

Dec. 1, 1964

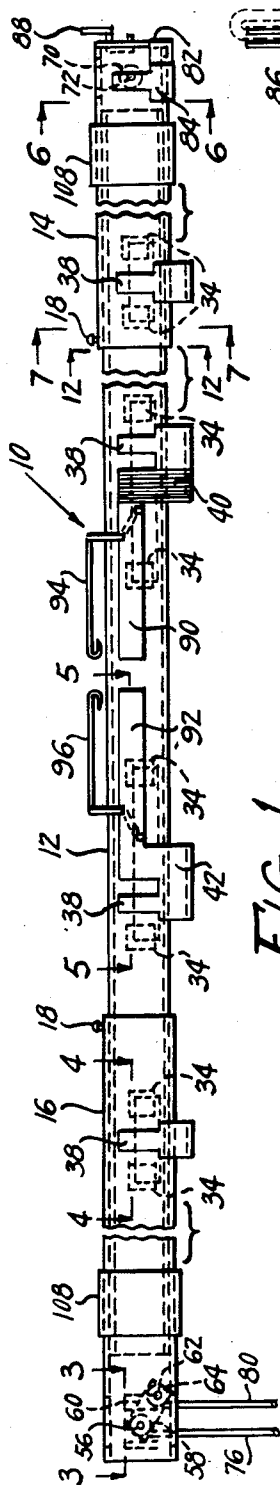
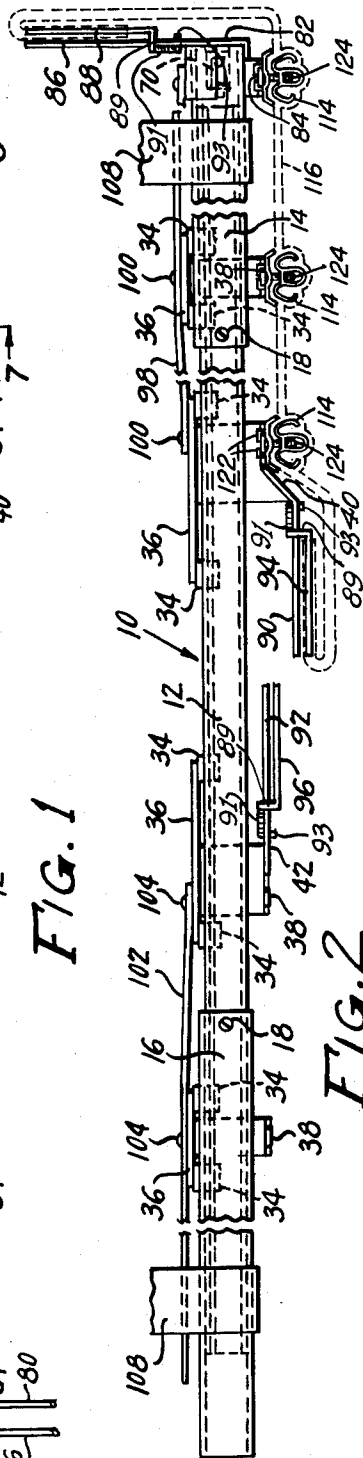
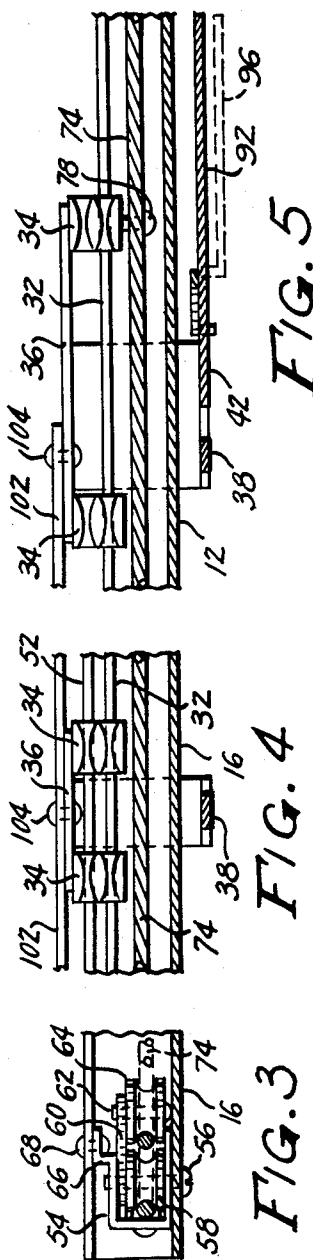
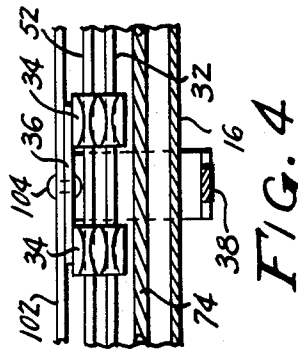
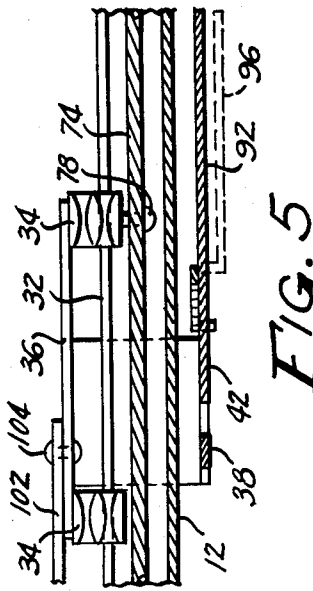
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3,159,207

