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CURTAIN SYSTEM INCLUDING ELASTICIZED TOP CURTAIN  
PANELS AND SUPPORT FOR SAME  
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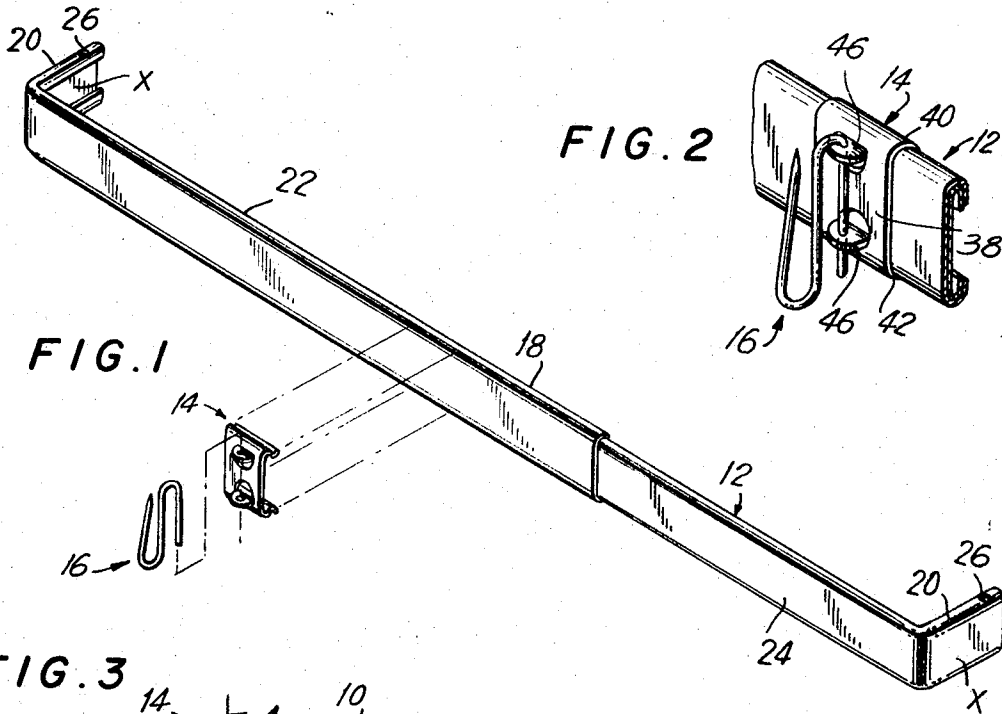


