United States Patent

[11] **3,550,784**

[72] Inventor **John H. Batts**
Grand Rapids, Mich.

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[45] Patented **Dec. 29, 1970**

[73] Assignee **John Thomas Batts, Inc.**
Zeeland, Mich.
a corporation of Michigan

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[54] **HANGER OF SLACKS OR THE LIKE**
6 Claims, 16 Drawing Figs.

[52] **U.S. Cl.** **211/116,**
211/96, 211/123, 211/168; 223/96; 248/223
[51] **Int. Cl.** **A47j 51/084**
[50] **Field of Search** 211/96, 97, 98, 100, 101, 102, 110, 113, 116, 123, 124, 168, 171, 172, 177, 178; 248/122, 123, 124, 159, 434, 435; 287/20.5, 103

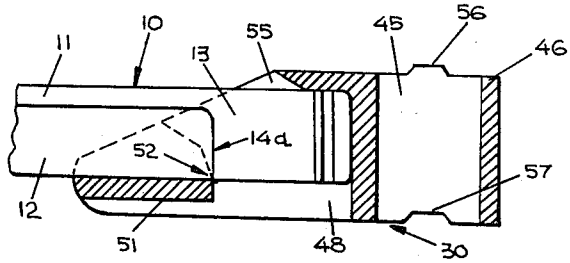
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Primary Examiner—Roy D. Frazier
Attorney—Price, Heneveld, Huizenga & Cooper

ABSTRACT: This invention relates to the field of garment hangers of the type designed to support a garment such as slacks, when draped over a rod. The invention includes a bar having ends shaped to seat in a receiving pocket or chamber of a retainer bracket from which the bar is cantilevered for the purpose of displaying the garments. A separate retainer bracket is provided for each bar. The bars are shiftable from one retainer bracket to the other without removal of the garment but when in operating position in the retainer are held against lengthwise removal.



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SHEET 1 OF 2

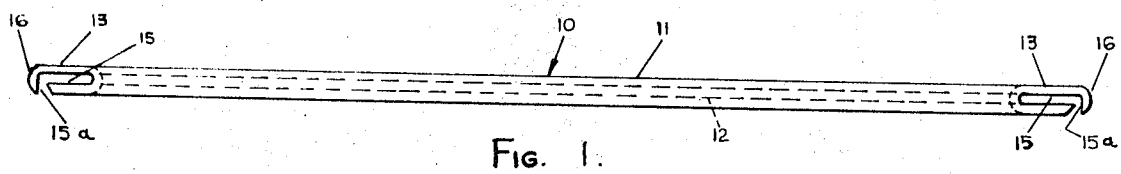


FIG. 1.

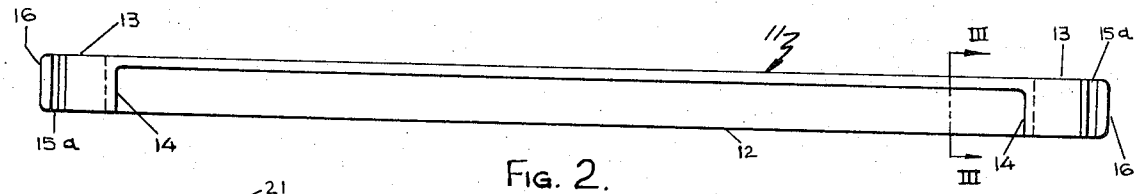


FIG. 2.

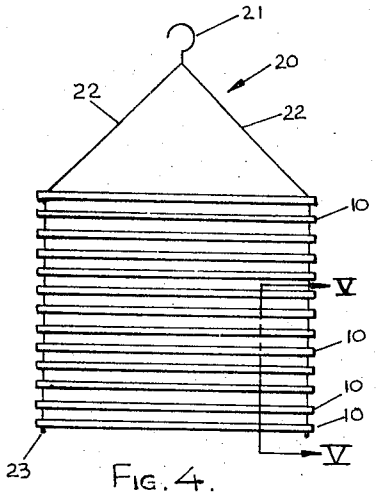


FIG. 4.

