Oct. 27, 1959 I. STERN ET AL 2,910,121

FIXTURES FOR HANGING WALL TO WALL DRAPES

Filed June 6, 1958 5 Sheets-Sheet 1

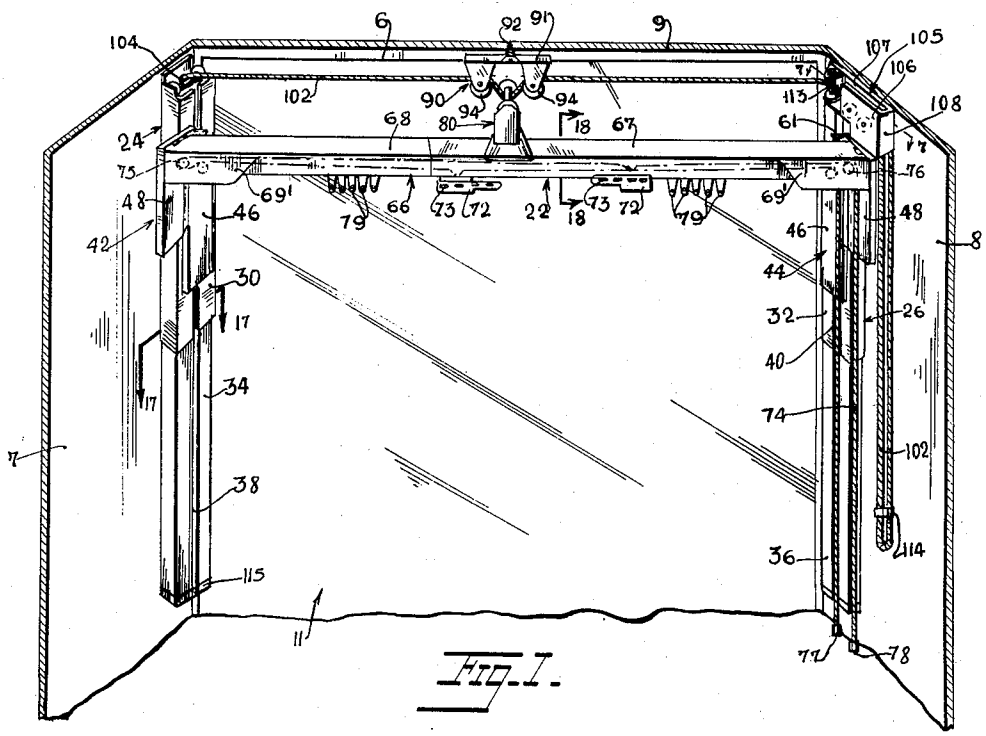


FIG. 1.

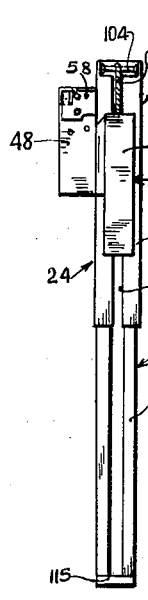


FIG. 2.

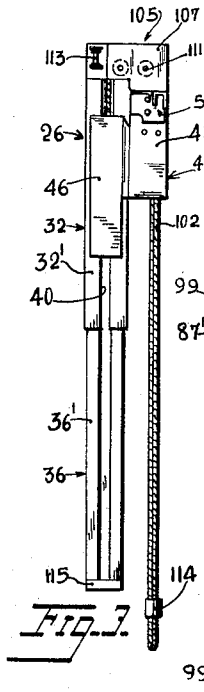


FIG. 3.

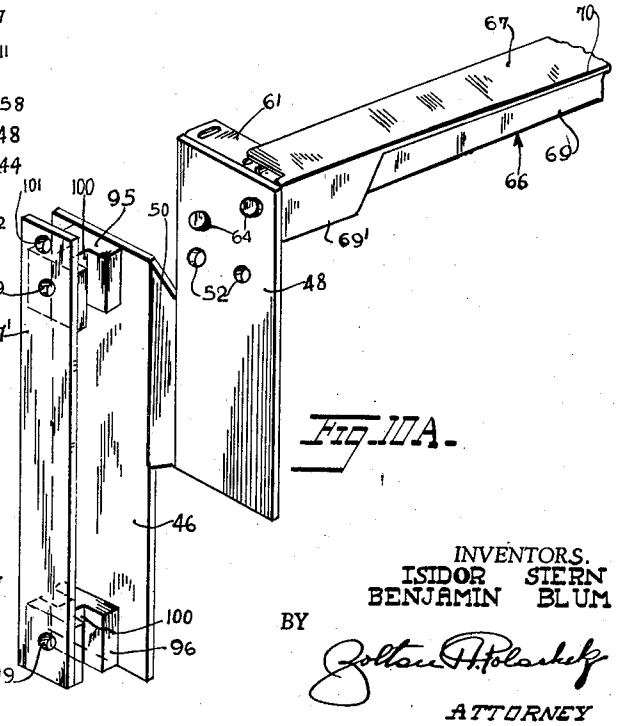


FIG. 10A.

