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PANEL HANGER DEVICE

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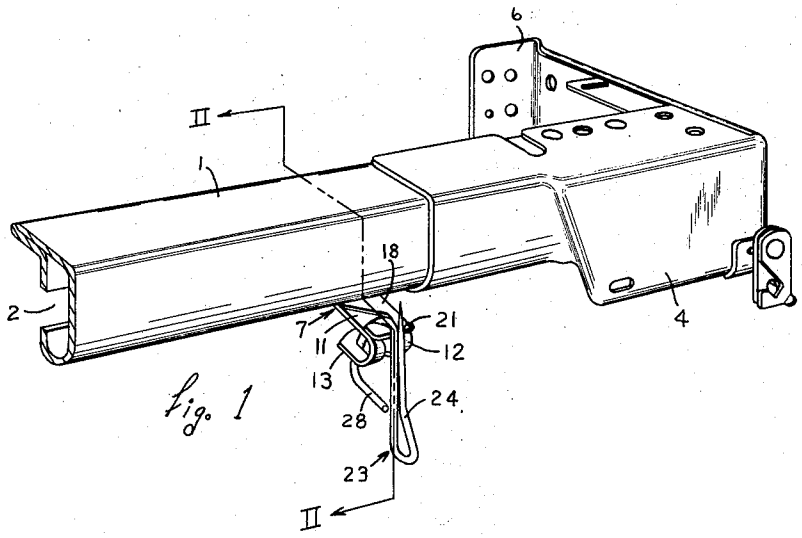


fig. 1

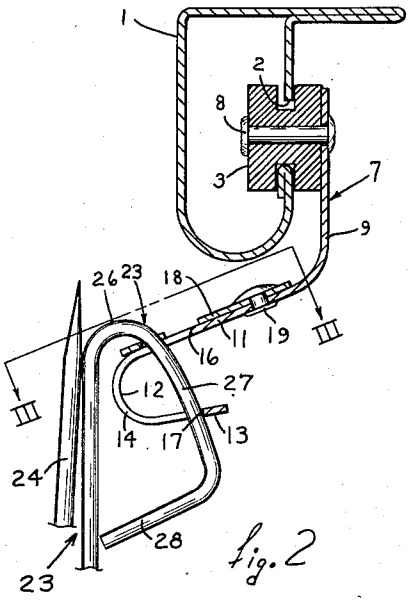


fig. 2

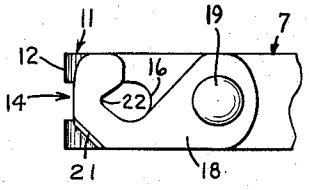


fig. 3

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PANEL HANGER DEVICE

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3 Claims. (Cl. 16—87.2)

This invention relates to structure for supporting draperies upon a traverse rod and, more particularly, it relates to a device for supporting a relatively rigid type of drapery, such as split bamboo or matchstick curtains, upon a traverse rod.

While traverse rod and hanger construction for suspending curtain or drapery materials have been known for a great many years, there has long existed the problem of providing a satisfactory structure for supporting on a traverse rod types of drapery or curtain material, such as split bamboo or matchstick curtains, having substantial vertical stiffness. Conventional drapery supporting hooks are normally inserted into conventional hanger elements on a traverse rod by downward movement thereof, which movement may be as much as an inch in extent. However, where the curtain to be supported is relatively rigid in a vertical direction, and particularly where it is desired to have the curtain substantially touching the ceiling when it is supported on the traverse rod, it is impossible to insert the hooks fastened to such a curtain into the hanger elements by downward movement thereof. Further, even if downward motion of the hooks is possible, if the curtain is vertically stiff, as is the case with split bamboo curtains, it frequently happens that lifting of the curtain prior to the insertion of a hook into a traverse rod hanger element results in a withdrawal of the adjacent hooks which were previously inserted into the hanger elements on the traverse rod. Thus, it can be a very difficult operation to insert known types of hooks into known types of hanger elements, particularly where relatively stiff curtains or drapes are involved.

A further problem in the supporting of relatively stiff draperies is that the conventional hooks and hangers used therewith normally support the drapery fabric an appreciable, though short, distance horizontally forwardly from the point at which such hooks are themselves supported by the traverse rod hanger. This creates a tendency for the hook to rotate about a horizontal axis in response to the weight of the drapery in order to place the center of gravity of the drapery as close as possible to a point directly under the point at which the hook is suspended from and by the traverse rod hanger. For flexible drapery materials, this creates a bent portion along the upper edge of the drapery which many people consider to be unattractive and, in the case of stiff drapery materials, it causes a substantial portion of the material to be positioned at a substantial angle with respect to the vertical which presents a quite definitely unsightly appearance.