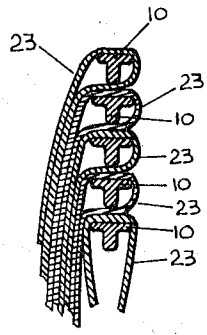


FIG. 5.

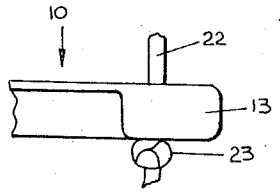


FIG. 6

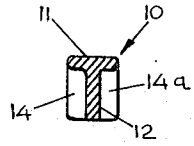


FIG. 3

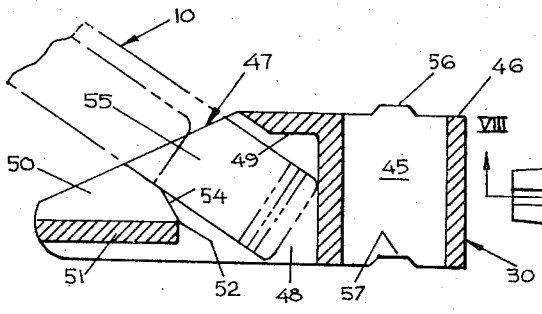


FIG. 8

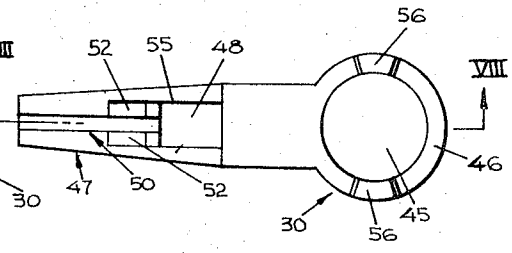


FIG. 7.

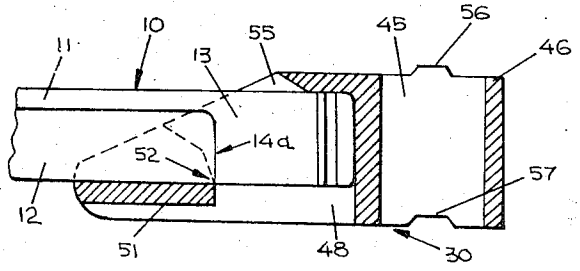


FIG. 9.

INVENTOR.
JOHN H. BATTS
BY Price, Heneveld
Huizenga, & Cooper
ATTORNEYS

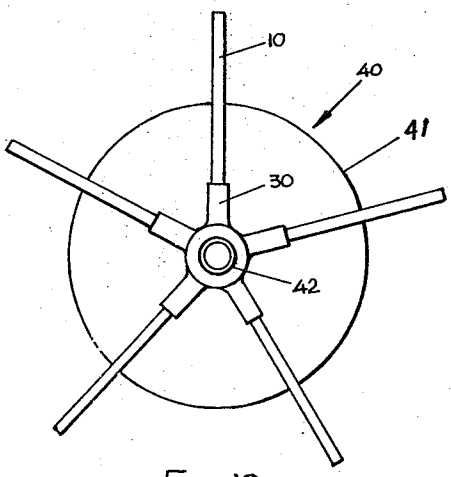


FIG. 10.

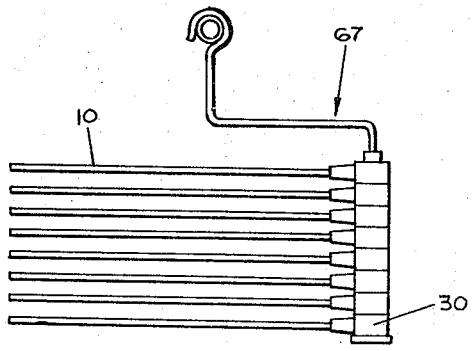


FIG. 12.