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FIXTURES FOR HANGING WALL TO WALL DRAPES

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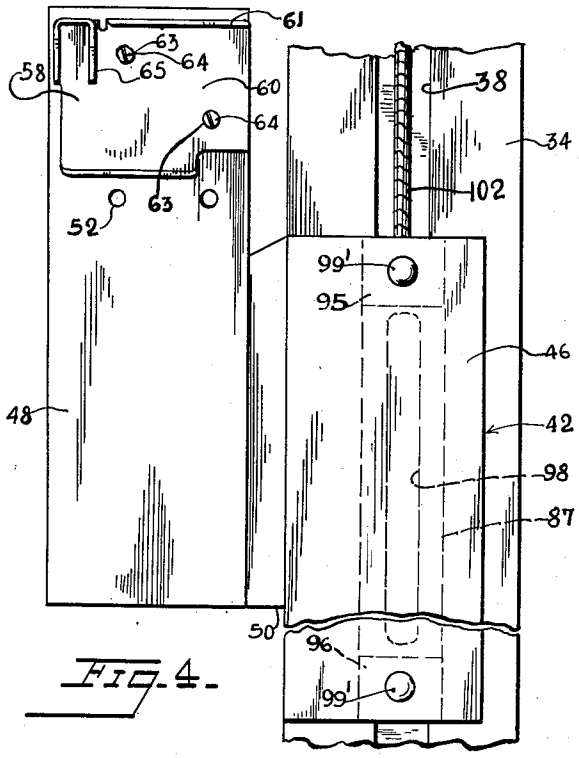


FIG. 4.

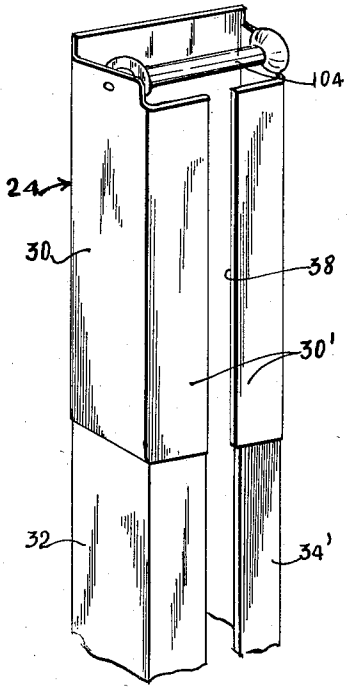


FIG. 6.

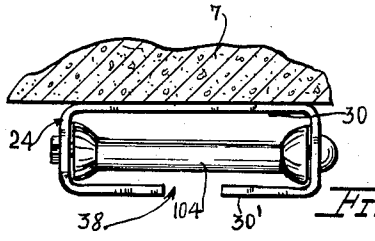


FIG. 5.

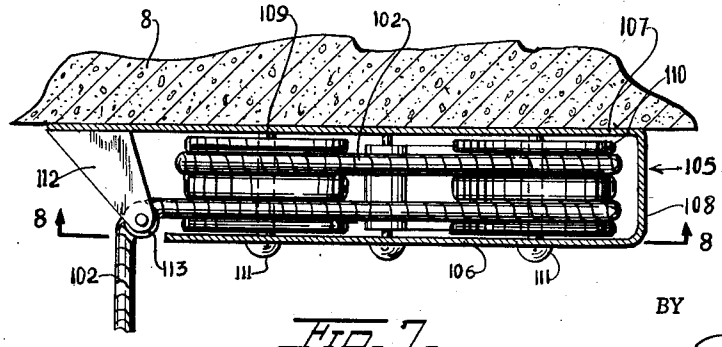


FIG. 7.

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FIXTURES FOR HANGING WALL TO WALL DRAPES

Filed June 6, 1958 5 Sheets-Sheet 3

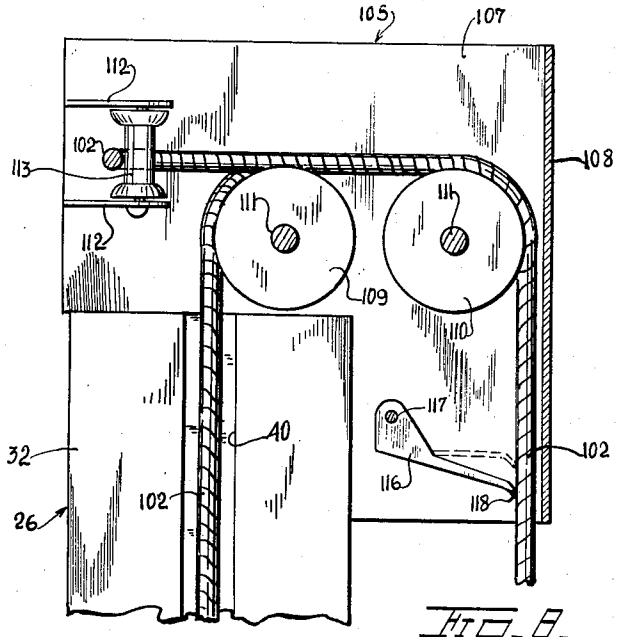
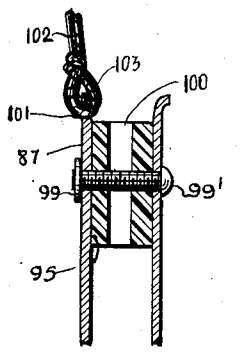


Fig. 8.



