



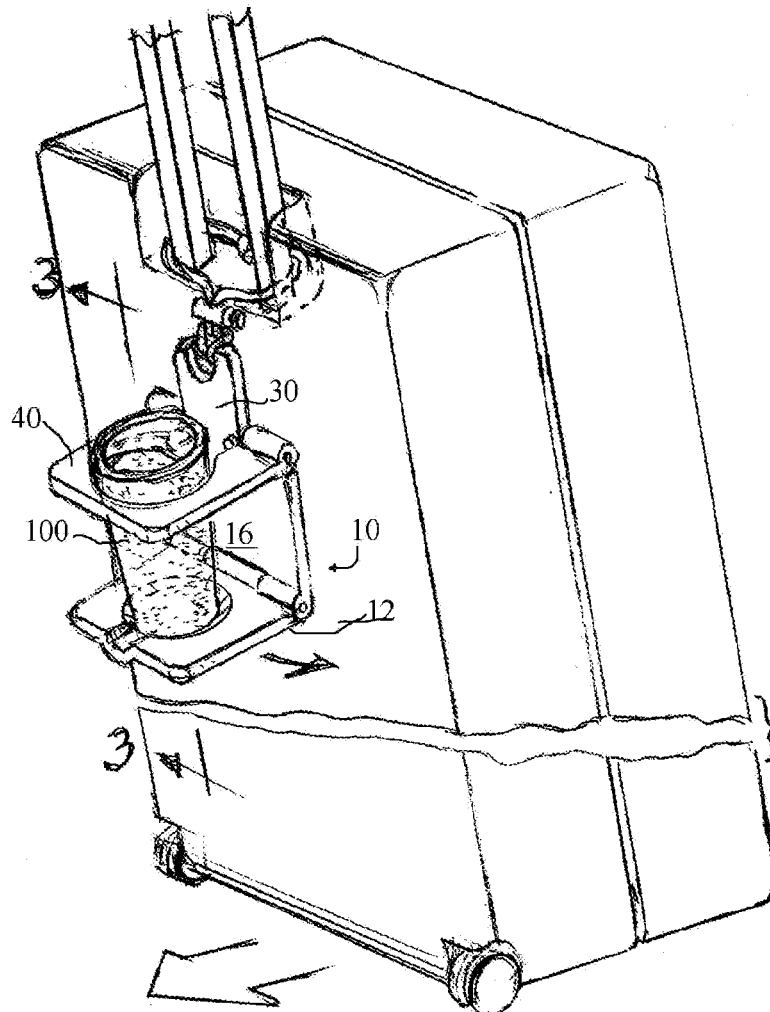
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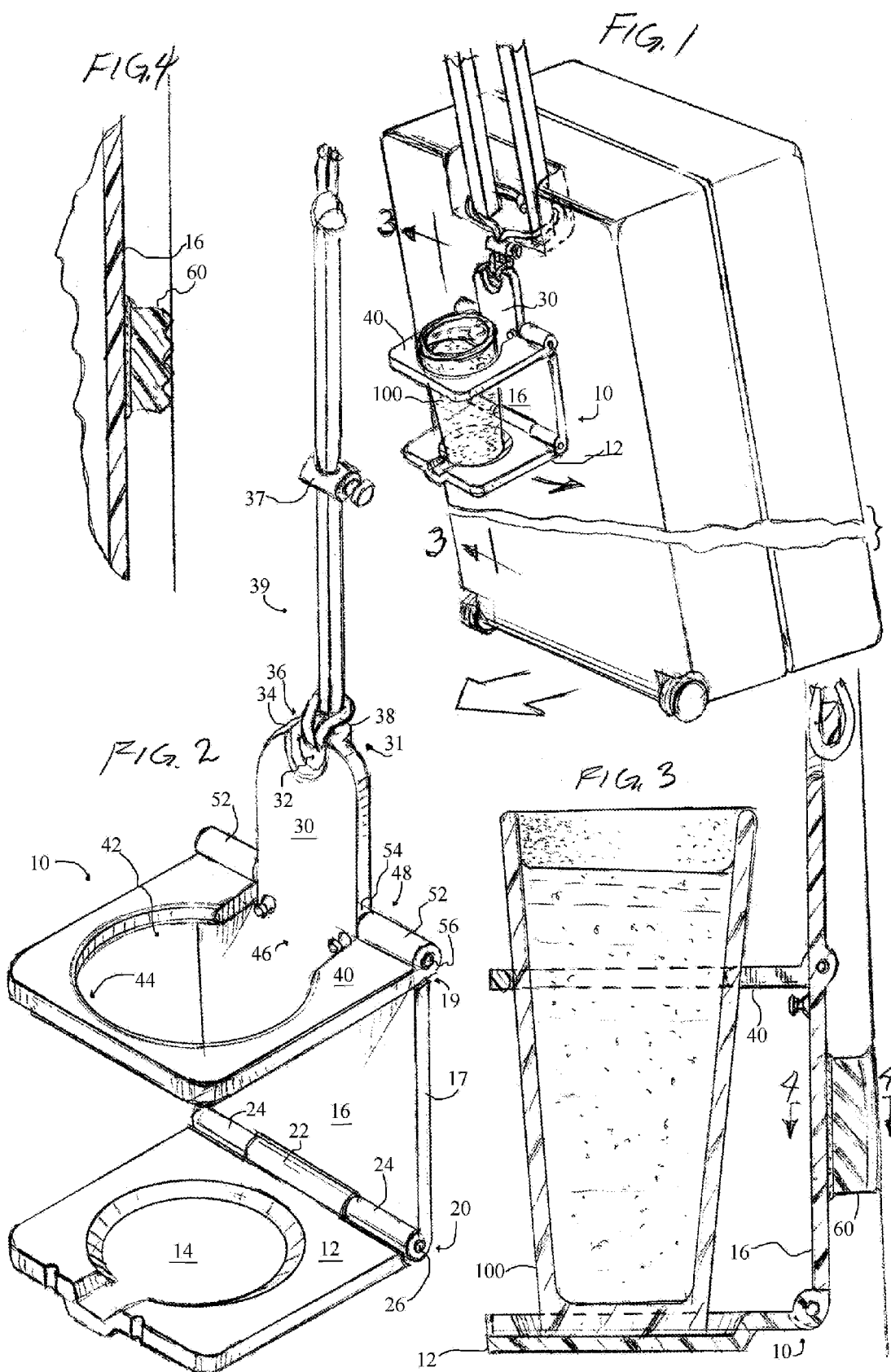
(19) **United States**(12) **Patent Application Publication**
Johnson(10) **Pub. No.: US 2017/0325559 A1**(43) **Pub. Date: Nov. 16, 2017**(54) **CUP HOLDER APPARATUS AND METHOD
OF HOLDING CUPS AND OTHER
BEVERAGE CONTAINERS**(52) **U.S. Cl.**CPC *A45C 13/28* (2013.01); *A47G 23/0216*
