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HANGER FOR SHOWCASE DOORS

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Fig. 1

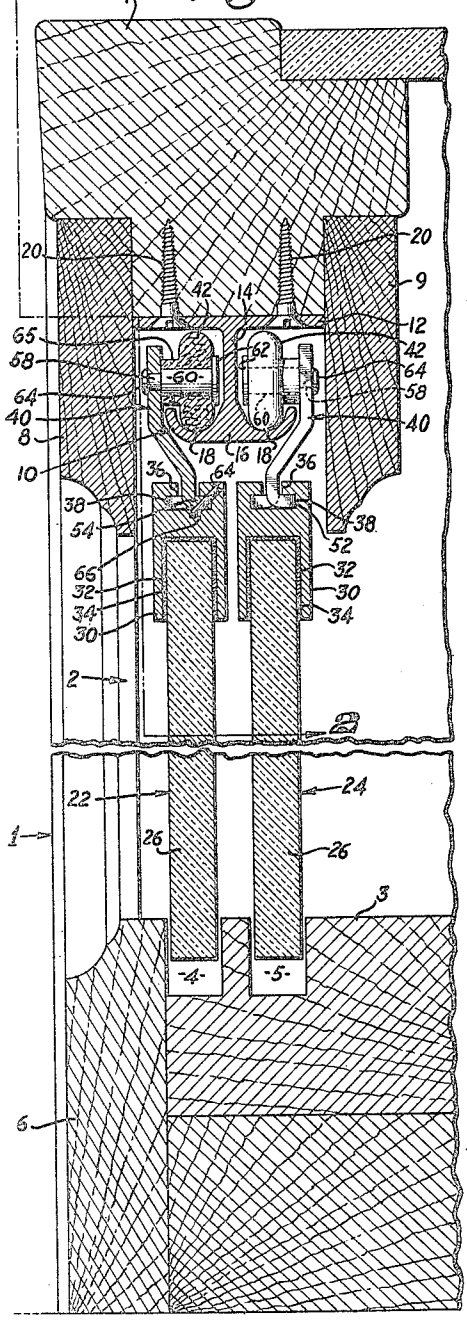


Fig. 2

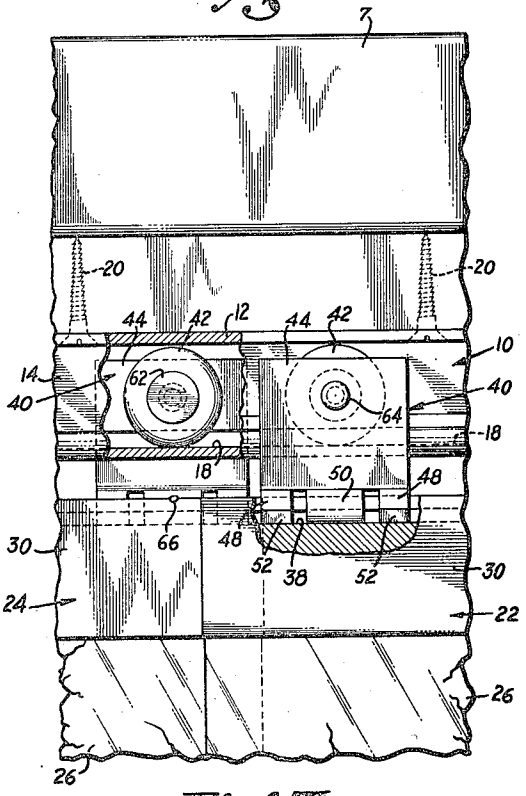


Fig. 3

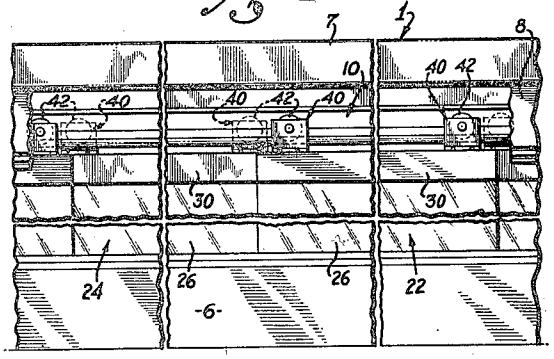
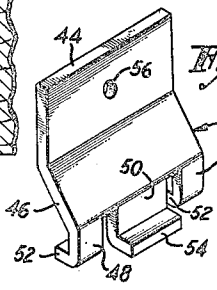


Fig. 4



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HANGER FOR SHOWCASE DOORS

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4 Claims. (Cl. 16—97)

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This invention relates to improvements in suspended door mountings, particularly adaptable for use in connection with sliding closure members for show cases.