FIG. 1

FIG. 2

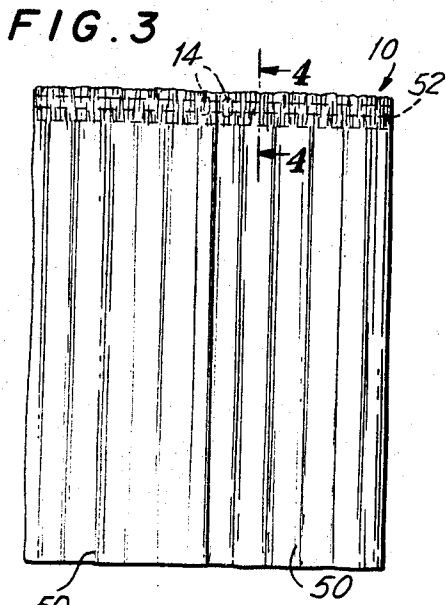


FIG. 3

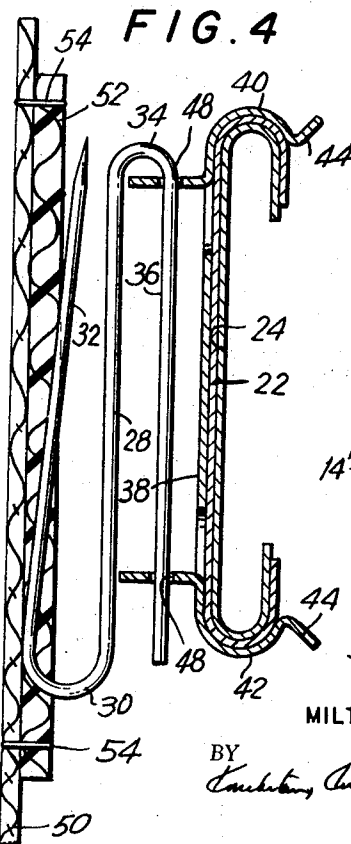


FIG. 4

FIG. 5

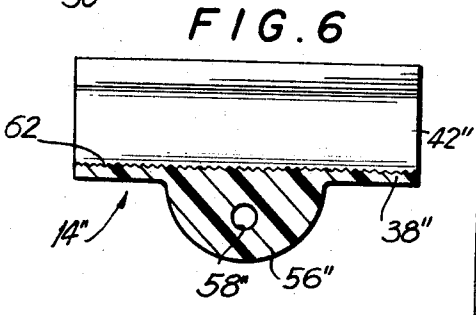
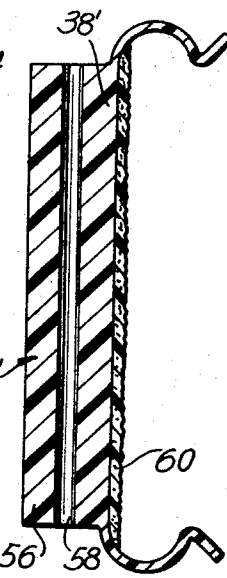


FIG. 6

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**CURTAIN SYSTEM INCLUDING ELASTICIZED TOP CURTAIN PANELS AND SUPPORT FOR SAME**

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10 Claims

**ABSTRACT OF THE DISCLOSURE**

Plural curtain panels are suspended from a telescoping curtain rod. The panels have elasticized shirred tops which permit the tops to be stretched to different widths in order to accommodate spaces of different widths. Clips are detachably, prehensibly, non-slidably engaged to the curtain rod at spaced points along the same. Drapery hooks are detachably engaged to correspondingly spaced points along the top of the stretched curtain panels. The drapery hooks detachably engage the clips.

**BACKGROUND OF THE INVENTION**

*Field of the invention*

A system comprising a telescoping curtain rod having detachable clips non-slidably engaging the same, the clips being detachably coupled to drapery hooks which are detachably pinned to the tops of stretched elasticized curtain panels.

*Description of the prior art*

In general, the present invention relates to a system for mounting curtain panels.

Curtain panels often are supported on a curtain rod by providing the top edge of the panel with a fabric tunnel wholly or partly composed of the material of the panel and through which the curtain rod is threaded. This is a tedious chore, because the tip of the rod tends to catch in the tunnel, and the operation becomes more difficult to perform after the panel is washed a few times and has lost its original glaze. Moreover, the panel tends to bunch up irregularly on the rod and a housewife usually is not sufficiently dextrous to distribute the excess length of the curtain evenly.

It has been proposed to employ a stretch top curtain panel, i.e., a curtain panel with an elasticized top, which at rest contracts to a minimum width capable to expansion to a greater width. Such curtain panels were used without curtain rods. It was the practice to utilize only a single such curtain panel and to attach the two ends of the panel to the opposite sides of the area which was to be covered. These curtains have not been acceptable to housewives because of the tendency of the single panel to sag between its points of support and because of the non-conforming appearance inherent in the use of a single panel as distinguished from the more customary type of curtain which uses two panels, either meeting at the center of the area or spaced apart from one another at the center of the area.

**SUMMARY OF THE INVENTION**

It is an object of the present invention to provide an improved curtain supporting systems which for the first time incorporates the advantages of both a curtain rod and an elasticized top curtain, but eliminates their disadvantages.

It is another object of the invention to provide a curtain system of the character described in which there are employed stretch top curtain panels in conjunction with a practical structure for supporting the same at plural points.

It is another object of the invention to provide a

curtain supporting system of the character described which does away with the time consuming effort of threading a curtain rod through a fabric tunnel, especially after washing, and which yet employs a curtain rod to hold up curtain panels at spaced points along their length.

