A curtain system including a curtain panel having a top edge and a support member adjacent the top edge that provides structural integrity to the curtain panel, and multiple ring clips each having a ring member adapted to be positioned on a curtain rod, a clip member adapted to clamp onto the support member of the curtain panel, and a hanging member that connects the ring member to the clip member.
CURTAIN SYSTEMS AND COMPONENTS THEREOF

CROSS-REFERENCE TO RELATED APPLICATION


BACKGROUND

[0002] It is generally known to hang curtain panels from curtain rods using ring clips. Fig. 1 illustrates a conventional curtain system that implements such a hanging arrangement. As shown in that figure, a curtain panel 10 is supported by a plurality of ring clips 12 that are provided on a curtain rod 14. Ring members 16 of the ring clips 12 surround the curtain rod 14 and clip members 18 of the ring clips clamp onto the curtain panel material adjacent a top edge 20 of the curtain panel 10.

[0003] There are various disadvantages associated with the conventional curtain system illustrated in Fig. 1. As a first matter, the material of the curtain panel 10 tends to sag between the points at which the ring clips 12 attach to the panel because there is little structural integrity to the panel adjacent its top edge 20. This results in drooping that creates an undesirable, sloppy look.

[0004] Secondly, unless great care is taken to attach each ring clip 12 at the same distance from the curtain panel’s edge 20, the panel 10 may be hung at different heights along its width. For example, as indicated in Fig. 1, the middle ring clip 12 is attached closer to the top edge 20 of the curtain panel 10 as compared to the other two ring clips 12. When that occurs, portions of the bottom edge (not shown) of the curtain panel 10 may hang at different heights relative to other portions of the bottom edge, creating an uneven look that further detracts from the curtain panel’s aesthetic appeal.

[0005] Third, due to the construction of the ring clips 12, the clip members 18 of the ring clips are not free to rotate through large angles relative to their associated ring members 16. In particular, because a hanging wire 22 that connects the clip member 18 to the ring member 16 simply hooks around both the clip member and the ring member, the clip member can only pivot to a limited degree in either angular direction relative to its vertical axis. That limited movement inhibits the curtain panel 10 from folding naturally along its width adjacent the curtain rod 14, thereby adversely affecting draping of the panel.

[0006] In view of such disadvantages, it can be appreciated that it would be desirable to have a curtain system that obviates or at least reduces one or more of those disadvantages.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The disclosed systems and components can be better understood with reference to the following drawings. The components in the drawings are not necessarily to scale.

[0008] Fig. 1 is a partial front view of a prior art curtain system.

[0009] Fig. 2 is a partial front view of an embodiment of a curtain system of the present disclosure.

[0010] Fig. 3 is a partial cut-away front view of a first embodiment of a curtain panel that can be used in the system of Fig. 2.

[0011] Fig. 4 is an end view of the curtain panel of Fig. 3.

[0012] Fig. 5 is a partially-exploded end view of the curtain panel of Fig. 3.

[0013] Fig. 6 is an end view of the curtain panel of Fig. 3 as supported by a clip member of a ring clip.

[0014] Fig. 7 is a partial front view of a second embodiment of a curtain panel that can be used in the system of Fig. 2.

[0015] Fig. 8 is an end view of the curtain panel of Fig. 7.

[0016] Fig. 9 is a partially-exploded end view of the curtain panel of Fig. 7.

[0017] Fig. 10 is a front view of an embodiment of a ring clip of the present disclosure.

[0018] Fig. 11 is a partial cut-away front view of the ring clip of Fig. 10.

[0019] Fig. 12 is a perspective view of the ring clip of Fig. 10.

[0020] Fig. 13 is a partial cross-sectional view of the ring clip of Fig. 10 taken along line 12-12 in Fig. 11.

[0021] Fig. 14 is a bottom view of a curtain rod supporting a curtain panel with multiple ring clips of the type illustrated in Fig. 10.

