March 27, 1962 W. W. MILLER 3,027,015

SLIDING CLOTHES HANGER ASSEMBLY

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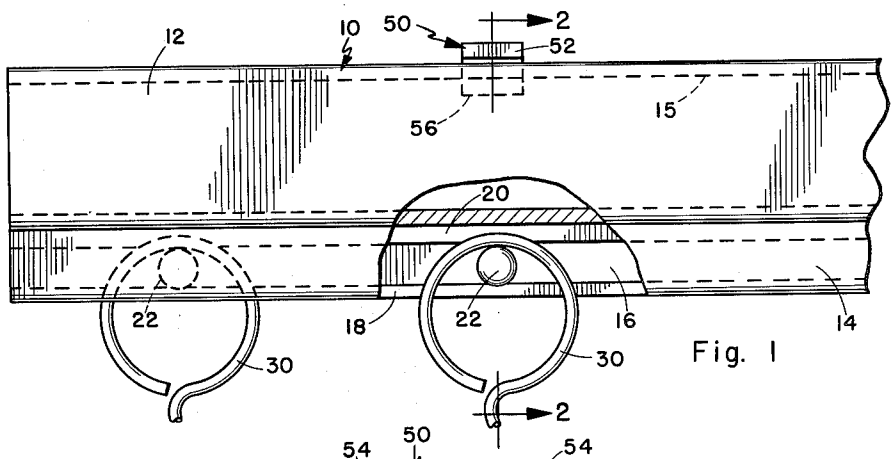


Fig. 1

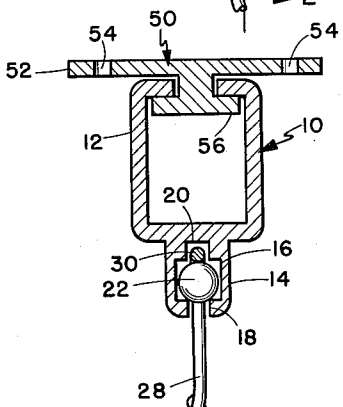


Fig. 2

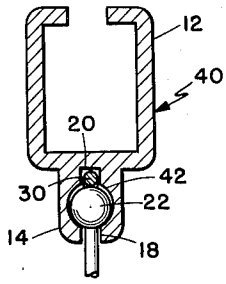


Fig. 3

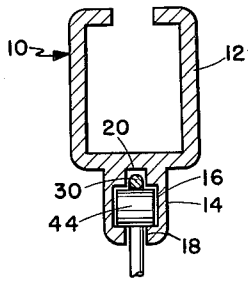
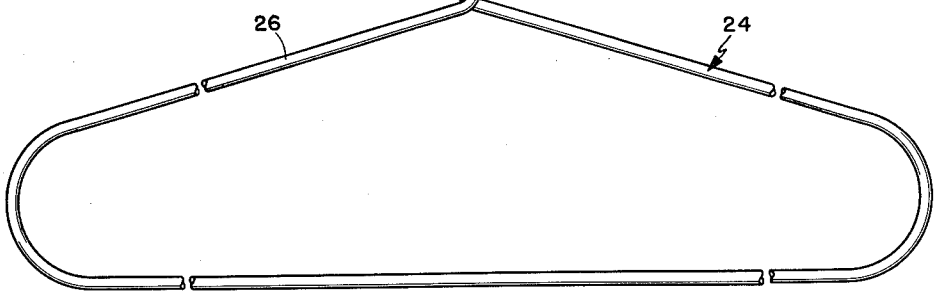


Fig. 4



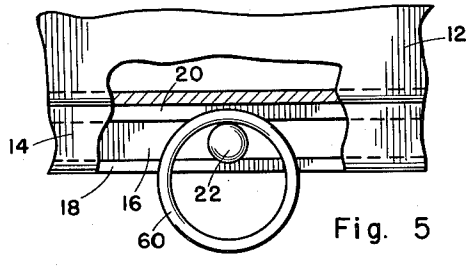


Fig. 5

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SLIDING CLOTHES HANGER ASSEMBLY

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The present invention relates generally to clothes hangers and more particularly to a sliding clothes hanger assembly.

The primary object of this invention is to provide a clothes hanger assembly in which each hanger is suspended from a rolling element riding in a track, the track being designed to prevent lateral tilting or twisting of the hangers and facilitating the hanging and removal of garments.

Another object of this invention is to provide a clothes hanger assembly in which the hangers are not removable without removal of the entire track, so preventing loss and avoiding the problem of loose hangers.

A further object of this invention is to provide a clothes hanger assembly which utilizes conventional wire type hangers, a slight bending modification being the only operation necessary to adapt the hangers, the saving in cost compared to specially designed hangers being considerable.

Still another object of this invention is to provide a clothes hanger assembly which can be made in any length to fit closets, wardrobes and the like, the track being a simple extrusion.

Finally, it is an object to provide a clothes hanger assembly of the aforementioned character which is simple and convenient to manufacture and install and which will give generally efficient and durable service.

With these and other objects definitely in view, this invention consists in the novel construction, combination and arrangement of elements and portions, as will be hereinafter fully described in the specification, particularly pointed out in the claims, and illustrated in the drawing which forms a material part of this disclosure, and in which:

FIGURE 1 is a side elevation view, partially cut away, of one end of a track member with hangers installed;

FIGURE 2 is a sectional view taken on the line 2—2 of FIGURE 1;

FIGURE 3 is a sectional view similar to FIGURE 2, showing an alternative track structure;

FIGURE 4 is a sectional view similar to FIGURE 2, showing a further alternative track structure, and

FIGURE 5 is a fragmentary view similar to a portion of FIGURE 1, showing a curtain ring used in place of a hanger.