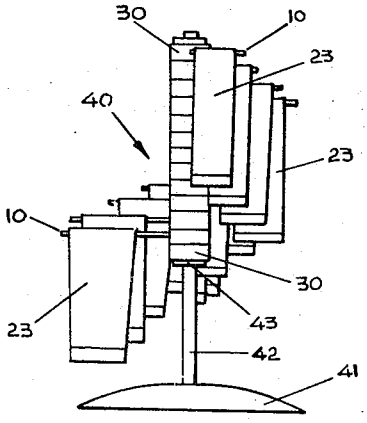


FIG. 11.

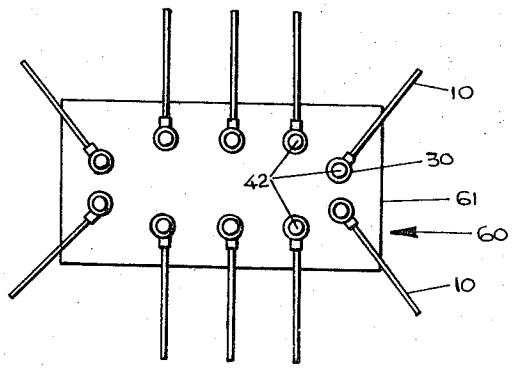


FIG. 14.

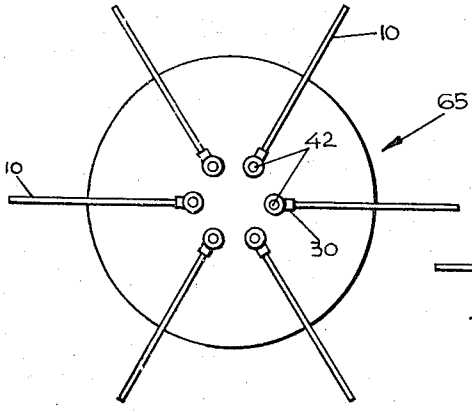


FIG. 13.

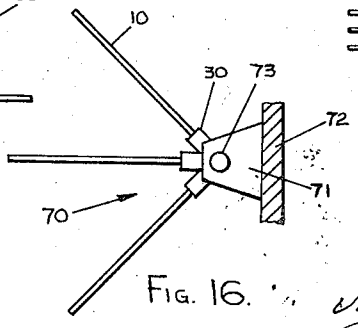


FIG. 16.

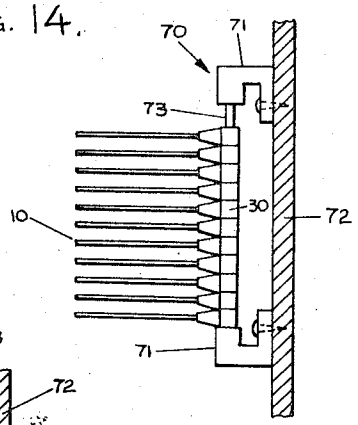


FIG. 15.

INVENTOR.
JOHN H. BATTS
BY Price, Heneveld, Huizenga & Cooper
ATTORNEYS

HANGER OF SLACKS OR THE LIKE

BACKGROUND OF THE INVENTION

The garment hanger of this invention is particularly suited to commercial use. Its purpose is to provide a compact means of packing pants and slacks for bulk shipment and to be useable by the customer for compact display in a clothing store.

It is customary practice to ship pants and slacks in cartons, so many pairs to a carton. These cartons are stacked one-upon-another in trucks for transport. This is unsatisfactory. The height of which the cartons can be stacked is limited because of crushing of the cartons. This limit is significantly less than the carrying capacity of the average truck. When the cartons are crushed, the contents are sometimes spilled, also they are wrinkled. This necessitates pressing and sometimes cleaning and pressing before display.

Further, because the waist portion of the garment is thicker than the folded leg portion, the cartons when stacked, tend to assume a keystone shape. This produces an unstable stack further limiting the quantity which can be packed in the same vehicle for shipment.

This invention permits the garments to be draped over a bar with as many garments suspended from a single pair of cords as the strength of the cords will permit. The fact that the bars slide down the cords until that portion of the garment wrapped about the bar rests upon the same portion of the garment beneath, provides a self-locking feature, preventing the garments from sliding off the bar during shipment. The cords and bars loaded with garments can be suspended from the truck's ceiling permitting high-density loading of the vehicle. This represents a substantial saving in shipping costs.