It is another object of the invention to provide a curtain system of the character described in which the curtain panels are automatically uniformly shirred across their full top widths. That is to say, are uniformly gathered merely by the process of installing them in place and without the user having to carefully distribute the pleats across said edge.

It is another object of the invention to provide a curtain system of the character described because of the construction of which curtain panels may be quickly, simply and easily installed or removed on their associated rods by persons such as housewives who may have only slight manual dexterity.

Other objects of the invention in part will be obvious and in part will be pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangements of parts which will be exemplified in the system hereinafter described and of which the scope of application will be indicated in the appended claims.

**BRIEF DESCRIPTION OF THE DRAWINGS**

In the accompanying drawings in which are shown various possible embodiments of the invention,

FIG. 1 is an exploded perspective view illustrating a telescoping curtain rod, a single prehensile clip and a single drapery hook; other clips and hooks of the same type are employed, as will be detailed in the following description;

FIG. 2 is an enlarged fragmentary perspective view showing a portion of the curtain rod with the clip mounted thereon and with a drapery hook coupled to the clip;

FIG. 3 is a front view of a pair of curtain panels mounted on the curtain rod with the assistance of the aforesaid clips and hooks;

FIG. 4 is an enlarged vertical fragmentary sectional view taken substantially along the line 4-4 of FIG. 3;

FIG. 5 is a vertical central sectional view through a clip embodying a modified form of the present invention; and

FIG. 6 is a horizontal transverse sectional view through clip embodying another modified form of the present invention.

**DESCRIPTION OF THE PREFERRED EMBODIMENT**

Referring now in detail to the drawings, the reference numeral 10 denotes (see FIG. 3) a complete curtain system including elasticized top curtain panels and a novel support therefor embodying the present invention. The support is best shown in FIGS. 1, 2 and 4. It includes a curtain rod 12, a set of clips 14 and a set of drapery hooks 16. The curtain rod and the drapery hooks are standard and are such as will be found, prior to the present invention, in stores and in homes. Indeed, this use of such conventional parts is an attractive feature of the invention, to wit, the ability of the system 10 to utilize standard curtain rods, so that the new system can be employed with existing curtain rod installations in the home or with existing curtain rods which are now on store shelves, or with curtain rods which can be made in the future without altering the tools and dies presently employed.

The illustrated curtain rod 12 is of the telescoping type which preferably, but not necessarily, is used in the prac-

tice of the instant invention in order to enable a single curtain rod to be employed for areas of different widths, as is well known. The curtain rod can be of various conventional types. The curtain rod illustrated has a long central length 18 and rearwardly turned short legs 20 at opposite ends thereof to enable the major portion of the length of the curtain rod to stand away from a wall or door. However, the invention is not to be so limited, inasmuch as, for example, the curtain rod 12 can be of the type which is devoid of the rearwardly turned legs and is connected to brackets located on the facing inner surfaces of a window opening or window frame. Or the curtain rod can be devoid of the rearwardly turned legs and be attached to brackets which hold the rod away from a wall or door. It also will be observed that the curtain rod is of the so-called "flat" type, to wit, a curtain rod whose transverse cross-section is oblong, being elongated in a vertical direction. The curtain rod also can be of circular section with one portion of the rod constituting an outer tube and the other portion a second tube or a solid rod slidable in the outer tube. Furthermore, it is within the ambit of the invention to employ a non-extensible curtain rod, such, for instance, as a length of solid metal stock the ends of which are mounted in the usual brackets designed to hold such a rod. The rod is cut to a length suitable to extend over the desired area.

From the foregoing, it will be appreciated that, as has been stated above, the curtain rod may be of any well known type.

The illustrated curtain rod constitutes two sections 22, 24, the section 22 being the outer section or sheath, and the section 24 being the inner section or core. Each section (see FIG. 4) includes a flat front face with retroverted bends at its upper and lower edges running into short downwardly and upwardly extending flanges at its rear, the flanges being parallel to and spaced from the flat front face. The two sections are of the same configuration, but are differently dimensioned, so that the inner section is a sliding fit in the outer section. Both sections are made of sheet metal, whereby the difference in the dimensions between the two sections is only a few hundredths of an inch, e.g., about  $\frac{1}{32}$  of an inch, enough to permit their slidable interengagement. The two sections are telescopically engageable and together form the long central length 18. Each section has a rearwardly extending short leg 20 which is designed to be turned toward the wall of a room or toward a door.

