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3,051,318

CLOSET BAR ASSEMBLY

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2 Sheets-Sheet 1

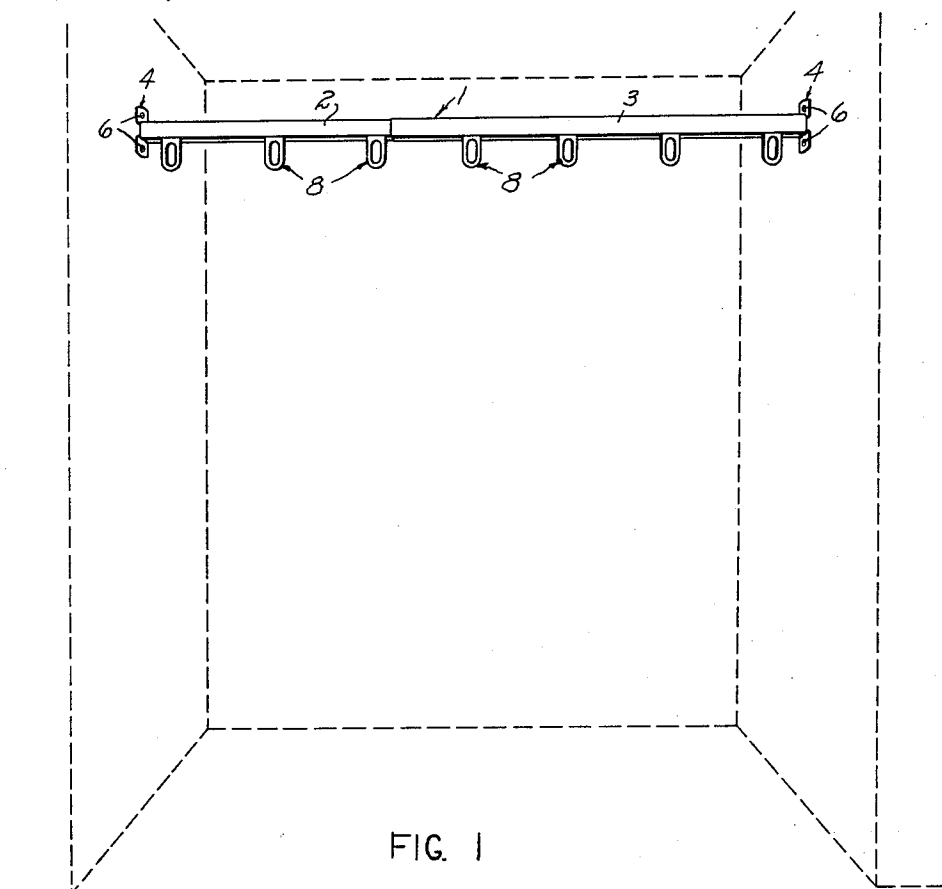


FIG. 1

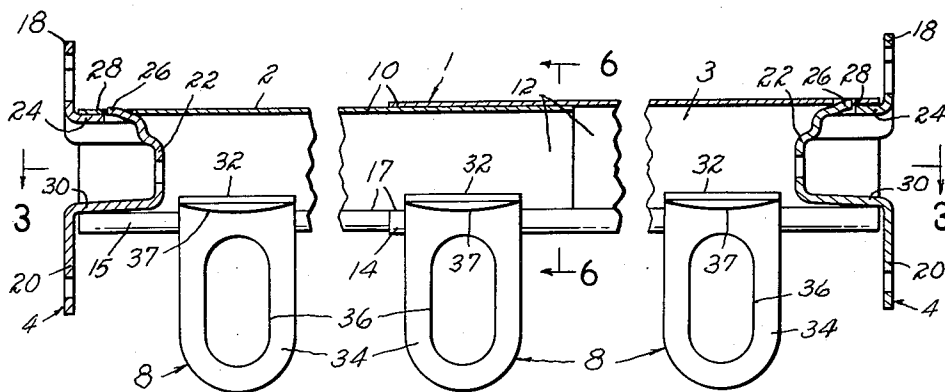


FIG. 2

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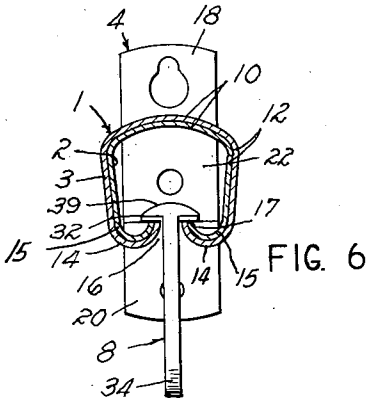
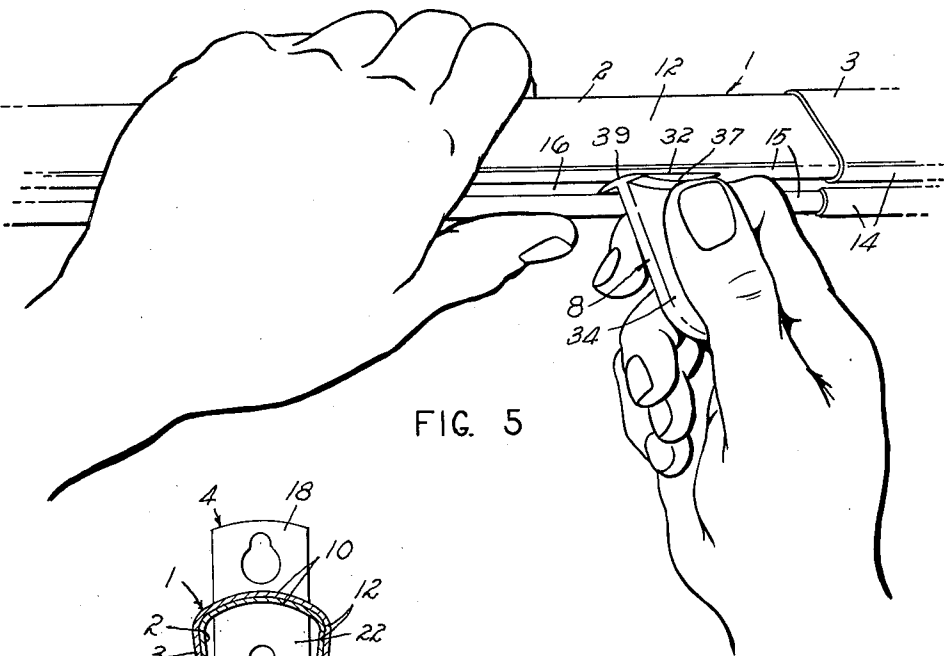
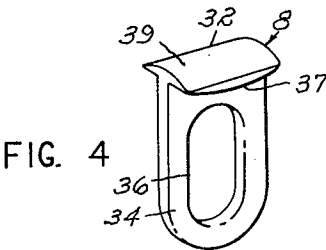
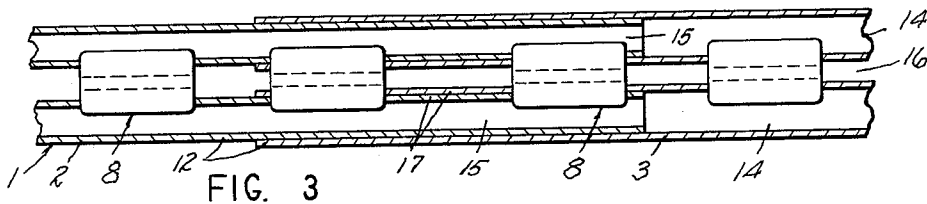
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CLOSET BAR ASSEMBLY

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7 Claims. (Cl. 211-94)

This invention relates to a telescoping closet bar assembly for supporting garment hangers and the like.

It is an object of the present invention to provide a novel and economical closet bar assembly having a telescoping track which is readily roll-formed from sheet metal and which possesses excellent characteristics of strength, durability and ease of use and wherein the telescoping track may be used per se to support the hangers or in conjunction with novel glides which are slidably carried in a channel thereof and receive the hangers.

A further object is to provide a novel and improved assembly comprised of a telescoping sheet metal track and novel plastic glides for supporting hangers wherein the glides may be readily snapped into the assembled track and wherein the glides travel smoothly from one section of the track to the other.

Still another object is to provide a rugged and quickly assembled telescoping track and end support structure for a closet bar which is readily fabricated from sheet metal stock by roll-forming techniques and which has high strength and resistance to longitudinal deformation.

Other objects and advantages will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereafter set forth and the scope of the application which will be indicated in the appended claims.

In the drawings:

FIG. 1 is a perspective view of a closet bar assembly embodying the present invention as mounted in a closet shown in phantom;

FIG. 2 is an enlarged fragmentary longitudinal section of the closet bar assembly;

FIG. 3 is a fragmentary section along the line 3-3 of FIG. 2;

FIG. 4 is a perspective view of a glide;

FIG. 5 is a fragmentary perspective view showing the mode of insertion of a glide into the track; and

FIG. 6 is a cross-sectional view along the line 6-6 of FIG. 2.

In FIG. 1 of the drawings, a closet bar assembly embodying the present invention is illustrated as mounted on the walls of a closet shown in dotted line and is generally comprised of an elongate telescoping track 1 formed by an interfitting inner member 2 and outer member 3, mounting plates 4 in the free ends of the telescoping members which are secured to the walls by screws 6 or the like, and a plurality of glides 8 slidably carried by the track and which are adapted to receive and support garment hangers and the like.

