

[54] TRAVERSE ASSEMBLY FOR
DRAPERIES AND THE LIKE

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[58] Field of Search.....16/87, 87.2, 87.4, 87.6, 87.8,
16/93, 94, 95, 96; 160/349, 345, 346

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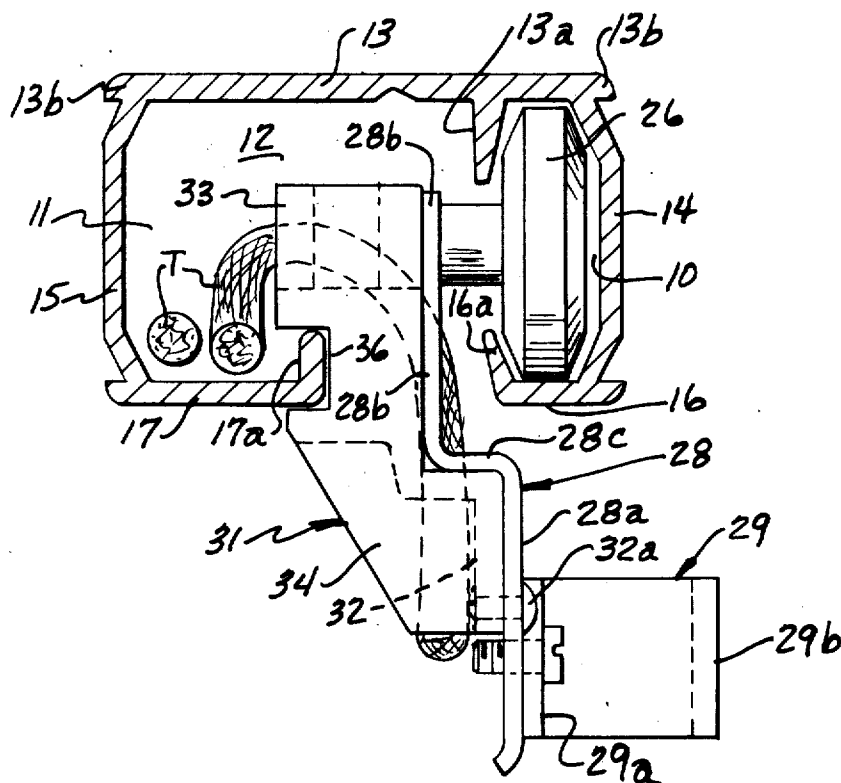
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[57] ABSTRACT

A traverse assembly for draperies and the like including an elongated rigid rod structure having a rearwardly opening channel along the front side of the rod defining a trackway for receiving drapery carriers, and a forwardly opening channel along the rear side of the rod defining a cord track, with the rear cord track spaced from the front carrier track to define an intermediate access passageway therebetween. Drapery carriers are mounted in the front carrier track to support draperies adjacent the front side of the rod and a master carrier is provided with followers that ride in the front carrier track and a rear guide means which slidably support the master carrier on the forward edge of the rear cord track to stabilize the master carrier during movement along the rod.