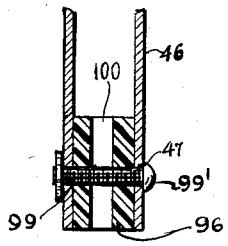


Fig. 11.

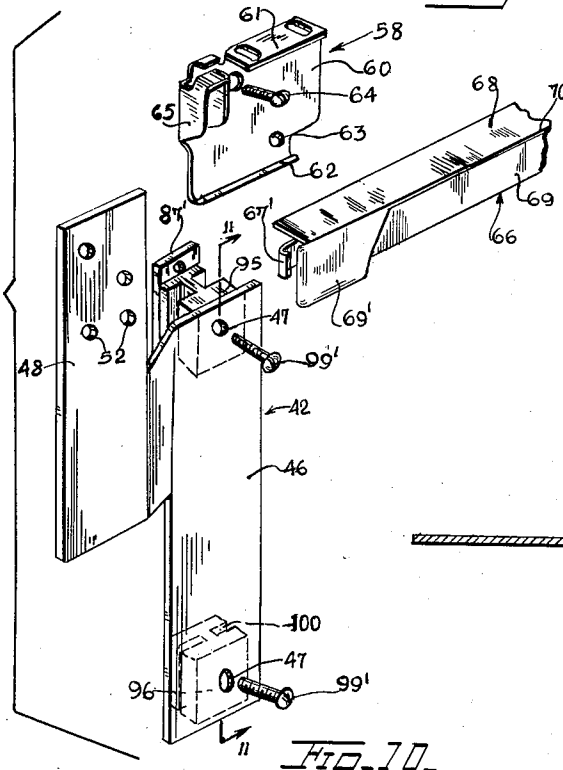


Fig. 10.

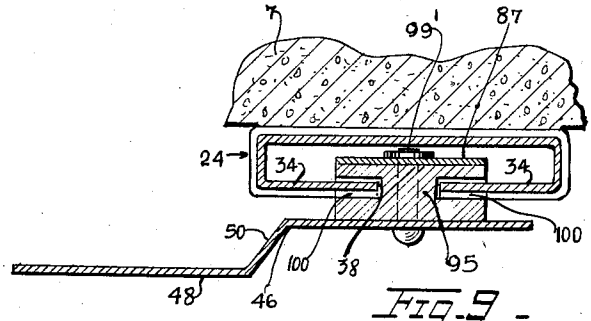


Fig. 9.

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FIXTURES FOR HANGING WALL TO WALL DRAPES

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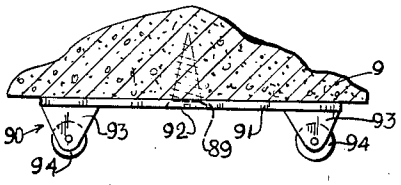


FIG. 12.

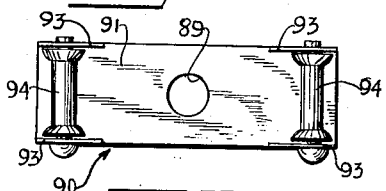


FIG. 13.

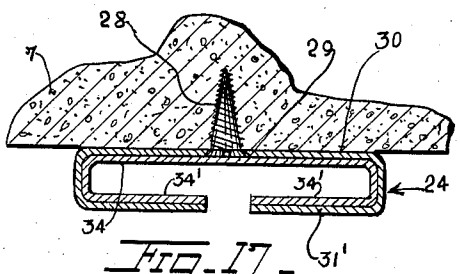


FIG. 17.

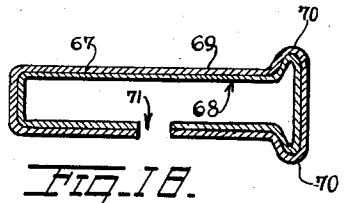


FIG. 18.

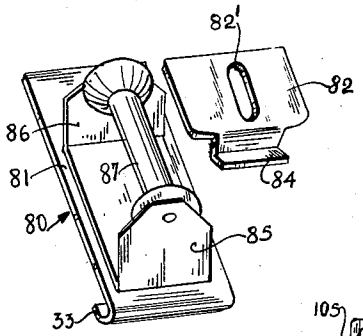


FIG. 14.

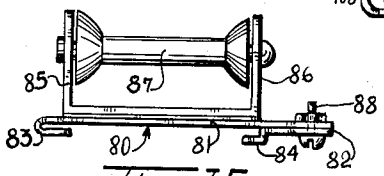


FIG. 15.

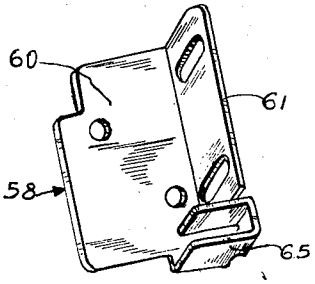


FIG. 16.