Referring in detail to the track construction which is best illustrated by FIGS. 2 and 6, the track is comprised of the pair of telescoping members 2 and 3 which are roll-formed from sheet metal, each of which has an upwardly

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arched convex curvilinear crown portion 10, depending linear side walls 12 and inwardly disposed U-shaped arcuate lip portions 14, 15 which are spaced apart to define a channel 16 therebetween. As will be seen from FIG. 6, the edges 17 of the free ends of the arcuate lip portions 14, 15 lie in a common horizontal plane, and the upper surface of the arcuate lip portions 14 of the outer member 3 provide a track and bearing surface for the arcuate lip portions 15 of the inner member 2 which is so dimensioned as to snugly interfit in the outer member 3 and be freely slidable therein without any substantial play.

The curvilinear crown portion 10 should conform substantially to the curve generally present in the head portion of hangers and the major portion thereof is preferably defined by a radius of about 0.72 inch. Curves of smaller radii are used to smoothly blend from the major portion of the crown into the linear side walls 12. The linear side walls 12 of the sheet metal member are preferably tapered slightly inwardly and the arcuate lip portions 14, 15 should be smooth curves so as to distribute deflective forces substantially equally over their entire length.

The mounting brackets 4 which are snapped into the free ends of the track 1 have oppositely extending coplanar end portions 18 and 20 which are suitably apertured for screws 6 and the like and an intermediate substantially U-shaped portion 22 which extends inwardly of the track member. The upper leg 24 is convexly curved to conform substantially to the crown portion 10 of the track member and is staked to provide an upwardly projecting lug 26 which extends into and engages a cooperating aperture 28 adjacent the end of the crown portion 10 of the track member. The mounting bracket 4 is dimensioned so that the U-shaped portion 22 snugly interfits with the track with the upper leg 24 in engagement with the crown portion and with the lower leg 30 abutting against the lips 14, 15 so that when a mounting bracket is inserted into the track, some deformation of the track will occur until the lug 26 registers with the aperture 28 in the track and snaps into place to prevent disassembly.

The glides 8 of the present invention are preferably fabricated from nylon, high-density polyethylene or similar plastic material having a low coefficient of friction and are comprised of a longitudinally extending head portion 32 slidably supported on the edges 17 of the arcuate lip portions 14, 15 and an intermediate depending hanger portion 34 which is provided with a vertically elongate aperture 36 for receiving hangers and the like. The bottom surfaces 37 of the head portion 32 are convexly curved in the longitudinal direction so as to provide a rocker-type cam surface. Since the edges 17 of the arcuate lip portions 14, 15 of both the inner and outer track members lie in a common horizontal plane, the curved bottom surfaces 37 of the head portion 32 of the glides ride freely on and are supported by the edges of both arcuate lip portions so that the transition from one member to an area where both members are in engagement and thence to the other member is smooth, thus eliminating or minimizing any tendency to stick or hang up in the track under the weight of clothing supported thereby. The arcuate configuration of the lip portions 14, 15 distributes the deflective stress placed upon the edges thereof throughout substantially their entire length and thus minimizes the tendency for undue deflection.

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A further feature of the present invention resides in the provision of transversely convexly curved upper surface 39 on the head portion 32 of the glides which co-operates with proper dimensioning of the channel 16 so as to permit snapping in of the glides after the track has been assembled and even mounted on the wall. The convex upper surface of the glides acts as a cam to flex the sheet metal track members sufficiently to permit passage of the entire head portion into the interior of the track substantially in the manner shown in FIG. 5.

A particular feature of the present invention is that the configuration of the telescoping track and its firm engagement and reinforcement by the mounting plates provides a sturdy structure which resists longitudinal flexure despite the fact that it may be fabricated from relatively thin gauge sheet metal. Furthermore, the configuration of the track members enables the use of conventional roll-forming techniques to provide a readily fabricated structure at relatively lower cost.

It can be seen that the closet bar assembly of the present invention is particularly advantageous since it enables the use of the track per se as a support for the hangers which are carried on the curvilinear crown thereof as well as in conjunction with the glides which are carried in the channel.

As will be apparent to persons skilled in the art, various modifications and adaptations of the structure above described will become readily apparent without departure from the spirit and scope of the invention, the scope of which is defined in the appended claims.