Since a large number of garments are stored on each cord and bar assembly, fewer individual pieces of merchandise have to be handled at each end. This further increases the savings in shipping costs.

The receiving store simply has to unhook each bar from the cords and secure it to the retainer bracket on his display stand. The garment remains on the bar. This eliminates unpacking the garment and placing it on a hanger for display. This is a substantial saving to the receiving merchant. Further, the invention permits a full and attractive display of the garments while attaining a higher density of merchandise per square foot of floor space than has been achieved by any other display system for this type of garment.

SUMMARY OF THE INVENTION

The bar, preferably of a low cost molded plastic, is symmetrical about its centerline. Both ends have an enlarged head portion which incorporates an elongated slot for reception of the cords. The head portion includes a pair of shoulders facing toward the bar's midportion. .The retainer bracket has a pocket which receives the head portion. The head portion is initially introduced to this pocket while the bar is tilted upwardly away from the retainer bracket. As the bar is lowered to a horizontal position, shoulder on the bar formed by the head engage shoulders in the pocket to prevent the bar from being withdrawn lengthwise from the retainer bracket. The bar is removable by reversing this procedure. The other end of the bar is free, permitting the garment to be placed on or removed from the bar by simply shifting it lengthwise of the bar. For purposes of lightweight and low cost, both the bar and the retainer bracket can be of plastic.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of the bar incorporating this invention;

FIG. 2 is a side elevation view of the bar;

FIG. 3 is a sectional elevation view taken along the plane III–III of FIG. 2;

FIG. 4 is a schematic side elevation view of a shipping or storage assembly using this invention, illustrated with the garments omitted;

FIG. 5 is an enlarged sectional view taken along the plane V–V of Fig. 4;

FIG. 6 is an enlarged fragmentary view of the end of the bottom bar of Fig. 4;

FIG. 7 is a plan view of the retainer bracket of this invention;

FIG. 8 is a sectional elevation view taken along the plane VIII–VIII of FIG. 7, showing the bar in phantom as it is being inserted into the retainer bracket;

FIG. 9 is a view similar to FIG. 8, showing the bar in secured to the retainer bracket; and

FIGS. 10—16 illustrate various display arrangements which can be made with this invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The numeral 10 indicates an elongated bar of generally T-shaped cross section, having a top flange 11 and a depending flange or leg 12. The opposite ends of the bar are identical, each consisting of a head 13, having the same width as the top flange. Below the top flange, the head forms a pair of shoulders 14 and 14*a* (FIGS. 2 and 3).

The head 13 incorporates an elongated slot 15, extending lengthwise of the head and opening at 15*a* through the side of the bar adjacent the outer end of the head. The end of the head is closed by the hooklike finger 16. The slot 15 extends through the head 13 from top to bottom.

Preferably, the bar !0 is molded as a unitary piece from any suitable plastic which will give it sufficient rigidity to withstand the bending loads imposed upon it, either by compression or cantilevering from one end, both while supporting the weight of a garment draped over it.

One of the applications of the bar 10 is illustrated in FIG. 4. This FIG. shows a suspension cradle 20 consisting of a hook 21 and a pair of cords 22. The bar 10 acts as a spacer for the cords 22. A garment, such as a pair of slacks, is then draped over the bar 10.

Addition bars 10, each having a pair of slacks 23 or a similar garment already draped over it, is engaged with the cords and moved downwardly until it rests upon the garment draped over the first bar 10. Care is taken that both legs of the garment pass to the same side of the bar beneath, because as illustrated in FIG. 5, the weight pressing one leg of one garment upon the leg of another between the bars 10, creates a lock which prevents the garments from working their way off the bars due to the kind of vibration and jolting incident to long periods of truck transportation. To balance the load on each side of the centerline of the cradle, one group of the garments may have their legs all to the right and the next to the left of the cradle's centerline. This does not impair the locking effect. In fact, if one wished to take the time to do it, alternate garments only could be draped on side.

