

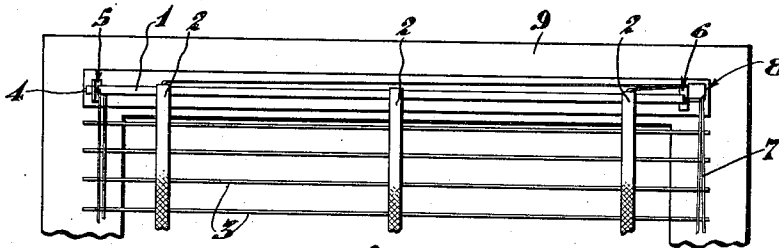
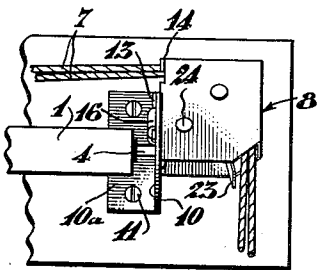
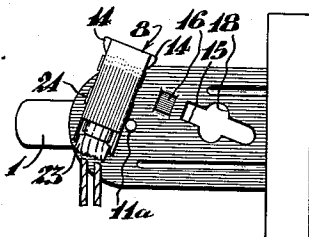
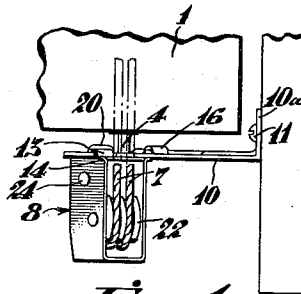
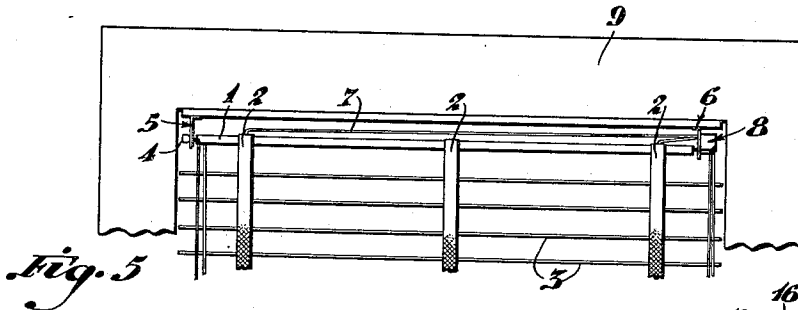
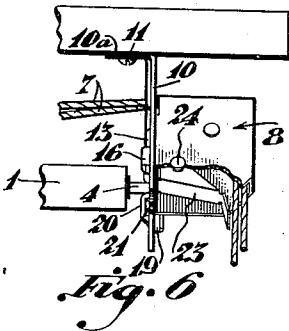
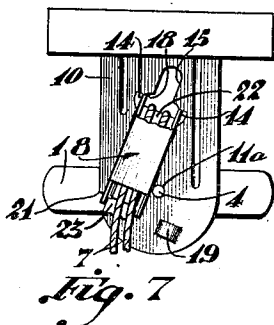
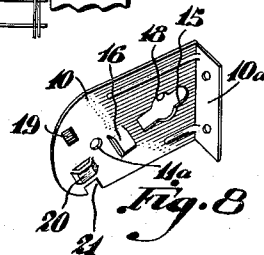
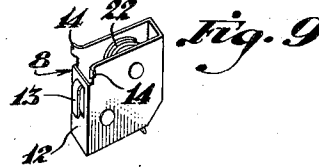
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BRACKET STRUCTURE FOR VENETIAN BLINDS

Filed Nov. 4, 1940



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BRACKET STRUCTURE FOR VENETIAN
BLINDS

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6 Claims. (Cl. 156—17)

This invention relates to the combination of a bracket and a cord lock adapted to be used upon a Venetian blind. The brackets are employed for the purpose of rotatively supporting a tilt rail of the Venetian blind from which the blind slats are supported. The cord lock which is mounted upon the bracket adjustably is used for the purpose of locking the lifting cords by which the blind slats are raised and lowered in any given position.

