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2,298,891

VENETIAN BLIND TILTER

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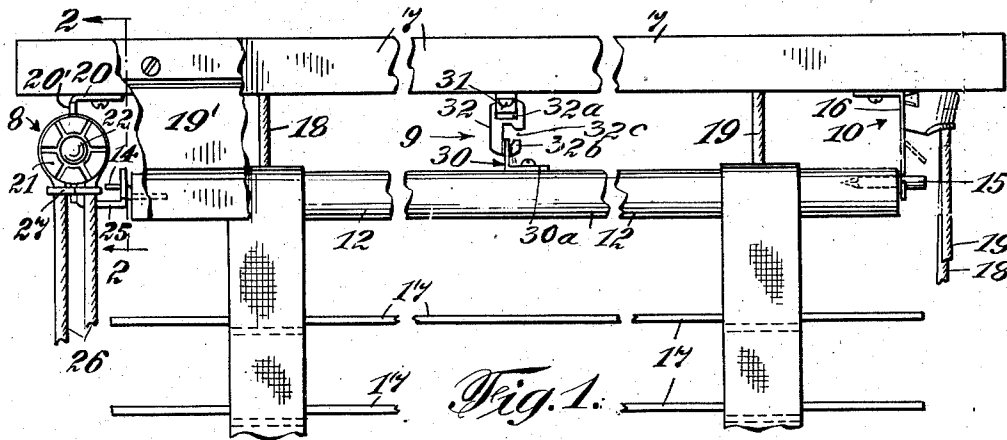


Fig. 1.

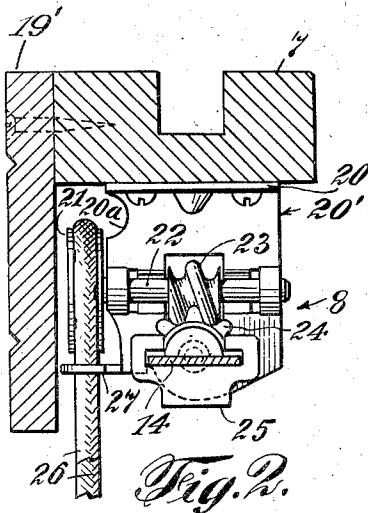


Fig. 2.

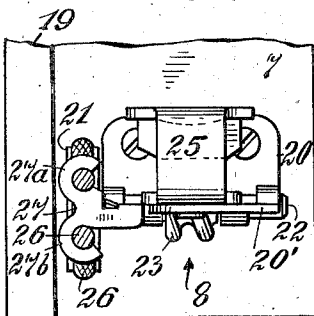


Fig. 3.

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VENETIAN BLIND TILTER

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7 Claims. (Cl. 156—17)

This invention relates to Venetian blind tilter and particularly to improvements in the cord guide thereof.

The general object of the invention is to provide for cord actuated tilting mechanism, a cord guide which facilitates mounting and replacement of the cord, particularly when the tilting mechanism is closely screened as by a valance or when in an enclosed head-bar.

A specific object of the invention is to provide for cord actuated tilting mechanism, a cord guide adapted for easy mounting and replacement of a cord that is provided with tassels or with stops such as shown in Nelson Patent 2,174,994.

Various additional objects will be apparent to those skilled in the art from the following disclosure.

Fig. 1 of the drawing is a fragmentary front elevation showing the present invention in conjunction with a Venetian blind.

Fig. 2 is a vertical section taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is a bottom plan view of the structure shown in Fig. 2.

Attached to the head-bar 7 is tilting mechanism 8, a center support 9, and a combination cord lock and tilt bar bracket 10. Projecting from one end of tilt bar 12 is a flat connecting member 14 which is received by the tilter 8 and which serves to support the left-hand end of the tilt bar 12 and also to receive the tilting movement imparted by tilter 8. The right-hand end of the tilt bar 12 is provided with a conventional gudgeon pin 15 which acts as a pintle and is rotatably supported by depending bracket 16 of the combination cord lock and supporting bracket 10. Suspended from the tilt bar 12 in a conventional manner are the conventional articulated slats 17 of the blind; and conventionally arranged lift cords 18 and 19 are provided for raising and lowering the slats. Attached to the front of the head-bar 7 is a conventional valance 19, which screens the tilt bar 12 and the supporting and actuating mechanism therefor.