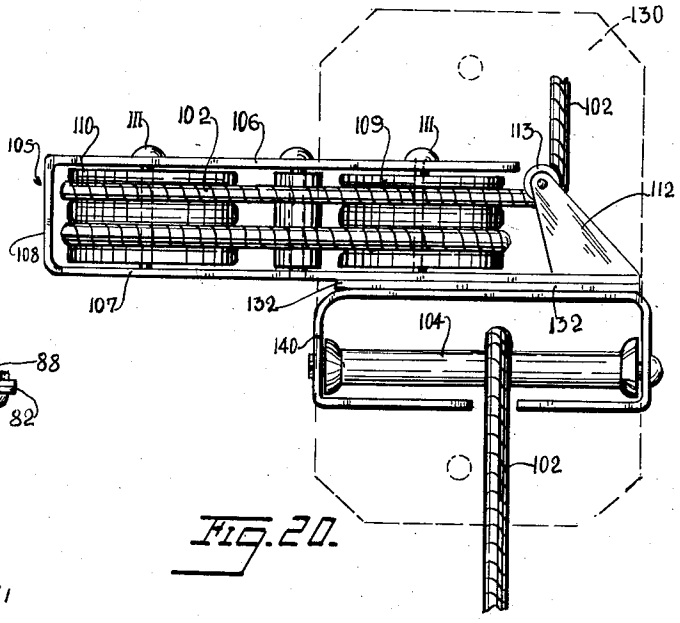


FIG. 20.

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FIXTURES FOR HANGING WALL TO WALL DRAPES

Filed June 6, 1958 5 Sheets-Sheet 5

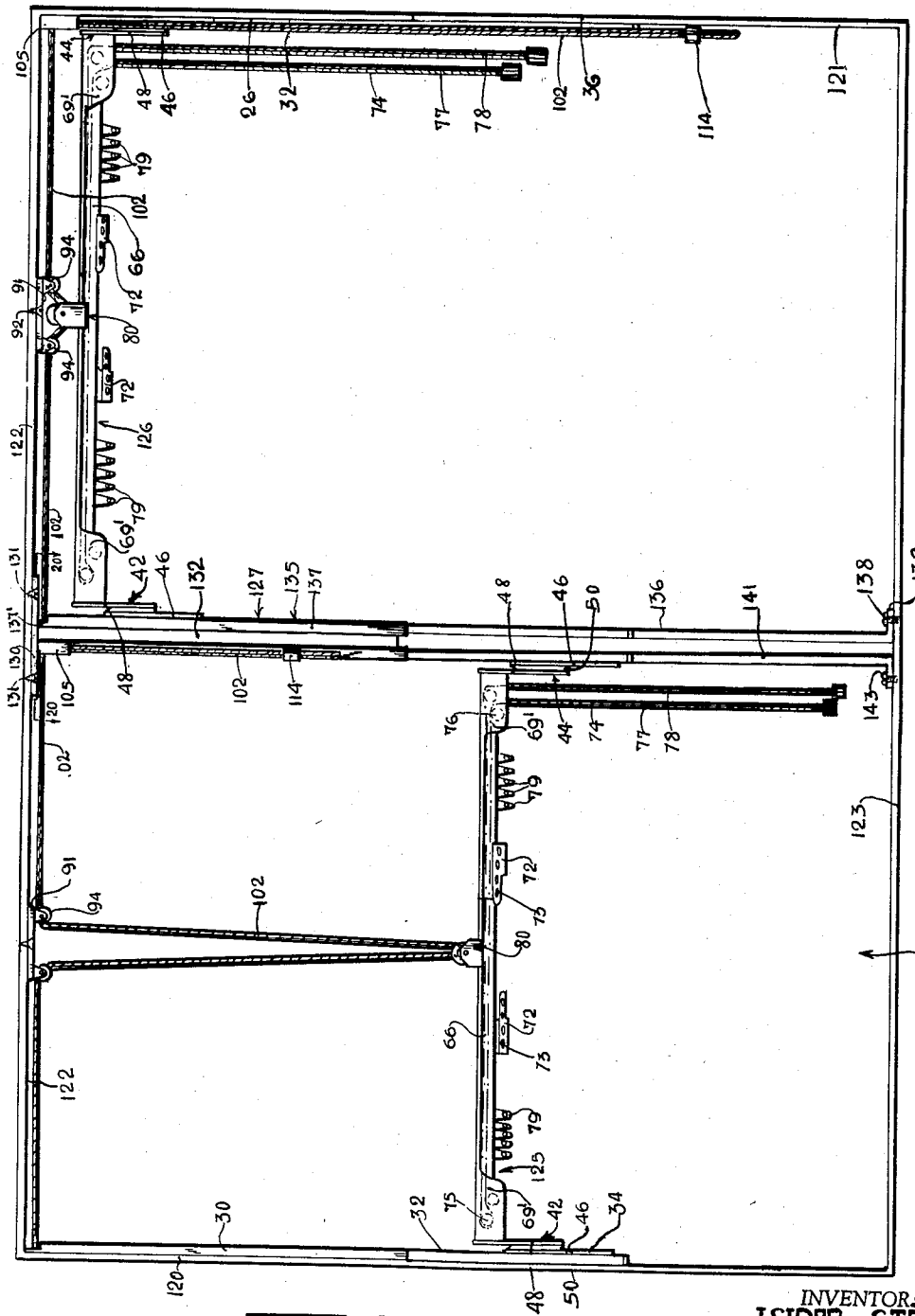


Fig. 19

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United States Patent Office 2,910,121
Patented Oct. 27, 1959

2,910,121

FIXTURES FOR HANGING WALL TO WALL DRAPES

Isidor Stern, Riverdale, and Benjamin Blum, Bronx, N.Y.

Application June 6, 1958, Serial No. 740,495

2 Claims. (Cl. 160—125)

This invention relates to improved means for supporting draperies and the like.