(2013.01); *A47G 2023/0283* (2013.01)(71) Applicant: **Marvin T. Johnson**, Mundelein, IL
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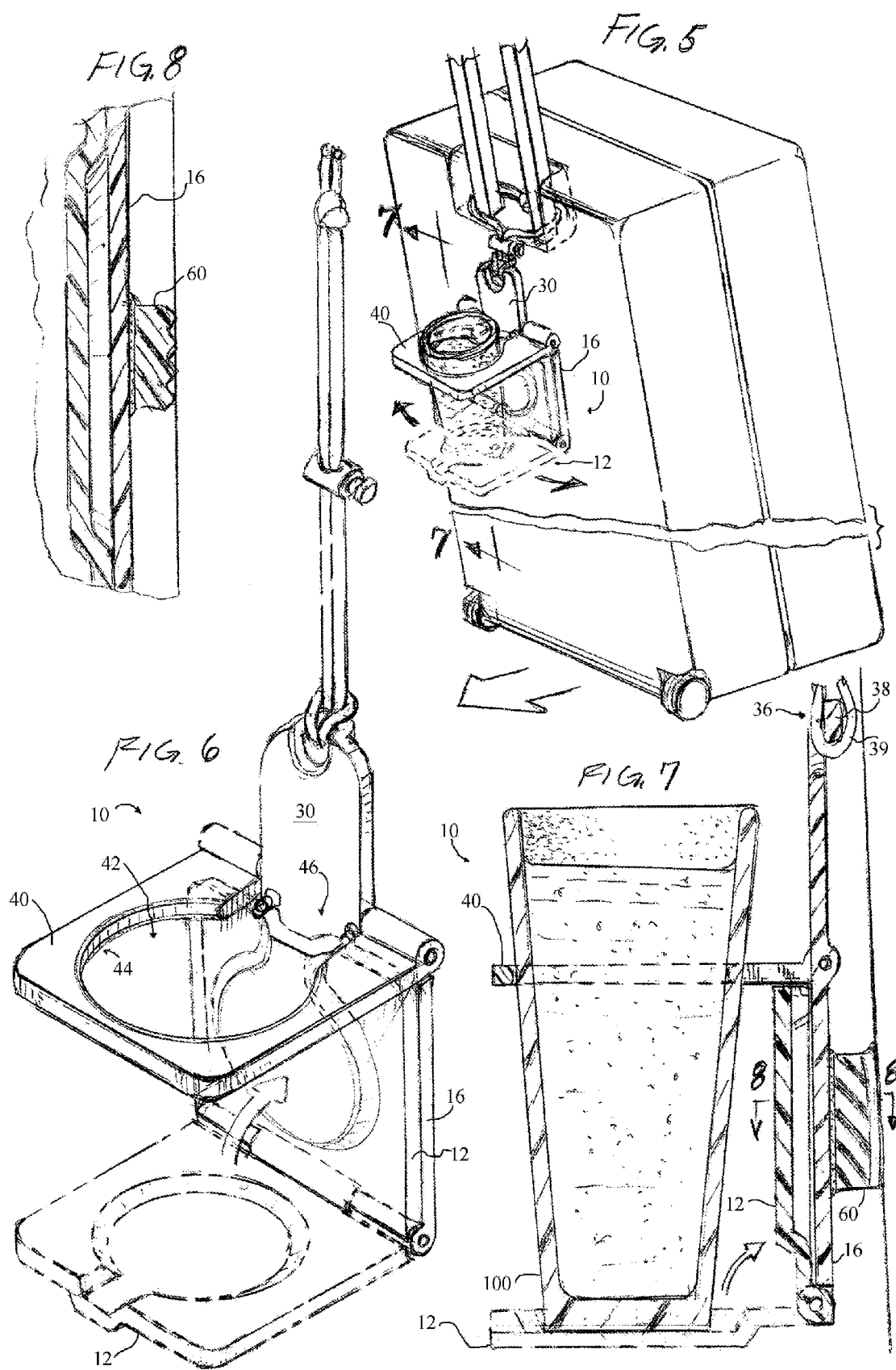
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ABSTRACT(72) Inventor: **Marvin T. Johnson**, Mundelein, IL
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Cup holders are disclosed that can be attached to the telescoping handle of modern luggage in order to provide a convenient place to set down a beverage during waits in airports, train stations, hotel lobbies and other places. In one form, an adjustable lanyard is provided with an adjustable clamp. The lanyard is placed around the telescoping handle and a portion of the lanyard is pulled through the adjustable clamp until the cup holder is secured to the luggage.