The body of the tilter is a sheet-metal bracket of inverted L-shape, with a leg 20 secured to the head-bar 7, and with a depending leg 20' which carries the mechanical elements used in tilting. These tilting elements include a cord pulley 21, shaft 22, worm 23, worm gear sector 24, and integral with the gear sector a rocker 25 which receives the connector 14. Looped over the pulley is an actuating cord 26 which passes through a cord guide 27. As shown in Fig. 2, the valance

19' is positioned closely against the pulley 21 and the cord guide 27, and this would make it difficult to thread the pulley if the tilter were equipped with cord guides such as are used in the prior art. As shown in Fig. 3, my cord guide 27 comprises two loops 27a and 27b, each of which has an opening at the rear of sufficient width to permit the cord to be forcibly inserted sidewise into the loop. Therefore, the pulley can be easily threaded in spite of valance 19', by reaching up with the fingers behind the valance so as to pass the end of the cord over the pulley and then forcibly inserting the two branches of the cord sidewise into the loops 27a and 27b. To facilitate passage of the end of the cord over the pulley bracket leg 20' is provided with a cut-out 20a. This cut-out is particularly useful in cases where the tilter is of the type disclosed in Nelson Patent 2,174,994, and the cord is equipped with stops which would make it impossible to thread the cord lengthwise through the guide.

The center support is composed of a loop member 30 attached to the tilt bar 12, a saddle 31 attached to head-bar 7, and an oscillatory connector 32 which joins the arcuate members 30 and 31. Member 30 is a one piece sheet-metal stamping having a horizontal flange 30a that rests directly against the top of the tilt bar 12 and through which pass securing screws. Integral with the plate 30a is a vertically arcuate loop. Saddle 31 is merely an arched stamped sheet-metal piece and it is secured to the head-bar by screws. Connector 32 is a one piece sheet-metal stamping having at its top a rectangular hole 32a through which saddle 31 is threaded before the saddle is secured to the head-bar. The bottom of the connector 32 is provided with a hook portion 32b and an opening 32c. Hole 32a is sufficiently large to permit the connector 32 to be rocked lengthwise of the tilt bar 12 with the saddle 31 in place. The center portion of the tilt bar is forcibly flexed upwardly and the connector 32 shifted so as to cause the vertical loop of member 30 to pass through the slot 32c and into position on the hook member 32a as shown in Fig. 1.

When the tilt bar is tilted, the first part of the tilting movement usually takes place with the vertical loop of member 30 sliding over the connector 32. In extreme tilting positions, an end of the loop of member 30 comes against connector 32 and additional tilting movement results in connector 32 sliding on saddle 31. At all times, however, the center support acts to prevent downward flexing of the center of the tilt bar

under the weight of the blind. The arc of the loop of member 30 and the arc of saddle 31 are so coordinated with the other dimensions involved that no binding of the center support takes place at any tilted position. The other dimensions involved are the length of the connector 32, the vertical distance between the head-bar and the axis of the tilt bar, and the vertical distance between the axis of the tilt bar and the top surface of the tilt bar.

In compliance with the patent statutes, I have disclosed the best form in which I have contemplated applying my invention, but it will be understood that the disclosure is illustrative of the invention rather than limiting the scope of the same.

What I claim is:

1. In a Venetian blind tilter having a bracket adjacent to which is a cord pulley, and having a cord guide beneath the pulley; the improvement which comprises: the cord guide being two open loops, the opening in each loop facing in the direction of the bracket.

2. In a Venetian blind tilter having a bracket adjacent to which is a cord pulley, and having a cord guide beneath the pulley; the improvement which comprises: the cord guide being two open loops, the opening in each loop facing in the direction of the bracket, and the width of each opening being less than the nominal diameter of the cord but great enough to permit forcible side-wise insertion of the cord into the loop.

3. In a Venetian blind tilter having a bracket adjacent to which is a cord pulley, and having a cord guide beneath the pulley; the improvement which comprises: an arm integral with the bracket, the cord guide being formed integral with said arm, and the cord guide consisting of

two open loops with the openings facing in the direction of the bracket.

4. In a Venetian blind tilter having a bracket adjacent to which is a cord pulley, and having a cord guide beneath the pulley; the improvement which comprises: the cord guide being two open loops with the openings facing in the direction of the bracket, and the bracket being provided with a cut-away portion adjacent to the top of the pulley to facilitate threading of the cord over the pulley.

5. In a Venetian blind tilter having a bracket adjacent to which is a cord pulley, and having a cord guide adjacent to the pulley; the improvement which comprises: the cord guide comprising an open loop, the opening in the loop facing in the direction of the bracket.

6. In a Venetian blind tilter having a bracket adjacent to which is a cord pulley, and having a cord guide adjacent to the pulley; the improvement which comprises: the cord guide comprising an open loop, the opening in the loop facing in the direction of the bracket, and the width of the opening being less than the nominal diameter of the cord but great enough to permit forcible side-wise insertion of the cord into the loop.

7. In a Venetian blind tilter having a bracket adjacent to which is a cord pulley, and having a cord guide adjacent to the pulley; the improvement which comprises: the cord guide comprising an open loop, the opening in the loop facing in the direction of the bracket, the width of the opening being less than the nominal diameter of the cord but great enough to permit forcible side-wise insertion of the cord into the loop, and the bracket being provided with a cut-away portion adjacent to the top of the pulley to facilitate threading of the cord over the pulley.

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