Jan. 7, 1958 B. WALKER 2,818,921

VENETIAN BLIND

Filed Feb. 20, 1956

Fig. 1.

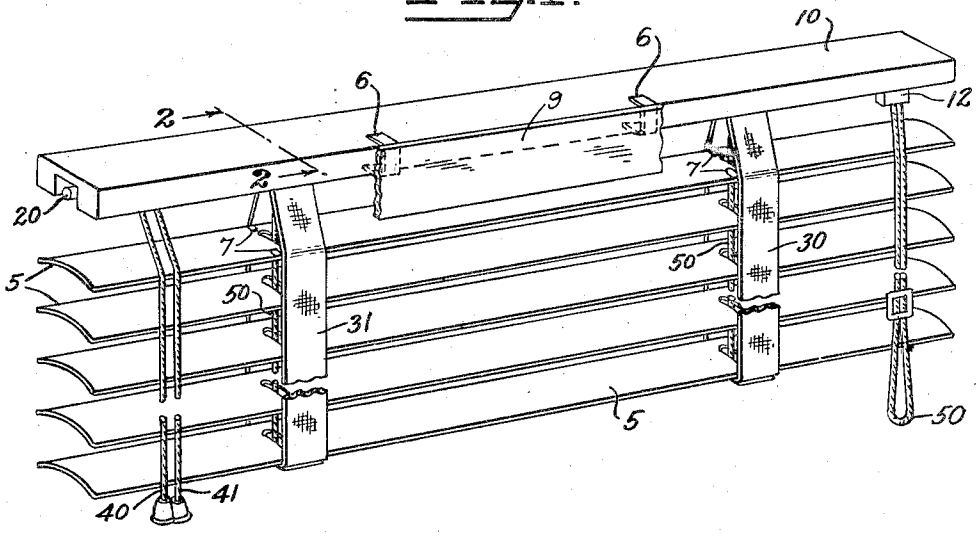


Fig. 2.

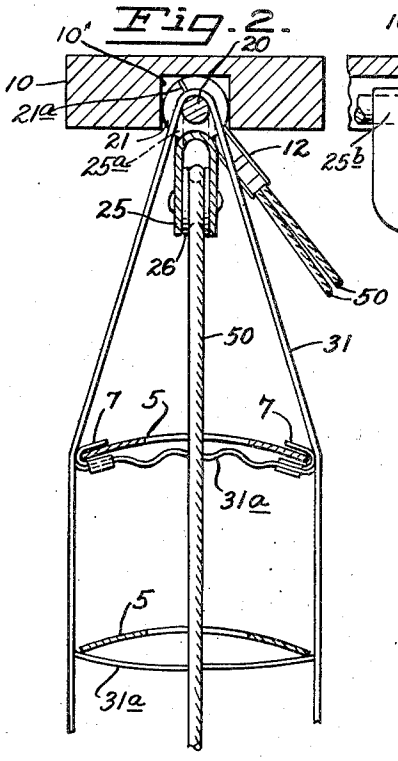


Fig. 3.

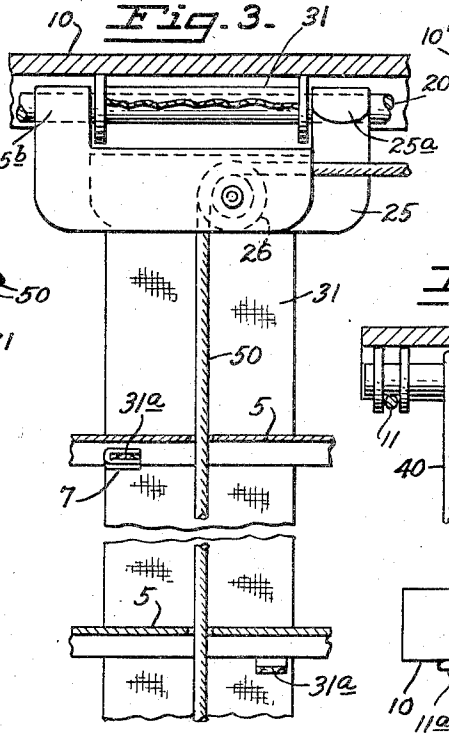


Fig. 4.

