

[54] **DRAPE SLIDE CARRIER**

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[52] U.S. Cl.....160/345, 160/126

[51] **Int. Cl.** A47b 5/032

[58] **Field of Search** 160/126, 330, 344–348,
160/169; 16/87–87.8

[56] **References Cited**

UNITED STATES PATENTS

1,848,086	3/1932	Volland.....	160/126
3,311,158	3/1967	Mason et al.....	160/345 X
3,361,191	1/1968	Goble.....	160/345

Primary Examiner—David J. Williamowsky

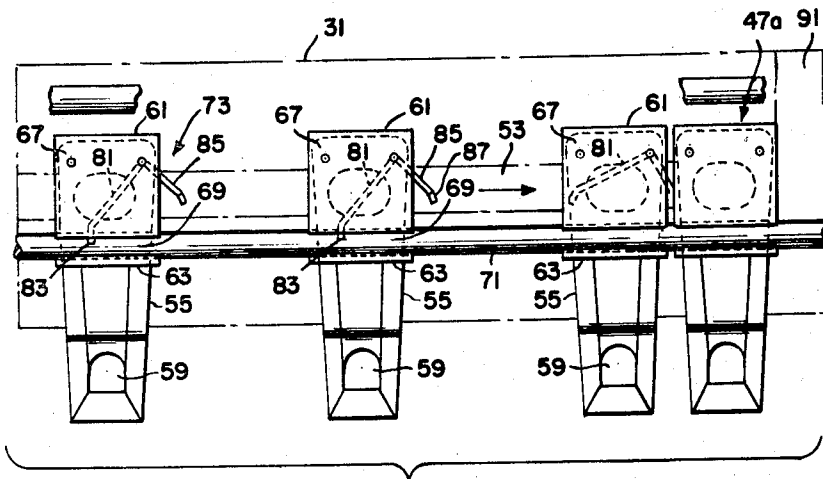
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[57] **ABSTRACT**

A drape slide carrier for a draw drape for homes and the like, said drape carrier preventing bunching or gathering of drape pleat headings as the drape is being opened, comprising a housing adapted to receive a pull cord, a cord lock and release member pivotally mounted in the housing with a locking leg for grasping the cord when the drape is being opened to move the drape and prevent bunching or gathering of the drape pleat headings until the drape reaches the end of its travel, and with a release leg for releasing the locking leg from the cord, a hook plate for receiving a hook that supports the drape, and a track slide member connecting the hook plate to the housing and adapted to ride in a track of a drape traverse rod.

7 Claims, 10 Drawing Figures



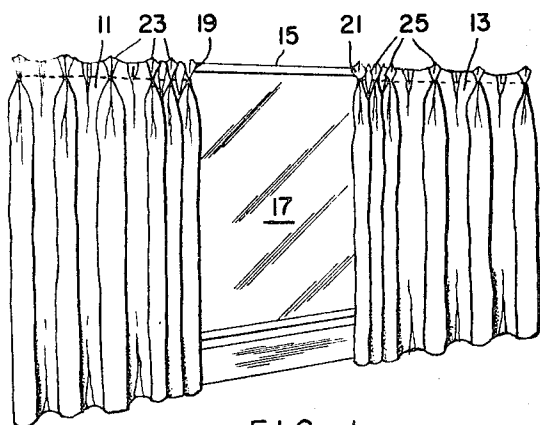


FIG. 1.

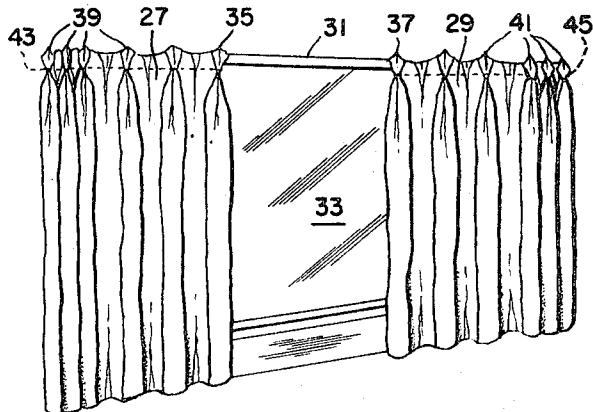


FIG. 2.