The primary objective of the present invention has been to provide a simple, inexpensive cord lock and bracket support structure which is capable of being used both in instances in which the Venetian blind is suspended from the underneath, horizontal face of a window frame and in instances in which the Venetian blind is to be mounted upon the forward, vertical face of a window frame. In other words, the objective has been to provide a structure which is adapted to be used in either type of mounting conventionally employed, in order to avoid the necessity for special bracket units.

More specifically, an object of the present invention has been to provide a Venetian blind structure in which the use of a conventional headrail is not necessary. Heretofore such headrails have always been employed to enable the blinds to be mounted upon the window frame, to house the operating cords, and to provide the mountings from which the Venetian blind is suspended. The headrails have been expensive to manufacture and their use has necessarily increased the cost of the units. In the structure of the present invention the objective has been to minimize the cost and yet provide a Venetian blind which is equally as convenient to install and operate as the conventional blind structures.

Another objective of the invention has been to provide a cord lock adapted to be attached to a bracket and furnish means for the guiding of the cords to and through the lock so that the danger of tearing and fraying the cords when they are operated is substantially minimized.

The objective also has been to provide a simple structure made of sheet metal or the like which can be manufactured inexpensively in order that Venetian blinds may be purchased and enjoyed by persons for whom they are now too expensive. Moreover, in this respect, the purpose of the present invention has been to provide for the mounting of the Venetian blinds upon a window frame in a manner which is both easy and convenient.

Other objects of the invention and the advan-

tages which the structure provides are disclosed in the following description of the drawing which illustrates a preferred embodiment of the improvement.

5 In the drawing,

Figure 1 is an elevation illustrating the mounting of a Venetian blind upon the forward vertical face of a window frame.

10 Figure 2 is an enlarged elevation showing the bracket mounted in the manner of Figure 1, and a cord lock mounted on the bracket in accordance with the present invention.

Figure 3 is an end view of the bracket mounted according to Figure 2.

15 Figure 4 is a fragmentary plan view of the apparatus mounted on the vertical face of a window frame.

Figure 5 is a view similar to Figure 1 showing a Venetian blind supported from the horizontal underneath portion of a window frame.

20 Figure 6 is an enlarged elevation of the bracket mounted according to Figure 5.

Figure 7 is an endwise view of the bracket mounted in the manner of Figure 6.

25 Figure 8 is a perspective view of the bracket.

Figure 9 is a perspective view of the cord lock adapted to be supported by the bracket.

The venetian blind shown in Figure 1 does not embody the conventional headrail but instead is comprised of a tilt rail 1 which carries a plurality of pairs of ladder tapes 2 suspended from the opposite edges thereof respectively. The blind slats 3 are supported on the cross members of the ladder tapes in the usual manner.

35 Each end of the tilt rail is provided with a pivot or shaft 4, about which the tilt rail rotates, and these pivots are journaled in apertures in the bracket members 5 and 6. One of these bracket members, with the cord lock, forms the combination to which the present invention is addressed.

40 As shown in Figure 1, the operating cords 7 pass down through apertures in the blind slats in the conventional manner and are attached to the lowermost slat member so that as these cords are moved in one direction or the other the blind is raised or lowered.

45 The cords 7—7, at the other side of the blind, pass over the tilt rail through the cord lock which is indicated generally at 8. The latter mechanism provides the means by which the cord is held in a given position after the blind slats have been adjusted to the desired height.

50 As shown in Figure 1, the blind is mounted on the forward face 9 of a window frame. In this

arrangement the Venetian blind projects beyond the window frame and this type of mounting is used either in instances in which the window recess is too narrow to accommodate the blind width or too shallow in depth to house the Venetian blind properly.