More particularly, the present invention relates to means for supporting draperies that extend from wall to wall of a room.

Drape traverse rods that extend for a considerable distance have a tendency because of the weight of the drapes and of the rod itself to sag at the center. Furthermore, because of the size of such drapes, it is difficult to lift same to the desired height to apply them to the supporting rod.

It is, therefore, an important object of the present invention to provide a drape traverse rod with means for preventing sagging thereof at the center.

Another object of the invention is to provide means for readily raising and lowering the drape supporting rod whereby the drapes may be readily applied to and taken off of the rod.

A specific object of the invention is to provide an improved drapery support that is adjustable in a vertical direction so that normally while supporting drapes, it is disposed in position extending across the top of the wall or window, it can be readily lowered to permit attachment of the drapes without inconvenience or danger so far as the housewife is concerned. In other words, a housewife need not stand upon a ladder, chair or the like or assume other hazardous postures while hanging or removing a drape or drapes.

Another important object of the invention is to provide a drape support that will be particularly designed for attachment thereto of any of a substantial number of different types of conventional drapery rod support brackets. In this way it is proposed to adapt the support for use in supporting a large variety of transverse drapery rods, either of the single or double type.

A further object of importance is to provide a drape supporting assembly of the character stated that is designed for accurate, smooth travel of the supported drape rod between its normal upper portion and its lowered position.

The present invention further contemplates providing means for connecting a number of drape supporting units in juxtaposed side-by-side relation for supporting drapes across a room of large expanse such as found in banks, hotels, banquet halls and the like.

Yet another object of importance is to provide a device of the type stated that will be of comparatively low cost, considering the desirable characteristics thereof, and that can be manipulated by unskilled persons, and maintained economically.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a part perspective and part sectional view of a room, with a window extending from side wall to side wall, equipped with means for supporting a drape or the like in accordance with the present invention.

Fig. 2 is a front elevational view of a trackway and slide for use on one side wall of the room with a rope and drape rod bracket applied thereto.

Fig. 3 is a similar view of the trackway used on the opposite side wall of the room.

Fig. 4 is a fragmentary view similar to Fig. 2, on an enlarged scale.

Fig. 5 is an enlarged top plan view of the trackway shown in Fig. 2, parts being omitted.

Fig. 6 is a fragmentary perspective view of the trackway shown in Fig. 2.

Fig. 7 is a view showing the trackway shown in Fig. 3 as viewed approximately from the line 7—7 of Fig. 1.

Fig. 8 is a sectional view taken on the plane of the line 8—8 of Fig. 7.

Fig. 9 is a view similar to Fig. 7 of the trackway shown in Fig. 2.

Fig. 10 is an exploded perspective view showing the assembly of one of the slides with an associated rod support bracket and drape rod.

Fig. 10A is a perspective view of the parts shown in Fig. 10, in assembled position.

Fig. 11 is a longitudinal sectional view on the same scale as Fig. 10 taken substantially on the line 11—11 of Fig. 10, portions being broken away.

Fig. 12 is a side elevational view of the supporting bracket on the ceiling.

Fig. 13 is a bottom plan view thereof removed from the ceiling.

Fig. 14 is a spread top perspective view of the bracket and roller on the drape rod.

Fig. 15 is a side elevational view thereof in assembled condition.

Fig. 16 is a perspective view of one of the drapery rod end supporting brackets.

Fig. 17 is an enlarged transverse sectional view taken through one of the trackways, taken substantially on the line 17—17 of Fig. 1.

Fig. 18 is a sectional view taken on the plane of the line 18—18 of Fig. 1.

Fig. 19 is a front elevational view showing a modification, with one drapery rod being shown in topmost position, the other being shown midway the top and bottom.

Fig. 20 is a view as seen approximately from the line 20—20 of Fig. 19, the supporting plate being shown in dotted lines.

Referring to the drawings in detail, in Fig. 1 there is shown diagrammatically the side walls 7 and 8, and ceiling 9 of a room. A window opening is cut in the front wall extending substantially from side wall to side wall. A window 11 is installed in the opening as illustrated.

In accordance with the present invention, a support for a single drape or for a pair of drapes (not shown) is provided and is designated generally at 22. This support includes a pair of sectional trackways generally designated at 24, 26. These trackways are identical to one another, except for the construction at the upper ends thereof. The tracks are mounted in vertical positions, on the side walls 7 and 8, being secured to the walls by means of screws 28 which are spaced longitudinally of the respective trackways passing through spaced openings 29 therein.

Each trackway is adjustable as to length, thus to accommodate the invention to windows or walls having different vertical dimensions. As a result, the trackways comprise upper sections 30, 32 of the respective track-

ways 24, 26, and lower track sections 34, 36. The lower sections and upper sections of the respective trackways are telescopically, slidably related, and in mounting the device upon a window or wall, the sections are telescopically adjusted to produce a trackway 24 or 26 of the desired length. Thereafter the screws 28 are extended through registering openings of the respective track sections, so as to fixedly secure the sections to the side walls, in a manner to hold the sections of each trackway against relative movement following selection of the desired, adjusted length. The trackways extend downwardly from the ceiling.

As will be noted from Figs. 2 and 3, the telescopically related track sections 30, 34 are formed with confronting, longitudinal flanges 30' and 34', respectively, and sections 32 and 36 have similar flanges 32' and 36', respectively. Each trackway, thus, may be considered as having inwardly directed guide flanges, said guide flanges being spaced apart along the longitudinal median of the trackway to provide a guide slot 38 in the trackway 24, and a guide slot 40 in the trackway 26.

Slidable within the trackways are slides generally designated at 42, 44. These are of identical but opposite construction so the description of one will suffice for both.

The slide 42 will thus be described, and as will be noted from Figs. 4–7, this includes a front or main plate 46 of rectangular configuration, elongated in a direction longitudinally of the associated trackway 24, and provided with upper and lower central openings 47. Plate 46 is integrally formed, along its outer longitudinal edge, with an elongated support arm 48. Arm 48 is spaced from the surface of the side wall a distance greater than is the plate 46, as will be noted from Fig. 9, through the provision of an offset 50 constituting an integral connection between arm 48 and plate 46. Further, as will be noted from Fig. 10, arm 48 is offset longitudinally of the plate 46 so that arm 48 for approximately half its length projects above the upper end of the plate 46 and forms an extension thereof.

The arm 48 has a number of pairs of screw-threaded openings 52 spaced longitudinally and transversely thereof. The purpose of these several openings is to permit any of a large number of conventional drapery traverse rod support brackets to be attached to the arm. In the illustrated example, the drapery rod end support bracket 58 is of a very well-known type. The brackets 58 on the end of the drape rod are of identical but opposite construction. Each bracket comprises a rectangular-shaped plate-like body 60 having a flange 61 along one long edge thereof, the other long edge being curled as indicated at 62. The plate-like body is formed with spaced holes 63 for registry with the openings 52 of the arm 48 so that the bracket can be secured to the arm 48 by screws 64 or equivalent fastening elements extending through the openings. The openings 52 of arm 48 are preferably threaded. Along the flanged long edge of the bracket, the body is formed at its end with an inwardly extending inverted U-shaped clip 65, closely spaced from the adjacent end of the flange 61.

A drapery traverse rod 66 of conventional design is slidably supported by the trackways 24, 26 across the space therebetween. The rod 66 comprises two sections 67 and 68 telescopically arranged and slidable relative to each other. Each rod section is formed of a rectangular-shaped channel-like body 69 having opposed flanges 70 along the top long edges thereof and with an angular-shaped head 69' at one end thereof. The body is formed with a central slot 71 opening rearwardly as viewed in Fig. 1, the slots 71 forming a trackway, when the sections are in telescoped relation for a pair of slidable drape supporting brackets 72 having spaced slots 73 for receiving drape fastening elements, said brackets being of conventional construction and being adapted to be moved in opposite directions away from each other to open the drapes and toward each other to close the drapes. The slidable brackets are actuated by a cord 74 which is doubled upon itself and moves around a pair of spaced pulleys 75 supported on the head 69' at one end of one section of the rod and around a similar pair of spaced pulleys 76 on the head 69' at the other end of the other section of the rod. One reach of the cord is fastened to one of the slidable brackets 72 in such a manner that when one reach of the cord, for example reach 77, is pulled the supporting brackets 72 are drawn toward each other for closing the drapes and when the other reach, for example reach 78, is pulled the supporting devices or brackets 72 are pulled away from each other to open the drapes in the ordinary manner. A plurality of slidable hooks or fingers 79 of plastic are slidably mounted in the trackway 71 of the rod for securing the drapes thereto. A hook 67' is carried by each head 69' for interlocking with the adjacent clip 65 of the bracket 58.

A slidable support indicated generally at 80 is mounted on one of the sections of the drapery rod 66. The support is composed of two superposed plate members 81 and 82 having hooked ends 83 and 84, respectively, interlocking with the flanges 70 on the drape rod section. A pair of spaced brackets 85, 86 are mounted on the top plate 81 and support a roller 87 therebetween. Plate 82 is slidable relative to plate 81 and is adapted to be held in adjusted position by a screw 88, extending through an elongated slot 82' in plate 82 and a slot in plate 81. The support 80 is adapted to be moved into alignment with an overhead support 90 on the ceiling 9. Support 90 comprises a supporting plate 91 secured to the ceiling by a screw 92 passing through an opening 89 in the plate. Depending from each end of the supporting plate there is a pair of brackets 93 and journalled in each pair of brackets there is a roller 94. A support for the rollers 94 instead of being mounted on the ceiling might take the form of an adjustable bracket mounted on the end wall of the room and disposed over the support 80.

In order to mount the slide 42 or 44 slidably in its respective trackway, a pair of vertically aligned guide blocks 95, 96 is secured to the back surface of the plate 46 by rivets passing through openings 47 at the upper and lower ends, respectively, of said plate. In order to reinforce the construction, a backing plate 87' of metal material is provided, having openings 99 at its opposite ends receiving the rivets 99', said backing plate extending between and being in contact with the back surfaces of the blocks 95, 96. The blocks 95, 96 are formed with opposed side grooves 100 to receive the flanges 34' and 36' of the trackway sections.

Plate 87' is formed with an extension having an opening 101 through which the end of a rope or cable 102 passes and is fastened to the plate by a loop 103. The rope is of the type commonly used on household Venetian blinds. The rope or flexible element 102 of the slide 42 is extended upwardly, longitudinally and centrally of trackway 24, as shown in Fig. 1, and at the upper end of the trackway is trained around a roller 104 that is journalled in the upper end of the trackway 24.