DRAPE HANGING AND PLEATING DEVICE

Filed Aug. 26, 1963

2 Sheets-Sheet 1



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DRAPE HANGING AND PLEATING DEVICE

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2 Sheets-Sheet 2

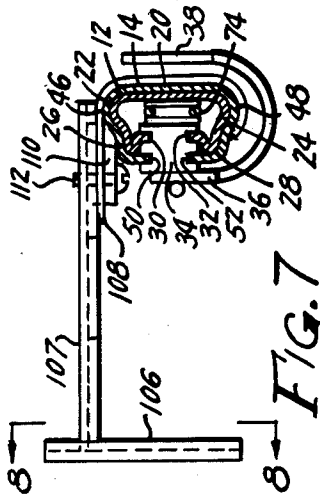


FIG. 7

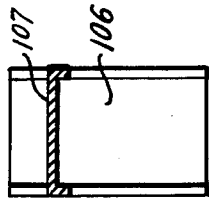


FIG. 8

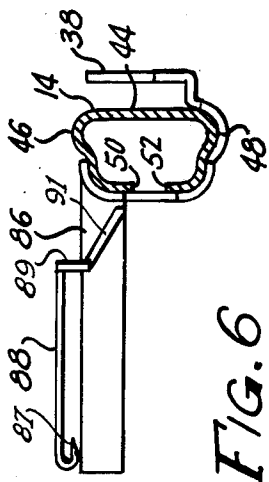


FIG. 9

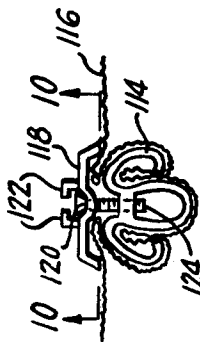


FIG. 10

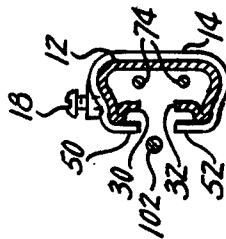


FIG. 11

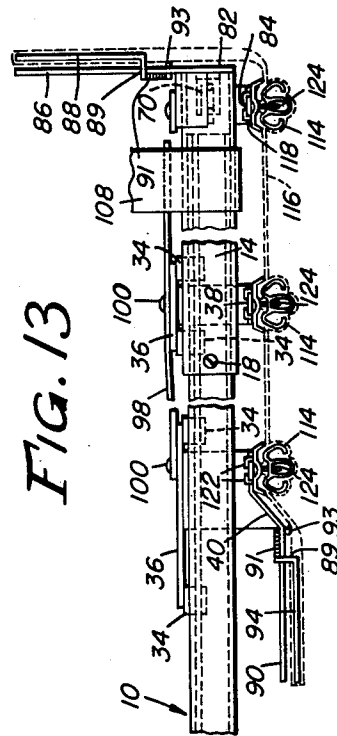


FIG. 12

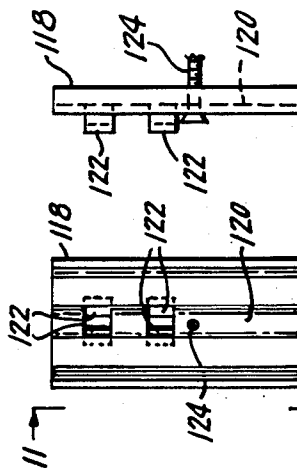


FIG. 13

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DRAPe HANGING AND PLEATING DEVICE

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5 Claims. (Cl. 160-348)

This invention relates to a drape hanging and pleating device, this application being a continuation-in-part of allowed application Serial No. 89,514 filed February 15, 1961, herewith abandoned.