Bracket member 6 which constitutes one member of the present combination is comprised of a sheet metal member 10 which has a foot portion 10a struck from it at one end. Foot portion 10a is provided with apertures through which screws 11 are passed to fasten the bracket to the window frame, and a journal aperture 11a is provided in the extension or leg portion of the bracket for reception of the pivot 4 of the tilt rail. The journal aperture in this bracket, and likewise the journal aperture in the bracket at the opposite side of the Venetian blind, is spaced away from the foot portion of the bracket an amount sufficient for the edges of the headrail to clear the portion of the window frame upon which the feet of the bracket are fastened.

The bracket 6 at the opposite end of the tilt rail may be similar in form to the bracket 6 or may be of other suitable form; these two brackets cooperate to provide the means by which the tilt rail of the Venetian blind rotatably is mounted. However, bracket 6, as previously described, also provides the means by which the cord lock 8 is supported. If the cord lock were fastened rigidly upon the bracket in such a position that the cord lock would hold the cords in accessible location when the bracket was mounted upon the journal face of a window frame, then the bracket could not be mounted upon a horizontally extending portion of a window frame since the cord lock would then hold the cords in an inaccessible position, and the operation of the cords under such circumstances would be very difficult if not impossible. However, the bracket 6 of the present invention is provided with means for holding the cord lock in a given position relative to the tilt rail regardless of whether the foot of the bracket resides upon a horizontal or a vertical support.

The locking structure of the cord lock, as illustrated in Figure 9, is of a conventional type commonly employed in Venetian blinds but it differs therefrom in two respects. The inner edgewise face 12 of the cord lock mechanism is provided with a tang 13 which is struck from the face so as to be accessible from the lower portion of the bracket, and stop or guide members 14-14 are provided to extend sidewise from the faces of the cord lock mechanism at the upper portion of it.

The bracket 6 in turn contains two sets of receptacles; one of these sets is used if the bracket is mounted on a horizontal face, and the other is used if the bracket is mounted on a vertical face. The two sets are offset with respect to one another approximately 90° so that in either instance the cord lock mechanism is supported at the same position relative to the Venetian blind.

As illustrated in Figure 8, the cord lock contains a central aperture 15 intermediate its side-wise edges and adjacent the foot 9. This aperture is of a width and length sufficient to permit the tang 13 of the cord to pass through it. At a point slightly removed beyond the forward edge of the aperture 15 a strap 16 is provided in the bracket 6. This strap is offset from the face of the bracket a distance sufficient to permit the tang 13 to pass intermediate the strap and the

face and thereby be supported. Thus, the aperture 15 and the cooperating strap 16, in conjunction with the tang 13, constitute the means by which the cord lock is attached to the bracket when the bracket is to be mounted in depending position upon a horizontal face, as shown in Figures 6 and 7. When the cord lock is mounted in this position, the guides 14-14 reside in abutment with the face of the bracket 6 and provide additional support for the lock mechanism. It is preferable that the aperture 15 be enlarged at its central portion as indicated at 18, in order to provide greater freedom for movement of the cords through the aperture. For instance, the greatest width across the aperture may be slightly more than the spacing of the side walls of the cord lock and, in such an instance, the guides 14 reside slightly inwardly of the edges of the opening 15 at its widest portion thereby serving to direct the cords 7 easily through the aperture to the lock. In this manner the danger of wearing the cords against the edges of the aperture is minimized. As shown in Figure 8, the central axis through the hanger 16 and the aperture 15 is on an angle with respect to the central axis of the bracket. This enables the cord lock to be tilted downwardly and outwardly so as to throw the cords in a most accessible position.

A pair of straps 19 and 20 are provided for the mounting of the cord lock on the bracket when the bracket is to be mounted on a vertically extending face or wall. These straps are located at the forward edge of the bracket 6, they reside on opposite faces of the leg, and they are located on an axis which is angularly offset from the axis passing through the strap 16 and the aperture 15; for instance, in the preferred structure the axes passing through the two respective mounting means are offset approximately 90°.