DETAILED DESCRIPTION

[0022] As described above, existing curtain systems that use ring clips exhibit several disadvantages that adversely affect the aesthetics of the hung curtain panel. As is described in the following, the disclosed curtain systems provide far better results. In some embodiments, a curtain panel comprises a support member adjacent its top edge that reduces or eliminates panel sagging and that reduces the likelihood of uneven hanging. In further embodiments, ring clips are provided that have a clip member that can freely rotate through large angles, such as 360 degrees, such that natural folding of the supported curtain panel is facilitated and more attractive draping can be attained.

[0023] In the following, various embodiments of systems and system components are described. It is to be understood that those embodiments comprise mere implementations of the disclosed inventions and that alternative embodiments are possible and are intended to fall within the scope of the present disclosure.

[0024] Referring to the drawings, in which like numerals indicate corresponding parts throughout the several views, Fig. 2 is a partial front view of an example curtain system 100. The system 100 includes a curtain panel 102 that is supported by or hung from a curtain rod 104 using a plurality of ring clips 106. Each ring clip 106 comprises a ring member 108 that surrounds the curtain rod 104 and a clip member 110 that is coupled to the ring member with a
hanging wire 112. As indicated in FIG. 2, each clip member 110 clamps to the curtain panel 102 adjacent a top edge 114 of the panel. More particularly, each clip member 110 securely clamps around a support member 116 that is provided adjacent the top edge 114 of the curtain panel 102.

[0025] The construction of the curtain panel 102 is described in greater detail below. However, it is noted with regard to FIG. 2 that the presence of the support member 116 provides increased structural integrity to the curtain panel 102 along its top edge 114, which results in less sagging between the points at which the clip members 110 clamp onto the panel. As can further be appreciated from FIG. 2, the presence of the support member 116 provides a defined attachment feature to which the clip members 110 can be applied to ensure that each clip member clamps onto the curtain panel 102 at approximately the same distance from the top edge 114 of the panel.

[0026] Turning to FIG. 3, the curtain panel 102 is shown in greater detail. As indicated in FIG. 3, the support member 116 of the curtain panel 102 comprises an internal cord 118. In the embodiment of FIG. 3, the internal cord 118 comprises a braided textile outer layer 120 that surrounds multiple internal fibrous strands 122. The cord 118 is densely packed with the strands 122 such that the cord is flexible but relatively rigid, as compared to the fabric material of the curtain panel 102, such that the curtain panel comprises a measure of rigidity along its top edge 114. That relative rigidity resists the sagging that is common in conventional curtain systems.

[0027] The end views of FIGS. 4 and 5 illustrate an example construction for the curtain panel 102. As indicated in those views, the internal cord 118 has a relatively round or elliptical cross-section. As is further indicated in FIGS. 4 and 5, the panel 102 includes an outer face layer 124 that typically faces the observer. In most embodiments, the face layer 124 is composed of a decorative fabric that provides an aesthetically pleasing look to the curtain panel 102. In addition, the panel 102, in the illustrated embodiment, includes a lining layer 126 that typically faces away from the observer. The lining layer 126, when used, provides greater structure and weight to the curtain panel 102 and may therefore improve draping of the curtain panel 102 when hung from a curtain rod. In addition, the lining layer 128 may further serve a light-inhibiting or light-blocking function that reduces the amount of light (e.g., sunlight) that is transmitted through the panel 102.

[0028] With further reference to FIGS. 4 and 5, the internal cord 118 is surrounded by a cover layer 128 that conceals the internal cord. In some embodiments, the cover layer 128 comprises the same decorative fabric that is used to form the face layer 124. In such cases, the presence of the internal cord 118 is not obvious to the observer. In some embodiments, the cover layer 128 has a width dimension that is larger than the circumference or periphery of the internal cord 118 such that excess material of the cover layer forms attachment portions 130 to which the face layer 124 and the lining layer 126 can be attached. In some embodiments, the face layer 124 and the lining layer 126 are attached to the attachment portions 130 by sewing. Regardless of what method of attachment is used, however, the cover layer 128 closely follows the contours of the internal cord 118 such that the circular or elliptical shape of the internal cord remains intact after the face layer 124 and the lining layer 126 have been attached to the attachment portions 130. A narrowed portion or neck 132 results that is defined immediately below the internal cord 118 that teeth of a clip portion can grasp (see FIG. 6).