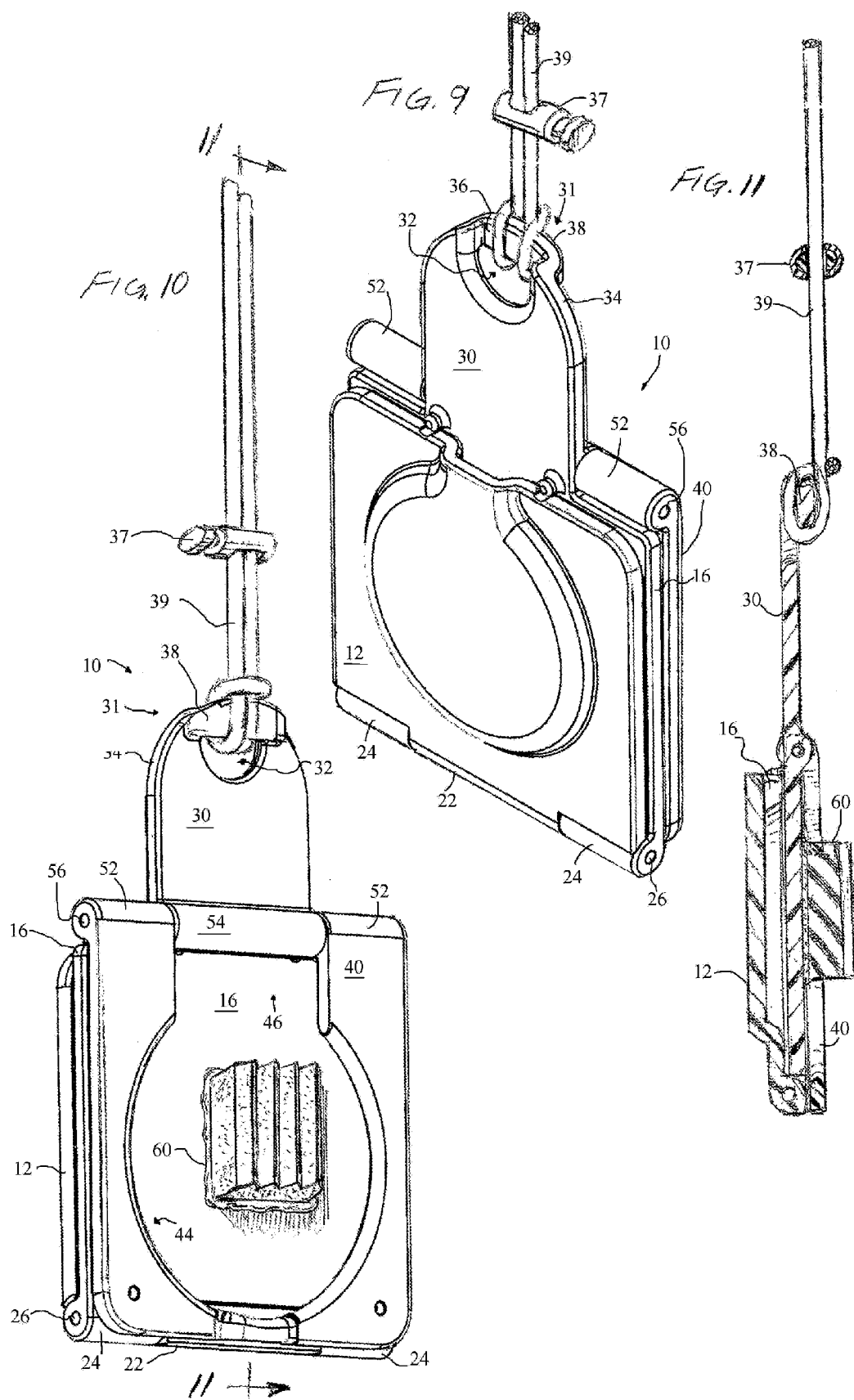


FIG. 12

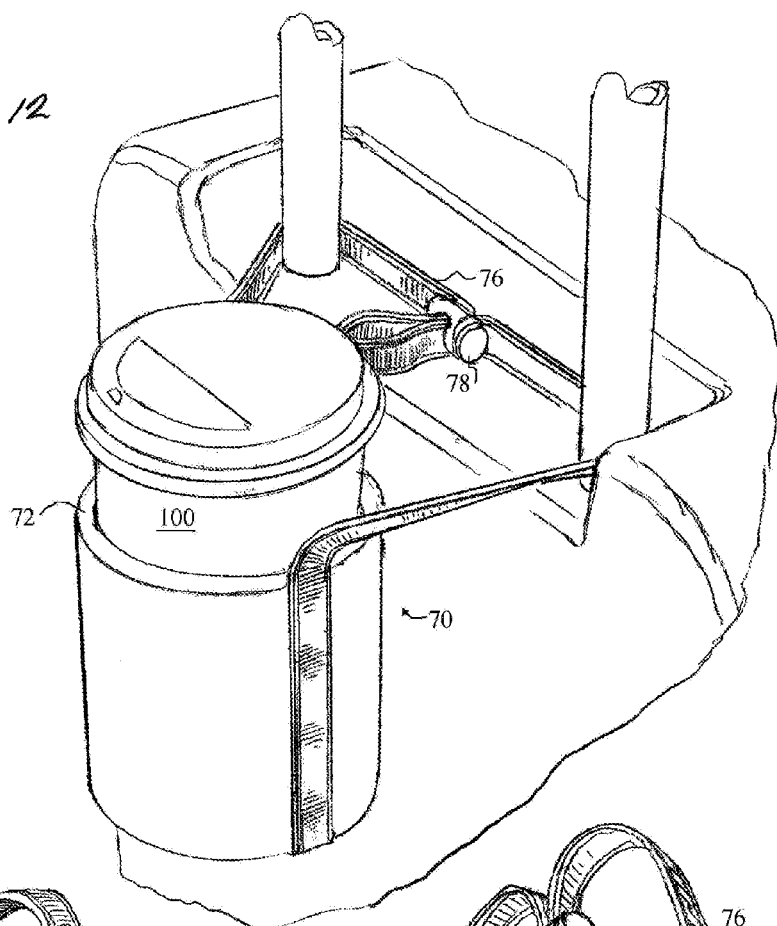


FIG. 13

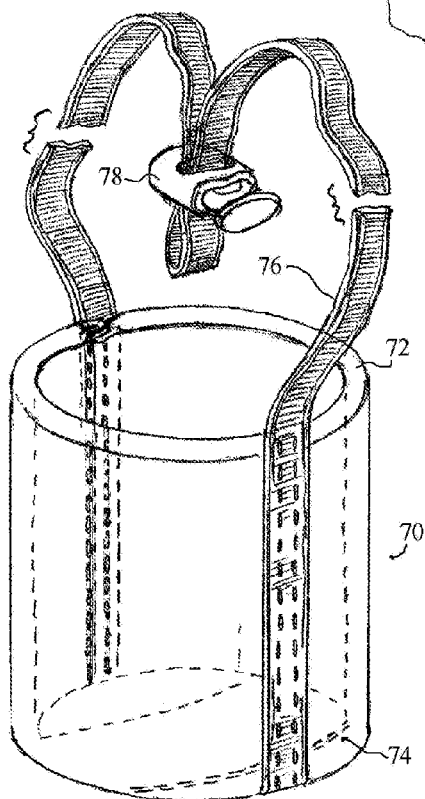
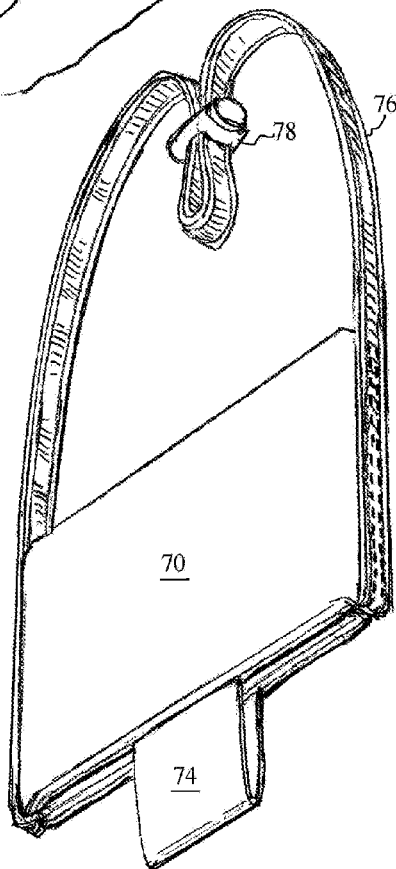


FIG. 14



CUP HOLDER APPARATUS AND METHOD OF HOLDING CUPS AND OTHER BEVERAGE CONTAINERS

BACKGROUND OF THE INVENTION

[0001] The present invention relates to cup holders and methods for holding cups, especially cup holders that are not specifically designed for attachment to an automobile.

[0002] On a preliminary matter, as used herein, the term cup holder encompasses holders that are designed for holding beverage containers that an individual drink comes in or is poured in, regardless of whether those beverage containers are actually cups or some other container. For example, a cup holder can be used to hold a mug, bottle, can, milk carton, juice box, and other drink containers.

[0003] Travel using various methods of public transportation, such as trains and planes, often involves a variety of downtime where one is just sitting and waiting. Often travelers have to wait inside airports or train stations before boarding or during a layover. In any event, whether waiting there or elsewhere, people may not always find a convenient place to set down a beverage while they are waiting. When traveling, sometimes people also find themselves waiting in other places with their luggage, such as a hotel lobby if their room is not quite yet ready to check in where there is not a convenient place to set down a beverage. Even in other situations, people sometimes find themselves in an area with no handy place to set down a beverage. In certain situations, even if there is a handy place to set a beverage, people may be concerned with placing it there because they want to avoid any confusion between their beverage and the beverage of another person. The health concerns, such as spreading diseases, along with a general “ick” factor of sharing a drink with a stranger, cause most people to desire to avoid accidentally drinking the beverage of another or having another person accidentally drink from their beverage.