Strap 20 is struck from the bracket leg so as to be offset therefrom at the same side as the bracket 16 and strap 19 is of cleat or hook formation and extends from the opposite side of the bracket in position to receive the lower portion of the endwise face of the cord lock when the tang 13 engages the strap 20. The edge of the bracket 6 is recessed as at 21 at a point adjacent the strap 20 so as to permit the hook 13 to pass the edge of the bracket for firm reception of the cleat 13 within the strap 20 and the lower edge of the face 12 within cleat 19. Thus, as shown best in Figure 3, the cord lock 8 is tilted downwardly and outwardly and mounted firmly in position when the bracket 6 is mounted in a horizontally projected position.

In this position of the cord lock, the operating cords pass over the upper edge of the bracket 6, as shown in Figure 2, past the guiding tangs 14 and down through the lock.

As previously indicated, the locking members of the cord lock structure may be of the usual type. As indicated in the drawing, these members comprise the pulley 22 over which the cords pass and the detention member 23 which is pivotally mounted as at 24 below the pulley. The lower edge of the detention member is serrated or roughened and is positioned so that the cords may be brought into frictional engagement against this edge when they are to be locked. Under these conditions, the detention member swings pivotally upwardly and impresses the cords against the outer face of the housing to lock them in position.

Having described my invention, I claim:

1. The combination for a Venetian blind, comprising a bracket member having a foot portion and a leg portion extending therefrom, the said leg portion having an aperture therein for journalling a shaft of a tilt rail, strap means provided in said leg portion at opposite sides of said aperture, the said straps being adapted to receive a tang struck from a cord lock whereby said cord lock may be mounted upon said bracket in operative position in accordance with the mounting of the bracket on a surface of a window frame.

2. The combination for a Venetian blind, comprising a bracket having a foot portion and a leg portion extending therefrom, the leg portion having an aperture therein for journalling a pivot shaft of a tilt rail, said leg portion having a strap struck therefrom, and a cord lock member having a tang engaging said strap.

3. The combination for a Venetian blind, comprising a bracket having a foot portion and a leg portion extending therefrom, the leg portion having an aperture therein for journalling a pivot shaft of a tilt rail, said leg portion having a strap extending therefrom at one side thereof and having a hook extending therefrom at the opposite side, said strap being adapted to receive the tang of a cord lock member and the said hook being adapted to engage a wall of said cord lock member at a point beneath said tang.

4. The combination for a Venetian blind, which comprises a bracket comprising a foot member and a leg member extending therefrom, an aperture in said leg member, a strap extending from a surface of said leg member and providing an opening which is in alignment with said aperture, and a cord lock having a surface which is adapted to lie in abutment with said leg member and having a tang extending through said

aperture and intermediate said strap and the surface of said leg member.

5. The combination for a Venetian blind, which comprises a bracket comprising a foot member and a leg member extending therefrom, an aperture in said leg member, a strap extending from a surface of said leg member and providing an opening which is in alignment with said aperture, and a cord lock having a surface which is adapted to lie in abutment with said leg member and having a tang extending through said aperture and intermediate said strap and the surface of said leg member, the said cord lock having an opening through which cords are adapted to be passed and the said aperture in said leg member having an enlarged opening adapted for passage of cords extending through said cord lock.

6. A combination for a Venetian blind which comprises a bracket having a foot portion and a leg portion extending therefrom, said leg portion having an aperture therein which is adapted for journalling the pivot shaft of a tilt rail, another aperture in said leg portion intermediate said journal aperture and said foot portion, strap means providing an opening communicating with said second aperture whereby a tang struck from a wall of a cord lock may be passed through said second aperture and supported by said strap in a given operating position when said foot portion is mounted upon a horizontally extending wall, and support means provided on said leg portion at the opposite side of said journal aperture for the reception of a tang of said cord lock for holding the cord lock in operative position when the bracket is mounted on a vertical extending wall.

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