10 Claims, 8 Drawing Figures



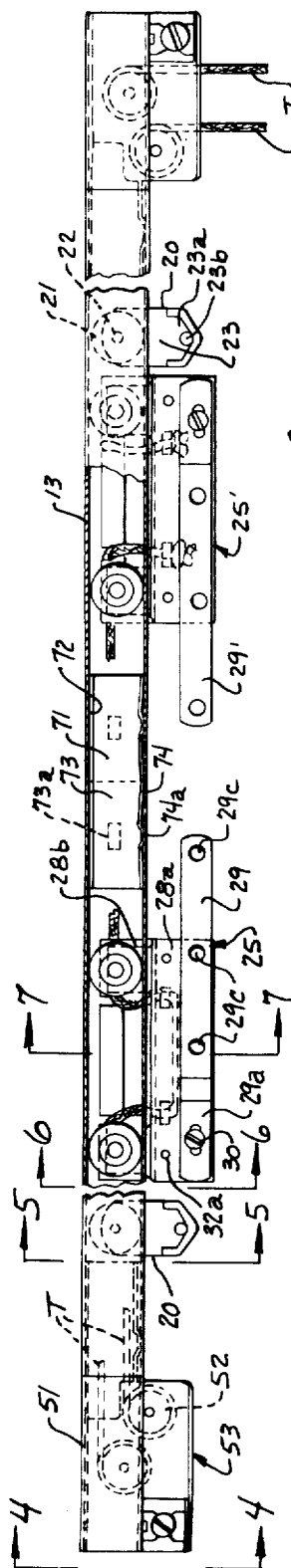


Fig. 1

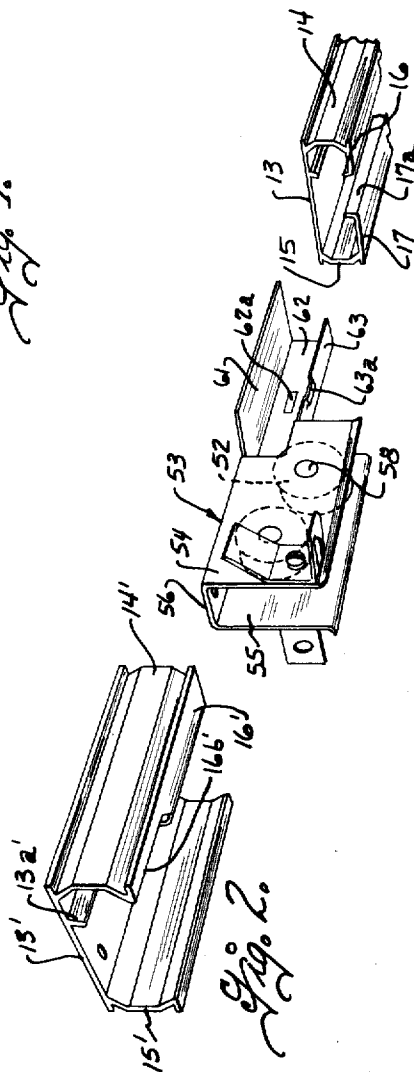


Fig. 2

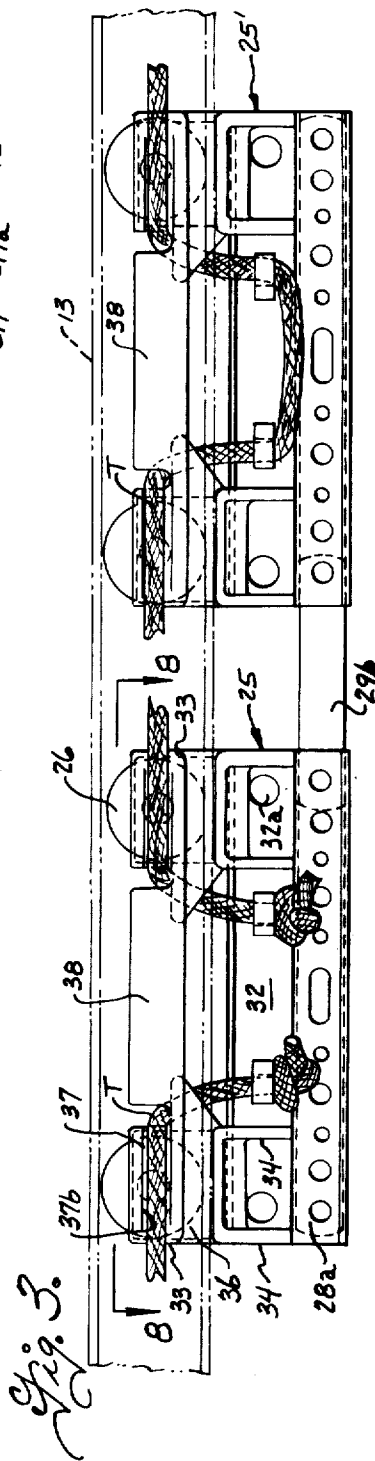
