March 16, 1948. R. H. WRIGHT 2,438,101

CORD EQUALIZER FOR VENETIAN BLINDS

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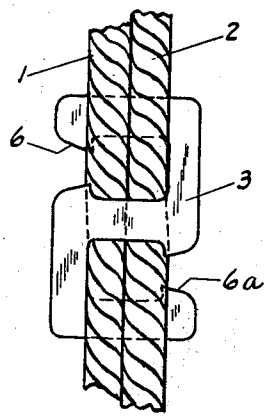


FIG. 1.

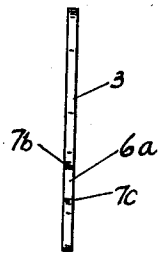


FIG. 2.

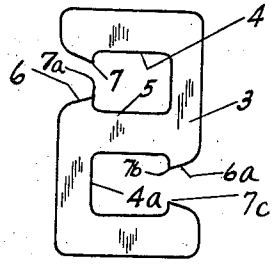


FIG. 3.

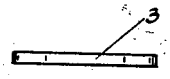


FIG. 4.

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CORD EQUALIZER FOR VENETIAN BLINDS

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Application October 9, 1944, Serial No. 557,824

1 Claim. (Cl. 24—129)

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The object of my invention has been to produce a new construction of improved cord equalizing clamp for Venetian blinds.

In ordinary Venetian blind construction as employed today there is provided a looped cord which leads upwardly to the head bar of the rail and the ends of which pass down through the slats of the blind, the cord being pulled or slacked in order to raise and lower the blind, respectively.

For maintaining the spaced cord members of the loop in clamped relation in order that the pull on the lower member of the blind may be equalized and the slacking out of the cord for lowering of the blind correspondingly equalized, a clamp plate is usually provided. This plate is comprised of a flat stamping formed with two openings through which the cord members are required to be threaded from the loop end thereof preliminary to the equalizing clamping action of the clamping plate or member.

A primary object of my invention has been to eliminate the necessity for threading the lift cords through the clamping plate, and for this reason my improved clamp member or plate is provided with spaced openings having lateral entrance portions through which the cord members may be pressed so as to be tightly received in the openings.

Another feature of my invention lies in forming the entrance portion to the openings of the clamping plate or member with cord engaging projections so as to tightly engage or interlock with the cord structure and avoid slippage of the clamping member from a predetermined position on the lift cords at which it is applied.

A preferred form of my invention is illustrated in the accompanying drawings, in which:

Figure 1 is a rear view of the lift cords as when properly engaged with the equalizing clamp member.

Figure 2 is a side edge view of the clamping member alone.

Figure 3 is a rear elevation of the clamping member alone.

Figure 4 is an end edge view of the clamping member alone.

Specifically describing my improved construction of equalizer or clamping plate, and referring particularly to Figure 1 of the drawings, the designations 1 and 2 indicate the lift cords which extend from the usually looped portion at their lower end, upwardly to the head bar or rail of the blind, and thence down through the slats to the lift bar at the lower end of the blind. The

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lift cords 1 and 2 are engaged in a clamping manner by means of my equalizer clamp plate which may be generally designated as of approximately S form, being composed of a body 3, preferably a metal stamping, formed with two openings 4 and 4a of approximately transversely elongated or rectangular form. These openings are spaced apart end to end of the clamping member by means of the middle or cross bar 5, the upper and lower edges of which provide the lower and upper sides of the openings 4 and 4a, respectively. The dimensions of the openings 4 and 4a are critical in that they are designed to receive very snugly the cord members 1 and 2 when squeezed into the openings.

The illustration of the invention in the drawings is exaggerated as to size for purposes of clearness, the actual clamping member being approximately one-third the size of that shown in the drawings.

For interengaging or entering the cord members 1 and 2 into the openings 4 and 4a of the body 3 I provide tapering entrance portions 6 and 6a leading from opposite sides of the body 3 to the openings 4 and 4a, the stamping of which the clamping member is composed being cut away to provide said entrance portions 6 and 6a. At the opposite inner terminals at the sides of the entrance portions 6 and 6a I form the body 3 with hook-like members or projections 7 and 7a, respectively, for the entrance portion 6, and 7b and 7c for the entrance portion 6a, and these projections will be caused to partially embed themselves in the cord member adjacent thereto when the cord members 1 and 2 are squeezed through the entrance portions 6 and 6a into the openings 4 and 4a.

The method of use of the invention will be readily apparent from the foregoing, it being clear that the clamping plate 3 may be disposed at an angle to the plane of the cord members 1 and 2 and the latter forced into the upper opening 4, for instance, through the entrance portion 6 of said opening. Thereafter the clamping member 3 will be tilted or the cords 1 and 2 bent so as to readily insert the cords into the lower opening 4a through its entrance portion 6a by squeezing the cord members through the entrance portion as before mentioned in reference to the upper opening 4. Once the cord members are thus interengaged with the S-shaped clamping member, the compression of the cord members against the edges of the openings 4 and 4a and the projections 7 and 7a, and 7b and 7c, effects the required frictional binding of the cord

members in engagement with the member 3 at the openings and prevents relative movement of the cord members as they are handled or manipulated for purposes of lifting and lowering the blind slats.

Since the openings 4 and 4a are formed with lateral entrance portions, it is obvious that the clamping plate may be applied to the cord members without threading the cord therethrough, and located readily at any point in the length of the lift cord. It is not required, with my invention, that the lift cord be threaded through the clamping member from the free ends of the cord as customary today.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

A cord equalizer for Venetian blinds comprising a clamping plate of substantially flat form provided with substantially rectangular clamping openings extending rectilinearly thereof and spaced from each other in the direction of the ends of the plate, said openings having entrance portions leading from a lateral edge of the plate and of smaller diameter than the width of the openings in the direction of the length of the said plate, adapted to be combined with two cord elements passing first through one opening and laced past the side of the middle part of the plate between the openings and then passed through the other opening, each of the said entrance portions to the openings tapering toward the corresponding associated opening from a side portion of the plate and being formed at opposite portions of its inner end and facing toward the said corresponding opening with projections adapted to imbed in the cord members located in said corresponding opening at the inner extremity of each tapered portion, the entrance portions to the openings of the plate leading from opposite side edges thereof so that the plate is of generally S-shaped form in contour, and the two cord elements being adapted to be side by side and of greater transverse diameter than each opening through which they pass so as to be compressed in each opening thereby causing biting engagement of the projections into the cord elements adjacent thereto.

RICHARD H. WRIGHT.

REFERENCES CITED

The following references are of record in the file of this patent:

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