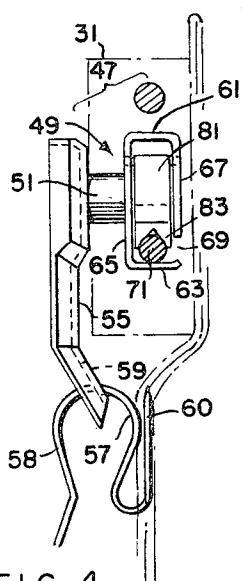


FIG. 4.

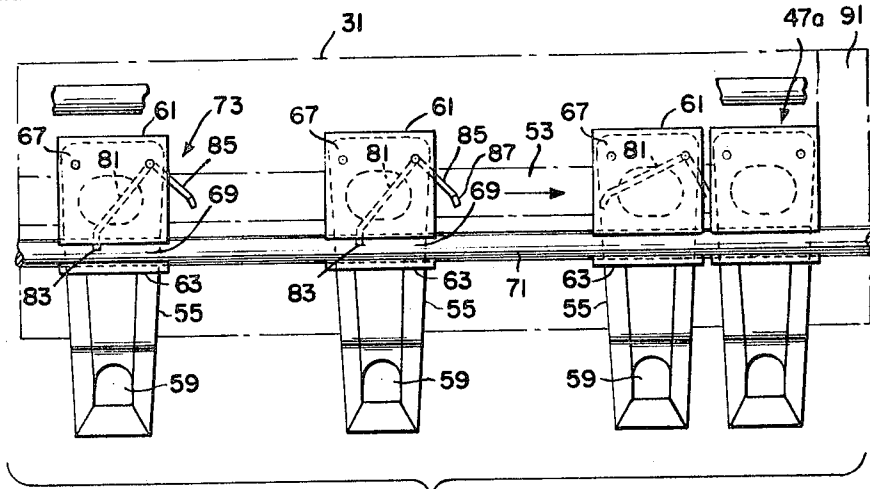


FIG. 3.

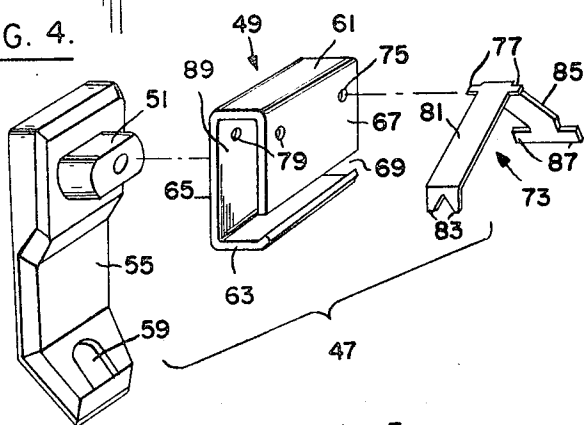


FIG. 5.

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FIG. 7A.

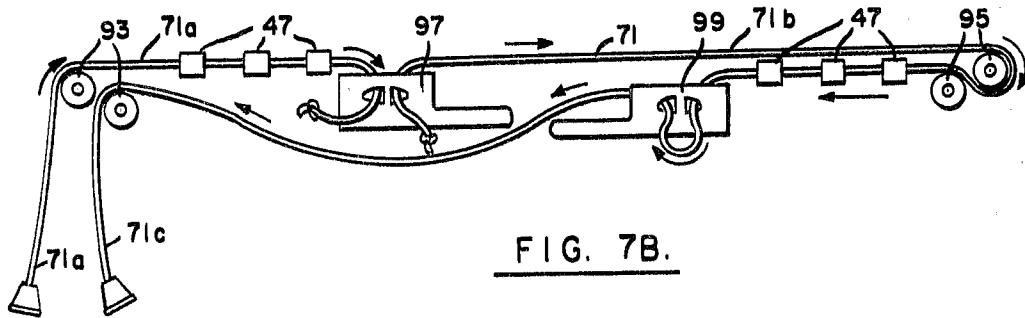


FIG. 7B.

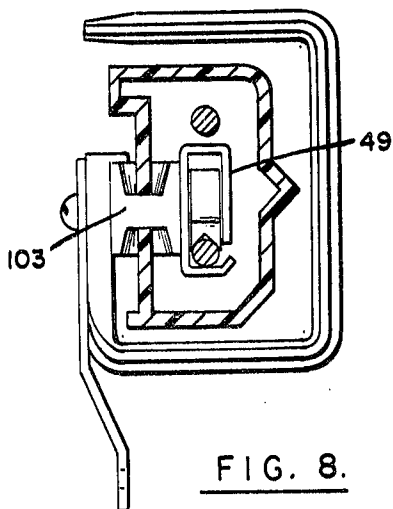


FIG. 8.

