July 6, 1965 J. C. GREENSTADT ETAL 3,192,996

APPARATUS FOR SHIFTING DRAPERY

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FIG. 1.

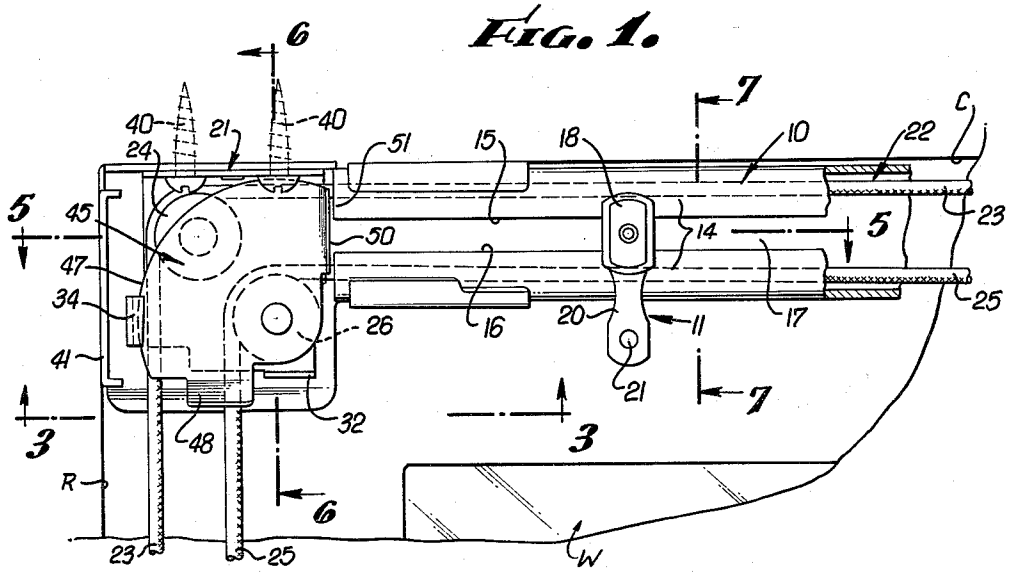


FIG. 2.

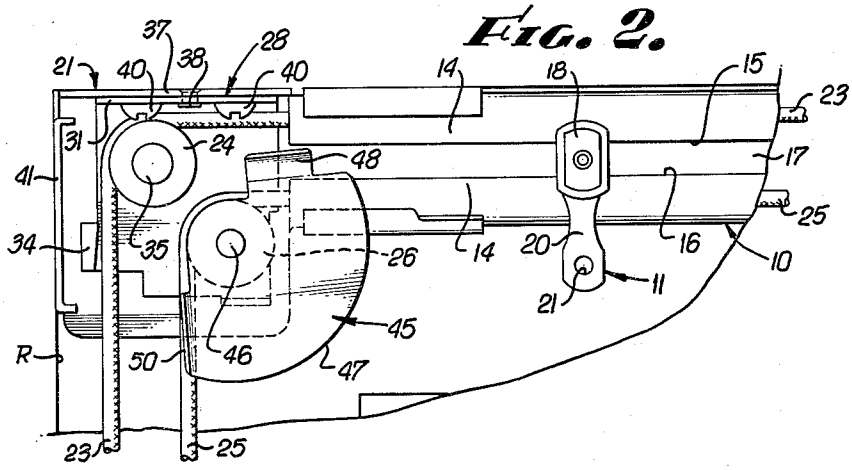
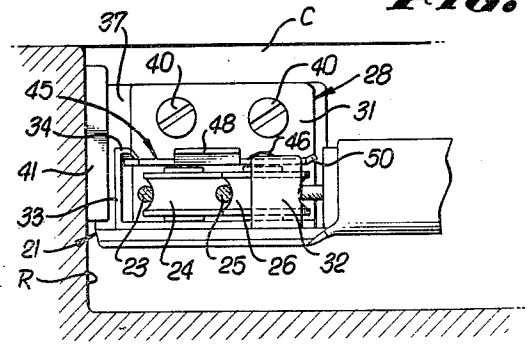


FIG. 3.



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FIG. 4.