The legs are suitably configured for engagement with conventional supporting brackets which are not shown here because they constitute no part of the invention. For example, each leg is provided with an aperture 26 in its upper retroverted bend which aperture is designed to receive the tip of an L-shaped bracket. Such L-shaped brackets have the shank of the L horizontal and connected to a vertical supporting surface, the shanks extending into the open ends and hollow interiors of the short legs 20 of the sections 22, 24.

The drapery hooks 16 are of any conventional type, an S-shaped drapery hook being here illustrated. Such an S-shaped drapery hook has a central vertical reach 28 joined at its lower end by an integral bight 30 to an upwardly extending pointed-tip vertical front reach 32 which is adapted to be pinned to a curtain panel adjacent the top edge thereof. The upper end of the vertical central reach 28 is joined by an integral bight 34 to a downwardly extending vertical rear reach 36 which is designed to be detachably engaged to a clip 14. As is usual, the rear reach 36 is substantially parallel to the central reach 28 and the front reach 32 slopes upwardly at a slight angle rearwardly toward the central reach 28.

The clips 14 are a primary novel feature of the instant invention. As has been mentioned before, these clips are designed to prehensively engage the curtain rods 12 anywhere along the length thereof and, when so engaged, to be non-slidable axially of the curtain rod. The non-slid-

ability is an essential characteristic of the clips. The clips are shaped to approximately match the transverse cross-sectional configuration of the curtain rod. Thus, if the curtain rod is circular, the corresponding engaging surface of the clip will be approximately circular and if, as in the case of the curtain rod here shown, said rod has a vertically elongated cross-section, the internal gripping surface of the clip likewise is vertically elongated to approximately match. Actually, when the clip is off the rod the internal surface of the clip corresponding to the external transverse cross-sectional configuration of the curtain rod is slightly smaller in at least one dimension than that of the curtain rod, so that the clip is stretched in such dimension when in engagement with the rod, i.e., when the clip is positioned on the rod it will be under expanding tension which, since the clip is resilient, creates a restoring force that urges the engaging surface of the clip into tight frictional contracting contact with the corresponding surface of the curtain rod, thus inhibiting longitudinal sliding movement of the clip on the rod.

The specific clip 14 illustrated is formed with a flat front shank 38. At its upper edge the shank 38 is formed with a retroverted trough, i.e., bight, 40 and at its lower edge with a retroverted trough 42 the open mouth of which faces the open mouth of the trough 40. The inner surfaces of the bases of the trough are spaced apart a distance slightly less than the distance between the outer surfaces of the retroverted bights at the top and bottom edges of the inner section 24 and therefore also less than the distance between the upper and lower bights of the outer section 22. Accordingly, when the clip 14 is snapped onto either of these two sections, the troughs 40, 42 will flex apart from one another slightly and will be held so flexed apart as long as they are in such engagement. The restoring force tending to urge the troughs to their idle position will cause said troughs to tightly prehensively engage the curtain rod sections and thus prevent the clips from experiencing axial slidable movement along the curtain rod unless a very substantial axial force is exerted which is considerably greater than the contracting force that is exerted by the stretched tops of the curtain panels.

To ease the making of the engagement between the clips and the curtain rods the tips of the free edges of the troughs 40, 42 are provided with upturned and downturned lips 44, respectively. These serve to cam the outer edges of the trough apart when the lips are placed against a section and the clips are pressed rearwardly against the curtain rod.