Accordingly, a principal object of the invention has been to provide an improved construction for a drapery hook and a traverse rod hanger element whereby relatively stiff curtain or drapery materials may be supported on a traverse rod positioned in close proximity to the ceiling of a room.

A further object of the invention has been to provide an improved construction for a drapery hook and traverse rod hanger element, as aforesaid, wherein the hook may be inserted into the hanger element by a substantially

horizontal movement thereof and without any appreciable vertical downward movement.

A further object of the invention has been to provide an improved construction, as aforesaid, which will hold the curtain or drape in a substantially vertical position.

A further object of the invention has been to provide an improved construction, as aforesaid, in which the hook will be firmly supported by the hanger element against substantial horizontal and vertical movement once it has been mounted thereon but in which the hanger element is so constructed that it permits horizontal movement of the hook with respect to the hanger element while the hook is being mounted thereon.

A further object of the invention provides an improved construction, as aforesaid, which is sufficiently similar to presently known devices of similar character that its use will be readily understood to the average user without special instruction.

A further object of the invention is to provide an improved construction, as aforesaid, which can be manufactured, installed and maintained in operating condition at substantially the same cost as presently used equipment of corresponding nature.

A further object of the invention is to provide an improved construction, as aforesaid, which is simple in construction and operation and which can be assembled and disassembled by very simple techniques.

Other objects and purposes of the invention will be apparent to persons acquainted with constructions of this general sort upon a reading of the following disclosure and an inspection of the accompanying drawings.

In the drawings:

Figure 1 is an oblique view of the substantially conventional traverse rod structure with a hanger element and hook of the invention associated therewith in operating position.

Figure 2 is a sectional view taken on the line II—II of Figure 1.

Figure 3 is a top view of a portion of the hanger structure without the hook and substantially as seen from the plane of line III—III of Figure 2.

General description

In general, the invention provides a hanger element mounted for sliding movement along a traverse rod and having a portion extending beneath and substantially traverse to the traverse rod, said portion being reversely curved at the end thereof remote from the traverse rod. The hanger element extends sufficiently beyond the forward surface of the traverse rod that drapery or curtain material positioned in front of and suspended on the reversely bent portion of the hanger element can extend upwardly in front of the traverse rod. The invention also provides a hook which engages the drapery material. The hook has a substantially straight portion which is receivable within a vertically extending slot in the reversely bent portion of the hanger element. A keeper is provided on the hanger element for encircling the hook to hold same in the slot.

Detailed description

The traverse rod structure includes a substantially horizontally extending track 1 having a slot 2 in the rearward, vertically extending surface thereof. Slides 3, which are conveniently made of a suitable, low friction material, such as nylon, are slidably received in slot 2. The track 1 is supported at its ends in any convenient, conventional manner, such as by the end fixtures, of which one is generally indicated at 4. The end fixture 4 is mountable by brackets 6 onto a wall (not shown). Details of suitable constructions for the end fixture 4 are well known to the industry and, hence, need not be de-

scribed herein. Reference may be made to the copending application of Ralph E. Bell, Serial No. 635,002, assigned to the assignee of the present application, for further details of a suitable end fixture construction.

A hanger 7, which may be formed of a rigid, as metal, strip, is pivotally secured to the slide 3 by a rivet 8. The hanger 7 includes a first section 9 extending downwardly substantially parallel with the track 1. A second section 11 of the hanger 7 is located beneath the track 1 and extends transversely and further downwardly with respect thereto. The hanger 7 is reversely bent to provide a bight 12 and a third section 13 extending rearwardly substantially parallel with the second section 11. The bight 12 is located in front of the forward surface of track 1 for reasons which will become apparent hereinafter. The bight 12 and the portions of the walls 11 and 13 adjacent thereto are formed to provide a slot 14. The end edges 16 and 17 of the slot 14 are located substantially directly below the front surface of the track 1.

A hook shaped keeper 18 is mounted on the upper surface of wall 11 and is pivotally connected thereto by a pivot pin 19. The keeper 18 has an upstanding tab 21 at the forward end thereof whereby the keeper may easily be manually moved into or out of a position overlying slot 14. It will be observed (Figure 3) that the keeper 18 has a substantially V-shaped notch 22 facing the end edge 16 of the slot 14.

A drapery engaging device 23 is receivable in the slot 14. The device 23 in the disclosed embodiment of the invention is formed of bent rod stock and has a hook shaped portion 24 on which the drapery may be mounted. The shape of the hook shaped portion 24 can be modified as desired or required to cooperate with any desired type of drapery material, including a split bamboo curtain, without departing from the scope of the invention. The drapery engaging device 23 also has a reversely curved portion 26 and a downwardly extending support section 27 which is receivable within the slot 14 and which extends between and beyond the walls 11 and 13 of the hanger 7. The device 23 is further bent at the lower end of support section 27 toward the hook shaped portion 24 to provide a stiffening section 28. The section 28 also serves to prevent removal of the device 23 from slot 14 by a substantially vertical movement thereof.