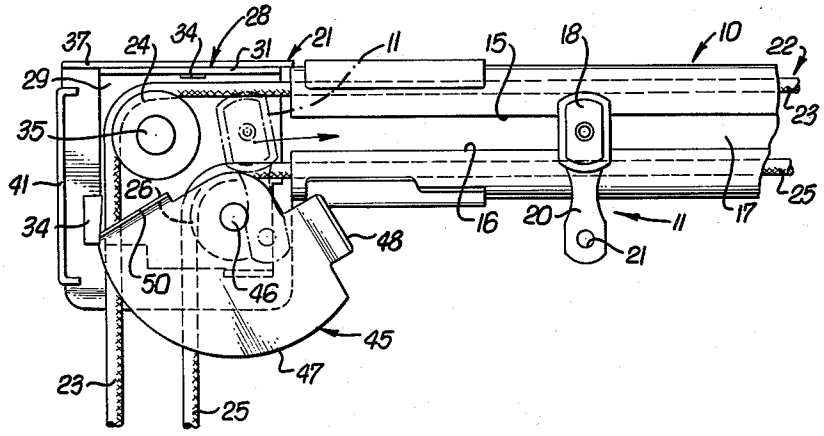


FIG. 5.

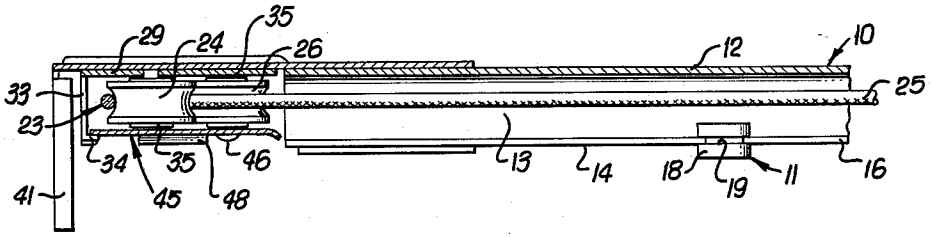


FIG. 6.

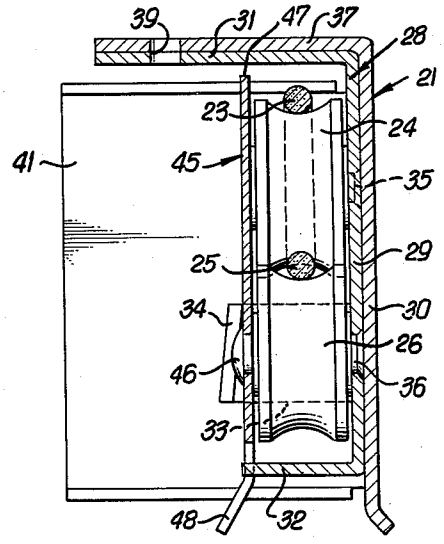
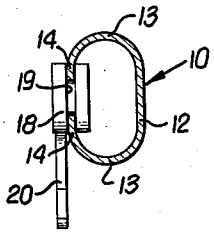


FIG. 7.



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APPARATUS FOR SHIFTING DRAPERY

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1 Claim. (Cl. 160—345)

The present invention relates to drapery apparatus, and more particularly to apparatus for shifting drapery, or the like, along a traverse rod.

An object of the invention is to provide drapery apparatus embodying one or more pulleys over which the operating or draw cord passes for shifting the drapery, in which placing of the operating cord on the one or more pulleys and its removal therefrom are greatly facilitated.

Another object of the invention is to provide drapery apparatus that enables an operating cord to be easily mounted around its cooperating pulleys, or removed therefrom, and in which the operating cord cannot shift inadvertently from the pulleys.

A further object of the invention is to provide drapery apparatus including a traverse rod or track along which drapery hangers or carriers are movable and into which the hangers or carriers are easily placed or from which they are easily removed, as desired, the hangers or carriers being prevented from inadvertent removal from the traverse rod or track.

An additional object of the invention is to provide drapery apparatus including a traverse rod along which drapery hangers are movable and into which the hangers are easily placed, or from which they are easily removed, the operating cord for shifting the drapery being readily mounted around its companion pulleys and removed therefrom, inadvertent shifting of the cord from the pulleys and removal of the hangers from the traverse rod being prevented by a common device which is simple in construction, and highly effective in performing its functions.

This invention possesses many other advantages, and has other objects which may be made more clearly apparent from a consideration of a form in which it may be embodied. This form is shown in the drawings accompanying and forming part of the present specification. It will now be described in detail, for the purpose of illustrating the general principles of the invention; but it is to be understood that such detailed description is not to be taken in a limiting sense, since the scope of the invention is best defined by the appended claim.

