Nov. 3, 1953 B. WALKER 2,657,747

VENETIAN BLIND HEADRAIL

Filed June 17, 1950

Fig. 1.

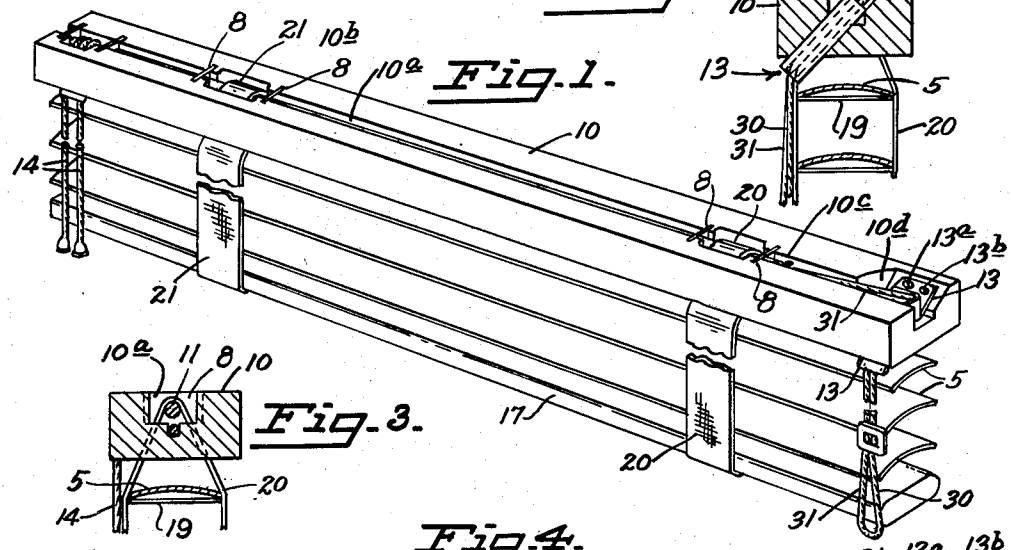


Fig. 2.

Fig. 3.

Fig. 4.

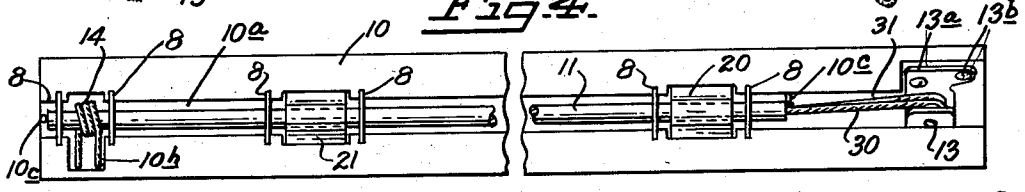


Fig. 5.

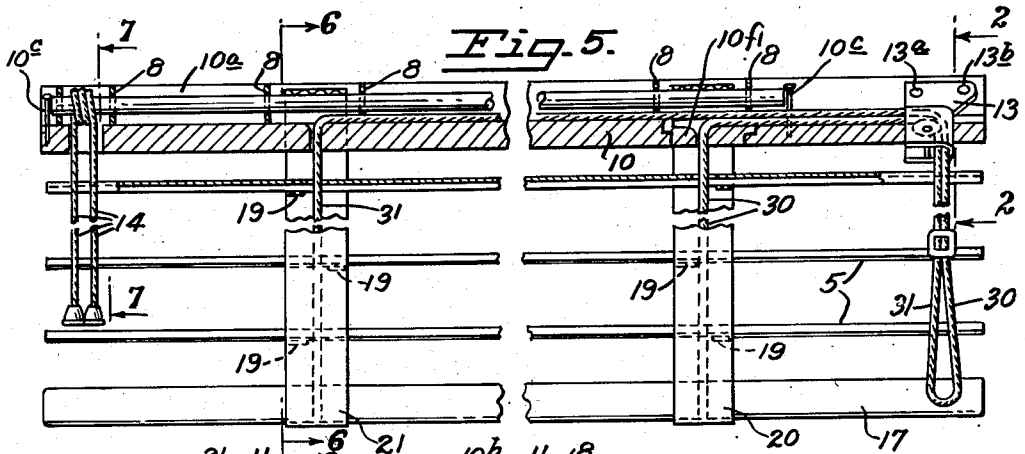


Fig. 6.

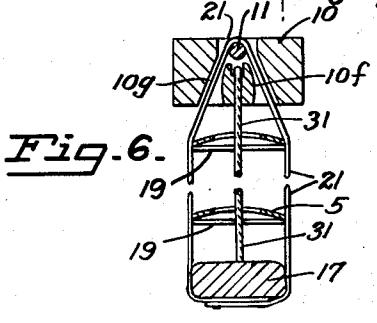
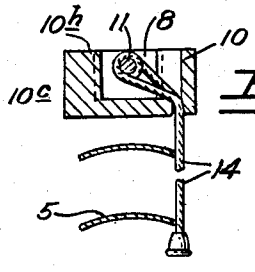


Fig. 7.



INVENTOR.

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VENETIAN BLIND HEADRAIL

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4 Claims. (Cl. 160—168)

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This invention pertains to a new and novel construction for a Venetian blind head rail, in which a wooden head piece is used that has been milled out to receive a small diameter rotating tilting device, which can be of wood, and which provides for a cord lock and, in general, encloses all of the mechanism, allows the top slat to be full length similar to those used on closed metal head rails, and can be classified in the economy blind group or the war type blind. This could be particularly applicable to construction where the use of metal for head rails is restricted because of the need of these materials for war uses. The blind includes a construction for turning the lift cords through drilled and reamed holes in bridges left in the head member under the tilting device, and thereby eliminates the cost of including pulleys. It involves a direct tilting device which is self-adjusting by having a slipping drive under the upper looped ends of the ladder tapes. The blind is very easily serviced and assembled, and should be very inexpensive to produce.