Similar characters of reference indicate similar or identical elements and portions throughout the specification and throughout the views of the drawing.

Referring now to FIGURES 1 and 2 of the drawing, the hanger assembly includes a track member 10 having an elongated, hollow box type beam 12 for rigidity and a downwardly extending, longitudinal rib 14 integral with said beam, the upper edges of said beam being inwardly turned to provide spaced, opposed, longitudinal flanges 15. The beam 12 is illustrated as generally rectangular in cross section but the specific shape is not critical, rigidity being the primary concern, and various decorations or designs may be incorporated if desired.

The rib 14 has an internal longitudinal channel 16, of rectangular cross section, the lower portion of the channel being downwardly open through a slot 18 coextensive therewith, said slot being substantially narrower than the channel. The upper portion of the channel 16 has a longitudinal, upwardly extending groove 20 equal in width and opposed to the slot 18. Within the channel 16 are

a plurality of freely rolling roller elements 22, illustrated as balls in this instance.

The type of hanger used is a conventional wire clothes hanger, indicated generally at 24, having a garment supporting frame 26 with an upwardly extending stem 28 in which is formed a loop 30. Normally, the loop 30 is open for hooking over a bar or rail, but for adaptation to the hanger assembly herein described the loop is closed as illustrated in FIGURE 1. Also, the loop 30 is turned 90 degrees to lie normal to the plane of the supporting frame 26, this being a very simple bending operation. Each hanger 24 is inserted into one end of the channel 16 with a roller element 22 inside the loop 30, the stem 28 hanging downwardly through the slot 18 and the loop being parallel to said slot, while the frame 26 extends laterally on either side of the track member 10.

Each roller element 22 thus supports a single hanger 24, which cannot be removed, except from the end of the track member 10, due to the closed loop 30, so preventing loss and avoiding the necessity for continually replacing loose hangers. The upper portion of the loop 30, above the roller element 22, rides in the groove 20 and this confinement prevents the hanger from tilting laterally and causing a garment to slide off. Further, the hanger is prevented from twisting about the axis of stem 28, so avoiding jamming and interlocking of adjacent hangers and ensuring neat hanging of closely spaced garments. The loops 30 also provide spacing of the individual hangers, the confinement of the slot 18 and groove 20 preventing overlapping of the loops, the garments thus being separated and kept wrinkle free.

As an alternative, the track member may be constructed as illustrated in FIGURE 3, the track member 40 being substantially as described above except that the channel, indicated at 42, is of circular cross section to fit the ball type roller elements 22. The groove arrangement to prevent tilting and twisting of the hangers is retained.

A further arrangement is illustrated in FIGURE 4 utilizing the basic track member 10, but having a cylindrical roller element 44 to support each hanger, the loop 30 passing around the cylindrical roller and riding in the groove 20 as previously described. In each instance, the loop 30 is considerably larger than the supporting roller element and, being confined in the slot 18, stabilizes the hanger while allowing free movement of the roller element without any tendency to bind.

Since no special end structure is contemplated, the track members 10 and 40 can be simple extrusions for economical manufacture. In closets, wardrobes, or other enclosures the track members can be supported by conventional brackets, blocks or cross bars, according to particular arrangements. Where it is desirable to attach the track member to a ceiling or overhead structure, simple brackets 50 may be used as illustrated in FIGURES 1 and 2. Each bracket 50 comprises an attachment plate 52 having screw holes 54 and a downwardly extending T-bar 56 which hooks underneath the flanges 15 to suspend the assembly, any number of brackets being used as required.

The use of conventional type wire hangers, slightly modified by bending, also contributes to cost reduction, no special machinery being necessary to manufacture complex hanger and roller combinations, as in some existing types of closet hardware.

As a further example of utility, the hangers may be replaced by closed rings, as indicated at 60 in FIGURE 5, said rings serving as curtain rings and providing a stable, non-twisting or swinging support, the ring being comparable to the loop portion of a hanger.

The operation of this invention will be clearly comprehended from a consideration of the foregoing description of the mechanical details thereof, taken in connec-

tion with the drawing and the above recited objects. It will be obvious that all said objects are amply achieved by this invention.

It is understood that minor variation from the form of the invention disclosed herein may be made without departure from the spirit and scope of the invention, and that the specification and drawings are to be considered as merely illustrative rather than limiting.

I claim:

1. A sliding clothes hanger assembly, comprising: a rigid, elongated track member having a longitudinal channel therein; the lower portion of said channel having a slot extending longitudinally thereof; the upper portion of said channel having a groove confronting and coextensive in length to said slot; a plurality of individually positionable roller elements mounted in said channel for movement longitudinally of said channel; a plurality of wire clothes hangers substantially permanently engaged to said track, said hangers each having an integral wire loop portion passing around and being supported by one of said roller elements; the part of each loop portion above the roller element extending into and being slidable in said groove; said loop portions being substantially larger in diameter than said roller elements so that when said loops abut, said wire hangers are spaced so that clothes suspended from said hangers cannot wrinkle; a

stem integrally formed with said loop, and extending downwardly through said slot; and each of said hangers having a non-rotatable garment supporting portion integral with said downwardly extending stem, said garment supporting portion extending transversely to said loop portion and being positioned generally normal to said slot.

2. A sliding clothes hanger assembly according to claim 1, wherein said roller elements are spheroidal.

3. A sliding clothes hanger assembly according to claim 1, wherein said roller elements are cylindrical.

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