[0004] Furthermore, in some situations, people may assume that someone is finished with a beverage that appears to be unattended and may use it for an ashtray or garbage. In somewhat rare situations, a person may even try placing a substance in another’s drink in an effort to get them to consume such substance. Because of this, some people may feel more comfortable if they can set their drink down in a place where they can easily observe, or at least be generally aware of it and its surroundings, to make certain that it is not adulterated, whether on accident or on purpose.

[0005] Therefore, a need exists for an improved cup holder and method for holding cups and other beverage containers.

DETAILED DESCRIPTION

[0006] FIG. 1 is a perspective view of one form of a cup holder in a fully unfolded position and attached to a suitcase.

[0007] FIG. 2 is a perspective view of the cup holder of FIG. 1 that is not attached to a suitcase.

[0008] FIG. 3 is a cutaway view of the cup holder of FIG. 1 along the line 3-3.

[0009] FIG. 4 is a cutaway view of the cup holder of FIG. 3 along the line 4-4.

[0010] FIG. 5 is a perspective view of one form of a cup holder in a fully unfolded position and attached to a suitcase.

[0011] FIG. 6 is a perspective view of the cup holder of FIG. 5 that is not attached to a suitcase.

[0012] FIG. 7 is a cutaway view of the cup holder of FIG. 5 along the line 7-7.

[0013] FIG. 8 is a cutaway view of the cup holder of FIG. 7 along the line 8-8.

[0014] FIG. 9 is a perspective view of the cup holder of FIG. 1 in a fully folded position, showing the front of the cupholder.

[0015] FIG. 10 is a perspective view of the cup holder of FIG. 1 in a fully folded position, showing the rear of the cupholder.

[0016] FIG. 11 is a cutaway view of the cup holder of FIG. 10 along the line 11-11.

[0017] FIG. 12 is perspective view of a second form of a cup holder that is made of a flexible material and is attached to a suitcase.

[0018] FIG. 13 a perspective view of the cup holder of FIG. 12 that is not attached to a suitcase and that is in an expanded position.

[0019] FIG. 14 a perspective view of the cup holder of FIG. 12 that is not attached to a suitcase and that is in a folded position.

[0020] Referring to the FIGS. 1-11, there is shown one form of an inventive cup holder that can be made of any suitable material, including being molded from a suitable plastic material. A cup holder 10 can include a base 12 having a well, such as retaining well 14. In one form, retaining well 14 includes a depression within base 12 and includes a flat surface.

[0021] Retaining well 14 can be sized and shaped to fit a variety of beverage containers within the well in order to provide additional stability to a beverage container set therein by virtue of the surrounding wall of retaining well 14. As depicted, one form of the retaining well 14 can be at least somewhat circular in shape and can have a surrounding wall that slopes downward at an angle such that the circumference at the top of the wall is larger than the circumference at the bottom of the wall. In one form, retaining well 14 can be semicircular with a portion that then extends to the edge of base 12 to form a grip or handle for gripping of base 12 and/or to allow drainage of any condensation that may develop from the container held within. Retaining well 14 can protrude from the opposite side of base 12 and provide a convenient and attractive surface on which a logo or advertisement can be formed, such as by printing.

[0022] Base 12 can be generally polygonal in shape (such as the somewhat rectangular or square shape depicted). In one form, base 12 is coupled to a back plate 16 using a hinge, preferably an approximately a 90 degree continuous hinge or a piano hinge 20, along one of the edges of the polygonal shaped base 12. As used herein, an approximately 90 degree hinge is a hinge that allows movement only through approximately 90 degrees. Such a 90 degree hinge can be accomplished either from the hinge itself or from obstructions in the pieces it connects that prevent movement that is significantly more than 90 degrees. In this case, as seen in FIG. 6, 90 degree hinge allows the base 12 to move from a position approximately parallel back plate 16 to a position at approximately a right angle to back plate 16 (or horizontal in use) and extending outwardly in front of back plate 16.

[0023] In the depicted form, polygonal shaped base 12 has rounded corners for at least those located are away from retaining well 14 when base 12 is in the unfolded position, as shown in FIG. 1. The rounded corners help prevent injury if they are contacted by someone. Additionally, the rounded

corners are less likely to catch on clothing, furniture or other items. Although a somewhat polygonal base 12 is depicted, other shapes could be substituted.

[0024] