Sept. 5, 1967 J. C. ODEGAARD ET AL 3,339,749

COMBINATION SHELF AND COAT HANGER SUPPORT

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FIG. 1

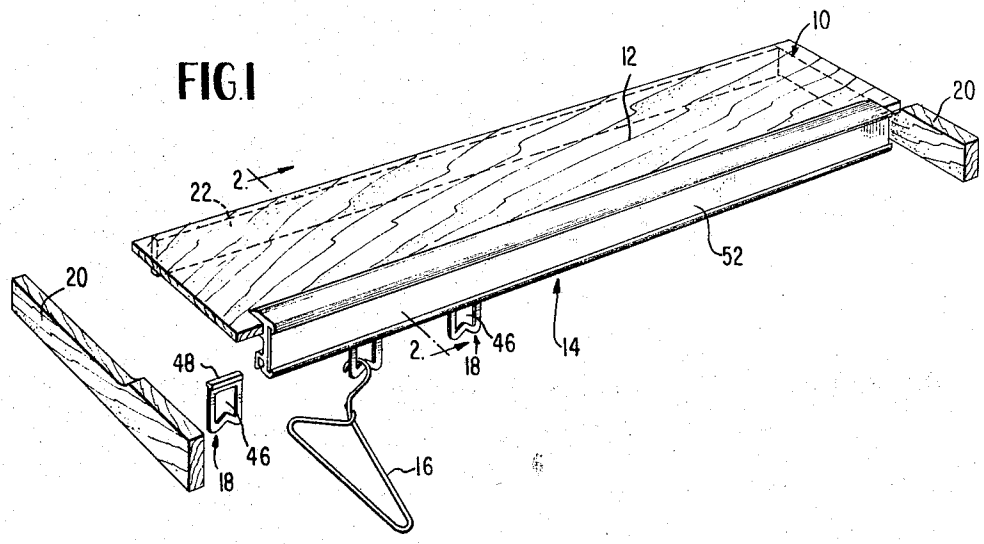
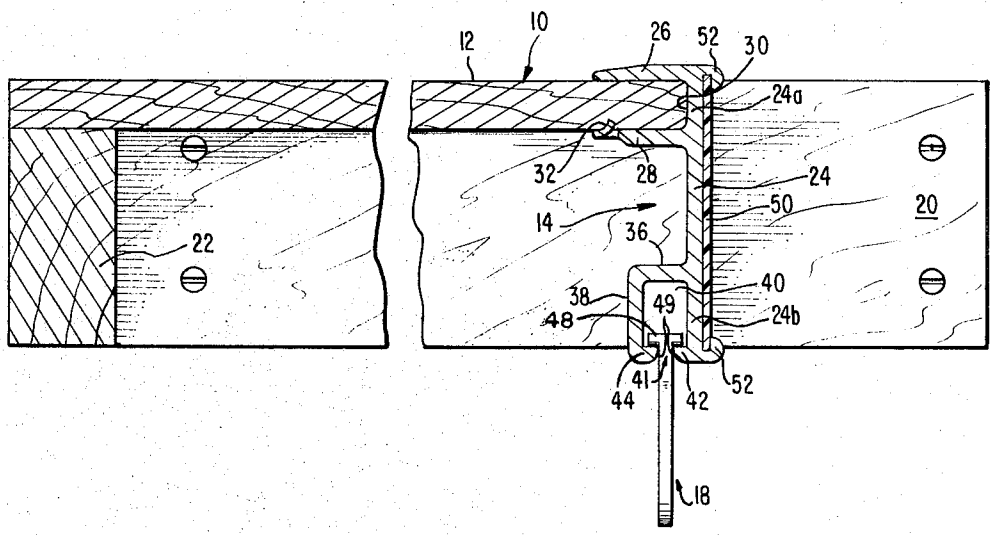