It will be seen that the only limit of vertical storage of the garments on a single cradle is the length of the cords 22 and their tensile strength. Thus, large numbers of garments can be loaded on a truck using a single cradle. The loaded cradles can be packed one against another forming a very dense, highly efficient load for a truck. A much greater number of garments can be packed in a single truck than is possible with any pacing method known prior to this invention. Further, at destination, the cradle 20 and bars 10 can all be rolled into a compact, lightweight package for return to the shipper if such is desired. Both the cradle and the bars are fully reuseable without reconditioning. Obviously, this was not possible with the conventional carton.

When the shipment arrives at its destination, the retainer brackets 30 become important. The garments are delivered on the cradle but this represents too compact a mass of merchandise to be effectively displayed. The receiver or merchant will have previously been equipped with display stands such as are suggested in FIGS. 10—14. The type will depend upon store size, merchandise turnover, and the character and size of the display area.

For purposes of illustration, it is assumed the customer has a display rack of the type shown in FIGS. 10 and 11. This rack

40 consists of a suitable base 41 with a center pole 42. At an appropriate height above the base, a stop ring 43 is secured to the pole 42. Above the stop ring are a plurality of the retainer brackets 30 each of which surrounds the pole and is freely rotatable about the pole independently of the other blocks. Each of the retainer brackets 30 is designed specifically to mount and support one of the bars 10.

Each retainer bracket, preferably, is a one-piece molded plastic unit. Suitable plastics for this purpose include nylon and Mylar because of their strength and low frictional characteristics, which permit them to slide over the surface of similar or dissimilar materials with a minimum of frictional resistance. They also have satisfactory dimensional stability as cast or molded materials. The retainer bracket 30 has a circular opening 45 formed by a collar 46 at one end. The diameter of the opening 45 is such as to permit the collar to slidably but closely fit about one of the poles 42 (FIGS. 7, 8, and 9).

Projecting from the collar 46 is an arm 47. The arm 47 has a pocket or chamber 48 extending vertically through it. Adjacent the collar 46 a portion of the upper end of the chamber 48 is closed by an outwardly projecting shelflike flange 49 causing a portion of the chamber to be recessed. A slot 50, opening through the top of the arm but closed at the bottom by the web 51, extends from the chamber 48 to the outer end of the arm. The slot 50 is substantially narrower than the chamber 48, forming a pair of shoulders 52 facing into the chamber, one shoulder being on each side of the slot 50. It will be noted that the upper ends of the shoulders 52 are chamfered at 54 to provide passageway clearance between them and the flange 49.

The width and depth of the slot 50 is just sufficient to receive the vertical web 12 of one of the bars 10. The size of the chamber 48 is such as to accommodate the head 13 of one of the bars 10. As will be seen in FIG. 10, when one of the bars is secured to the retainer bracket 30, the end of the head 13 is seated under the flange 49 and the bottom of the bar's vertical web 12, rests upon the web 51. The shoulders 52 engage the lower portions of the shoulders 14 and 14*a* on the bar (FIG. 9). This arrangement secures the bar in a horizontal, cantilevered position and at the same time holds it against endwise removal from the retainer bracket. However, it can be removed, simply by pivoting it upwardly to align the head 13 with the opening 55 formed between the end of the flange 49 and the upper portion of the shoulders 52. This pivoting arrangement is employed both when the end of the bar is introduced to the chamber 48 and when it is removed as is illustrated in FIG. 8.

The engagement and disengagement of the bar 10 from the anchor block 30 can be done without removing the garment from the bar. Thus, the merchant receiving the garments removes the bars 10 one-by-one from the cradle 20 with the garment on them and hangs them on his display racks. As will be readily understood, he not only doesn't have to put the garments on hangers, he also receives them in neat and orderly condition ready for display.