On the upper end of the trackway 26 and fastened thereto in any suitable manner as by soldering, welding or the like, there is a housing 105. The housing extends to one side of the trackway and above the same and includes parallel front and rear walls 106, 107 connected at one side by a wall 108, the top and bottom ends of the housing being open. A pair of pulleys 109, 110 are supported on shafts 111 extending between the front and rear walls in horizontally aligned relation and in closely spaced relation. Pulleys 109, 110 are of the double grooved type. The rear wall 107 extends slightly beyond the front wall 106 and mounted on said rear wall is a pair of closely spaced brackets 112 supporting a roller 113. The roller 113 is so arranged that it extends in a plane at right angles to the plane of the opening of the outer grooves in pulleys 109, 110 but

its top surface is disposed on the same horizontal plane as the plane of the outer grooves of said pulleys **109**, **110** as shown in Figs. 7 and 8.

From the roller **104** at the top of the trackway **24**, the rope **102** extends along the top of the window over one of the pulleys **94** supported on the ceiling **9**, downwardly around the roller **87** supported on the top of the section of the drapery rod **66**, then upwardly over the other pulley **94** on the ceiling, then along the window and around the roller **113** supported on the plate **107** on side wall **8** where it takes a turn and passes over the outer grooves of pulleys **109**, **110** and then downwardly along the outside of the trackway **26**, as shown in Fig. 8, and is then doubled upon itself and extended upwardly in side-by-side relationship and is then trained over the inner grooves of pulleys **109**, **110**. The reaches of the rope then pass downwardly along the trackway **26** and the rope is fastened to the plate **87'** of the slide **44**. The side-by-side reaches of the rope are held in close relationship by a tubular stabilizer **114**, similar to the device used on a Venetian blind actuating member sleeved around the free ends of the rope. Conjoint movement of both slides **42** and **44** is thus ensured when the rope **102** is pulled. The rope **102** at the same time supports the drapery rod **66** midway its ends thereby preventing sagging of the rod. Downward movement of the slides is limited by lips **115** formed on the bottom ends of the trackways.

Locking mechanism, similar to the locking mechanism used in an ordinary Venetian blind construction is provided for holding the rope **102** and slides **42**, **44** in moved adjusted position. This mechanism includes an arm **116** pivotally mounted on a pivot pin **117** supported between the front and rear walls of the housing **105** below the pulleys **109**, **110**. The distal end of the arm is sufficiently broad to span both reaches of the flexible element and is provided with teeth **118** which are normally in line with the periphery of the pulley **110** whereby a clearance is provided for the passage of the flexible element between the teeth and the side wall **108** of the housing. When the slide members **42** and **44** have been moved to the desired height along the trackways **24**, **26**, a tug or jerk on the rope **102** laterally will force the rope against the arm **116** whereby the teeth **118** thereon will bite into the rope and hold said element from further movement. The teeth will be held in biting position by the weight of the slides and the drapery rod.

In order to release the arm **116** from the rope, the rope is given a jerk laterally away from the arm thereby forcing the rope from the teeth of the arm and permitting the arm to drop by gravity away from the rope.

In installing the apparatus, the upper sections **30**, **32** of the trackways are secured to the side walls with the uppermost of section **30** reaching to the ceiling and of section **32** reaching to housing **105**. These sections are secured by screws **28** passing through two or more openings **29** in each section. The lower track sections **34**, **36** are then inserted into the upper sections to the desired height and then screwed to the side walls. A single screw is sufficient for each lower section.

In use, it will be apparent that with the rope **102** in released position, the rope may be manipulated to move the slides **42**, **44** and supported drapery rod **66** along the trackways to any desired position, between the top and bottom of the window or wall. The rod can thus be brought down to within easy reach of the user so that the drape or drapes may be readily attached to or removed from the drapery rod. The rod iself, of course, can be readily removed from the slides at this time. The slides will remain in the proper adjusted position, horizontally aligned and ready to receive the rod once again when the drapery rod is to be elevated to its use position. This is so by reason of the locking action described and illustrated. In other words, the slides can be locked against downward movement from the proper adjusted position.

After the drapes have been placed in supported position upon the drapery rod **66**, one pulls downwardly upon the connected reaches of the rope **102**, thus raising the slides conjointly, said slides remaining in horizontal alignment due to the stabilizer **114**. When the drapery rod has been raised to the desired position, the rope is jerked laterally into biting engagement with the pivotal arm **116** and the drapes will now be supported in proper height upon the window or wall.

The drapes may be parted by pulling on the proper reach of the cord **74** such as the reach **77**, for example, and may be closed by pulling on the other reach, the reach **78** for example, as will be understood.

Referring now to Figs. 19 and 20, the modification shown herein is for use in a room of large dimensions, indicated generally at **119**, such as a banking room, banquet hall and the like, having side walls **120**, **121**, ceiling **122** and floor **123**. In such a large room, two or more drape supporting units or assemblies **125**, **126**, in side-by-side relation, are utilized in order to support drapes (not shown) from side wall to side wall. The units are supported by the side walls **120**, **121** and by a support **127** erected at the longitudinal center of the room intermediate the ends of the room.