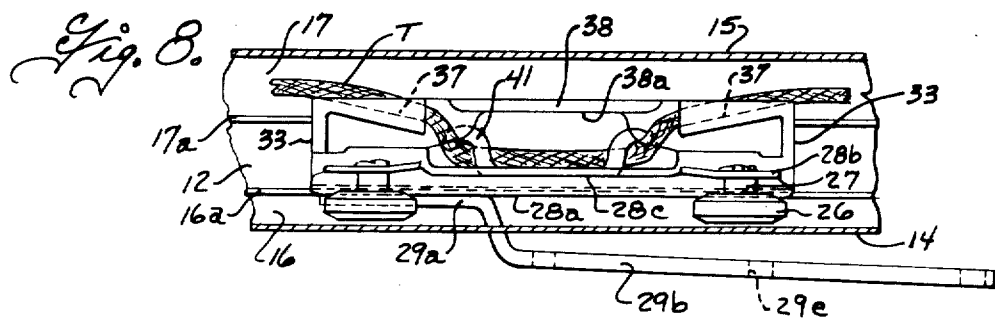
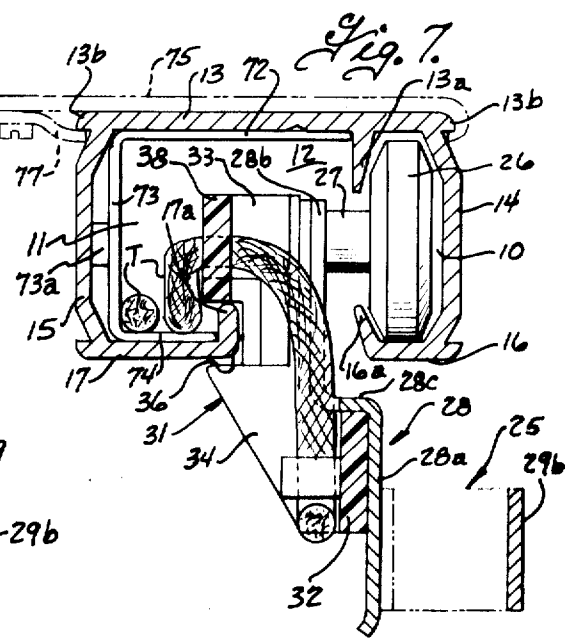
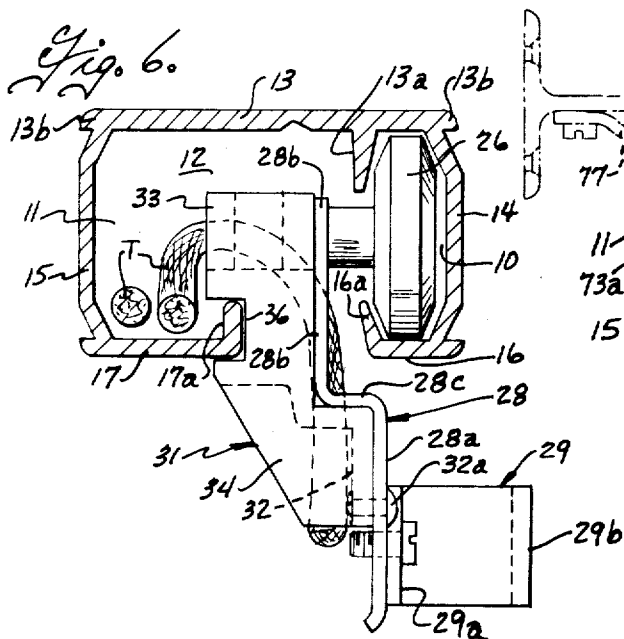
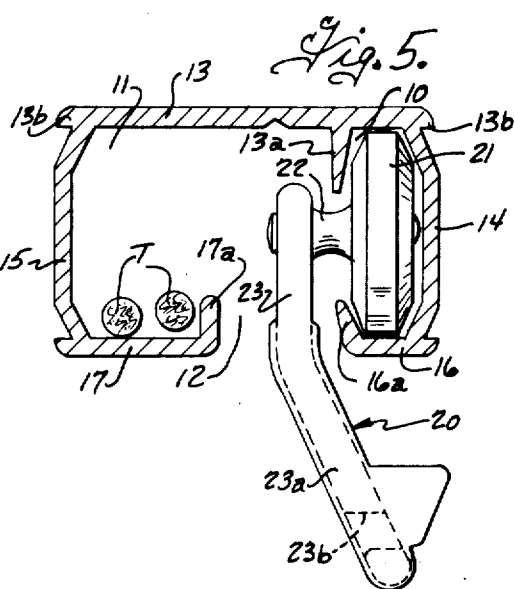
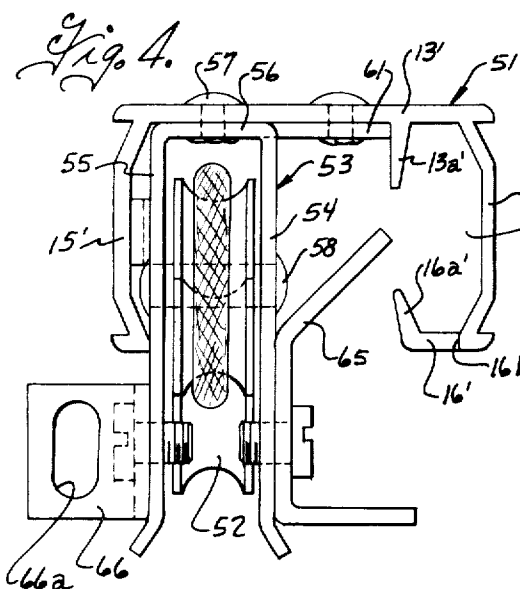