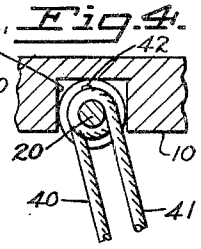


Fig. 5.

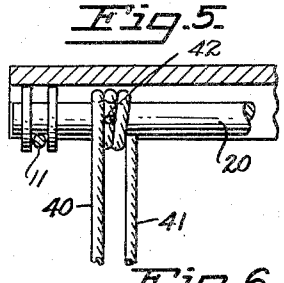
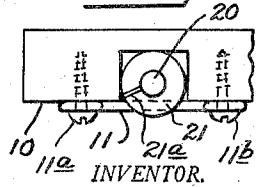


Fig. 6.



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United States Patent Office

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VENETIAN BLIND

Brooks Walker, San Francisco, Calif.

Application February 20, 1956, Serial No. 566,566

5 Claims. (Cl. 160—168)

This invention pertains to a Venetian blind and particularly to a head rail made of wood and nesting therein a small diameter tilt rod on which the looped ends of the ladder tape hang to support. Tilt control is provided by rotating the tilt rod under the looped end of the ladder tape sides in order to raise one side of the ladder tape and lower the other or vice versa, depending on the direction of tilt used. The tilt is controlled by tilt cords wound on the tilt rod and anchored at the center of a multiplicity of turns of the tilt cord around the tilt rod.

A feature of the invention is the great simplicity in which a head rail is formed of a piece of wood about 1" x 3" with a groove in one wide face between the edges adapted to receive the tilt rod, its locating washers and retaining brackets.

Another feature is the novel type of lift cord pulley support used herein, wherein a bracket is stamped from sheet metal, the center section being of a width equal to the width of the lift cord pulley, having side members bent down at each side to form supports for the lift cord pulley and an ear at one end, each said member adapted to form a support from the tilt rod for the lift cord pulley support bracket in such a manner that said bracket can be snapped onto the tilt rod with the supporting ears, one on each side of the washers at each side of the ladder tape edges where the ladder tape is supported by the tilt rod. This same bracket, used at each lift cord turn pulley, is inexpensive, universal.

The blind can be assembled on the tilt rod with tapes, lift cords, slats, cord lock, tilt cord, etc., and then secured to the read rail to complete the assembly, or the head rail can be secured to the window frame or opening and then the blind hanging on the tilt rod can be secured to the head board to complete the window installation.

Other features of this invention will be more particularly pointed out in the accompanying drawings, specification, and claims.

I have illustrated my invention by way of example in the accompanying drawings, in which:

Fig. 1 is a perspective view of a Venetian blind partly cut away showing one form of the invention.

Fig. 2 is an enlarged section taken at sec. 2—2 of Fig. 1, showing the top portion of the blind only.

Fig. 3 is an enlarged section taken just inside of the lift cord pulley support at the left ladder tape of Fig. 1, showing only a portion of the top of the blind.

Fig. 4 is an enlarged cut away end section, showing a portion of the head rail, taken just to the left of the tilt cords, as shown in Fig. 1.

Fig. 5 is an enlarged side elevation section taken inside the tilt cords at the left of the head rail, as shown in Fig. 1.

Fig. 6 is an enlarged end view of the head rail and associated parts only as would be seen by looking at the head rail from the left of Fig. 1.

In all figures like numerals of reference refer to corresponding parts.

In Figs. 1 through 6 I have shown a Venetian blind with a head rail **10**. A tilt rod **20** is nested in a groove **10'** formed in the head rail. The tilt rod **20** is centered in the groove by washers **21***a* which may be split and clamped onto the tilt rod **20** or be snapped into suitable grooves in tilt rod **20** to secure them in location on the tilt rod **20** relative to its length at such appropriate locations as on both sides of support bracket **11**, as shown in Figs. 5 and 6 or at each side of ladder tapes **31**, as shown in Fig. 3.