The clips are made of flexible resilient material to enable the troughs 40, 42 to be sprung apart and to bias themselves back toward their idle position. Any suitable flexible resilient material can be used. The clip 14 illustrated in FIGS. 1, 2 and 4 is made of metal, preferably spring steel, although other springy metals, or steels having a mild or high carbon content, are suitable. Also, if desired, the clips can be fabricated from a synthetic plastic inasmuch as in the small size used for curtain rods plastic is sufficiently resilient and flexible for the purpose indicated. Optionally, a particularly flexible resilient plastic can be employed, but the invention is not to be limited thereof. Exemplificative of suitable plastics are butadiene modified polystyrene, cellulose acetate butyrate and polyethylene.

The clips further are provided with suitable means for detachable coupling engagement with a drapery hook such as the S-shaped drapery hook illustrated. Said means assumes the form of a pair of ears, i.e., tabs, 46 which are struck from the material of the shank 38. The ears are bent to extend forwardly away from the curtain rod and are in vertical alignment. Each ear is formed with a vertical through aperture 48, the apertures being in vertical registration and being adapted to receive through them a single rear vertical reach 36 of the drapery hook inserted from above. This coupling engagement is clearly illustrated in FIGS. 2 and 4.

In FIG. 1 there are shown in dot-and-dash lines the direction of movement of the clip toward and away from the curtain rod and the direction of movement of the drapery hook toward and away from the clip.

Several clips are used, at least two for each of the curtain panels. Typical placement of the clips is shown in FIGS. 1 and 3. At least two clips are located between the ends of the central length 18 and at least one clip is located on each of the short legs in the position denoted by the reference letter X. Thereby, each curtain panel will have at least two endmost affiliated clips on the curtain rod. If desired, one or more additional intermediate clips may be employed for each of the curtain panels.

The curtains employed include two or more curtain panels 50. The panels are made of light weight cloth composed of materials such as cotton, silk, or synthetic fibers. The curtain material is colored or decorated in any suitable fashion. Its bottom and side edges are hemmed to conceal raw fabric edges. Similarly, the top edge is either a selvage edge or is hemmed. The hems, which are conventional, are not illustrated in the drawings in order to simplify the latter.

Pursuant to the invention the top of each curtain panel is elasticized; that is to say, an elastic element is incorporated adjacent the top edge of each panel. The elastic element may be in the form of horizontally extending plastic threads woven into the top marginal portion of each panel or it may constitute horizontal rows of elastic thread stitched under tension along the top marginal portion of each panel. As shown, the top of the curtain is elasticized by stitching thereto a longitudinally elastic horizontally disposed strip 52. The length of the elastic strip is less than the width of the curtain panel. Prior to stitching the elastic strip in place the elastic strip is tensed so as to stretch the same to substantially the full width of the panel to which it is to be sewed. Then the strip is attached to the panel by rows of stitching 54. Preferably, in order for the stitching to expand or contract its length with ease, the stitching is of the zig zag type. Alternately, the stitching may be performed with elastic threads. After the stitching is completed the tension is released from the elastic strip, which then is restored by contraction to its original relaxed length and in so doing contracts the top edge of the curtain. Such contraction results in a shirring, i.e., gathering, of the top edge of the curtain, and because the stitching is uniform and the contraction of the top edge of the curtain is uniform the shirring or gathering of the upper portion of the curtain is uniform without anyone having to take any special steps to ensure uniformity.

To install a curtain system pursuant to the present invention, a pair of curtain rod supporting brackets are mounted on a vertical supporting surface in suitably spaced apart locations. Then a curtain rod is connected to the brackets. If the curtain rod is, as shown, of the telescoping type, the length of the rod is adjusted by relative motion of the two sections to provide the desired length of rod between the installed brackets. It should be pointed out here that the invention also is operable in connection with already installed conventional curtain rods which a householder previously has mounted on a vertical supporting surface. The supporting surface may be a door, or a wall on both sides of a window or a window frame, or the inside of a casement recess, these being exemplificative rather than limiting.

The householder couples clips, such as the clip 14, to the installed curtain rod. For each curtain panel to be supported there should be at least one clip attached to the curtain rod adjacent one end thereof and at least one other clip attached to the curtain rod between the ends thereof. If the top of the curtain panel is to extend substantially to the middle of the curtain rod, as where two panels will cover the full width of the top of a window, the clip which is between the ends of the rod is placed near the middle.