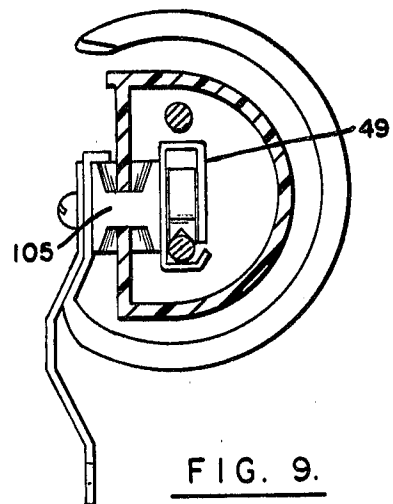


FIG. 9.

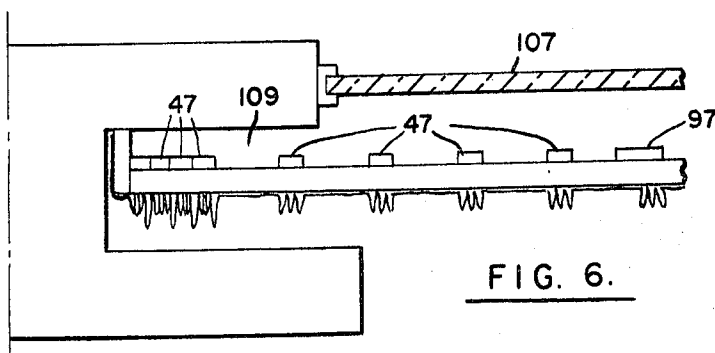


FIG. 6.

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DRAPE SLIDE CARRIER

BACKGROUND OF THE INVENTION

This invention relates to draw drapes, and more particularly relates to draw drape slide carriers which prevent bunching or gathering of drape pleat headings as the drape is being opened.

Conventional drapes are supported from a traverse rod by a master carrier and a series of slide carriers, and are opened by pulling a drape cord attached to the master carrier to move it along the track of the traverse rod into contact with a slide carrier which the master carrier pushes into contact with the next carrier, and so on, to open the drape by pushing the carriers toward the end of the traverse rod where the drape is gathered together. Instead of so gathering the pleat headings together, it has long been desired to gather the pleat headings together at the end of the traverse rod to give the closed or partly closed drape a more pleasing and attractive appearance with the drape headings remaining spread apart until they reach the end of the rod. Opening the drape in this manner is easier and requires less force since the master carrier does not have to push a series of bunched drape headings along the rod.

U.S. Pat. No. 3,311,158 which issued on Mar. 28, 1967 to Thomas G. Mason and Ben A. Mason, Jr. discloses a draw drape assembly with pleats foldable successively outwardly, but the structure and operation differ materially from my invention. For example, the Mason draw drape assembly uses a special non-conventional track, end pulleys, master carriers, and support brackets, whereas my carrier may be used with any conventional traverse rod assemblies available today, without adjustments or modifications. Further, the Mason slide brackets 24 and pull cord 14 are mounted outside the traverse rod, and this presents an unattractive appearance. Also, Mason uses clutch bars 23L and 23R to grip his cords 14 and 16, and these clutch bars 23L and 23R kink the cords and make them less easily slidable through, for example, slots 45 of carriers 24.

Conventional drapes, whether they be two-way draw, center-closing drapes usually used for windows, or one-way draw drapes usually used for sliding doors, have the drape pleat headings bunched or collected together at the master carrier. This bunching or collection of pleat headings is rather unattractive, and many housewives will move the bunched pleat headings by hand away from the master carrier so that they gather together at the end of the traverse rod.

SUMMARY OF THE INVENTION

The present invention solves the problem of providing a drape slide carrier that prevents bunching of drape headings by the master carrier as the drape is being opened, and does so by providing a drape carrier with cord locking means that grasps the cord when the drapes are being opened to maintain the pleat headings spaced apart until the pleat headings reach the end of the traverse rod, whereupon the drape headings gather together.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view of conventional center-close, two-way draw drapes mounted at a window and shows the drapes partly opened with a number of pleat headings bunched together at the master carrier;

FIG. 2 is a view of center-close, two-way draw drapes mounted at a window with the pleat headings being attached to the traverse rod by drape slide carriers constructed in accordance with my invention, and shows the pleat headings being gathered together at the end of the traverse rod;