Fig. 3



TRAVERSE ASSEMBLY FOR DRAPERIES AND THE LIKE

BACKGROUND OF THE INVENTION

In drapery traverse assemblies, it is generally desirable to mount the drapery carriers and the traverse cords in separate tracks so as to prevent interference between the carriers and the cords during movement along the rod. In one type of drapery traverse assembly, the drapery carriers are supported for movement along a track disposed medially between the front and rear edges of the rod with dual cord tracks disposed at opposite sides of the carrier track. Such traverse assemblies, however, support the drapery heading at a location medially between the front and rear edges of the traverse rod and are not satisfactory for use in those drapery installations wherein it is desired to support the drapery adjacent the front side of the rod. Drapery traverse assemblies have also been heretofore made as shown in U.S. Pat. Nos. 3,341,886 and 3,345,678, in which the rod had a forward carrier track and a rear cord track. However, such prior traverse assemblies utilizing a forward carrier track and a rear cord track generally utilized either a downwardly opening rear cord track or a rearwardly opening rear cord track. The downwardly opening rear cord track was not entirely satisfactory since it did not adequately underlie and support the traverse cords along the length of the rod. Those with rearwardly opening traverse cord tracks exposed the rear cord track at the rear side of the rod and were not adapted to be recessed in a ceiling. Moreover, such rearwardly opening cord tracks also markedly complicated the problem of connecting the traverse cords to the master slide carrier supported in the front carrier track.

The present invention provides an improved drapery traverse assembly in which the rod has a rearwardly opening carrier track along the front of the rod and a forwardly opening cord track along the rear of the rod and spaced from the front carrier track to provide a downwardly opening access passageway between the rear cord track and the front carrier track. Drapery support carriers are provided with followers mounted in the front carrier track and drapery carrier pendants which extend downwardly through the access passageway at the rear of the carrier track to a position below the carrier track to support the drapery heading along the front of the rod, and a master carrier having a drapery support arm at the front of the track is provided with followers in the front carrier track and a guide means at its rear side engaging the rear cord track to laterally stabilize the master carrier during movement along the rod. The master carriers have cord guides arranged to guide a bight portion of a traverse cord from the rear cord track forwardly to the access passageway where it is accessible from below the rod for attachment to cord locks on the master carrier. Pulley housings are located at the ends of the rod and support cord guide pulleys in alignment with the rear cord track to guide the traverse cords into and out of the rear track and the pulley housings also have a front carrier track aligned with the carrier track on the rod to allow the carriers from the rod to move past the pulleys.

With the traverse assembly described, the traverse rod is closed at its front and rear to present a neat ap-

pearance from either side of the rod and the traverse rod is adapted for bracket mounting on a wall; flush mounting on a ceiling or recess mounting in a ceiling. The forwardly opening cord track in conjunction with the rearwardly opening carrier track and the intermediate access passageway facilitates connection of the traverse cords to the master carrier supported on the front carrier track and enables the master carrier to be guided on the forward edge of the rear cord track to laterally stabilize the master carrier during movement along the rod.

These, together with other features and advantages of the present invention will be more readily understood by reference to the following detailed description when taken in connection with the accompanying drawings wherein:

FIG. 1 is a front elevational view of a traverse rod assembly embodying the present invention, with parts broken away and shown in section to illustrate details of construction;

FIG. 2 is a fragmentary exploded perspective view of a pulley housing and rod end utilized in the present invention;

FIG. 3 is a fragmentary rear elevational view showing master slides on a larger scale than FIG. 1 and with the rod shown in phantom;

FIG. 4 is an end elevational view on an enlarged scale taken on the plane 4—4 of FIG. 1;

FIG. 5 is a transverse sectional view on an enlarged scale taken on the plane 5—5 of FIG. 1;

FIG. 6 is a transverse sectional view on an enlarged scale taken on the plane 6—6 of FIG. 1;

FIG. 7 is a transverse sectional view on an enlarged scale taken on the plane 7—7 of FIG. 1; and

FIG. 8 is a fragmentary horizontal sectional view through the rod taken on the plane 8—8 of FIG. 3 and illustrating a top view of one of the master carriers.