FIG. 2



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FIG. 3

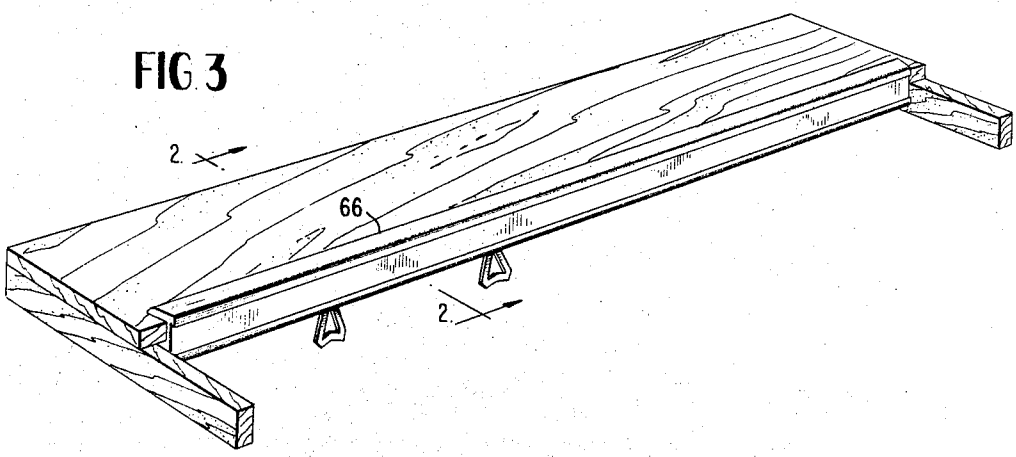
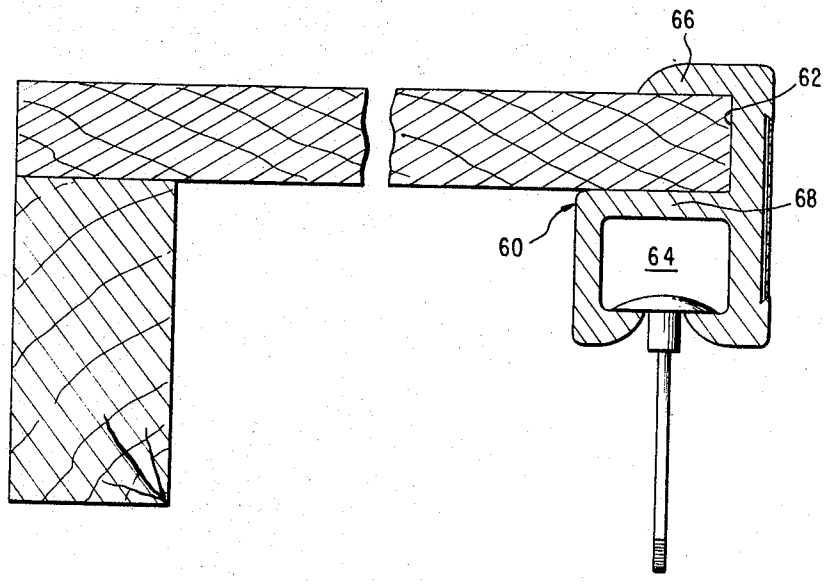