Referring to the drawings:

FIGURE 1 is a front elevational view of apparatus embodying the invention, with the pulley structure housing closed;

FIG. 2 is a view similar to FIG. 1, with the pulley housing open;

FIG. 3 is a section taken along the line 3—3 on FIG. 1;

FIG. 4 is a view similar to FIG. 1, with the parts in position permitting insertion or removal of hangers from the traverse rod;

FIG. 5 is a section taken along the line 5—5 on FIG. 1;

FIG. 6 is an enlarged cross-section taken along the line 6—6 on FIG. 1;

FIG. 7 is a cross-section taken along the line 7—7 on FIG. 1.

The apparatus shown in the drawings is used for supporting and shifting drapery (not shown), or similar members, across a window W, wall, or other supporting structure. The drapery can be supported in a known manner from a horizontally disposed traverse rod, track, or rail 10 by means of hangers or carriers 11. The traverse rod disclosed in the drawings is of generally channel-shape,

having a rear web 12 and cured upper and lower walls 13 merging into opposed, forward generally vertical flanges 14, the confronting edges 15, 16 of which are spaced from one another to provide a longitudinal slot 17 along which the hangers or carriers can slide. As shown, each hanger or carrier 11 may include an upper head portion 18 having a groove 19 in which the upper and lower flanges 14 are received, so that the carriers can slide within the slot 17 and be prevented from moving transversely of the carrier, the bottom of the groove 18 sliding along the lower edge of the lower flange 14. Each carrier also has a depending arm portion 20 and may have a hole 21 for suitable attachment to the drapery, or for the reception of a drapery pin hook (not shown) which is attached to the drapery.

Each end of the traverse rod 10 is piloted within an end bracket 21 that carries a pulley structure over which an operating or draw cord 22 can pass, the draw cord extending within the channel-shaped traverse rod, the operating or draw cord being appropriately connected, as by means of a suitable carrier (not shown) to the drapery, in order to shift it in accordance with the movement of the operating cord in the traverse rod. As shown, the upper run 23 of the draw cord passes over an upper pulley 24 suitably mounted in the end bracket 21, the lower run 25 passing over a lower pulley 26 suitably supported in the end bracket structure. As is well known in the art, another end bracket (not shown) is provided at the other end of the traverse rod and will contain a pulley over which the operating cord 22 can pass. The downwardly directed runs of the operating cord pass over a pulley (not shown) disposed well below the pulley structure so that pulling on a selected one of the vertical runs 23, 25 will shift the operating cord 22 within the traverse rod in the desired direction, and correspondingly shift the drapery.

As specifically shown in the drawings, a pulley support housing 28 is mounted within the end bracket 21, this support housing including a side wall 29 abutting the side wall 30 of the end bracket, an upper wall 31 extending forwardly from the side wall 29, and a bottom tab 32 extending forwardly from the lower end of the side wall 29. A guide arm 33 projects forwardly from the side wall 29 of the housing and terminates in a forwardly directed guide finger 34 generally parallel to the side wall 29 but spaced substantially forwardly thereof. The upper and lower pulleys 24, 26 are rotatably mounted on suitable bearings (not shown), which, in turn, are carried by horizontal bearing support pins 35, 36 secured to and projecing forwardly from the side will 29 of the housing. The upper wall 31 of the housing can be secured to the upper wall 37 of the end bracket in any suitable manner, as, for example, by means of a rivet 38 interconnecting these parts. Spaced holes 39 may be provided in the upper walls 31, 37 for the reception of fastening members 40, such as screws, for attaching the end bracket 21 and the pulley housing 28 to a suitable support C, such as a ceiling, disposed above and adjacent to the end bracket and the traverse rod 10. The end bracket 21 may also have a forwardly extending vertical end wall 41, adapted to be disposed adjacent to a side wall R of a room, or of a window recess. If desired, such end wall 41 may also be attached to the side wall of the room in which the drapery apparatus is mounted.

The operating or draw cord 22 is prevented from inadvertent shifting from the pulleys 24, 26, which are preferably peripherally grooved, by a flexible cover plate 45, which, for example, may be made of sheet material, such as sheet metal. This cover plate is pivotally mounted on the lower bearing support pin 36 in engagement with the pulley bearing, the pin having a suitable

head 46 overlapping the cover plate to retain it on the pin, but permitting its swinging about the axis of the bearing support pin 36. The cover plate may be swung about its pivot axis to a position substantially overlying the outer faces of the pulleys 24, 26. As shown, an edge 47 of the cover plate may be formed as an arc drawn about the axis of the bearing support pin 36, this edge extending substantially to the upper wall 31 of the housing and to the guide arm 33 adjacent to the guide finger 34 when the cover plate 45 is in the closed position, such as disclosed in FIG. 1. The operating cord run 25 passing over the lower pulley 26 cannot shift outwardly therefrom, since it is prevented from doing so by the cover plate 45. The other run 23 of the operating cord passing over the other pulley 24 cannot shift outwardly from its peripheral groove, inasmuch as the horizontal portion of the cord engages the cover plate and its vertical portion is restrained by the guide arm 33 and also by the cover plate 45.