With the drapery supported upon the device 23 in a conventional manner, and with the keeper 18 in its open position, the straight portion 27 of the device 23 can be moved horizontally into the slot 14 to the full depth of the slot. The keeper 18 is then moved to the closed position shown in Figures 1 and 3 wherein the upper end of the straight portion 27 is received in and bears against the wall of the notch 22 and the lower end thereof bears against the lower end edge 17 of slot 14. The weight of the drapery material supported by the device 23 will hold the parts in this position. If the keeper 18 is not completely centered over the slot 14 so that the section 27 bears against a sidewall of the notch 22, the weight of the drapery will cause the drapery engaging device 23 to pivot the keeper 18 into the centered position and will thereafter assist in holding said keeper in said centered position due to the shape of the notch 22. The weight of the drapery material also tends to rotate the device 23 in a counterclockwise direction (Figure 2) around the line of contact between the section 27 and notch 22 and thereby urges the lower end of the section 27 firmly against the end edge 17 of the slot 14. Thus, the hook 16 is firmly prevented from a counterclockwise (Figure 2) rotation in a vertical plane but may pivot somewhat in a horizontal plane.

Since the hook shaped portion 24 of the drapery engaging device 23 is positioned in front of the forward surface of the track 1, the drapery material supported thereon can then extend all the way to the ceiling of the room without effecting appreciable movement of either the device 23 or the hanger 7 around a horizontal axis and the drapery material will thereby be held firmly in a vertical position.

It is recognized that many variations may be made from the specific structure here disclosed for illustrative purposes, including, particularly, the replacement of the hook 17 by equivalent drapery or curtain engaging structure, such as a ring, but such variations clearly fall within the scope of the invention and the hereinafter appended claims should be interpreted to include such variations excepting as said claims by their own terms expressly require otherwise.

I claim:

1. In a drapery supporting structure for use with a traverse rod, said traverse rod structure including movable slides and a hanger depending from said slides, the improvement in said hanger and in a hook for use with said hanger, comprising: a hanger having a first substantially vertical section and means connecting the upper end of said vertical section to said slide, said hanger having a second section extending from the lower end of said vertical section and located below and extending transversely of said traverse rod, said second section terminating in reversely bent section defining a bight, said bight having a vertical slot therein; a keeper pivotally attached to said second section for pivotal movement about an axis transverse to the lengthwise extent of the traverse rod and arranged for closing a portion of said slot; a drapery supporting device extending transverse to the lengthwise extent of the traverse rod and having drapery engaging means thereon and a substantially vertically arranged portion receivable into said slot from a position directly in front thereof, said portion being of sufficient length to span said slot, said keeper when in said closed position extending across said slot and supporting the weight of said device and drapery material supported by said device.

2. The device defined in claim 1 wherein said drapery supporting device has a stiffening member extending from the lower end of said vertically arranged portion toward the lower part of the drapery supporting means, said stiffening means and said vertically arranged portion defining with another portion of said drapery supporting device a substantially closed loop encircling said keeper when same is in said closed position.

3. A drapery supporting structure, comprising: an elongated traverse rod having a longitudinally extending slot through the rear wall thereof; a hanger having a slide thereon which is mounted in said slot in said traverse rod for sliding movement therealong, said hanger having a first substantially vertical section extending downwardly and having a second section extending forwardly beneath the traverse rod and terminating in a reversely bent section defining a bight having upper and lower legs, said bight having a vertically extending slot therein which is open at ats forward end and closed at its rearward end in both said upper and said lower legs; a keeper plate pivotally mounted on said second section for pivotal movement about a substantially vertical axis, said keeper plate extending parallel with and slidably contacting said upper leg, said keeper plate having a hook-shaped portion which closes said slot in said upper leg at a point spaced from the rearward end thereof and is movable to another position by pivoting of said keeper plate wherein it leaves said slot open; a vertically extending drapery supporting device including a reversely curved portion located above said upper leg, a downwardly and rearwardly extending leg received between said hook-shaped portion and the rearward end of said slot in said upper leg, said downwardly and rearwardly extending leg spanning said slot and resting at its upper end on said hook-shaped portion and engaging, toward its lower end, the rearward end of the slot in said lower leg; said drapery supporting device including drapery engaging means extending vertically and located forwardly of the forward surface of said traverse rod, said

drapery engaging means being held in said vertical position by said downwardly and rearwardly extending leg resting on said hook-shaped portion and the rearward end of the slot in said lower leg.

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