ARRANGEMENT FOR MOUNTING ONTO A ROD

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ABSTRACT

An arrangement is provided to allow the arrangement to be hung from a rod without using any extraneous hardware and without taking down the rod. The arrangement comprises two openings, two cuts each through one of the two openings, and a path having two edges connecting edges of the two cuts. At least a portion of the path is reinforced, the two openings are shifted off center, and/or the path has a rising portion and/or a falling portion.
ARRANGEMENT FOR MOUNTING ONTO A ROD

RELATED APPLICATIONS

[0001] This patent application claims priority to a foreign patent application filed in the Chinese Patent Office, having the application number 200820164745.1 and filed on Sep. 17, 2008.

BACKGROUND

[0002] 1. Field of the Invention

[0003] The invention relates generally to an arrangement for mounting onto a rod, and more specifically relates to an arrangement for mounting a suspended material onto a rod without using any extraneous hardware and without taking down the rod.

[0004] 2. Discussion of Related Art

[0005] Traditionally, a suspended material including a curtain is hung from a rod with extraneous hooks or clips. Without using extraneous hardware, a curtain is also sometimes hung from a rod by feeding the rod through holes of the curtain. However, the rod must be taken down, which is inconvenient. In a prior Chinese patent application, this Applicant disclosed a curtain having ring-shaped hanging loops that are no higher than the top of the curtain. Each hanging loop has a slit that opens through the top of the curtain. The curtain can be hung easily from a rod by pulling open the slit of each hanging loop for attaching each hanging loop onto the rod.

[0006] However, the weight of the curtain itself and/or external force often cause the slits to separate. Additionally, the openings at the top of the curtain also degrade the integrity of the curtain. Consequently, beauty of the curtain is diminished because the curtain may appear not straight or not of the intended shape, and the curtain often cannot be hung securely from the rod.

[0007] Thus it is an ongoing challenge to provide an arrangement for mounting onto a rod.

SUMMARY

[0008] The present disclosure provides an arrangement for mounting onto a rod that solves the above and other problems, thereby advancing the state of the useful arts, by redistributing the weight of the curtain and/or external force around an interior of the curtain. The arrangement comprises two openings, two cuts each through one of the two openings, and a path having two edges connecting edges of the two cuts. At least a portion of the path is reinforced, the two openings are shifted off center, and/or the path has a rising portion and/or a falling portion. Advantageously, the curtain can maintain its intended shape and be hung securely from the rod, while also allowing the arrangement to be hung from the rod without using any extraneous hardware and without taking down the rod.

[0009] In one embodiment, an arrangement is provided for mounting onto a rod. The arrangement comprises two openings, in that the rod is threaded through the two openings when the arrangement is hung from the rod. The arrangement also comprises two cuts each through one of the two openings. The arrangement further comprises a path having two edges connecting edges of the two cuts, in that at least a portion of the path is reinforced.

[0010] In another embodiment, an arrangement is provided for mounting onto a rod. The arrangement comprises two openings, in that the rod is threaded through the two openings when the arrangement is hung from the rod. The arrangement also comprises two cuts each through one of the two openings to form two cut-through points. The two cut-through points form a line at an angle to the rod when the arrangement is hung from the rod. Additionally, the arrangement comprises a path having two edges connecting edges of the two cuts.

[0011] In yet another embodiment, an arrangement is provided for mounting onto a rod. The arrangement comprises two openings, in that the rod is threaded through the two openings when the arrangement is hung from the rod. The arrangement also comprises two cuts each through one of the two openings. The arrangement further comprises a path having two edges connecting edges of the two cuts; the path comprises a rising portion and a falling portion.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a diagram of an exemplary arrangement for mounting onto a rod in an embodiment.

[0013] FIG. 2 is a diagram of the exemplary arrangement mounted onto a rod in an embodiment.

[0014] FIG. 3 is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment.

[0015] FIG. 4 is a diagram showing additional details of an exemplary arrangement for mounting onto a rod in an embodiment.

[0016] FIG. 5 is a diagram showing additional details of another exemplary arrangement for mounting onto a rod in an embodiment.

[0017] FIG. 6 is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment.

[0018] FIG. 7 is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment.

[0019] FIG. 8 is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment.

[0020] FIG. 9 is a diagram showing additional details of an exemplary arrangement for mounting onto a rod in an embodiment.

DETAILED DESCRIPTION OF THE DRAWINGS

[0021] FIG. 1 is a diagram of an exemplary arrangement for mounting onto a rod in an embodiment. A suspended material 1 is shown as comprising a mounting arrangement 2. However, it is noted that an “arrangement” may also more broadly comprise both the suspended material 1 and the mounting arrangement 2 because they can be combined for mounting both onto a rod. The suspended material 1 may be made of any of a number of materials and may be one of a curtain (e.g., a shower curtain) and a drape. The mounting arrangement 2 comprises two openings 23, two cuts 24 each through one of the two openings 23, and a path 25 having two edges. FIG. 2 is a diagram of the exemplary arrangement mounted onto a rod 3 in an embodiment, in that the rod 3 is threaded through the two openings when the mounting arrangement 2 is hung from the rod.