It is an object of the present invention to provide a drape hanging device which, although effective to produce a most desirable pleated arrangement when drapes are hung therefrom, is, at the same time, relatively simple in construction, easy to install and maintain and adjustable to fit varying window sizes, such adjustability being possible both in width and depth.

Another object of the present invention is to provide a drape hanging device which permits the drapes to be opened to a maximum extent so as to permit entry of a maximum amount of light and air when desired.

Another object of the present invention is to provide a drape hanging device, of the aforesaid type, which prevents rubbing of the material of the drape panels during opening and closing whereby the life of the drapes is greatly extended.

Other objects of the present invention are to provide an improved drape hanging device, of the character described, that is easily and economically produced, which is sturdy in construction, and which is highly efficient in operation.

With the above and related objects in view, this invention consists in the details of construction and combination of parts, as will be more fully understood from the following description, when read in conjunction with the accompanying drawings in which:

FIG. 1 is an elevational view of a drape hanging device embodying the present invention.

FIG. 2 is a top plan view of the device of FIG. 1.

FIG. 3 is a sectional view taken on line 3-3 of FIG. 1.

FIG. 4 is a sectional view taken on line 4-4 of FIG. 1.

FIG. 5 is a sectional view taken on line 5-5 of FIG. 1.

FIG. 6 is a sectional view taken on line 6-6 of FIG. 1.

FIG. 7 is a sectional view taken on line 7-7 of FIG. 1.

FIG. 8 is a sectional view taken on line 8-8 of FIG. 7.

FIG. 9 is a top plan view of the face plate, showing the drapery locking and pleat forming assembly.

FIG. 10 is a sectional view taken on line 10-10 of FIG. 9.

FIG. 11 is a sectional view taken on line 11-11 of FIG. 10.

FIG. 12 is a sectional view taken on line 12-12 of FIG. 1.

FIG. 13 is a top plan view of the right half of FIG. 1, but showing an alternative method of attaching the ends of the drape on the pins.

Referring in greater detail to the drawings wherein similar reference characters refer to similar parts, there is shown a drape hanging device comprising a hollow rod, generally designated 10, comprising three sections respectively designated 12, 14 and 16, the section 12 being the center section and being telescopically inserted at its opposite ends into the sections 14 and 16. The ends of section 12 are releasably retained within their respective sections 14 and 16 by means of set screws 18 whereby, when the screws 18 are released, the sections 14 and 16 may be longitudinally adjusted into any desired position and thereafter locked in place by tightening the respective screws 18. The sections 14 and 16 are so designed that they are identical and reversible whereby either may be used at either end.

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The main or center section 12 is an elongated housing which includes a straight front wall 20 (see FIG. 7), a rounded top 22, a rounded bottom 24, a top elbow 26, a bottom elbow 28, and inwardly-extending flanges 30 and 32 depending from the respective elbows 26 and 28. These flanges 30 and 32 provide tracks on which are movable slides 34. These slides 34 are provided in pairs and each pair is connected by a bridge strip 36 (as seen best in FIGS. 4 and 5). Each bridge strip 36 is connected to a pleat-former carrier 38. The two middle carriers 38 are respectively integral with right and left master carriers 40 and 42.

Each end section 14 and 16 comprises an elongated housing which, in cross section (as in FIGS. 6 and 7) includes a straight front wall 44, a rounded top 46, a rounded bottom 48 and inwardly extending flanges 50 and 52 extending from the top 46 and bottom 48 respectively. These flanges 50 and 52 provide additional tracks for the slides 34.

At the outer end of section 16, within the interior thereof, is provided a pulley assembly (as best shown in FIG. 3) which comprises a bracket 54 held within the section 16 by a screw 56 which also serves as the shaft for supporting a pulley 58. It also supports a swinging arm 60 having a pin 62 adjacent its free end to serve as a shaft for supporting a pulley 64. The bracket 54 is provided with an offset 66 held to the section 16 by a rivet or the like 68. At the outer end of the section 14, within the interior thereof, is provided a pulley 70 mounted for rotation on a shaft 72. The pivoting arm may be supported on shaft 72 instead of shaft or screw 56, if desired to have the cord ends 76 and 78 depend from the right end instead of the left end, as illustrated in FIG. 1.