The traverse assembly of the present invention is generally adapted for use in supporting draperies, curtains and the like, hereinafter generally referred to as a drapery. The support includes an elongated rigid rod structure which defines a rearwardly opening front carrier track 10 along the front side of the rod; a forwardly opening rear cord track 11 along the rear side of the rod, with the cord track 11 being spaced rearwardly from the carrier track 10 to provide a central downwardly opening access passageway 12 between the carrier track and the cord track. More specifically, the rod includes a top wall 13 of flat configuration having a front wall 14 extending downwardly from adjacent the forward edge of the top wall and a rear wall 15 extending downwardly from adjacent the rear edge of the top wall. A forward bottom wall portion 16 extends rearwardly from adjacent the lower edge of the front wall 14, and a rear bottom wall portion 17 extends forwardly from adjacent the lower edge of the rear wall 15, and the forward edge of the rear bottom wall portion 15 is spaced a substantial distance from the front bottom wall portion 16 to provide an open area between the front and rear tracks defining the aforementioned downwardly opening access passageway 12. The forward carrier track 10 includes an upwardly extending flange 16a on the rear edge of the bottom wall portion 16 and a downwardly extending flange 13a on the top wall 13, which downwardly

extending flange is disposed in approximate vertical alignment with the flange 16a and is spaced vertically from that flange to define the rearwardly opening carrier track 10. The rear bottom wall portion 17 underlies the traverse cords to support the same and an upwardly extending flange 17a is provided along the forward edge of the bottom wall portion 17 to retain the traverse cords in the rear cord track or channel 11.

A plurality of auxiliary drapery carriers 20 are mounted in the forward carrier track 10 for movement along the rod, only a few auxiliary drapery carriers being shown in the drawings to simplify illustration. As best shown in FIG. 5, the auxiliary drapery carriers are of a type having a head portion 21 disposed in the trackway and guidably retained therein by the flanges 16a and 13a; a reduced diameter shank 22 that extends rearwardly from the head 21 through the space between the flanges 13a and 16a, and a pendant portion 23 on the rear end of the shank 22, which pendant portion extends downwardly through the access passageway adjacent the rear side of the flange 16a and forwardly at 23a to a position below the front carrier track and adjacent the front side of the rod. The auxiliary drapery carriers 20 are preferably of the type more fully disclosed in U.S. Pat. No. 3,345,676 to which reference is hereby made for a more complete description, and the pendants have a drapery support means such as an opening 23b in the pendant portion adapted to receive a drapery hook or the like for suspending a drapery heading adjacent the front side of the rod.

As is well understood in the art, a traverse assembly can be designed for either one-way or two-way traverse, with a single master slide being utilized for a one-way traverse and two master slides being utilized for two-way traverse. In the embodiment illustrated, a pair of master slides 25 and 25' are provided and arranged for two-way traverse. The master slides are of similar construction and like numerals are used to designate corresponding parts. Each master slide includes a pair of followers, preferably in the form of rollers 26 which are disposed in the front carrier track 10, and which rollers are rotatably supported on stub shafts 27 that extend rearwardly from the rollers through the slot between the upper and lower flanges 13a and 16a. A master carrier body 28 is secured to the rear ends of the shafts 27 and extends downwardly adjacent the rear side of the carrier track to a position below the carrier track and adjacent the front side of the rod. In the preferred embodiment shown, the master carrier body includes a sheet metal stamping having an elongated plate portion 28a disposed below the rod and a pair of integral ears 28b extending upwardly from adjacent opposite ends of the plate portion. The ears 28b extend upwardly through the access passageway adjacent the rear side of the carrier track 10 for attachment as by riveting to the stub shafts 27 and the ears 28b are preferably offset rearwardly from the plate portion 28a by a flange portion 28c, best shown in FIGS. 6 and 7 so that the plate portion 28a is disposed below the front carrier track. The master carriers 25 and 25' are arranged to support the lead edges of the drapery heading at the front side of the rod and for this purpose have underlap and overlap drapery support arms 29 and 29' respectively. The drapery support arms 29 and 29'

each have a mounting portion 29a at one end rigidly attached as by a screw fastener 30 to the plate portion 28a of the respective master carrier body and the drapery support arms have an offset portion 29b which extends from the mounting portion 29a and is offset in a direction forwardly from the mounting portion to extend adjacent the front side of the traverse rod to support the lead edge of the drapery heading adjacent the forward side of the traverse rod. As is well understood in the art, the drapery support arms 29 and 29' in a dual traverse rod assembly are arranged to extend in relatively opposite directions from their mounting portions 29a and are offset relatively different distances forwardly from their respective mounting portions so that the drapery support portions 29b can move into overlapping relation when the draperies are closed and the drapery support portions have openings as shown at 29c for receiving drapery hooks to support a drapery heading at the front side of the rod.