Depending upon the desires of the householder, one or more additional clips may be snapped onto the curtain rod between the clip at the end of the rod and the clip between the ends of the rod for each curtain panel. The additional clips preferably are uniformly spaced apart from one another and from the endmost clips for the curtain panel with which they are associated.

It will be recalled that all of the clips are of the prehensile type, which after being snapped onto the rod are so constructed that they will not slide axially of the rod under the mild force exerted by a stretched elastic top curtain panel.

Drapery hooks are pinned or otherwise connected to the curtain panel at the rear face thereof adjacent the elasticized top marginal zone. For example, the reaches 32 may be pinned through the elastic strip 52, as shown in FIG. 4. One drapery hook is thus pinned to the curtain panel to be mounted in a position near one end of the top edge of the panel and a second drapery hook is pinned to the panel near the other end of the top edge. If additional intermediate clips are employed, additional drapery hooks are pinned to the top edge of the curtain panel at appropriate intervals. For instance, if one intermediate clip is used, the additional drapery hook will be pinned to the top edge of the panel halfway between the two side edges thereof.

Next the top edge of the panel is stretched until the distance between the two endmost pinned drapery hooks substantially matches the distance between the two endmost clips for that panel which clips have been snapped on the curtain rod, and finally the rear reaches 36 of the endmost drapery hooks are coupled to the two endmost clips by threading the same through the apertures 48. Because the clips will not slide axially of the rod, the clips will maintain the top edge of the mounted curtain panel in its tensed position. If there are any intermediate hooks they are similarly coupled to the intermediate clips.

Where the curtain rod includes a rearwardly turned leg 20, desirably the clip mounted adjacent an end of the curtain rod is located on this rearwardly turned leg as at the reference letter X. If the curtain rod is straight, the endmost clip simply is located adjacent to corresponding end of the rod.

It has been found that the top of the stretched curtain, apparently due to the contacting action of the elasticized top, tends to curl toward the curtain rod so that although the curtain rod is attached by the clips only to spaced portions of the curtain panel, sometimes only the ends of the curtain panel, the panel nevertheless is supported along its top by the rigid length of the curtain rod so that the panel does not tend to sag. It is believed that this tendency of the curtain to contact and be supported over its length by the rod is aided by the pivotal connection at the apertures 48 between the drapery hooks and the clips which permits the hooks to swing toward the rod, under the contracting force exerted by the tensed curtain top. The tendency of the curtain top to curl around and cling to the curtain rod is further enhanced where one end of the curtain rod has a rearwardly turned leg and a clip is attached to this leg with the curtain panel having a drapery hook coupled to such clip.

Optionally, instead of employing two clips side-by-side snapped onto the curtain rod adjacent the center thereof, one for each curtain panel, only one clip may be utilized for the inner adjacent ends of two curtain panels. However, such a clip must include two pairs of vertically registered apertures 48, one to receive and be coupled to the drapery hook of the panel on one side of such clip and the other to receive and be coupled to the drapery hook of a panel on the other side of said clip. It will be observed that even with such a center clip adapted to be coupled to the inner ends of two curtain panels, the clip will not shift to either side when one or the other of the panels has its endmost drapery hook disengaged from such clip, this being due to the axially stabilized engagement of the clip to the curtain rod.

The two endmost clips for two curtain panels are disposed near one another at the center of the curtain rod as shown in FIG. 3 in the event that the two center edges of the panels are designed to overlap or be close to one another. However, if panels are to be used which have a center separation, the center clips for the two panels are further spaced apart.

It will be clear that the foregoing arrangement also can be employed for three, four and more panels, if a wider area is to be covered or if different effects are to be secured. In each instance the clips form axially stable mountings on the curtain rod which are not subject to being drawn together under the tension of the stretched elasticized-top curtain panels.