[0022] Each of the two openings 23 may be reinforced with a hanging ring 2a. The hanging ring 2a may be any of a number of shapes including a flower, a flower with petals, a sun, a wheel, a polygon, a hexagon, and an octagon. Indeed, a polygon-like shape having any number of sides/arcs including five, seven, nine, or ten may also be used. For example,
FIG. 1 shows the hanging ring 2α in a flower shape with six petals. FIG. 6, which is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment, shows a hanging ring 2β in the shape of an octagon. FIG. 7, which is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment, shows a hanging ring 2γ in a flower shape with five petals. However, six, seven, eight, or more petals may also be used. The use of petals not only increases the aesthetic appeal, but also strengthens the hanging ring by making its edge wider. The surrounding suspended material 1 is also straightened as a result.

The two cuts 24 each through one of the two openings 23 form two cut-through points. As more clearly shown in FIG. 2, the two cut-through points form a line at an angle (i.e., off center) to the rod 3 when the mounting arrangement 2 is hung from the rod 3. Additionally, one cut-through point is above a center line of the rod 3, and the other cut-through point is below the center line of the rod when the mounting arrangement 2 is hung from the rod 3. Consequently, the weight of the suspended material 1 and/or external force is redistributing because the path is no longer parallel to the rod 3. The two cuts 24 each through one of the two openings 23 may be substantially perpendicular to the respective openings 23 or at an angle. The two cuts 24 may also be straight and/or curved as will be discussed in greater detail in FIG. 9.

The path 25 has two edges that connect to edges of the cuts 24. Between the two edges, a slit 26 is formed such that the interiors of the two openings 23 open to each other. More specifically, a user is able to open the slit 26 and allow the rod 3 to enter both of the openings 23 at the same time. FIG. 3 is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment, in that the path 25 and the slit 26 of the suspended material 1 is shown as a long cut 11 on the suspended material 1. In FIG. 3, the long cut 11 is not reinforced. However, FIG. 1 shows that at least a portion of the path 25 is reinforced. Reinforcement prevents drooping of the suspended material 1, while providing a closing mechanism to close the slit 26 after the user mounts the hanging arrangement 2 onto the rod 3. The reinforcement along the path 25 may be of a number of shapes including a branch, a string of moons (e.g., that connect the hanging rings that each resemble a sun), a string of stars, and a locomotive rod (e.g., that connect the hanging rings that each resemble a locomotive wheel). The branch may include additional small branches 27 and leaves 28 to provide additional strength and additional aesthetic appeal (especially when matched with hanging rings that resemble flowers or flowers with petals).

FIG. 4 is a diagram showing additional details of an exemplary arrangement for mounting onto a rod in an embodiment. Indeed, the reinforcement discussed above may be an interconnected element comprising at least one of the two openings 23 (i.e., the interconnected element comprise one of the two hanging rings 2α that has the opening 23) and at least one edge of the path 25. FIG. 4 more specifically shows the reinforcement as comprising both edges along the path 25 and both of the hanging rings 2α as an integrated whole. For brevity, descriptions of the elements of the mounting arrangement 2 are not repeated.

FIG. 5 is a diagram showing additional details of another exemplary arrangement for mounting onto a rod in an embodiment. The mounting arrangement may be formed by a front piece 21 and a back piece 22 for attaching to the suspended material between the two pieces. The front piece 21 comprises a plurality of cylindrical-shaped connectors 212 for connecting to their corresponding connecting holes 222 of the back piece 22. Additionally, the front piece 21 comprises front cuts 211 while the back piece 22 comprises back cuts 221. Furthermore, the front piece 21 comprises a front path 251 connecting edges of the two front cuts 211, and the back piece 22 comprises a back path 252 connecting edges of the two back cuts 221.

FIG. 8 is a diagram of another exemplary arrangement for mounting onto a rod in an embodiment. While the path 25 shown in FIG. 1 comprises a falling portion, a rising portion, and another falling portion (when viewed from left to right) to form a horizontal S-shaped pattern, the path 25 may comprise a single rising/falling portion, a rising portion and a falling portion, or any number of rising and falling portions (e.g., in a wavy pattern). For example, FIG. 8 shows the path 25 has having a falling portion, a rising portion, a falling portion, and a falling portion (when viewed from left to right for a total of two rising portions and two falling portions). Additionally, a shape connecting rising and falling portion may comprise one of a curve and a sharp angle. The rising and/or falling portion(s) allows the weight of the suspended material to be redistributed, is aesthetically pleasing, and also fixes the distance between the openings.