FIG. 3 shows a series of the inventive carriers slidably mounted in the track of a traverse rod and illustrates their position as they approach the end of the rod and gather together, with the drape being omitted to better show the operation of the carriers;

FIG. 4 shows a view in end elevation of a drape carrier constructed in accordance with the invention;

FIG. 5 shows an exploded view of the carrier constructed in accordance with this invention;

FIG. 6 shows a top plan view of a drape assembly including the inventive carriers and illustrates how the pleat headings gather together at the end of the rod in a drape recess which hides the drawn drapes from view;

FIGS. 7a and 7b are diagrammatic drawings of drape apparatus including pulleys, master carriers, cord, and the inventive slide carriers;

FIG. 8 shows the inventive carrier adapted for use with a decorative traverse rod; and

FIG. 9 shows the inventive carrier adapted for use with another decorative traverse rod.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Although specific terms are used in the following description for clarity, these terms are intended to refer only to the structures shown in the drawings and are not intended to define or limit the scope of the invention.

Turning now to the specific embodiments of the invention selected for illustration in the drawings, there are shown, in FIG. 1, conventional, center-close, two-way draw drapes 11 and 13 mounted on a traverse rod 15 and positioned inside a window 17. Drapes 11 and 13 include master pleat headings 19 and 21 mounted on master carriers and a series of pleat headings 23 and 25 mounted on conventional slide carriers and adapted to be pushed into drape open position by the master carriers. Drapes 11, 13 are partly opened and it will be noticed that a number of pleat headings 23 and 25 are bunched around master pleat headings 19 and 21, thus giving a rather unattractive appearance at the center of window 17.

FIG. 2 shows a drape assembly that includes draw slide carriers constructed in accordance with my invention. Drapes 27 and 29 are mounted on a conventional traverse rod 31 inside a window 33. Master pleat headings 35 and 37 are mounted on master carriers and the remaining pleat headings 39 and 41 are mounted on carriers constructed in accordance with my invention. Drapes 27 and 29 are partly opened and it will be noticed that the pleat headings 39 and 41 are gathered together at the ends 43 and 45 of rod 31.

Referring now more particularly to FIGS. 3-5, the inventive carrier 47 comprises a carrier housing 49 mounted on a track riding member 51 adapted to ride in track 53 of traverse rod 31. A hook plate 55 is mounted on the other side of track riding member 51 and is adapted to support drape 29 by means of drapery hooks 57 which have a hook portion 58 that hooks into hole 59 in hook plate 55 and an upwardly extending pin portion 60 that is inserted into the pleat headings.

Carrier housing 49 includes a top wall 61, a bottom wall 63, a rear side wall 65 connecting top wall 61 to bottom wall 63, and a front side wall 67 extending downwardly from top wall 61 and provided with a horizontal slot 69 which is adapted to pass therethrough a drapery pull cord 71.

A cord lock and release member 73 is pivotally mounted in holes 75 in carrier side walls 65, 67 by means of pivot pins 77. When pivot pins 77 are so mounted, carrier 47 is adapted to open the drapes by pulling the cord 71 to the right in FIG. 3. If it is desired to mount the drapes so that they open by moving toward the left of FIG. 3, carrier housing 49 is provided with pivot holes 79 and member 73 is reversed before pivot pins 77 are inserted therein.

Member 73 includes a locking leg 81 with teeth or prongs 83 for engaging pull cord 71 and grasping it so that the cord 71 actually pulls the carrier 47 and its pleated heading.

A release leg 85 is connected at an angle to the locking leg 81, with the angle being such that when prongs 83 are in contact with pull cord 71, release leg 85 is positioned below the horizontal so that it may be contacted and pushed toward carrier housing 49 to release locking leg 81 from pull cord 71.

Locking leg 81 is longer and heavier than release leg 85 so as to fall by gravity around pivot pins 77 into contact with pull cord 71 unless release leg 85 is restrained against upward movement.

Release leg 85 is provided with limit stop flanges 87 that extend laterally from the release leg a distance wider than the carrier housing 49 in order to limit movement of release leg 85 into the space 89 between wide walls 65 and 67 of housing 49.

Locking leg 81 is released from pull cord 71 by pushing against release leg 85 in a clockwise or downward direction and this is accomplished when flanges 87 contact the edges of an adjacent carrier 47. However, if release leg 85 were permitted to position itself at the horizontal or above, such contact with an adjacent carrier would not push release leg 85 in the desired clockwise or downward direction, but instead would not push it in any direction if release leg 85 were horizontal, or would push it in the counterclockwise direction if it were positioned above the horizontal. Accordingly, locking leg 81 is long enough, and the angle between locking and release legs is such, that release leg 85 cannot be positioned at the horizontal or above because teeth 83 would contact bottom wall 63. Also, the length of release leg 85 is short enough to permit free passage of cord 71 beneath it when leg 85 is in its release position.