The general object of my invention is to provide a novel suspended door mounting or hanger of a simple and rugged construction that operates freely and without binding.

An object of my invention is to provide a novel mounting or hanger for suspended doors, wherein the suspension brackets may be easily and quickly secured at desired locations longitudinally along the door to be supported.

Another object of my invention is to provide a novel and improved hanger or door mounting for sliding show case doors, including a glass holding channel portion having means integral therewith and acting in conjunction with suspension brackets whereby such brackets may be positioned in any desired longitudinal position along the upper edge of the door.

A further object of my invention is to provide a novel improved door mounting which requires a minimum space for efficient operation, and thereby provide a maximum of space within the show case.

A still further object is to provide a novel hanger for show case doors that will be simple, inexpensive, easy to install, and highly efficient in operation.

Other objects, advantages and features of invention may appear from the accompanying drawing, the subjoined detail description, and the appended claims.

The accompanying drawing illustrates the invention in the form I at present deem preferable.

Figure 1 is a vertical cross section through a portion of a show case and having my novel hanger for the sliding doors thereof incorporated therein. Parts are broken away for purposes of illustration and to contract the view.

Fig. 2 is a fragmentary front elevational view, taken on irregular line 2—2, Fig. 1, and having a portion of the hanger track broken away to more clearly illustrate the invention.

Fig. 3 is a fragmentary front view of the show case on a reduced scale, and with a portion of the upper front trim broken away to more clearly illustrate the hanger means. Parts are broken away to contract the view.

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Fig. 4 is a perspective detail view of a bracket for the hanger means.

Referring to the drawing, I have indicated a show case generally at 1. The show case 1 may be of any desired construction having an opening 2 therein which is adapted to be closed by a plurality of slidable glass doors of the type wherein one slides behind and partially overlaps the other. As shown, the show case 1 includes a base portion 3 having two parallel longitudinally extending spaced grooves 4 and 5 therein, and is fronted by a baseboard trim member 6. The show case further includes a header piece 7 having a front trim member 8 depending therefrom and spaced inward from the member 8 is an inner trim member 9.

Mounted on the underface of the header 7 between the trim pieces 8 and 9 I provide a unitary overhead track or rail member indicated generally at 10 for supporting slidable doors.

As shown, the rail member 10 includes a flat header or securing portion 12, an intermediate downwardly extending web portion 14 which merges at its lower end with a transversely enlarged section 16. On each side of the web 14 the portion 16 has formed therein a longitudinally extending upwardly opening trough-like track section 18 which is substantially semi-annular in cross section. The rail member 10 is shown as secured to the header 7 by a plurality of countersunk wood screws 20, the heads of which are positioned in suitable apertures in the base 12 on each side of the web 14.

The show case opening 2 is adapted to be closed by a plurality of doors indicated at 22 and 24. Each of the doors 22 and 24 includes a sheet of plate glass 26 mounted in a top channel or door frame member 30. The channel member 30 has a downwardly opening longitudinal groove 32 therein in which the glass 26 is positioned and secured to the channel by any suitable means, such as a felt buffer cemented to the glass and groove 32.

A longitudinally extending T-slot 36 is provided along the top of channel 30 and the leg of which opens through the top of member 30 and the top of the T-slot (which is inverted in the channel 30) forms an enlarged longitudinally extending recess 38 below the top of channel member 30.

The doors 22 and 24 are each adapted to be

hung or slidably supported on the rail 10 by a plurality of suspension brackets 40, which are provided with rollers 42 that engage the rail or track portion 10 of the rail.

The connecting member of bracket 40 is shown in detail in Fig. 4 and includes an upper vertical web portion 44 and an angular web section 46 having depending therefrom a pair of vertical end lugs or legs 48 and a relatively wide vertical center lug or leg 50. At their lower ends each of the end lugs or legs 48 terminates in a normally horizontal foot portion 52 that extends at right angles to the legs 48 towards the vertical plane of the upper web 44. The center lug or leg 50 terminates in a normally horizontal foot portion 54 that extends at right angles to the leg 50 in a direction opposite the portions 52. Intermediate the length of the upper web 44 an aperture 56 is provided therein to receive a reduced portion 58 of a roller stud 60 which includes an enlarged head 62. A roller 42 is mounted on the stud 60 between the head 62 thereof and the reduced portion 58, and the stud is secured to the bracket web 44 by peening over the protruding end of the reduced portion 58, as indicated at 64. The roller 42 includes a hub portion 65 which spaces the roller proper a predetermined distance from the web 44. The stud 60 extends outwardly from the web 14, so that the roller 42 will be received in the track 18.

As shown in Fig. 3 each of the doors 22 and 24 is provided with two brackets 40, one positioned adjacent the ends of each door.