I claim:

1. A closet bar assembly comprising a pair of elongate telescoping sheet metal members, each of said members being intermediately formed with a convexly curvilinear crown portion, linear side walls and inwardly disposed U-shaped convexly arcuate lip portions spaced apart to define a channel therebetween, the inner member being dimensioned so as to snugly interfit in the outer member and be slidable therein with the upper surface of the arcuate lip portions of the outer member providing a track and bearing surface for the lip portions of the inner member, the edges of the lip portions of the inner and outer members lying in substantially the same horizontal plane, said crown portions each having an aperture therein adjacent their free ends; a snap-in mounting bracket engaged in each of the outer ends of said telescoping members for securing said assembly to the walls of a closet or the like, said mounting bracket having oppositely extending coplanar end portions for attachment to an associated wall and an intermediate, substantially U-shaped portion extending inwardly of the telescoping member, the upwardly disposed leg of said U-shaped portion being convexly arched to conform substantially to the crown portion of the telescoping member and having an upwardly projecting lug engaged in the aperture of the crown portion of the telescoping member and the lower leg of said U-shaped portion abutting against the edges of the lip portions of the telescoping member; and a plurality of glides in said channel, each of said glides having a longitudinally extending head portion slidably supported on the edges of said arcuate lip portions and an intermediately disposed depending hanger portion with an aperture therein for receiving a hanger, said head portion having a transversely convexly curved upper surface and having its bottom surface on either side of said hanger portion longitudinally convexly curved, said glides being insertable into the assembled track by snapping them transversely inwardly into the channel with the convexly curved upper surface providing a camming surface.

2. A closet bar assembly in accordance with claim 1 wherein said glides are a synthetic plastic material having a low coefficient of friction.

3. A closet bar assembly comprising a pair of elongate telescoping sheet metal members, each of said members being integrally formed with a convexly curvilinear crown

portion, linear side walls and inwardly disposed U-shaped convexly arcuate lip portions spaced apart to define a channel therebetween, the inner member being dimensioned so as to snugly interfit in the outer member and be slidable therein with the upper surface of the arcuate lip portions of the outer member providing a track and bearing surface for the lip portions of the inner member, the edges of the lip portions of the inner and outer members lying in substantially the same horizontal plane; and a plurality of glides in said channel, each of said guides being integrally formed from a synthetic plastic with a longitudinally extending head portion slidably supported on the edges of said arcuate lip portions and an intermediately disposed depending hanger portion having an aperture therein for receiving a hanger, said head portion having a transversely convexly curved upper surface and having its bottom surface on either side of said hanger portion longitudinally convexly curved, said glides being insertable into the assembly track by snapping them transversely inwardly into the channel with the convexly curved upper surface providing a camming surface, and said curved bottom surfaces providing bearing surfaces for smooth movement over the intersections of the track members.

4. A closet bar assembly in accordance with claim 3 wherein said glides are synthetic plastic material having a low coefficient of friction.

5. A closet bar assembly comprising a pair of roll-formed elongate telescoping sheet metal members, each of said members being integrally formed with a convexly curvilinear crown portion, linear side walls and inwardly disposed, substantially U-shaped convexly arcuate lip portions defining a channel therebetween, the inner member being dimensioned so as to snugly interfit in the outer member and be slidable therein for longitudinal adjustment with the arcuate lip portions of the outer member providing a track and bearing surface for the lip portions of the inner member, the edges of said lip portions of inner and outer members lying in a common horizontal plane to support hanger glides slidably carried in said channel; and means rigidly engaged in the outer ends of said telescoping members for securing the telescoping members to walls and the like.

6. A closet bar assembly comprising a pair of elongate telescoping sheet metal members, each of said members being integrally formed with a convexly curvilinear crown portion, linear side walls and inwardly disposed U-shaped convexly arcuate lip portions spaced apart to define a channel therebetween, the inner member being dimensioned so as to snugly interfit in the outer member and be slidable therein with the upper surface of the arcuate lip portions of the outer member providing a track and bearing surface for the lip portions of the inner member, the edges of the lip portions of the inner and outer members lying in substantially the same horizontal plane to support hanger glides slidably carried in said channel, said crown portions each having an aperture therein adjacent their outer ends; and a snap-in mounting bracket engaged in each of the outer ends of said telescoping members for securing said assembly to the walls of a closet or the like, said mounting bracket having oppositely extending co-planar end portions for attachment to an associated wall and an intermediate substantially U-shaped portion extending inwardly of the telescoping member, the upwardly disposed leg of said U-shaped portion being convexly arched to conform substantially to the crown portion of the telescoping member and having an upwardly projecting lug engaged in the aperture of the crown portion of the telescoping member, and the lower leg of said U-shaped portion abutting against the edges of the arcuate lip portions of the telescoping member to rigidly support the ends of said track.

7. A glide for a closet bar assembly having a pair of telescoping track members with spaced apart inwardly turned substantially U-shaped lip portions in which the

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edges of the lip portions are disposed in substantially the same horizontal plane, said glide being integrally formed from a synthetic plastic material having a low coefficient of friction, said glide having a longitudinally extending head portion which is slidably supportable on the edges of the arcuate lip portions and an elongate intermediately disposed depending hanger portion adapted to extend below the track members and receive a hanger, said head portion being of greater length than width and having a transversely convexly curved upper surface and having its bottom surface on either side of said depending hanger portion longitudinally convexly curved.

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