The cover plate has a stop tab 48 projecting from its lower portion, which is adapted to engage the lower or bottom tab 32 of the housing when the plate 45 is in its closed position, thereby preventing inadvertent shifting of the cover to an open position. In order to shift it to its open position, the stop tab 48 is deflected outwardly by finger pressure to clear the bottom tab 32, whereupon the cover plate 45 can be swung about its bearing support pin 36 to a fully open position, such as disclosed in FIG. 2, fully exposing the upper pulley 24 and the peripheral portion of the lower pulley 26. In view of such exposure, the operating cord 22 can readily be slipped axially off both pulleys, if desired, in the event the operating cord is to be withdrawn from them. Similarly, in assembling the drapery apparatus, it is unnecessary to fish the operating cord 22 around the pulleys, since it need merely be placed axially of the pulleys into the housing 28 until both runs 23, 25 extend around the pulleys and are disposed in their peripheral grooves, after which the cover plate can be swung back to its closed position, as illustrated in FIG. 1, to retain the operating cord 22 in assembled relation on its companion pulleys.

It is to be noted that the cover 45 has a stop flange 50 at an inner edge thereof, which will be disposed closely adjacent to the terminals 51 of the opposed flanges 14 of the traverse rod and across the slot 17, functioning as a stop to prevent inadvertent endwise removal of a hanger 11 from the traverse rod 10. Assuming that a hanger engages the stop flange 50, it cannot shift it away from the end 51 of the traverse rod, since the stop tab 48 will engage the bottom lug 32 of the housing and prevent such action from occurring. However, despite the ability of the stop flange 50 to prevent inadvertent removal of any hanger 11 from the traverse rod 10, such removal can occur very readily merely by swinging the cover 45 to an open position, such as disclosed in FIG. 4, which will open the end of the traverse rod 10 and allow any desired number of hangers to be removed therefrom.

With the cover 45 in open position, one or more hangers 11 can readily be mounted in the rod 10 merely by inserting the head portion 18 of the hanger within the rod so that the flanges 14 are received in the hanger groove 19, whereupon the hanger can be shifted along the traverse rod away from its end 51. After the required number of hangers has been inserted within the rod, or removed therefrom, as desired, the cover plate 45 is again swung to its closed position, in which inadvertent removal of the operating or draw cord 22 from its pulleys is prevented, and in which the stop flange 50 effectively closes the end of the traverse rod slot 17 and prevents inadvertent withdrawal of any hangers 11 from the rod.

It is apparent that an apparatus for shifting drapery has been provided in which mounting of the operating or draw cord 22 around its companion pulleys is facilitated merely by shifting the cover 45 to an open position, the cord being maintained in assembled relation with respect to the pulleys by shifting the cover to its closed position. In addition, the shifting of the cover to an open position enables one or more hangers 11 to be mounted within the traverse rod in an easy manner, as well as enabling one or more hangers or carriers to be removed from the traverse rod. The shifting of the cover 45 to closed position not only retains the operating cord in appropriate operating relation to its companion pulleys, but provides a stop to prevent inadvertent removal of one or more hangers from the traverse rod.

We claim:

In apparatus for shifting drapery and the like: a traverse rod along which an operating cord is movable for shifting the drapery along the rod, said rod having an open end through which drapery hangers can be mounted on the rod or removed therefrom; support means adjacent to said open end of said rod and including a pair of support pins; a pulley rotatably mounted on each of said support pins, said pulleys being adapted to have oppositely movable runs of the operating cord passing thereover; a cover pivotally mounted on one of said support pins and adapted for swinging to closed position with respect to both pulleys and said open end of said rod to prevent axial withdrawal of the runs of the cord from said pulleys and of hangers from said rod, said cover being swingable to an open position with respect to said pulleys and said rod to permit axial placing of the runs of the cord over said pulleys and axial removal of the runs of the cord from said pulleys, as well as removal and insertion of the hangers through said open end of said rod.

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