Although in the form of clip 14 thus far described reliance has been placed solely upon the restoring force of the opposed troughs 40, 42 which tend to urge the troughs together after the clips have been spread apart when mounted on a curtain rod, axial stability of the clips on the rods can be attained by other constructions. One such construction is shown in FIG. 5. In this figure the clip 14' is fabricated from a synthetic plastic rather than spring metal. The structure is the same as that of the clip 14 with two exceptions. The first is that instead of employing a pair of ears 46 to clip 14' has a boss 56 on its front face through which a top-to-bottom straight passageway 58 extends. Said passageway functions to receive the rear vertical reach 36 of the drapery hook. The second is that inner surface of the flat front shank 38' of the hook 14' is roughened to increase its coefficient of static friction. The roughening is in the form of a thin layer 60 of a foamed elastic plastic, such as a foamed polyurethane, which is cemented to said front face and presents a rough, resilient surface to the front face of the curtain rod 12 which increases the resistance of the clip to axial sliding on a curtain rod.

Another modified form of clip 14'' is shown in FIG. 6. This clip, too, is made of plastic and has a boss 56'' extending forwardly from its front face. The boss has a vertical passageway 58'' therethrough for reception of the rear reach 36 of the drapery hook. The inner surface of the flat front shank 38'' of the clip 14'' is roughened by a series of vertical knurlings 62, which increase the coefficient of static friction of the clip and thus increase the frictional grip of the clip on the curtain rod so that although the prehensile grip of the troughs on the curtain rod may be somewhat weaker than the corresponding grip of the troughs of the metal clip, an equally great or even greater resistance to axial sliding on the curtain rod is secured.

Thus it will be seen that there is provided a curtain system which achieves the several objects of the invention and which is well adapted to meet the conditions of practical use.

As various other possible embodiments might be made of the above invention and as various changes might be made in the embodiment set forth, it is to be understood that all matter herein described or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described the invention, there is claimed as new and desired to be secured by Letters Patent:

1. A curtain system including at least two curtain panels, each of said panels having an elasticized top which in relaxed condition of the panel contracts the top to a minimum width and which permits the top of the panel to be stretched to greater widths, a curtain rod the

length of which exceeds the combined length of the curtain panels in relaxed condition, at least two clips for each panel, each of said clips having prehensile gripping means for detachable mounting on the curtain rod in such tight engagement therewith that the clip is prevented from sliding axially of the rod by the stretched elasticized top of a curtain panel, and at least two elements secured to the curtain adjacent its top and near its sides at points spaced apart less than the spacing between said clips for such curtain panel, said curtain panel being stretched to match the spacing between said elements to the spacing between said clips, said elements being detachably engaged with said clips whereby to support each curtain panel from the curtain rod.

2. A curtain system as set forth in claim 1 in which the curtain rod constitutes two telescopically engageable sections of the same shape, said prehensile gripping means detachably engaging both said sections.

3. A curtain system as set forth in claim 1 wherein the clips and the elements are detachably interengaged for mutual rotation about vertical axes, whereby when the panels are stretched and supported by the clips the panels will shift toward the curtain rod.

4. A curtain system as set forth in claim 3 wherein each element includes a vertical reach and wherein each clip includes a vertical bearing in which the reach is received.

5. A curtain system as set forth in claim 4 wherein the bearings constitute vertically spaced, pierced tabs.

6. A curtain system as set forth in claim 4 wherein the bearings constitute vertical bores in bosses integral with the clips.

7. A curtain system as set forth in claim 1 wherein the clips are of resilient material and include facing troughs at the top and bottom edges thereof for resilient engagement with the tops and bottoms of the curtain rods.

8. A curtain system as set forth in claim 1 wherein the prehensile gripping means are dimensioned to provide interior dimensions slightly smaller than the mating exterior dimensions of the curtain rod whereby said gripping means are in tension when in engagement with the curtain rod so as to create the tight engagement that prevents the clips from sliding axially off the rod.

9. A curtain system as set forth in claim wherein at least a portion of the interior surface of the clip is roughened to increase the coefficient of static friction of engagement between the clip and the curtain rod.

10. A curtain system as set forth in claim 1 wherein at least a portion of the interior surface of the clip includes a foamed elastomeric pad to increase the coefficient of static friction between the clip and the curtain rod.

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