A control cord 74 having one free end 76 extending through a slot in the section 16, runs over pulley 58 to master carrier 42 and is secured by a screw 78 to one of a pair of spaced slides 34 attached to master carrier 42 (see FIG. 5). The cord 74 then passes around pulley 70 and back to master carrier 40 where it is fastened to a slide 34 in similar manner to that illustrated for carrier 42 in FIG. 5. It then passes back through section 16 and around pulley 64 from where it passes through the slot in the section 16 to hang down as a second free end 80 (see FIG. 1).

At each end of the device, as, for example, on the free or outer ends of the sections 14 and 16, are provided end caps 82 for closing these ends. These end caps 82 are integral with pleat former carriers 84 at the front thereof and at the rear they are each provided with a rearwardly extending arm 86 (see FIG. 2) which is provided with a parallel pin 88 secured to the arm 86 for adjustment relative thereto. The free end of each pin 88 is pointed for easy insertion into the fabric of the drape and is curved to slide inside the hem without catching. An arm, as at 90 and 92 respectively, similar to arms 86, is provided on each of the master carriers 40 and 42, these arms 90 and 92 extending parallel to the device (as shown in FIGS. 1 and 2). Each pin on the arms 90 and 92 is similar to the pins 88 and are respectively designated 94 and 96.

Each pin 88, 94 and 96 has a reverse curved point 87 at one end, and at its other end has a laterally extending portion extending over and adapted to rest on the upper edge of its bar 86, 90 or 92, and then extends angularly downward and terminates in a lateral portion 93 extending under its bar 86, 90 or 92. Lifting the pin about lateral portion 89 will depress lower lateral portion 93 and enable the point to be adjusted along the length of the bar. When the hemmed top end of the drape is inserted over the pin, the pointed end 87 readily enters the hem to catch therein to prevent ready or accidental removal, and the weight of the drape holds the pin in adjusted position on

its bar. Obviously, the end portion of the drape 116 is folded back over the pin and is supported thereby, and the main body of the drape extends between end pin 83 at one end and one middle pin 94 at the middle of the rod, the other drape being similarly secured on the other middle pin 96 and the other end pin (not shown). Between its end supporting pins, each drape 116 is supported by the formers 114 hereinafter described.

Another manner of supporting the ends of the drape 116 is shown in FIG. 13. Instead of inserting the reverse curved point 87 of the pin through the open end of the hem at the top of the drape 116 as shown in FIG. 2, the reverse curved point 87 of the pin is inserted through the material of the hem portion of the drape 116 at a distance approximately equal to or slightly greater than the length of the pins 88, 94 and 96 by pulling the drape hem end portion against the point 87 until it has entered as far as the curve in the point 87, and then pulling the drape hem end in the opposite direction to slide it over the pin until the drape hem open end is held within the curve of the hook of the point 87. If it is not desired that the curve of the point 87 should possibly be visible at the end of the drape, then point 87 may extend through the material of the drape hem end portion from the inside of the drape hem to the normally concealed back side thereof, at a point close to the end of the drape hem end. The reverse curved point 87, thus hooked or caught in or around the end of the drape hem end portion, will thus hold it and prevent inadvertent removal of the drape hem from the pin. When the drape hem end is inserted in this manner, it is not necessary that the end of the hem be open, for after inserting the pointed end 87 of the pin through the material of hem end portion, the hem end portion is slid over the curved end until the closed end of the hem portion touches the curve of the hooked end, and then the pointed end is hooked or caught in the material of the hem end portion.

The various bridge strips 36 on the right hand side, between the master carrier 40 and the right end, are interconnected by a spacer cord 98 which is attached to each strip 36 by a rivet, screw or any other desired fastening means such as shown at 100. In similar manner, a spacer cord 102 interconnects the master carrier 42 and the carriers 38 to the left thereof by means of rivets, screws or the like 104. By means of these spacer cords 98 and 102, the carriers 38 are always maintained in predetermined spaced positions during their movement into closed position. When opened, the master carriers pull the slides 34 against each other toward the opposite ends of the rod.

The entire assembly 10 is supported by wall brackets 106 having forwardly extending arms 107 to which are attached hanger brackets 108 and a plug 110 to keep the rod from turning. A screw 112 connects the bracket arm 107, bracket 108 and plug 110 together.

In order to provide pleats in the drapes, there are provided pleat formers 114 (see FIG. 9). These pleat formers 114 may be of any desired design, that illustrated being merely one example.