FIG. 9 is a diagram showing additional details of an exemplary arrangement for mounting onto a rod in an embodiment. A hanging ring may comprise a front and a back piece, and a cut may comprise a straight portion and/or a curved portion. The cut may be through a petal (as shown) and/or between petals. Similarly, for a polygon, the cut may be through a side/arc and/or between sides/arcs. As shown, a front cut portion 213 matches a back cut portion 223. Notably, the back cut portion 223 is shown as surrounded by three connecting points to increase strength. Many details of a similar design is disclosed in Chinese patent application number 200720106719.9, which incorporated by reference.

The illustration and description above should be considered as exemplary and not restrictive in character. Several embodiments have been shown and described, and those skilled in the art will recognize variations, alternative constructions, and equivalents of the above described embodiments that fall within the spirit of the invention. Accordingly, the above description does not limit the scope of the invention, which is defined by the following claims.

What is claimed is:
1. An arrangement for mounting onto a rod, the arrangement comprising:
   two openings wherein the rod is threaded through the two openings when the arrangement is hung from the rod;
   two cuts each through one of the two openings; and
   a path having two edges connecting edges of the two cuts, wherein at least a portion of the path is reinforced.
2. The arrangement of claim 1, wherein the arrangement is a portion of one of a curtain and a drape.
3. The arrangement of claim 1, further comprising an interconnected reinforcement element, the interconnected reinforcement element comprising:
   at least one of the two openings, and
   at least one edge for reinforcing the path.
4. The arrangement of claim 1, further comprising a front piece and a back piece for attaching to a suspended material between the two pieces.
5. The arrangement of claim 1, wherein the arrangement comprises two shapes, wherein:
a first shape comprises one of the two openings, wherein the first shape comprises one of a flower, a sun, a wheel, a polygon, a hexagon, and an octagon; and a second shape comprises at least a portion of the path, wherein the second shape comprises one of a branch, a string of moons, a string of stars, and a locomotive rod.

6. The arrangement of claim 1, wherein:
   a first shape comprises one of the two openings, the first shape comprising a flower with petals; and a second shape comprises at least a portion of the path, the second shape comprising a branch with leaves.

7. The arrangement of claim 1, wherein the two cuts through the two openings form two cut-through points, wherein the two cut-through points form a line at an angle to the rod when the arrangement is hung from the rod.

8. The arrangement of claim 7, wherein one cut-through point is above a center line of the rod and the other cut-through point is below the center line of the rod when the arrangement is hung from the rod.

9. The arrangement of claim 7, wherein the cuts are substantially perpendicular to the respective openings.

10. The arrangement of claim 1, wherein the path comprises a rising portion and a falling portion.

11. The arrangement of claim 10, wherein the path further comprises another portion, the another portion comprising one of another rising portion and another falling portion.

12. The arrangement of claim 10, wherein the path further comprises a shape connecting rising and falling portions, the shape comprising one of a curve and a sharp angle.

13. The arrangement of claim 1, wherein the path comprises two rising portions and two falling portions.

14. An arrangement for mounting onto a rod, the arrangement comprising:
   two openings, wherein the rod is threaded through the two openings when the arrangement is hung from the rod;
   two cuts each through one of the two openings to form two cut-through points, wherein the two cut-through points form a line at an angle to the rod when the arrangement is hung from the rod;
   a path having two edges connecting edges of the two cuts.

15. The arrangement of claim 14, wherein one cut-through point is above a center line of the rod and the other cut-through point is below the center line of the rod when the arrangement is hung from the rod.

16. The arrangement of claim 14, wherein the arrangement comprises two shapes, wherein:
   the arrangement is a portion of one of a curtain and a drape;
   a first shape comprises one of the two openings, wherein the first shape comprises one of a flower, a sun, a wheel, a polygon, a hexagon, and an octagon; and a second shape comprises at least a portion of the path, wherein the second shape comprises one of a branch, a string of moons, a string of stars, and a locomotive rod.

17. An arrangement for mounting onto a rod, the arrangement comprising:
   two openings, wherein the rod is threaded through the two openings when the arrangement is hung from the rod;
   two cuts each through one of the two openings; and
   a path having two edges connecting edges of the two cuts, wherein the path comprises a rising portion and a falling portion.

18. The arrangement of claim 17, wherein the path further comprises another portion, the another portion comprising one of another rising portion and another falling portion.

19. The arrangement of claim 17, wherein the arrangement comprises two shapes, wherein:
   the arrangement is a portion of one of a curtain and a drape;
   a first shape comprises one of the two openings, wherein the first shape comprises one of a flower, a sun, a wheel, a polygon, a hexagon, and an octagon; and a second shape comprises at least a portion of the path, wherein the second shape comprises one of a branch, a string of moons, a string of stars, and a locomotive rod.

20. The arrangement of claim 17, wherein:
   at least a portion of the path is reinforced to reduce drooping; and
   the two cuts through the two openings form two cut-through points, wherein the two cut-through points form a line at an angle to the rod when the arrangement is hung from the rod.

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