FIG. 4



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FIG. 5

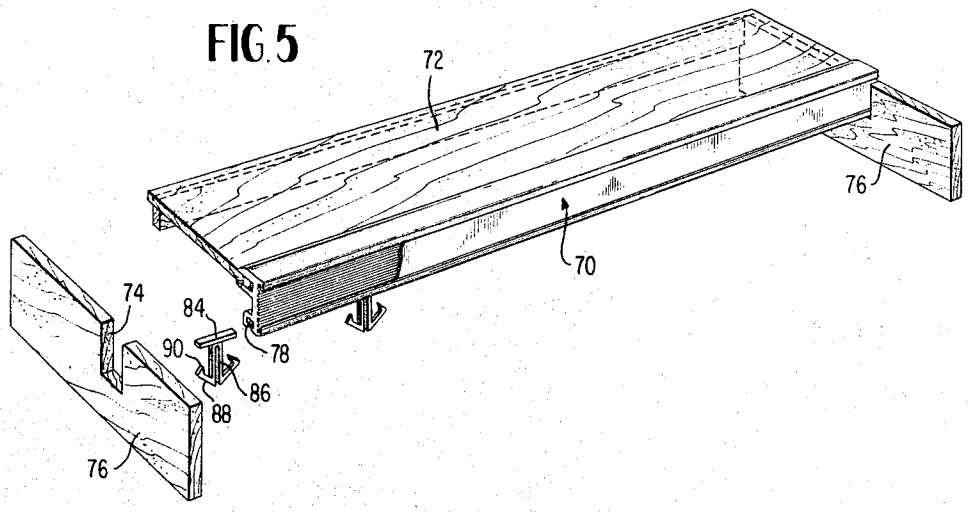
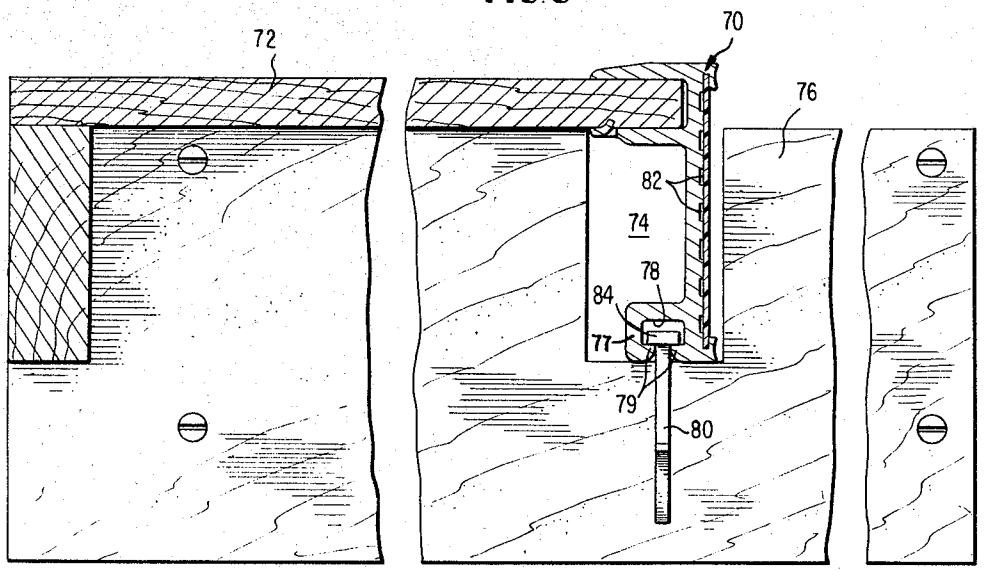


FIG. 6



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COMBINATION SHELF AND COAT HANGER SUPPORT

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4 Claims. (Cl. 211—94)

ABSTRACT OF THE DISCLOSURE

Coat hanger support means adapted for mounting upon the front edge of a closet shelf to decorate and strengthen the same, said support means containing at its lower portion means defining a channel for slidably receiving a slider element adapted to carry a coat hanger. The invention also relates to the novel structure of the slider element per se, which is designed for simple attachment and removal of the coat hanger.

This invention relates to a combination shelf and coat hanger support such as may be used in a clothes closet.

One of the objects of the present invention is to provide a novel coat hanger support which may be economically manufactured and easily applied to the front edge of a shelf to reinforce the shelf while providing a slide track for coat hanger receiving elements hereinafter termed "sliders."

Another object of the present invention is to provide a coat hanger support which facilitates engagement and disengagement of coat hangers as well as manipulation and movement of the coat hangers along the associated track. Included in this object is the provision in such a coat hanger support of sliders having an improved construction.

A further object of the present invention is to provide a coat hanger support which although attached to the front edge of a shelf is nevertheless decorative.

