CUP HOLDER SLEEVE

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Appl. No.: 12/174,833
Filed: Jul. 17, 2008

Related U.S. Application Data
Provisional application No. 60/950,212, filed on Jul. 17, 2007.

Publication Classification
Int. Cl.
B65D 81/00 (2006.01)
U.S. Cl. .............................................. 248/311.2

ABSTRACT
A cup holder sleeve is provided with a hanger for suspending a sleeve and cup combination from objects (e.g. shopping carts). The sleeve includes a body and a hanger connected to the body. The hanger is deformable to define a hook. The sleeve is expandable to receive the cup and collapsible to a substantially flat configuration for storage. When the body is flat, the sleeve is substantially co-planer. The hanger may be made using an elongate hanger element, such as a deformable strip of aluminium, extending from an upper edge of the body. Preferably, the elongate hanger element is covered in a same material (e.g. paper, foam) used for the body. The body is composed of a material strip material fastened at overlapping ends to define an annular shape. Preferably, the hanger extends from the body at the overlapping ends and may be fastened to the body between the overlapping ends.
CUP HOLDER SLEEVE

CROSS-REFERENCE
[0001] This application claims the benefit of the prior filing of U.S. Provisional Patent Application No. 60/950,212 filed Jul. 17, 2007, the disclosure of which is incorporated herein by reference.

FIELD
[0002] This application relates generally to the field of cup holders and more particularly to recyclable/disposable cup holder sleeves that may be stored flat and expanded to fit around a cup. An integral cup hanger is provided for suspending the sleeve and cup combination.

BACKGROUND
[0003] Cup holders and chiefly cup holder sleeves are commonly used to provide assistance to persons carrying cups for beverages and the like. A cup is placed in the sleeve so that the sleeve tightly surrounds a substantial portion of the cup. The sleeve provides assistance with gripping the cup and/or with insulating the cup, especially when the cup contains a hot beverage like coffee, tea or hot chocolate. Cup holder sleeves are typically made from paper or other insulating materials (foam), are disposable and, preferably, recyclable. Some sleeves are embossed or otherwise worked to provide a non-flat surface. The sleeves also provide a surface for printing material such as advertisements and other information including warnings or instructions for food service workers to prepare the intended contents and/or to identify the contents of the cup once prepared.

[0004] Cup holders sleeves are disclosed in U.S. Pat. No. 6,986,438 of Leung, U.S. Pat. No. 5,425,497 of Sorensen and U.S. Pat. No. 5,205,473 of Coffin, Sr.

[0005] Though different constructions and materials are known, commonly, a user holds the cup and sleeve combination by holding the sleeve between a thumb and one or more fingers of the user’s hand. The cup and sleeve may be gripped with two hands, as well, though two-handed carrying may be awkward.

[0006] There are times when a user wishes not to use a hand to carry a cup and sleeve and yet may also not have a suitable surface upon which to rest the cup in an upright position. For example, a user may wish to push a shopping cart or stroller while enjoying a beverage in a cup. Cup holders integrated in handles of shopping carts often get dirty and require routine cleaning. Their position is fixed on the cart. It may also be desired to have a child ride along in the shopping cart and it is preferred to keep the child away from the beverage in the cup.

[0007] A solution to one or more of these issues is therefore desirable.

SUMMARY
[0008] A cup holder sleeve is provided with a hanger for suspending a sleeve and cup combination from objects (e.g. shopping carts). The sleeve includes a body and a hanger connected to the body. The hanger is deformable to define a hook. The sleeve is expandable to receive the cup and collapsible to a substantially flat configuration for storage. When the body is flat, the sleeve is substantially co-planer. The hanger may be made using an elongate hanger element, such as a deformable strip of aluminum, extending from an upper edge of the body. Preferably, the elongate hanger element is covered in a same material (e.g. paper, foam) used for the body. The body is composed of a material strip material fastened at overlapping ends to define an annular shape. Preferably, the hanger extends from the body at the overlapping ends and may be fastened to the body between the overlapping ends.

[0009] These and other aspects will be apparent to those of skill in the art.

