheel 26, and through the bands 8, the planes of the slats 6 and bar 7 are shifted.

To the face of the main plate 5 of this bracket I affix near the top an angle piece 27. The upper edge 28 of the plate 5 is bent over to the front, and the top of the angle piece 27 extends outward from this plate and lies just under the edge 28. A horizontal slot is thus formed to receive the bent-over upper edge of the angle piece 16', which

pivotally supports the rocker 20 and the grooved wheel 26. The edge 28 may be indented at one or more points 30 to make the edge 28 and angle piece grip the edge 29 of the part 16' tightly. The same parts and the same arrangement is utilized with the plate 4 to support the angle piece 16 which carries the bearing 17 and plate 18 for the trunnion 11*a*.

The bracket plates 4 and 5 have holes 31 for fastening devices to hold them in position. They may be disposed flat against the inner side faces of the window casing; or against the faces of the window casings which are parallel to the plane of the window opening. In the latter case, the plates will project away from the casings, and be perpendicular to the walls of the room containing the window. Flanges 33 at one edge of the plates 4 and 5, with openings 31, will then be utilized to attach the brackets in place.

The edges of each plate which are opposite to the flanges 33 present flanges 32, the lower ends of which are bent over, as indicated at 32'. Cut from each plate and bent out at a right angle to the face thereof is a tongue, or lug 4*b*. Between the flange 32 and the lug 4*b* of each bracket is inserted a strip, not shown, for covering the top of the blind and the bar 3, with the plates 4 and 5 affixed in position in either way above described. This strip rests at its ends on the inturned end 32' of the flange 32.

In Figures 5, 6 and 7 the rocker 20 is omitted, and the wheel 26*a* serves the additional purpose of a rocker. The angle plate or member 16*a* is bent in the reverse direction at the top; that is away from the plate 5, so that the vertical web of this part lies closer to the plate 5. The upper web of the part 16*a* extends away from the plate 5 and is then reversed to form a channel 29*a*. One side of this channel is fitted between the top edge of the plate 5 and the top of the angle piece or part 27. The grooved wheel 26*a* has recesses in its face and the key projection on the section 12 of the bar has two prongs to enter the recesses 19*a* at each side of the pivot stud 25. The wheel has recesses 34 on its face, and the lower end of the part 16*a* has a catch 35 with a projection 36, the catch being resilient and set to force the projection into the notches. This catch is affixed to the part 16*a* at its lower end. The catch holds the wheel and the bar 3 with the slats 6 in adjusted position.

The modification of Figures 8 and 9 show a bracket plate 4' with a projection 16'' at its upper edge, bent down close to the face of the plate 4'. The lower edge of the projection 16'' is turned outward, and carries the bearing 17. On one edge of the plate 4' is the short flange 33 as before. On the opposite edge is a pivoted section 4*c*, pivoted to the plate 4' at 37, near the lower corner. This section carries on its outer edges a flange 32 with inturned end 32', and has a notch or recess 37' on its inner edge above the pivot 37 to clear the cut-out tongue 4*b* on the plate 4'. When the plate 4' is secured to the inner face of the window opening, as shown in Figure 1, the section 4*c* can be swung outward toward the observer. This enables the cover strip for the top bar to be inserted between the flange 32 and the tongue 4*b* of the plate 5 first, and the other end to be more easily mounted at the bracket plate 4'. The other end of the cover strip, after the section 4*c* is rotated inward away from the window casing, or to the right in Figure 8, is held against the lug 4*b*. The section 4*c* is then pushed towards the plate 4' till the flange 32 makes contact with the cover strip and the end 32' of this flange goes under the strip. As the section is pushed behind the downturned projection 16'', ribs or projections 27*a* on the engaging faces of this section and the projection 16'' ensure a good fit of the two, so that the section 4*c* cannot be pulled out.

In Figure 10, the plate for the end of the top bar with the trunnion 11*a* is shown in part at 4'', as seen from above, with the fixed tongue 4*b*. The flange 32*a* is hinged to the plate 4'' and can be swung to the right to permit the adjacent end of the cover strip 38 to engage the lug 4*b*. The hinge as indicated at 32 may include a pintle or pivot pin with coiled springs at its upper and lower ends to engage the flange 32*a* and plate 4'' and urge the flange towards the lug 4*b*. This plate can be attached to the face of the window casing parallel with the inner surface of the wall when the blind cannot be mounted as in Figure 1. The end of the tongue 4*b* may be bent over to enter a recess in the strip 38.

Having described my invention, what I believe to be new is:

1. A bracket for rotatably supporting a blind which has a top bar and slats suspended therefrom, said bracket comprising a plate with its upper portion bent over, an angle piece attached to the plate with part of said piece adjacent said bent portion and parallel thereto, an angle-plate having a bent edge gripped between said bent portion and said part, the main portion of said angle-plate being disposed in front of said first-named plate, a pivot stud rotatably mounted in the main portion of said angle-plate, a grooved wheel fixed on said stud between said plates, a U-shaped rocker affixed to said stud on the outer face of said angle-plate, said hanger having recesses in one end to receive flat projections on the adjacent end of the bar so that the wheel can rotate the bar.

2. A bracket for rotatably supporting a blind which has a top bar and slats suspended therefrom, said bracket comprising a plate with its upper portion bent over, an angle piece attached to the plate with part of said piece adjacent said bent portion and parallel thereto, an angle-plate having a bent edge gripped between said bent portion and said part, the main portion of said angle-plate being disposed in front of said first-named plate, a pivot stud rotatably mounted in the main portion of said angle-plate, a grooved wheel fixed on said stud between said plates, a U-shaped rocker affixed to said stud on the outer face of said angle-plate, said hanger having recesses in one end to receive flat projections on the adjacent end of the bar so that the wheel can rotate the bar, said wheel also having a fixed eccentric stud engaging said hanger, the main portion of said angle-plate having a slot through which the stud projects.

3. A bracket for rotatably supporting a blind which has a top bar and slats suspended therefrom, said bracket having a plate with its upper portion bent over, an angle piece attached to said plate with part of said piece adjacent said bent portion and parallel to said portion, an angle-plate having a bent edge gripped between said bent portion and said part, the main portion of said angle-plate being disposed in front of the first-named plate, and means on the outer face of said main portion of the angle-plate to engage the adjacent end of said top bar.

4. A bracket for rotatably supporting a blind which has a top bar and slats suspended there-

from, said bracket having a plate with its upper portion bent over, an angle piece attached to said plate with part of said piece adjacent said bent portion and parallel to said portion, an angle-plate having a bent edge gripped between said bent portion and said part, the main portion of said angle-plate being disposed in front of the first-named plate, and means on the outer face of said main portion of the angle-plate to engage the adjacent end of said top bar, said means comprising a small angle-plate affixed to the aforesaid angle-plate, and having a pair of upstanding clips with concave inner faces thereon.

5. A blind comprising a top supporting member, slats suspended from said member, a bracket at one end of said top member, said bracket having the form of a plate with a part attached thereto and extending out from the face of said plate, a member rigidly secured to said part spaced from the plate and substantially parallel thereto, and another bracket having the form of a plate for the opposite end of the top member, said brackets each having a flange along one edge, and a tongue adjacent said flange, the lower end of the flange being bent over to support a strip between the flange and the tongue,

overlying and covering said top member, a rocker pivotally supported by said member secured parallel to the first-named bracket, the top member having a part at the end engaging said rocker to be rotated thereby, and a grooved wheel supported by the first-named bracket adjacent said rocker and connected to said rocker to operate said top member.

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