A guide body 31, conveniently molded of plastic, is attached to each master slide body 28 at the rear sides thereof. The guide body includes a mounting portion 32 extending along the rear side of the plate portion 28a of the master slide body and secured thereto as by rivets 32a. The guide body also has guide portions 33 which extend upwardly into the downwardly opening access passageway 12, and which guide portions are joined to the mounting portion 32 by generally triangular gussets 34. The upwardly extending guide portions 33 are spaced apart in a direction lengthwise of the master slide to provide an opening therebetween, and the upwardly extending guide portions 33 have a U-shaped groove 36 at the rear face thereof defining a carrier guide which slidably receives the upwardly extending flange 17a on the rear cord channel. As will be seen from FIGS. 6 and 7, the walls of the grooves 36 on the upwardly extending guide portions 33 are adapted to engage the flange 17a to inhibit swinging movement of the master carrier about the followers 26 in the front carrier track, to thereby laterally stabilize the master carriers during movement along the rod. The guide portions 33 project above the flange 17a on the rear cord channel and have cord guide means for engaging and guiding a bight portion of the traverse cord T from the rear cord channel forwardly into the access passageway 12 between the rear cord channel and the front carrier track. The cord guide means includes cord engaging faces 37 on the body 31 above the groove 36, which cord engaging faces rearwardly and extend into the rear cord channel, as best shown in FIGS. 6-8. The cord engaging faces are preferably inclined forwardly and inwardly from opposite ends of the master carrier, to guide the bight portion of the traverse cord forwardly from the rear cord track, and a cord retaining tab 38 is provided on the body 31 between the portions 33 with its forward face 38a disposed adjacent the forward edge of the rear cord track. The tab 38 is spaced from the guide portions 33 as shown in FIG. 8 to provide cord receiving notches between the guide portions 33 and the ends of the tab 38, to allow a bight portion of the cord to pass forwardly of the tab and the tab retains the bight portion of the cord in a position adjacent the access passageway 12 where it can be easily retrieved by a suitable hook-like tool, from a position below the rod. Rearwardly extending shoulders 37b are

preferably provided on the guide portions 33 above and below the cord engaging faces 37 so as to vertically retain the cord therebetween, as is best shown in FIG. 3. Cord locks, herein shown in the form of hooks 41 are formed on the mounting portion 32 of the body 31 at the rear side of the master carrier, for locking the bight portion of the traverse cord to the master carrier. As will be seen from FIG. 3, end portions of the traverse cord can also be secured to the master carrier either by knotting the end portions together to form a continuous bight in the cord, or by individually knotting the ends below the cord lock hooks 41.

Rod end sections 51 are provided at the ends of the rod and support cord guide pulleys 52 adjacent the ends of the rear cord channel in positions to guide the traverse cords into and out of the rear cord channel. The rod end sections 51 have a configuration generally similar to that of the rod and may be formed from the same extrusion, with parts cut away as described hereinafter. More particularly, the rod end sections include a top wall 13', front wall 14', rear wall 15', a front bottom wall portion 16', and upper and lower flanges 13a' and 16a' which respectively align with corresponding elements of the rod. The bottom wall 17 and flange 17a on the rod are omitted or cut away through out the length of the pulley housing and the other end of the bottom wall portion 16' and flange 17a' are cut away at 16b' to provide a downwardly facing opening for insertion and removal of carriers form the track. A separate pulley housing 53 is mounted in the rod end sections 51 and includes spaced side walls 54 and 55 interconnected at their upper ends by a top wall 56. The pulley housing is attached to the rod end section 51 as by rivets 57 (FIG. 4) and the pulleys 52 are rotatably mounted between the walls 54 and 55 by pins 58. The pulleys 52 are preferably vertically and horizontally offset as shown in FIGS. 1 and 2 so as to laterally separate the vertical and horizontal runs of the traverse cord. An integral splice portion is formed on the end of the pulley housing and includes a top splice wall 61 adapted to underlie the top wall 13 of the rod in the region between the flange 13a and the rear wall 15; a vertical wall 62 adapted to extend alongside the rear wall 15 of the rod, and a bottom wall 63 adapted to extend alongside the rear bottom wall portion 17 of the rod between the flange 17a and the rear wall. Lateral protuberances 62a and 63a are advantageously formed on the vertical wall 62 and the bottom wall 63 of the splice and arranged to engage the inner side of the rear wall 15 and the bottom wall portion 17 respectively to tighten the splice when it is inserted into the rod end section. A carrier gate 65 is attached to the pulley housing and extends to a point adjacent the opening 16b in the end housing 51 to prevent movement of the carriers off the end of the rod. A drapery return bracket 66 is attached to the rear side of the pulley housing and has an opening for receiving a drapery hook or the like to secure the return portion of the drapery at the end of the rod, in a manner well known in the art.