DESCRIPTION OF THE DRAWINGS
[0010] Further features and advantages of the embodiments will become apparent from the following detailed description, taken in combination with the appended drawings, in which:

[0011] FIG. 1 is a front view of a cup holder sleeve, folded flat, in accordance with an embodiment;

[0012] FIG. 2 is a back view of the cup holder sleeve of FIG. 1;

[0013] FIGS. 3A and 3B are views showing the expansion of the cup holder sleeve;

[0014] FIG. 4 is back view of the cup holder sleeve showing an element of the hanger;

[0015] FIGS. 5A and 5B are alternative cross-sectional views along lines A-A of FIG. 4 showing the connection of the hanger to the body of the cup holder sleeve;

[0016] FIG. 6 is a view of the cup holder sleeve showing the hanger in a bent position for suspending the cup holder sleeve; and

[0017] FIG. 7 is a view of the cup holder sleeve of FIG. 6 in combination with a cup.

[0018] It will be noted that throughout the appended drawings, like features are identified by like reference numerals.

DETAILED DESCRIPTION OF EMBODIMENTS
[0019] FIG. 1 is a front view of a cup holder sleeve 100 in accordance with an embodiment and in which sleeve 100 is folded flat. Sleeve 100 comprises an expandable/collapsible body 102 and a deformable hanger 104. When flat, hanger and body are substantially co-planer for storage. Body 102 includes an upper edge 106 into which a cup is insertable and opposing tapered side edges 108 and 110.

[0020] Body 102 is preferably constructed from a multi-ply material such as cellulosic material including Kraft paper, post-consumer recycled paper, etc. the layers of which are glued using an adhesive. FIG. 2 is a back view of the cup holder sleeve of FIG. 1. Body 102 is typically formed from a die cut strip of multiply material that is fastened at it’s overlapping ends (e.g. 120,122 (See FIG. 5A)) such as by gluing together with a suitable adhesive material.

[0021] Body 102 is expandable to form an annular body and is typically tapered from top to bottom and is sized to fit a correspondingly shaped (e.g. frusto-conical) cup. As is known to persons of ordinary skill in the art, side edges 108 and 110 may be adapted to assist with the folding of body 102 such as with slits (not shown) through at least a portion of the material on the exterior surface 112 of the body 102. The slits typically extend longitudinally along the edges and may comprise one or more slits on each side.

[0022] FIGS. 3A and 3B show the expansion of the cup holder sleeve (along a direction indicated by the arrow in dotted outline), revealing inner surface 140 that sits adjacent a cup when in use (See too, FIG. 7).
Hanger 104 extends from upper edge 106 and is preferably positioned at a midpoint between edges 108 and 110 to accommodate the generically annular shape of the body when it is expanded. Before deformation, hanger 104 is substantially flat for storage. Hanger 104 is relatively narrow between its edges 114 and 116 in comparison to body 102 to assist hooking on objects such as shopping carts that may be mesh-like in construction. FIG. 4 is a back view of the cup holder sleeve showing further details of an element 130 of the hanger 104. In FIG. 4, element 130 is an additional representative element shown for illustration purposes only. A similar element 130 is carried within sleeve 100.

Hanger element 130 comprises a free end 132 and a fixed end 134 that is connected to body 102. Element 130 provides a deformable substrate for shaping by the user to define a hook-like hanger near free end 132 as described further with reference to FIGS. 6 and 7. Elongate element 130 may be formed of a relatively pliable metal such as aluminum or other deformable material that is sufficiently stiff to hold its shape under anticipated loading, that is, when supporting a cup and its contents. It is further preferred that the material is recyclable and easily separable from the multiply material such as at a recycling facility, after use.

Element 130 is sized to extend within body portion 102 to provide sufficient connection thereto when supporting the weight of a cup and its contents. Preferably, near end 134 that connects to body 102, there are formed a plurality of teeth 136 and/or holes 138 in the element 130. These structures aid in the retention of element 130 during use so that element 130 does not slide out of connection to body 102. The teeth and holes assist with the distribution of adhesive around the end 134 of element 130 for gluing the hanger to the body as described below. Elements 130 may be die cut using 020° aluminum, for example.

Free end 132, extending above edge 106, is preferably disposed within layers of multiply material, for example, so as to cover any sharp edges of element 130 that otherwise may be in contact with a user. The material may be glued over the end 132 and provided for connecting with body 102.