[0029] Although the internal cord 118 has been described as comprising a braided textile outer layer that surrounds multiple internal fibrous stand, it is to be appreciated that other constructions are possible. For example, the “cord” could comprise a simple rope or even a flexible polymeric shaft or tube. The particular construction of the internal cord is unimportant as long as the cord is flexible and provides the desired degree of structural integrity to a curtain panel. In addition, although a specific construction of the curtain panel 102 (including a face layer 124, a lining layer 126, and cover layer 128) has been described, that configuration is merely exemplary. More important is that, once the curtain panel has been constructed, a support member is provided along the top edge of the curtain panel that provides the structural integrity and/or provides a defined attachment feature to which clip members can be secured.

[0030] Turning to FIG. 6, attachment of a clip member 110 to the curtain panel 102 is illustrated. As indicated in FIG. 6, the clip member 110 comprises opposing jaws 134 that are biased toward each other through the provision of an internal spring 136. When applied to the curtain panel 102, the jaws 134 substantially surround the support member 116. More particularly, the support member 116 is disposed within a mouth 138 defined by the opposed jaws 134 and substantially “fills” the mouth such that teeth 140 of the jaws align with and/or are positioned adjacent the neck 132 of the curtain panel 102. With such a configuration, each clip member 110 attaches to the curtain panel 102 at approximately the same point of the curtain panel and the teeth 140 of the jaws 134 are spaced approximately the same distance from the top edge 114 of the curtain panel. The support member 116 therefore serves an indexing function that ensures that each clip member 110 is attached to the curtain panel 102 in substantially the same way and, therefore, the curtain panel will be evenly hung across its width. Moreover, the relative dimensions of the support member 116 and the clip member 110 provide an intuitive attachment scheme that is unlikely to result in uneven hanging of the curtain panel 102, at least relative to the curtain rod.

[0031] As is further indicated in FIG. 6, the support member 116 and its internal cord 118 may be deformed by the clip member 110 due to the biasing provided by the clip member’s internal spring 136. Such deformation, however, does not adversely affect the utility of the support member 116. To the contrary, such deformation indicates that the clip member 110 has firmly and securely grasped the support member 116 and that accidental release of the curtain panel 102 is unlikely.

[0032] FIG. 7 illustrates a second embodiment of a curtain panel 200. Like the curtain panel 102, the curtain panel 200 includes a support member 202 that is relatively rigid as compared to the material of the curtain panel and therefore provides structural integrity along a top edge of the panel. In the embodiment of FIG. 7, however, the support member 202 is external. In particular, the support member 202 comprises an external cord 204. In addition to the external
cord 204, the curtain panel 200 includes a decorative fringe 206 that includes a decorative band or strip 208 and tassels 210.

[0033] FIGS. 8 and 9 illustrate an example construction for the curtain panel 200. As indicated in those figures, the curtain panel 200 includes a face layer 212 and a lining layer 214 that are attached to each other, for example by sewing. In addition, the curtain panel 200 includes attachment portions 216 that are attached to the external cord 204, for example by sewing. As indicated in FIGS. 8 and 9, the face layer 212 attaches to the attachment portions 216, for example by sewing. As is further indicated in FIGS. 8 and 9, the external cord 204 comprises multiple yarns 218, for example three yarns, that are helically twisted with each other. Each yarn 218 comprises, for example, multiple fibers or further yarns.