The rod can be formed in sections and interconnected by a splice 71 as shown in FIG. 1. As shown in FIG. 7, the splice has a generally U-shaped configuration similar to the splice portion on the pulley housing and includes a top wall 72, a rear wall 73 and a bottom

wall 74 adapted for reception internally of the rod. Lateral protuberances 73a and 74a (FIGS. 1 and 7) are formed on the rear wall and bottom wall respectively of the splice adjacent each end portion thereof to tighten the splice upon insertion into the rod sections.

The top, front and rear walls of the rod define an enclosed channel which is adapted to be bracket mounted on a wall; flush mounted on a ceiling or recessed into the ceiling. The top wall 13 of the rod is preferably formed with projections 13b adjacent its forward and rear edges for receiving a wall mounting bracket 75 shown in phantom in FIG. 7 and having a hook portion 76 at its front end and a lock portion 77 at its rear end. In order to minimize the overall width of the rod, the forward and rear walls 14 and 15 are inclined inwardly adjacent their upper portion as shown in the drawings to provide the aforescribed projections 13b. The lower portions of the front and rear walls 14 and 15 are also preferably inclined inwardly to provide outwardly projecting lips adjacent the forward and rear edges of the rod.

From the foregoing it is thought that the construction and operation of the drapery traverse assembly will be readily understood. Since the front carrier channel and the rear cord channel respectively face rearwardly and forwardly toward the center of the rod, the rod is enclosed at its front and rear sides so as to provide a neat appearance and to also enable the rod to be recessed mounted as well as flush or bracket mounted. The rear cord track is spaced rearwardly from the front carrier track to provide an access passageway therebetween and the master carriers are supported in the front carrier track and are stabilized by engagement with the forward edge of the rear cord track. Further, the master carrier body includes cord guides which guide the cord from the rear track forwardly to the access passageway so as to facilitate retrieval of a bight portion of the cord for attachment to the cord locks on the master slide. As will be seen the guide on the master carrier which engages the rear cord track for stabilizing the master carrier is located within the access passageway and the point of connection of the traverse cords to the master carrier is also located within the access passageway so as to be effectively concealed by the rod. The bight portion of the cord, however, can be easily retrieved through the access passageway and attached to the master slide.

The end housings 51 have walls 14', 16' which form a continuation of the front carrier track so as to reduce the stacking space of the carriers when the draperies are open. Moreover, the end housing splice and the rod section splice are located internally of the rod but are separate form the carrier track so as to not interfere with movement of the carriers along the rod.

Although a particular preferred embodiment of the invention has been herein disclosed for illustrative purposes, it will be understood that variations or modifications which come within the scope of the appended claims are contemplated.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. In a traverse assembly for draperies and the like including an elongated rigid rod structure having a front carrier track and a rear cord track, drapery support

carrier means including at least one master carrier and a plurality of auxiliary carriers mounted in said front carrier track for movement therealong, a traverse cord disposed in the rear traverse cord track and cord guide means adjacent the ends of said rear cord track for guiding the traverse cord for movement along the rear cord track, and cord attaching means operatively connecting said traverse cord to said master carrier to effect movement of the latter along the front carrier track, the improvement wherein:

said front carrier track comprises a rearwardly opening front channel having a front wall, a bottom wall extending rearwardly from the front wall and having an upwardly extending bottom flange on the rear edge thereof, and an upper wall portion extending rearwardly from the front wall and having a downwardly extending top flange spaced above the upwardly extending flange on the bottom wall portion;

said rear cord track comprises a forwardly opening rear channel having at top wall portion integrally joined to the top wall portion of the front channel, a rear wall, and a bottom wall extending forwardly from the rear wall and having an upwardly extending bottom flange at its forward edge, the bottom flange on said rear channel being spaced rearwardly from the bottom flange on the front channel, and said rod being open between said front and rear channels to define a downwardly opening access passageway between the front and rear channels,

said auxiliary carriers each including an auxiliary carrier follower disposed in said front channel and an auxiliary carrier pendant connected to the auxiliary carrier follower and extending downwardly through the access passageway between the front and rear channels,

said master carrier including a master carrier follower disposed in said front channel and a master carrier body connected to the master carrier follower and extending downwardly through the access passageway between the front and rear channels, a drapery support arm on said master carrier body adjacent the front of the rod, said master carrier body having guide means on the rear side thereof slidably engaging said bottom flange on the rear channel to inhibit swinging of the master carrier relative to said front carrier track in a direction crosswise of the rod during movement therealong.