Ladder tapes **31** and **30** support slats **5** on ladder rungs such as **31***a*. The top slat has clips **7** secured to top cross rung **31***a* to keep top slat **5** from climbing up the sides of the ladder sides when tilted in either direction and still allow top ladder rung to straighten out when fully tilted in either direction by clips **7** sliding on top slat **5**, all as shown in my copending U. S. application, Ser. No. 513,219, entitled "Venetian Blind," filed June 6, 1955, now U. S. Patent 2,771,135 issued November 20, 1956.

Slats **5** are raised and lowered by lift cords **50** which run between staggered ladder rungs, such as **31***a*, through route holes in slats **5**, over pulleys, such as **26**, behind each ladder tape just below tilt rod **20**, then through cord lock **12**, swung from the tilt rod **20**, and down to the loop where the operator can reach it.

A fascia **9** can be clamped or secured to head board **10** by clips, such as **6**.

Lift cord pulleys **26** are supported on brackets **25** formed from stamped metal with two sides bent down to form the supports for the pivot or pulley **26** and with an ear extending outwardly and upwardly at each side of the ladder tape and bent back downwardly to engage over the tilt rod **20** to support the pulley from the tilt rod **20** at the outside of the washers clamped to rod **20** at each side of the loop at the top of each ladder tape **31** and **30** respectively. Support bracket **11** is formed by a wire with looped ends and secured to head board by screws **11***a* between locating washers **21**.

To those skilled in the art to which this invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the spirit and scope of the invention. The disclosures and the description herein are purely illustrative and are not intended to be in any sense limiting.

I claim as my invention:

1. A Venetian blind, including a head rail, said head rail having a longitudinally extending downwardly facing groove formed therein, a tilt rod rotatably mounted in said groove, means for rotating said tilt rod, washers fitted transversely into said groove and centering said tilt rod therein, ladder tapes mounted on said tilt rod and having spaced rungs, slats supported by said ladder tapes, lift cords, turn pulleys for said lift cords, a lift cord turn pulley bracket for each turn pulley, said turn pulley bracket having a pair of upwardly extending ears spaced to lie on either side of a ladder tape and each having a down turned portion adapted loosely to engage said tilt rod.

2. The structure according to claim 1 wherein one of said washers is adjacent each of said ears.

3. A Venetian blind including a lift cord, a ladder tape adjacent either edge of said blind, a tilt rod, said ladder tape having its side members joined at one end to and looped about said tilt rod, a lift cord pulley support comprising a stamping having two side members bent over and extending downwardly to support a lift pulley therebetween, an upwardly extending ear attached to each side member, said ear being bent downwardly and adapted to engage loosely over said tilt rod to form a swinging support for said pulley, said ears being spaced

to lie at either side of a ladder tape, a pulley being located under each ladder tape loop.

4. The structure according to claim 1 wherein the means for rotating said tilt rod comprises a flexible member anchored intermediate its ends to said tilt rod, said flexible member being wound about said tilt rod a plurality of turns, in the same direction, at either side of the point of attachment, whereby the tilt rod may be turned more than a complete revolution in either direction.

5. In a Venetian blind having a head rail provided with a longitudinally extending downwardly facing groove therein, a longitudinally extending tilt rod rotatably mounted in the groove, and ladder tapes mounted on the

tilt rod, the improvement which comprises a lift cord pulley associated with each ladder tape, means for supporting said pulley from the tilt rod, said means comprising a pair of staggered down turned side frame members for supporting the lift cord pulley, an ear extending upwardly from each side member, each ear having a downwardly turned portion loosely embracing the tilt rod, said ears being spaced so as to lie beyond and at either edge of a ladder tape.

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