[0034] With the above-described construction, the curtain panel 200, like curtain panel 102, comprises a support member 202 that provides structural integrity along a top edge of the panel. The support member 202, like support member 116, is also sized and configured to fill the mouth of a clip member used to hang the curtain panel 200 in similar manner to the arrangement shown in FIG. 6. Accordingly, the support member 202 prevents or limits curtain panel sagging and/or provides a defined attachment feature to which clip members can be secured. Therefore, it can be appreciated that the use of a support member whether internal (concealed) or external (revealed) improves the aesthetic appeal of the hung curtain panel in a manner not possible with conventional curtain systems.

[0035] Although the external cord 204 has been described as comprising a twisted cord comprised of multiple yarns, alternative constructions are possible. Substantially any other type of cord, shaft, or tube could be used as long as it is flexible, provides the desired degree of structural integrity, and has the desired aesthetic appeal.

[0036] With reference next to FIGS. 10-13, illustrated is an example ring clip 300 that can be used to hang a curtain panel, such as curtain panel 102 and/or curtain panel 200. As indicated in those figures, the ring clip 300 generally comprises a ring member 302, a clip member 304, and a hanging member 306 that connects the clip member to the ring member. The ring member 302 is generally circular and is adapted to be passed over a curtain rod in similar manner to conventional ring members. As indicated most clearly in FIGS. 11-13, however, the ring member 302 comprises an outwardly-facing (in a radial direction) annular groove 308 that is adapted to receive decorative beads 310 or other decorative elements. As indicated most clearly in FIGS. 11 and 13, the beads 310 can, for example, be sized and configured such that only a portion of the beads are visible when the ring clip 300 is viewed from the side. The beads 310 can be secured to the ring member 300 in a variety of different ways. In some embodiments, the beads 310 are threaded onto a mounting wire 312 (FIGS. 11 and 13) that passes through a hole 314 (FIG. 13) that is provided in each bead. In such cases, the mounting wire 312 along with its beads 310 are wrapped around the ring member 302 and, more particularly, the ring member’s annular groove 308. When the mounting wire 312 has a diameter that is similar to the outer diameter of the ring member 302 (after the beads 310 have been applied), the mounting wire and its beads will be generally positioned between opposed walls 316 (FIG. 13) of the ring member that define the groove 308 and side surfaces 318 of the ring member.

[0037] As shown in FIGS. 10-12, the clip member 302 comprises opposed jaws 320 that are biased toward each other (i.e., biased to the closed position) through the provision of an internal spring 322. The jaws 320 are sized and configured such that, when applied to a curtain panel having a support member (e.g., support member 116 or 202), the jaws substantially surround the support member and teeth 324 of the jaws are positioned adjacent a neck of the curtain panel situated just below the support member.

[0038] With specific reference to FIGS. 10 and 11, the hanging member 306 comprises, in the illustrated embodiment, a loose wire that extends from the ring member 302, wraps around the internal spring 322 of the clip member 304, and returns to the ring member. Significantly, however, the hanging member 306 does not similarly wrap around the ring member 302 as in conventional curtain systems. Instead, the hanging member 306 passes through an opening 326 that is formed through the ring member 306, as indicated in FIG. 11. Such coupling between the hanging member 304 and the ring member 302 enables the hanging member, and therefore the clip member 304 to which it is attached, to freely rotate relative to the ring member as indicated by arrow 328 in FIG. 12. In some embodiments, the hanging member 306 and its associated clip member 304 can freely rotate through 360 degrees (continually in either angular direction) such that natural folding of the curtain panel is not inhibited. Such functionality is illustrated in FIG. 14. As shown in that figure, multiple ring clips 300 have been positioned on a curtain rod 330. The clip members 304 of the ring clips 300 have been attached to a support member 332 of a curtain panel 334. As is apparent from FIG. 14, the curtain panel 334 assumes a natural, folded (e.g., sinusoidal) configuration that is facilitated by the large angles the clip members 304 form relative to the planes in which the ring members 302 lie.