To mount one of the brackets on a door the feet 52 and 54 of the bracket are slid into the top of the T-slot or recess 38 in the door channel 30 with the leg portions 48 and 50 extending upwardly through the leg of the T slot 36. After the bracket 40 has been placed in the correct supporting position along the top of the closure member or door, a hole 64 is drilled diagonally downward through the upper edge of the channel 30 and preferably through the center foot 54 of the bracket and a pin 66 is driven in the hole 64 to prevent accidental longitudinal shifting of the bracket 40 along the channel or door, therely securing the suspension brackets in fixed relation to the frame portion of the door and assuring proper and even support of the closure member of the hangers.

The outer door 22 is placed in operative position in the show case with the studs 52 of its associated brackets 40 directed inward and with the rollers 42 positioned in the outer or front track portion 18 of the rail 10. The lower portion of the glass 26 of the door 22 is positioned in the outer or front groove 4 of the base 3.

The inner door 24 is placed in operative position in the show case with the studs 52 of its associated brackets 40 directed outwardly and with the rollers 42 positioned in the inner or rear track portion 18 of the rail 10. The lower portion of the glass 26 of the door 24 is positioned in the inner groove 5 of the base 3.

When the doors 22 and 24 are thus mounted the angular web portions 46 of the brackets 40 on the outer door 22 extend inwardly under the track section and the angular web portions 46 of the brackets 40 on the inner door 24 extend outwardly under the track section. Thus, the doors are suspended from the rail 10 with a minimum of clearance between them, thereby reducing the space required to operatively mount the doors, and increasing the shelf space of the show case.

Although I have shown the doors as having but two mounting brackets, one at each end of the door panel, it will be understood that additional mounting brackets 40 may be provided along the channel member 30, depending on the weight of the door, or the desire of the installer.

By providing the inverted T-shaped groove in the channel member 30 to receive the toes of the mounting brackets the brackets may be slid therealong to any desired position and then secured by the pin 66.

Although the invention is shown in connection with show case doors, it will be understood that it is readily applicable to other types of suspended doors or closures of a similar nature and character.

It will be apparent from the foregoing that I have provided a novel overhead support for sliding doors, that particularly relates to means for suspending doors in show cases and like structures which is simple in construction, readily assembled and highly efficient in use.

It will also be apparent from the foregoing and the structure disclosed by the drawing that the construction of my novel hanger for show case doors is simple, inexpensive, easily installed, compact, and the channel members 30 and track or rail member 10 may be made of extrusions; and also that the trim members 8 and 9 will effectively conceal the supporting hardware from view; the visible portion of channel member 30 below the lower edge of trim member 8 serving as an ornamental mounting for the glass closure members 22 and 24.

I claim:

1. In combination with a suspension door having an inverted T-shaped slot along the upper edge of the door and open along the top thereof; a plurality of suspension brackets, each including an upper vertical web carrying supporting means, an angular portion depending from said web, and a lower vertical portion depending from the angular portion and extending through the leg of said T-slot; and a plurality of normally horizontal feet portions extending from said lower portion and in opposite directions relative to each other and engaging the top of said T-slot to support said door.

2. A door hanger comprising a suspension bracket having an upper vertical web and an intermediate angular portion depending from said upper web and a lower vertical portion depending from said angular portion, a plurality of feet portions extending angularly from said lower portions in opposite directions to each other, a roller mounted on said upper vertical web; said intermediate angular portion extending to a position to place said lower vertical portion below and under said roller; and a closure member having an inverted T-shaped slot extending longitudinally along its upper edge receiving said feet portions whereby to support said closure member therefrom.

3. In a door mounting comprising a member for securement to a door, said member having an inverted T-shaped recess extending longitudinally thereof and opening through the top of said member; a suspension bracket associated with said member including an upper vertical web portion and an angularly downwardly inclined web section; a lower portion depending vertically from said angular web section; normally horizontal foot portions extending from opposite sides of said lower portion and being

positioned in the lower portion of said inverted T-shaped recess to support said member therefrom; and a roller mounted on said web portion, said angular portion positioning said foot portions below and under said roller.

4. In a door mounting comprising a member for securement to a door, said member having an inverted T-shaped recess extending longitudinally thereof and opening through the top of said member; a plurality of suspension brackets associated with said member and each including an upper vertical web portion and an angularly downwardly inclined web section; a lower portion depending vertically from each of said angular web sections; normally horizontal foot portions extending from opposite sides of each of said lower portions and being slidably positioned in the lower portion of said inverted T-shaped recess, said foot portions and the upper walls forming the top of said inverted T-shaped recess cooperating to support said member; a roller mounted on each web portion; and means to secure said brackets in fixed relation to said member.

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