Fixed end 134 may be connected to body 102 in alternative embodiments. FIG. 5A is a cross-section of body 102 and hanger 104 about line A-A of FIG. 4 showing a first embodiment. When ends 120 and 122 of a die cut exemplary two ply strip defining body 102 are fastened, there is formed an exterior surface 112 of body 102 and an interior surface 140. End 134 of hanger 104 may be fastened in the adhesive 142 between the two ends 120, 122 of the die cut body strip when they are laminated. In this way, fewer assembly steps may be required.

FIG. 5B is a cross-section of body 102 and hanger 104 about line A-A of FIG. 4 showing a second embodiment. Alternatively, though not preferred, FIG. 5B shows end 134 between respective layers of the two-ply material at an end (e.g. 120) of body strip 102. In this embodiment, steps are thus required to connect end 134 to the body strip and to close the body strip. Advantageously, the construction shown in FIG. 5A permits fewer modifications to current practices for forming sleeves.

Though simple two-ply material is shown in FIGS. 5A and 5B, persons of ordinary skill in the art will understand that other constructions may be used including corrugated papers and foams.

FIGS. 6 are views of the cup holder sleeve showing the hanger 104 in a bent position for hanging the cup holder sleeve and a cup (FIG. 7) it is carrying. Hanger 104 may be deformed by bending about a user's finger or another object. An elongate hanger 104 assists with bending though shorter embodiments may be useful.

In use, hanger 104 may be deformed to suspend a cup and sleeve combination from a shopping cart for example. Advantageously, the combination may be suspended from various parts and about various desired locations of the cart including the basket that are remote from a child riding in the cart. The location of the hanger assists with keeping the cup upright while hung. As well, the stiffness of element 130 is useful to retain the sleeve in place especially while moving the cart. The hanger may be bent to grip a part of the cart such a lip of the basket and squeeze to conform to the size and shape of the cart part. Yet, the sleeve and hanger may be provided in a flat configuration for storage and display for users or food service works to pick up and apply to a cup.

In addition to hanging from a cart or the like, the hanger may also be bent to hand the cup and sleeve from other objects. For example, it may be back over a user's fingers (away from the sleeve as is shown in FIGS. 6 and 7) to assist with gripping the cup when holding with one hand.

What is claimed is:
1. A cup holder sleeve comprising:
   - a body for receiving a cup; and
   - a hanger connected to the body for hanging the sleeve and cup combination.
2. The cup holder sleeve of claim 1 wherein the hanger is deformable to define a hook for hanging the sleeve and cup combination.
3. The cup holder sleeve of claim 1 wherein the body is expandable to receive the cup and collapsible to a substantially flat configuration for storage.
4. The cup holder sleeve of claim 3 wherein, when the body is flat, the hanger and body are substantially co-planer.
5. The cup holder sleeve of any one of the preceding claims wherein the hanger comprises an elongate hanger element extending from an upper edge of the body.
6. The cup holder sleeve of claim 5 wherein the elongate hanger element comprises a deformable strip of aluminum.
7. The cup holder sleeve of claim 5 or claim 6 wherein the elongate element is covered in a material of the body.
8. The cup holder sleeve of any one of claims 5 to 7 wherein the body comprises a strip of material fastened at overlapping ends to define an annular shape for receiving the cup.
9. The cup holder sleeve of claim 8 wherein the hanger extends from the body at the overlapping ends.
10. The cup holder sleeve of claim 8 wherein the elongate element is fastened to the body between the overlapping ends.
11. A method of making a cup holder sleeve comprising:
   (a) receiving a strip of material having opposing ends for overlapping to define a body of the sleeve;
   (b) receiving an elongate hanger element for defining a hanger, the hanger element having a first end for connecting to the body; and
   (c) fastening the overlapping opposing ends of the strip with the end of the elongate element therebetween.
12. The method of claim 11 comprising covering a second end of the hanger element opposing the first end with a material used to define the strip.
14. A method of using a cup holder sleeve comprising:

(a) receiving a recyclable/disposable cup holder sleeve having a deformable hanger;

(b) deforming the hanger to hang on an object; and

(c) hanging the cup holder sleeve and a cup received within the sleeve on the object.

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