2. A traverse assembly according to claim 1 wherein said guide means on the master carrier body defines a rearwardly opening groove on the master carrier body dimensioned to guidably receive the bottom flange on the rear cord channel.

3. A traverse assembly according to claim 1 wherein said cord attaching means includes means on said master carrier body defining a pair of protuberances spaced apart in a direction lengthwise of the rod and extending rearwardly from the master carrier body into overlying relation to the bottom flange on the rear channel, said protuberances having cord engaging faces at the rear side thereof, means defining a tab on said cord guide body between said protuberances and having a cord engaging face at the front side thereof

disposed forwardly of said bottom flange on the rear channel and forwardly of said cord engaging faces on said protuberances to guide a bight portion of the traverse cord between said protuberances from the rear cord channel forwardly to a position between said rear cord channel and said front carrier channel, and cord lock means on said master carrier body engageable with said bight portion of the traverse cord for locking the traverse cord to the master carrier body.

4. A traverse assembly according to claim 3 wherein said guide means on the master carrier body defines a rearwardly opening groove on the master carrier body dimensioned to guidably receive the bottom flange on the rear cord channel.

5. A traverse assembly according to claim 3 wherein said cord lock means is located on the master carrier at a level below the bottom wall of the rear cord channel.

6. A traverse assembly according to claim 3 wherein said bottom walls of the front carrier channel and the rear cord channel are substantially coplanar.

7. A traverse assembly according to claim 3 wherein said top wall portions of said front carrier channel and said rear cord channel are coplanar.

8. A traverse assembly for draperies and the like including:

an elongated rod structure having a top wall, a front wall extending downwardly adjacent the front edge of the top wall, a rear wall extending downwardly adjacent the rear edge of the top wall, a forward bottom wall portion extending rearwardly from the lower edge of the front wall, a rear bottom wall portion extending forwardly from the lower edge of the rear wall and having its forward edge spaced rearwardly from the front bottom wall portion, said rod having an open central access passageway opening downwardly between the front and rear bottom wall portions, said rod having a first upwardly extending rail along the rear edge of said front bottom wall portion and a second downwardly extending rail on said top wall spaced above said first upwardly extending rail to define a carrier track along the front of the rod opening rearwardly into said central access passageway, said rear bottom wall portion having an upwardly extending flange along its forward edge spaced below said top wall to define a cord track along the rear of the rod opening forwardly into said central access passageway,

a plurality of auxiliary drapery carriers having head portions disposed in said front carrier track and guidably retained therein by said first and second rails, said auxiliary drapery carriers having drapery support pendants connected to said head portions and extending downwardly through said access passageway adjacent the rear side of said rails and having means below said front carrier track for supporting a drapery heading adjacent the front of the rod,

at least one master carrier having a master carrier head portion disposed in said front carrier track and guidably retained therein by said first and second rails, a master carrier body connected to said master carrier head portion and extending downwardly through said access passageway adjacent the rear side of said rails and having drapery

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support means below said front carrier track adjacent the front of the rod for supporting a drapery adjacent the front of the rod, said master carrier body having guide means on the rear side thereof guidably engaging said flange on the forward edge of said rear bottom wall portion to stabilize the master slide during movement along the rod, said master carrier having means for guiding a bight portion of a traverse cord from said rear cord track forwardly into said access passageway, and cord lock means on the master slide body for locking bight portion of a traverse cord thereto for movement with the traverse cord along the rod,

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and a pulley housing at the end of the rod having at least one cord engaging pulley aligned with said rear cord track to guide the traverse cords into and out of the rear cord track.

5 9. A traverse assembly according to claim 8 wherein said pulley housing includes a splice portion of generally U-shaped cross-section having top, rear and bottom walls extending into the rod alongside the top wall, rear wall and rear bottom wall portion of the rod.

10 10. A traverse assembly according to claim 8 wherein said front and rear bottom wall portions of the rod are coplanar.

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