The invention does more than provide a hanger useful for both shipping and display. It provides a far more versatile and effective display hanger for slacks, pants, and similar garments than has previously been available. It permits large numbers of garments to be displayed effectively in a relatively small floor area. Each garment is readily accessible and each is easily removed from the display rack either with or without the bar 10. Since one end of the bar is open, the garments can be removed endwise of the bars, an easier and simpler operation than that of lifting them vertically off the bar and replacing them by folding over the bar. Further, the close proximity of other garments on the racks does not interfere with the removal and replacement of the garments over the end of the bar. Further, because the retainer brackets are rotatable about their supporting poles, the garments can be separated by a customer or clerk for better display without removal from the display rack, simply by swinging unwanted garments toward the rear of the rack.

The retainer brackets may have indexing detents consisting of a pair of diametrically located knobs 56 on the top of the collar 46 and corresponding notches 57 on the bottom of the collar. These are quite small and offer only slight resistance to disengagement. These may be arranged in pattern to circumferentially offset one bar from another when a pattern such as is suggested in FIGS. 10 and 11 is utilized.

The invention is adapted to use with display racks of many different designs and arrangements. FIG. 14 suggests a multipole rack 60 with a large common base 61 and poles 42, each equipped to mount a plurality of retainer brackets 30 and bars 10. FIG. 13 shows a rack 65 in which the poles 42 are arranged in a circle. FIG. 12 illustrates the invention applied to a suspended type of rack 67. These arrangements are merely illustrative, many other arrangements being possible with this invention.

Another display possibility with this invention is that of providing knots such as 23 in the cords 22 at 1 to 3-inch intervals. This will separate the garments from the close pack shipping arrangement illustrated in FIG. 5. By separating the garments, it becomes possible to display the color and pattern of each garment and to individually remove and rehang each garment. Such a cradle display can be hung adjacent a wall or in any other environment where display is to be confined to a very limited amount of floor space.

FIGS. 15 and 16 illustrate this invention applied to a wall bracket 70. The bracket has a pair of terminal pieces 71 fastened to a wall 72 and connected by a rod 73. The rod 73 rotatably supports a number of the retainer brackets 30, each equipped with a bar 10. This type of arrangement is particularly adapted to home use. FIG. 16 shows the wall bracket as seen from above.

It will be seen that this invention provides a garment hanger, solving difficult problems in both shipment and display of certain types of garments. It is simpler and more effective than any previously known hanger for garments of this type. While a preferred embodiment of this invention has been illustrated and described, it will be understood that modification incorporating the principles of the invention may be made. Such modifications are to be considered as included in the following appended claims, unless these claims by their language, expressly state otherwise.

I claim:

1. In a display hanger for garments, a rigid garment supporting bar and an elongated retainer bracket therefor; said bar having an enlarged head at one end; said retainer bracket having walls defining a central chamber therein spaced from both its ends and opening through the top, said opening at the top of said retainer bracket being of such size that said head may pass therethrough to permit said bar to be engaged with and disengaged from said retainer; the portion of said bracket at one end of said chamber having a pair of spaced walls joined by a web at the bottom, said walls defining a slot to receive said bar therebetween and restrain it against lateral movement; said head of said bar received in said pocket with said bar projecting from said retainer bracket through said slot; the end walls of said chamber restraining said head of said bar against lengthwise movement of said bar when said bar is seated in operating position in said retainer bracket; one wall of said retainer bracket overlying the end of said head when said head is seated in said bracket for restraining said head against upward movement under loads on that portion of said bar extending outwardly from said retainer bracket.

2. In a display hanger for garments, a rigid garment supporting bar and a retainer bracket therefor; said bar having a shank and an enlarged head at one end; said retainer bracket having an opening in its upper face of a size to permit said enlarged head to pass through; said opening extending through one end of said retainer bracket; the portion of said opening remote from said one end being an enlarged chamber and the other portion of said opening being slotlike; said enlarged head of said bar being received in said chamber portion of said opening; a portion of the shank of said bar being received in

said slotlike portion of said opening; the end walls of said chamber restraining said head of said bar against lengthwise movement of said bar when said bar is seated in operating position in said retainer bracket; means on said retainer bracket engaging the upper end portion of said head and holding it against upward movement whereby said bar is stable as a cantilevered support for garments placed on the portion thereof exterior of said retainer bracket; the walls at one end of said chamber being chamfered to permit said head to be shifted to an upwardly inclined position for removal of said bar.