Each of the drape supporting units or assemblies **125**, **126** is similar in construction to the form of drape supporting device **22** shown in Figs. 1–18 and similar reference numerals are used to indicate similar parts.

The central support **127** extends from floor to ceiling and comprises a supporting plate **130** secured to the ceiling by screws **131**. Formed integrally with plate **130** and depending therefrom is a flat bar **132**. A vertically disposed trackway indicated generally at **135**, similar to trackway **26**, is disposed along one surface of the bar **132** and comprises a lower section **136** and an upper section **137**, each section having a channel-shaped slotted body such as the trackway sections **30**, **34**, and **32**, **36** of the trackways **24**, **26**, respectively. The slots in said sections **136**, **137** open toward one side wall, the wall **121**, for example, as viewed in Fig. 19. The upper section **137** is cut away at the top leaving an upstanding flange **137'**, the cut-away portion providing a clearance for the rope **102**. The lower section **136** is telescopically and slidably mounted inside the upper section **137** and when properly adjusted for the proper height of the room is secured to the floor **123** by means of a screw **138** extending through an opening in a foot **139** on the bottom end of the lower section.

The upper section **137** is fastened to the surface of the bar **132** by welding or soldering.

Another vertically disposed trackway indicated generally at **140** is disposed along the opposite surface of the bar **132** and is constructed similarly to trackway **135** with a lower section **141** and an upper section **142**, the lower section being secured to the floor after adjustment by a screw **143** and the upper section **142** being fastened to the surface of the bar **132** by welding or the like. The slots in the sections open toward the opposite side wall **120**. The supporting plate **130**, the upper sections **137** and **142** are formed integrally and form a unit, the bar **132** serving to space the lower sections from each other to permit ready adjustment thereof.

In this modification of the invention, the central trackway **135** serves to support and guide the slide **42** and the trackway **26** on the side wall **121** serves to support the housing **105** with its supported pulleys **109**, **110**, roller **113** and locking mechanism, and to guide the slide **44** of the unit **126**.

The central trackway **140**, on the other hand, serves to support the housing **105** and its supported pulleys **109**, **110**, roller **113** and locking mechanism and guide the slide **44** of the unit **125**. The trackway **24** on the side

wall **120** is similar to trackway **24** of the form of Fig. 1 and serves to guide the slide **42** of the unit **125**.

The drapery traverse rods **66** of the units **125**, **126** are manipulated separately by the ropes **102**, the ropes also serving to support the rods at the center thereof as in the form of Fig. 1 to prevent sagging of the rods. The drapes are spread apart and closed separately by the cord reaches **77**, **78** of cord **74** as in the first form of the invention.

The central support will be hidden from view by the drapes whether the drapes are open or closed and therefore such support is inconspicuous and will not interfere with the interior decorations of the room.

As many units or assemblies may be used as are necessary to span the room with drapes, as will be understood.

While we have illustrated and described the preferred embodiments of our invention, it is to be understood that we do not limit ourselves to the precise constructions herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

Having thus described our invention, what we claim as new, and desire to secure by United States Letters Patent is:

1. Apparatus of the kind described, comprising a pair of units disposed end to end across a room for supporting drapery traverse rods in alignment, a flat bar depending from the center of the room, each unit including a vertically disposed trackway at each end thereof, one trackway of each unit being secured to the side wall of the room, said side trackways being oppositely disposed, the other trackway of each unit being secured to said flat bar, the other trackway of one unit being secured to one face of the bar and the other trackway of the other unit being secured to the opposite face of the bar, a pair of slides traveling in the respective trackways, said slides in each trackway supporting a drapery traverse rod supporting bracket, a drapery traverse rod removably carried by the brackets of each unit, means including a rope for the trackways of each unit for effecting simultaneous movement of the slides within the trackways, automatic means for releasably holding the slides in selected positions to which they are moved, and means disposed intermediate the ends of each drapery traverse rod for preventing sagging of said rod intermediate its ends, said latter means including a slidable plate mounted on the drapery rod midway its ends, a roller mounted on said plate adapted to engage the rope of the respective pair of trackways.

2. Apparatus of the kind described comprising a pair of units disposed end to end across a room for supporting drapery traverse rods in alignment, a flat bar depending from the center of the room, each unit including a vertically disposed trackway at each end thereof, each trackway including telescopically channel-shaped body sections, one trackway of each unit being secured to the side wall of the room, said side trackways being oppositely disposed, the other trackway of each unit being secured to said flat bar, one channel-shaped body section of the other trackway of one unit being secured to one face of the bar, one channel-shaped body section of the other trackway of the other unit being secured to the opposite face of the bar, the other channel-shaped body section of the trackways being slidable in said one channel-shaped body section, said other channel-shaped body sections being secured to the floor of the room after adjustment, a pair of slides traveling in the respective trackways, said slides in each trackway supporting a drapery traverse rod supporting bracket, a drapery traverse rod removably carried by the brackets of each unit, means including a rope for the trackways of each unit for effecting simultaneous movement of the slides within the trackways, automatic means for releasably holding the slides in selected positions to which they are moved, and means disposed intermediate the ends of each drapery traverse rod for preventing sagging of said rod intermediate its ends, said latter means including a slidable plate mounted on the drapery rod midway its ends, a roller mounted on said plate adapted to engage the rope of the respective pair of trackways.

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