[0039] Although the hanging member 306 has been described as comprising a wire that passes through an opening provided in a ring member and wrapped around a spring of a clip member, alternative arrangements are possible. For example, the hanging member could be fixed to the ring member but permit the clip member to freely rotate about the hanging member. Regardless, the particular configuration of the hanging member is less important to enabling free rotation of the clip members relative to their associated ring members.

I claim:

1. A curtain system comprising:
   a curtain panel having a top edge and a support member adjacent the top edge that provides structural integrity to the curtain panel; and
   multiple ring clips each having a ring member adapted to be positioned on a curtain rod, a clip member adapted to clamp onto the support member of the curtain panel, and a hanging member that connects the ring member to the clip member.

2. The curtain system of claim 1, wherein the curtain panel comprises a face layer composed of a decorative fabric;
3. The curtain system of claim 2, wherein the support member comprises an internal cord that is positioned along the top edge of the curtain panel.

4. The curtain system of claim 3, wherein the internal cord is concealed by a layer of the same decorative fabric as the face layer.

5. The curtain system of claim 1, wherein the support member comprises an external cord that is positioned along the top edge of the curtain panel.

6. The curtain system of claim 5, wherein the external cord is a helically twisted cord comprising twisted yarns.

7. The curtain system of claim 1, wherein the curtain panel comprises a narrowed neck immediately below the support member and wherein, when the clip members are clamped onto the support member, teeth of the clip member are positioned adjacent the neck.

8. The curtain system of claim 1, wherein the clip member can freely rotate relative to the ring member.

9. The curtain system of claim 1, wherein the clip member can freely rotate relative to the ring member through 360 degrees about a vertical axis of the clip member.

10. The curtain system of claim 1, wherein the ring member comprises a hole through which the hanging member passes and wherein the hanging member can freely rotate within the hole.

11. The curtain system of claim 1, wherein the ring member comprises an annular groove in which decorative elements can be positioned.

12. The curtain system of claim 1, wherein the ring member further comprises decorative beads positioned within the annular groove.

13. A curtain panel comprising:

a fabric layer; and

a support member positioned at a top edge of the curtain panel along its width, the support member being flexible but relatively rigid as compared to the fabric layer, the support member being sized and configured for receipt within a mouth of a clip member when the clip member is attached to the top edge of the curtain panel; wherein the support member provides structural integrity to the curtain panel along its top edge that reduces sagging of the curtain panel; wherein the support member provides a defined attachment feature to which to attach a clip member.

14. The curtain panel of claim 13, wherein the fabric layer comprises a face layer composed of a decorative fabric.

15. The curtain panel of claim 14, wherein the support member comprises an internal cord that is positioned along the top edge of the curtain panel.

16. The curtain panel of claim 15, wherein the internal cord is concealed by a layer of the same decorative fabric as the face layer.

17. The curtain panel of claim 13, wherein the support member comprises an external cord that is positioned along the top edge of the curtain panel.

18. The curtain panel of claim 17, wherein the external cord is a helically twisted cord comprising twisted yarns.

19. The curtain panel of claim 13, further comprising a narrowed neck immediately below the support member and wherein, when a clip member is clamped onto the support member, teeth of the clip member are positioned adjacent the neck.

20. A clip ring comprising:

a ring member adapted to be positioned on a curtain rod;

a clip member adapted to clamp onto a support member of a curtain panel; and

a hanging member that connects the ring member to the clip member.

wherein the clip member can freely rotate relative to the ring member.

21. The clip ring of claim 20, wherein the ring member can freely rotate relative to the ring member through 360 degrees about a vertical axis of the clip member.

22. The clip ring of claim 20, wherein ring member comprises a hole through which the hanging member is passed and wherein the hanging member can freely rotate within the hole.

23. The clip ring of claim 20, wherein the ring member comprises an annular groove in which decorative elements can be positioned.

24. The clip ring of claim 23, wherein the ring member further comprises decorative beads positioned within the annular groove.