Additionally, to prevent carrier housing 49 from cocking to a position which would permit the release leg 85 to assume a position at the horizontal or above, slide member 51 is provided with an elongated longitudinal shape and is of sufficient height to substantially fill track 53 to prevent cocking of the carrier.

It is to be noted that track slide member 51 rides in horizontal track 53 formed in traverse rod 31, with carrier housing 49 being positioned inside the traverse rod and hook plate 55 being positioned outside rod 31 so that carrier 49 is completely hidden from view.

Traverse rod 31 is shown mounted on the wall of the room, though it may be mounted on the ceiling, by brackets 91 positioned at each end of rod 31 and the carriers 47a immediately adjacent thereto are not provided with cord lock and release members 73 because the release leg would have nothing to strike against to release the locking leg from the cord. Of course, a carrier release device may be provided as part of the traverse rod pulley housing to release a cord lock and release member 73 positioned in end carrier 47a.

FIGS. 7a and 7b are diagrammatic views of the drape apparatus including pulleys 93 and 95, master carriers 97 and 99, slide carriers 47, and cord 71, with portion 71a attached to master carrier 97, portion 71b attached between master carrier 97 and master carrier 99, and portion 71c attached to master carrier 99.

FIG. 8 illustrates an inventive carrier housing 49 mounted on a slide member 103 of a decorative traverse rod assembly, and FIG. 9 illustrates an inventive carrier housing 49 mounted on a slide member 105 of another decorative traverse rod assembly.

In operation, to pull open the drapes 27, 29 of FIG. 2, the housewife or other operator pulls down on cord 71a (FIG. 7b) and this pulls apart the master carriers 97 and 99, and also causes prongs 83 of locking legs 81 to dig into the cord and move with it toward the outer ends 43 and 45 of the traverse rod 31. As the carriers 47 reach the outer ends 43 and 45 of traverse rod 31, the stop flanges 87 of release leg 85 contact the edges of the side walls 65 and 67 of the preceding carrier 47 and this contact rotates release leg 85 around pivot pins 77 and also rotates locking leg 81 to release the prongs 83 from the cord so that the cord may then move through the released carrier 47.

To close the drapes 27, 29, the operator pulls downwardly on cord 71c which moves the master carriers 97 and 99 toward each other. The drape material between pleat headings pulls the carriers 47 into closed position. Locking leg 81 drops into contact with the cord but it is not in locking engagement therewith.

Although the invention has been illustrated by referring to a center close, two-way draw traverse rod, it is also adapted for use with one-way draw traverse rods.

It is to be noted that the inventive carrier 47 and the pull cord are contained within the traverse rod so as to be out of

sight. Also, the inventive carrier 47 is adapted for use with conventional traverse rods available on today's market, and may be mounted on the pull cord in any position without requiring that the pull cord be untied or that the end of the pull cord be inserted into the carrier, because cord 71 may be squeezed through slot 69 in housing 49.

The inventive carriers 47 may be inserted in any traverse rod in place of the carriers normally provided, and will cause the gathering of pleat headings to occur at the outer ends of the traverse rod. This is thought to be aesthetically desirable, as there are many housewives who will manually push the bunched pleat headings to the outer ends of the traverse rod when they are partly open.

Another advantage of the inventive carrier 47 is that drapes provided with this carrier are easier to open than drapes provided with conventional carriers. In opening drapes with conventional carriers, the first movement of the pull cord moves the master carrier pleat headings and as they move toward the outer ends of the traverse rod, they pick up additional pleat headings so that the weight of the drapes being pulled becomes increasingly heavier and more difficult to pull against as the opening between the drapes becomes wider. There is also an increased resistance due to the binding of the carriers against each other. By contrast, in drapes provided with inventive carriers 47, the initial pull moves the entire drape, with the pull cord exerting force not only against the master carriers but also against each carrier 47 through locking legs 81. There is no increase in resistance due to the binding of carriers against each other. As the drape headings gather together at the outer ends of the traverse rod, the amount of drape material being moved by the pull cord becomes successively less as the opening between drapes becomes wider. Therefore, as the opening between drapes grows wider, the amount of force necessary to pull the drapes decreases because you are pulling less material.