The drapes 116 are hung by passing the material around the several pleat formers 114 at spaced intervals and then clamping the material between the pleat formers 114 and corresponding face plates 118. Each plate 118 is provided with a longitudinal recess 120 with two pairs of lugs 122 bounding it. Each pair of lugs 122 consists of two oppositely disposed lugs each with an inwardly extending flange (as best shown in FIG. 9). The pleat formers 114 are supported on the pleat former carriers 38 and 84 by placing the oppositely disposed lugs 122 thereof down over the reduced upstanding necks of the carriers.

The face plates 118 are clamped to the pleat formers 114 by a threaded rod such as a screw 124 which passes through a hole in the recess 120 and through a threaded opening in the former 114. The screw 124 is used both as a means of connecting the plate 118 to the pleat former

114 and as a means of clamping the drapes 116 therebetween.

When the drapes 116 are to be hung, they are passed around the pleat formers 114 and clamped thereon by the screws 124, while the pins 88, 94 and 96 are inserted in the top of the drapes rather than several inches below as in prior type devices. This prevents the top of the overlap from falling over and rubbing against one another thereby becoming dog-eared looking.

The drapes are opened and closed merely by pulling on either cord extension 76 or 80, as is obvious from the description given above of the structural arrangement of the cord 74 and pulleys 58, 64 and 70. In this connection, the swinging support of the pulley 64 permits the pulley system to be readily assembled for either right or left end operation.

Although drapes conventionally have hem portions that are hollow, that is, made by a double fold of the border portion, the term "hem" also has the dictionary definition of "border," that is, no hollow or folded over portion is necessarily present, and this broader definition of this term is to be considered except where the context clearly indicates otherwise. Thus, where it is brought out that the pin is inserted through the open end of the hem, as in FIG. 2, the narrow interpretation prevails, but where the pin is inserted through the fabric in the border or hem portion, and then caught in the fabric at the end, the broad as well as the narrow interpretations both prevail.

Drapes which are hung on the present device 10 need no buckram for stiffening and the hem portion need not necessarily be folded over or hollow. Therefore, when opened, only about one-half the space is needed for the fold-back as is necessary for ordinary drapes. This permits the entry of more light and air. In addition, no hooks or tapes are needed, thereby eliminating items of extra cost and maintenance.

Although this invention has been described in considerable detail, such description is intended as being illustrative rather than limiting, since the invention may be variously embodied, and the scope of the invention is to be determined as claimed.

Having thus set forth and described the nature of this invention, what is claimed is:

1. A drape assembly comprising an elongated hollow horizontal rod made up of a plurality of adjustable sections, track means in said rod, a plurality of slides movable on said track means within said rod, a carrier connected to each of said slides, said carriers being arranged forwardly of said rod, the two central carriers being master carriers and having opposed elongated arms extending toward each other substantially parallel to said rod, an elongated pin adjustably mounted on each arm and extending towards each other and substantially parallel with and spaced above the rod, a similar elongated arm and adjustably mounted pin at each end of said rod, said last mentioned arms and pins extending substantially at right angles to and rearwardly of said rod, said last mentioned pins being spaced above said rod, a pleat former releasably supported on each carrier, said drape assembly being for use with a pair of drapes, each drape having a hem at its upper edge, each drape extending along each half of said rod, one drape having one end attached to the elongated pin of one master carrier and its other end extending laterally and attached to the rearwardly extending pin at the corresponding end, the other drape having one end attached to the elongated pin of the other master carrier and its other end attached to the rearwardly extending pin at its corresponding end, the end portions of the drape hems receiving said pins therein in attaching the drapes thereto, said elongated pins each having a free end which is pointed, and intermediate portions of the drapes being wrapped around and clamped between each pleat former and a face plate on its corresponding carrier, and a pulley and cord system for moving the pair of

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drapes into open or closed position, said pulley and cord system including a cord having oppositely running flights with one flight being connected to the slides on one side of the rod and the other flight being connected to the slides on the opposite side of the rod.

2. The drape assembly of claim 1, the pointed ends of said pins being reversely bent to slide along the hem without catching when being inserted and then catch the material of the hem to prevent inadvertent removal of said hems from said pins.

3. The device of claim 1, said pulley system including two pulleys at one end and one pulley at the other end of the rod, one of the two pulleys at said one end being mounted for rotation on a horizontally swinging arm, said arm being supported on the shaft of the other of said two pulleys.

4. The device of claim 1, said pleat formers each being releasably connectable to a corresponding face plate

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by a threaded rod, said pleat former and face plate being adapted to clamp a portion of drape fabric therebetween after it has passed around the pleat former, each face plate being slidably positioned on a corresponding carrier.

5. The device of claim 1, said face plates being releasably connected to their corresponding carriers.

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