3. In a display hanger for garments, a garment supporting bar and a retainer bracket therefor; said bar having a shank and an enlarged head at one end; said retainer bracket having an opening in its upper face, said opening extending through one end of said retainer bracket; the portion of said opening remote from said one end being an enlarged chamber and the other portion of said opening being slotlike; said enlarged head of said bar being received in said chamber portion of said opening; a portion of the shank of said bar being received in said slotlike portion of said opening; means on said retainer bracket engaging the upper end portion of said head and holding it against upward movement whereby said bar is stable as a cantilevered support for garments placed on the portion thereof exterior of said retainer bracket; said shank portion of said bar having a T-shaped cross section with a generally horizontal top flange and a central vertical flange; said head portion being of the same width as said top flange of said bar and forming a pair of shoulders beneath said top flange, one on each side of said vertical flange; a pair of oppositely facing shoulders on said retainer bracket formed at the juncture of the enlarged and slotlike portions of said opening; when said bar and retainer bracket are engaged, said shoulders on said bar and retainer bracket engaging to prevent lengthwise withdrawal of said bar from said retainer bracket.

4. The display hanger described in claim 3 wherein the upper portions of said shoulders on said retainer bracket are chamfered to permit passage of said head portion of said bar into and out of said opening.

5. In a display hanger for garments, a garment supporting bar and a retainer bracket therefor; said bar having a shank and an enlarged head at one end; said retainer bracket having an opening in its upper face, said opening extending through one end of said retainer bracket; the portion of said opening remote from said one end being an enlarged chamber and the other portion of said opening being slotlike; said enlarged head of said bar being received in said chamber portion of said opening; a portion of the shank of said bar being received in said slotlike portion of said opening; means on said retainer bracket engaging the upper end portion of said head and holding it against upward movement whereby said bar is stable as a cantilevered support for garments placed on the portion thereof exterior of said retainer bracket; said shank portion of said bar has a T-shaped cross section with a generally horizontal top flange and a central vertical flange; said head portion being of the same width as said top flange of said bar and forming a pair of shoulders beneath said top flange, one on each side of said vertical flange; a pair of oppositely facing shoulders on said retainer bracket formed at the juncture of the enlarged and slotlike portions of said opening; a web extending across and closing the bottom side of said slotlike portion of said opening; said upper face of said retainer bracket in the area of said opening being inclined downwardly toward said one end; said means being a wall projecting toward said one end, a portion of the enlarged end of said opening being recessed beneath said wall permitting said bar to be introduced into and removed from said opening when the end of said bar remote from said head is inclined upwardly, the upper portions of said shoulders on said retainer bracket being chamfered to permit passage of said head portion of said bar into and out of said opening; when said bar and retainer bracket are engaged, said shoulders on said bar and retainer bracket engaging to prevent lengthwise withdrawal of said bar from said retainer bracket, and said web engaging said vertical flange of said bar and supporting said shank portion of said bar at a point outwardly from said wall engaging the head portion of said bar whereby said bar is stable as a cantilevered support for garments placed on the portion thereof exterior of said retainer bracket.

6. A display hanger for garments comprising a plurality of retainer brackets stacked in a vertical column and a plurality of bars from which garments can be hung; each of said retainer brackets having a chamber forming a socket; each of said bars having an enlarged head portion received in one of said chambers; the walls of said chambers engaging said head to support said bar in horizontal position and when in such position restraining said bar against both sideways and lengthwise movement; the upper side of said chamber being open to provide access to said chamber through which said head can be introduced into and removed from said chamber when said bar is shifted to an upwardly inclined position; said rack having a vertical pole; said retainer brackets each having a pole engaging portion engaged with and individually rotatable about said pole and supporting said retainer bracket on said pole; a stop on said pole engaging the bottom one of said retainer brackets and limiting said retainer brackets against downward movement along said pole; said pole at its upper end having an arm adapted to be suspended from above, said arm having an offset portion with its free end generally aligned with the midpoint of said bars.