A further advantage of the invention is illustrated in FIG. 6 which shows in top plan a window setting that includes a window pane 107 and a drape recess 109 that conceals the drape from view when the drapes are completely opened. With conventional drapes, it is usual for the drape to be pushed manually into the recess as the gathering or bunching of pleat headings makes the opening drape so bulky that it does not easily ride into the recess 109. With inventive carriers 47, the accumulation or gathering of drape headings does not occur outside the recess 109, but instead occurs inside the recess 109 and the drape is drawn into the recess without any bulking outside of it.

It is to be understood that the form of the invention herewith shown and described is to be taken as a presently preferred embodiment. Various changes may be made in the shape, size and arrangement of parts. For example, equivalent elements may be substituted for those illustrated and described herein, parts may be reversed, and certain features of the invention may be utilized independently of the use of other features, all without departing from the spirit or scope of the invention as defined in the subjoined claims. Also, though the drawings illustrate only pleated drapes, my invention may be used with unpleated drapes which are popular in some parts of the United States. My inventive carrier may be made of metal or any suitable synthetic plastic.

I claim:

1. A drape slide carrier for a draw drape comprising a housing adapted to receive a pull cord, cord lock and release means mounted on the housing for grasping said cord when said drape is being opened and moving said drape to prevent bunching or gathering of the drape until the carrier reaches the end of its travel and for releasing said cord when the carrier reaches the end of its travel, a hook plate adapted to receive a hook that supports said drape, and a track slide member connecting the hook plate to said housing and adapted to ride in a track of a drape traverse rod, said cord lock and release means including a cord lock and release member, pivot means pivotally mounting the cord lock and release member in the

housing, said cord lock and release means having a locking leg with means for grasping the pull cord, and a release leg connected at an angle to the locking leg, whereby said carrier is adapted to prevent bunching or gathering of the drape when it is being opened until the carrier reaches the end of its travel and is released from the pull cord when its release leg is bumped against its housing.

2. The drape slide carrier of claim 1, said locking leg being longer and heavier than said release leg so as to fall by gravity into contact with a pull cord unless the release leg is restrained against upward movement around said pivot means.

3. The drape slide carrier of claim 1, said means for grasping the pull cord being teeth at one end of the locking leg, and limit stop flanges extending laterally from the release leg a distance wider than the housing so as to limit movement of the release leg into its housing or into the housing of an abutting carrier.

4. The drape slide carrier of claim 1, said track slide member including means for preventing said housing from cocking to a position where the release leg is at or above the horizontal and so unable to be pushed by contact with an abutting carrier to a position against the housing to release the locking leg from the pull cord.

5. The apparatus of claim 1, with a traverse rod having a horizontal track formed therein, said track slide member riding in said track, with said housing being positioned inside the traverse rod and said hook plate being positioned outside the rod, a master slide slidably mounted in said track, and a pull cord positioned inside the traverse rod and inside said carrier housing and attached to said master slide.

6. The apparatus of claim 5, with a drape having pleated headings connected to said master slide and to a plurality of said carriers by hooks.

7. A drape slide carrier comprising a housing having a top wall, a closed side wall depending from the top wall, an open side wall depending from the top wall and having a slot therein, and a bottom wall extending from the closed side wall, said side walls having pivot holes formed therein, a cord lock and release member pivotally mounted in said housing between said side walls, said cord lock and release member including a locking leg with teeth at one end adapted to engage a pull cord, a release leg extending at an angle from the other end of the locking leg and having limit stop flanges extending laterally therefrom a distance greater than that between the side walls so as to limit the movement of the release leg into the space between the sidewalls, a pair of pivot pins extending laterally from the cord lock and release member between its ends and seated in the side wall pivot holes, said locking leg being longer and heavier than said release leg so that said locking leg is adapted to fall by gravity into contact with a pull cord unless said release leg is restrained against upward movement around the pivot pins, a track slide member having one end connected to the outside of the closed side wall, said track slide member being elongated longitudinally to prevent said housing from cocking to a position where the release leg is above the horizontal and so unable to be pushed against the edges of the sidewalls to release the locking leg from contact with the pull cord, and a hook plate mounted on the other end of the track slide member whereby said carriers are adapted to grasp a pull cord when the drape is being opened to move its drape pleat heading to prevent bunching or gathering of pleat headings until the carrier is released from the pull cord when the release leg is pivoted against the side walls by contact with an abutting carrier.

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