Other objects and advantages of the present invention will become apparent from the following description taken in conjunction with the attached drawings in which:

FIG. 1 is a partially exploded, perspective view of a combination shelf and coat hanger support embodying the present invention;

FIG. 2 is an enlarged, fragmental, cross-sectional view taken generally along lines 2—2 of FIG. 1;

FIG. 3 is a perspective view of a combination shelf and coat hanger support representing another embodiment of the present invention;

FIG. 4 is an enlarged, fragmental cross-sectional view taken generally along lines 4—4 of FIG. 3;

FIG. 5 is a partially exploded perspective view of a combination shelf and coat hanger support illustrating the preferred embodiment of the present invention; and

FIG. 6 is an enlarged, fragmental, cross-sectional view taken generally along lines 6—6 of FIG. 5.

Referring to the drawings in detail, FIG. 1 shows one embodiment of the present invention including a typical wooden shelf **10** having an article support surface **12**; and a coat hanger support member, generally designated **14**, attached to the front edge of the shelf. Coat hangers such as designated **16** are suspended from support member **14** by sliders **18** which are mounted for slidable movement in support member **14** as will be described subsequently. Shelf **10** may be secured in a closet (not shown) in any suitable manner such as by means of transverse end supports **20** fixed to the side walls of the closet. If desired, a longitudinal support member such as **22** may be provided for the shelf as shown in FIG. 1.

In the preferred embodiment, support member **14** is an extruded aluminum channel dimensioned to extend substantially throughout the length of the shelf. Channel **14** includes an elongated web section **24** and a pair of overlying spaced flanges **26, 28** projecting laterally at right angles from the upper end of web **24** to define an elongated passage **30** dimensioned to receive the front edge of the shelf as shown in FIG. 2. Flanges **26, 28** receive the shelf with a tight fit. Flange **28** has at its extremity a thin cross-section which is pierced at about every three inches along its length with a chisel-shaped tool to form barbs **32** which are forced into the shelf **12** and prevent its release from passage **30**. Moreover, the upper section **24*a*** of web **24** defining the back wall of passage **30** is formed with an increased thickness for strengthening purposes.

Adjacent the opposite end of web **24** on the same side as flanges **26, 28** there is formed a depending right angle flange including a first portion **36** projecting laterally at right angles from web **24** and a second portion **38** depending downwardly at right angles from first portion **36** to define a second elongated passage **40** extending longitudinally throughout the channel. A track for supporting sliders **18** for movement along the underside of the channel is formed at the open end of passage **40** by opposed flanges **42** and **44** projecting transversely from web portion **24*b*** and flange portion **38** respectively along the full length of the channel.

Sliders **18** are formed from any suitable low friction material such as nylon or plastic sold under the trademark Celcon or Delrin. Each slider **18** includes a flat body having an aperture **46** for receiving coat hangers **16**; aperture **46** having two opposed acute angled corners for locating and maintaining the coat hangers in position. Across the top of each slider **18** there is formed a transverse mounting portion **48** dimensioned to engage on track flanges **42, 44** to maintain the sliders on the track with their apertures **46** disposed in a plane perpendicular to the direction of insertion of the coat hangers to thus facilitate engagement and dis-engagement of the coat hangers.

The thickness of the slider body is less than the width of the opening **41** into passage **40** to enable insertion of the sliders through the ends of track passage **40** during assembly. To eliminate sharp edges, track flanges **42** and **44** are bevelled at **49** outwardly from passage **40** as shown in FIG. 2. This bevelling also may be employed to facilitate direct insertion of other types of sliders.

On the side of the channel opposite flanges **26, 28**, provision is made for applying a decorative strip **50** of cloth, plastic, leather or veneer to the channel to enhance its appearance. In the preferred form this is accomplished by a pair of elongated longitudinally extending retaining ribs **52** formed at the opposite ends of web **24** to project laterally in a direction opposite to flanges **26, 28**. Retaining ribs **52** include re-entrant portions which in effect define a longitudinal recess for receiving decorative strip **50**.

Another embodiment of the present invention is shown in FIGS. 3 and 4 wherein a right angle flange, generally designated **60**, is employed in forming both the shelf receiving passage **62** and the track passage **64**. This, in effect, eliminates the intermediate web portiton which spaces passages **30** and **40** of the above-described embodiment. Additionally, in the presently described embodiment, upper flange **66** is formed with less of a transverse dimension than portion **68** of flange **60**. Initial mounting of the channel to the shelf is facilitated in this manner.