Other features and advantages of the construction will be more clearly pointed out in the attached specification and claims.

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

Figure 1 is a perspective view, partly cut away, showing one form of the invention.

Figure 2 is a sectional view of the head rail and upper slats taken at section 2—2 of Figure 5.

Figure 3 is a sectional view through the head rail showing the upper slat taken at section 3—3 of Figure 1.

Figure 4 is a top plan view of the head rail construction shown in Figure 1.

Figure 5 is an elevation view of the lower portion of the blind with a partially cut away section through the center of the upper slat and through the center of the head member, as shown in Figures 1 and 4.

Figure 6 is a sectional view through the head member, slats, and bottom rail with the center section cut away taken at section 6—6 of Figure 5.

Figure 7 is a sectional view of the head rail and adjacent slats taken at section 7—7 of Figure 5.

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

In Figures 1 through 7, I have shown a head rail 10, preferably made of wood or some millable material or plastic, in which is mounted a rotatable direct tilting rod 11 which may be either of solid metal, tubular metal, wood, or plastic. This tilt rod 11 has wound thereon tilt cord 14

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at the left hand end, with three or more turns, and, preferably, with a center turn anchored to the tilt rod as by a cotter pin, or other suitable means of anchoring. The tilt rod 11 is mounted in rectangular metal or composition washers 8 shown at both sides of the tilt cord 14 and at both sides of the ladder tapes 20 and 21. It may, however, only be necessary to use one supporting washer at the tilt cord location and one at each of the ladder tape supporting positions, and such washers or supports could possibly be made of wood, wire, or other suitable material if there were a shortage of sheet metal or other stock. A bridge 10*f* is preferably left underneath the portion of the tilt rod 11 where the ladder tapes 20 and 21 are supported, and this bridge 10*f* has a drilled and reamed hole which acts as a smooth turning radius and guide for the lift cords 30 and 31. The bridge may preferably be drilled and machined from the original solid wood of head rail 10, or may be a wooden insert or plastic insert set into a milled recess, as shown at 10*fl* in Figure 5. If bridge section 10*f* is formed from the solid material of the head rail 10, it would probably be necessary that the upper loop of the ladder tape which rides over the tilt control rod 11 be stapled, welded, sewed, or secured to the other side member of the ladder tape to form a suitable loop after a portion of the loop has been placed over the tilt control rod 11. If the bridge is an insert form, such as 10*fl*, the loop can be preformed on the tape, the tape lifted up through the hole 10*g* which is milled in the head rail adjacent each ladder tape, the bridge inserted, and then the tilt rod 11 inserted through the loop for assembly. The tilt control cords 14 are preferably located in an enlarged milled section 10*h* and dropped down through drilled and reamed holes 10*e* to guide the tilt cords preferably outside of the edge of the slats 5, as best shown in Figures 1 and 7. Tilt control mechanism 13 may be suitably secured to the head rail as by screws or nails 13*a* and 13*b*, and may be of any conventional or suitable construction. The tilt control rod may be prevented from drifting by suitable nails or pegs 10*c* which may be inserted after assembly. Tilting of the blind is controlled by pulling on one or the other of tilt cords 14, which provide sufficient rotation for the tilt control rods so that the ladder tapes 20 and 21 are fully controlled for full closure of the slats in either direction.

By this construction, I have provided a blind in which a head member can be premilled with the groove 10*a* adapted to receive the tilt rail

and the lift cords in the lower portion thereof, and which can be readily milled for the recesses 10*g* to pass the ladder tapes, the recess 10*h* for the tilt cords, and 10*d* for the cord lock. The tilt rail may be readily mounted by pressing in supporting washers 8. The outward appearance of the blind does not disclose any of the mechanisms, and being wood, it can be mounted readily, either inside hung or outside hung. There is practically no metal used on the blind which makes it particularly adaptable to construction in war time when metals are restricted, and provides a construction that can be readily manufactured with most existing Venetian blind woodworking machinery. It has the advantage of not requiring a worm gear tilter hanging down from a usual head rail, and provides a light closure at the end of the top slats which is not present in most of the conventional tilt rail under head rail type of Venetian blind construction common in the trade today.

Other advantages of this construction will be more clearly pointed out in the accompanying claims.

I claim as my invention:

1. In a Venetian blind, a head rail of generally rectangular form in cross section and having a channel extending longitudinally of and opening through the upper face and opposite ends thereof, a tilt control rod disposed within and extending longitudinally of said channel intermediate its bottom wall and the top wall of said head rail, rectangular bearing members disposed within said channel in right angular relation thereto and in which said tilt control rod is rotatably journalled, longitudinally spaced pairs of downwardly diverging recesses in said head rail opening through the bottom walls of said channel and said head rail, a pair of ladder tapes, the side members of each tape extending through a pair of said recesses and having a looped upper portion directly engaged with said tilt control rod.

2. The structure according to claim 1 together with a peg supported in the bottom wall of said channel and projecting upwardly into engagement with each end of said tilt control rod for restraining axial movement thereof in said channel.

3. The structure according to claim 1 together with a tilt control cord having in its intermediate portion a plurality of turns encircling said tilt control rod adjacent one end thereof, and said rectangular bearing members being disposed in pairs, with the members of respective pairs being disposed on opposite sides of the turns in said cord and adjacent opposite edges of the side members of said ladder tapes.

4. The structure according to claim 1 together with a bridge member beneath the looped upper portion of each ladder tape and whose opposite side walls provide the adjacent side walls of said recesses, said bridge members providing guides for a lifting cord.

BROOKS WALKER.

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