Referring now to FIGS. 5 and 6, the preferred embodiment of the invention is illustrated as being generally similar to that shown in FIGS. 1 and 2 with the following exceptions.

In the preferred embodiment, the channel **70** is made equal in length to the shelf **72** and both are received at their opposite ends in notches **74** formed in the end supports **76** of the closet. Moreover, flange **77** and its track forming passage **78** in the preferred embodiment are reduced in size to inhibit movement of the slides **80** so as to provide smooth sliding action. This additionally reduces the extrusion material while strengthening the channel. To conceal scratches on the external face of the channel often occurring as a result of the extrusion process, a series of parallel grooves **82** are formed longitudinally in the external face of the channel.

Sliders **80** in the preferred embodiment are of unique construction and comprise a mounting portion **84** dimensioned to be received in channel passage **78** and engaged on track forming flanges **79** to be slideable along flanges **79**. Integrally depending from mounting portion **84** adjacent opposite sides of its transverse neutral axis are two hook portions each including a stem portion **86** and a toe portion **88** extending approximately 60° from the stem portion toward mounting portion **84** and spaced from the latter. In use, coat hangers are inserted merely by lateral passage through the space between mounting and toe portions **84** and **88** and finally lodged in the recess at the juncture therebetween.

To ensure against accidental dislodgment of coat hangers from the sliders, the extremities of toe portions **88** are provided with a re-entrant protuberance **90**.

Sliders **80** thus highly facilitate insertion and removal of coat hangers by avoiding the necessity of twisting and then aiming the coat hanger through apertures as is necessary in conventional sliders. Additionally, coat hangers are lodged adjacent the neutral axes of the sliders thereby minimizing binding of the sliders in the channel track. Sliders **80** further serve to space adjacent coat hangers to avoid wrinkling or crushing of clothes hung on the coat hangers.

Other modifications and adaptations of the present invention may become apparent from the foregoing specification but without departure from the spirit and scope of the invention covered by the appended claims.

What is claimed is:

1. A coat hanger slider adapted to be slideably received in a supporting track or the like, the slider comprising a mounting portion dimensioned to be engaged on a supporting track, a pair of coat hanger receiving hooks integrally depending from said mounting portion closely adjacent the transverse neutral axis of said mounting portion, said hooks each including a stem portion depending from said mounting portion and a toe portion projecting obliquely generally from the end of said stem portion towards said mounting portion to define a recess for receiving coat hangers.

2. The slider defined in claim **1** wherein said hooks are co-planar, said stem portions are rectilinear and parallel to each other, and said toe portions approximately extend 60° relative to the associated stem portions.

3. The slider defined in claim **2** wherein toe portions have a protuberance on the extremities thereof.

4. Channel means for strengthening and decorating the front edge of a closet shelf and for slidably supporting coat hanger slider means, comprising

a rigid body having a vertical web portion the length of which is generally equal to the length of the shelf, said body including adjacent its upper edge a pair of vertically spaced, rearwardly extending horizontal shelf strengthening flanges adapted to engage the upper and lower surfaces of the shelf when the rear surface of the web portion engages the front surface of the shelf, said body including also a horizontal first portion extending rearwardly from said web portion, and a vertical second portion extending downwardly from said first portion and terminating opposite the lower edge of said web portion, the lower extremities of the web and second portions containing inwardly directed horizontal flanges extending longitudinally the length of said web portion and cooperating to define horizontal slider supporting surfaces, said body member including also parallel horizontal retaining rib means extending forwardly adjacent the lower and upper edges of the front face of said web portion, respectively;

a decorative insert mounted on the front face of said web portion between said retaining ribs; and

a coat hanger slider mounted for sliding movement along said rigid body, said slider including at its upper end a transversely extending mounting portion supported by said slider supporting surfaces, said slider extending downwardly between said flanges and including at its lower end a coat hanger receiving portion including a pair of obliquely arranged surfaces at least partially defining a pair of recesses, respectively, for receiving coat hangers.

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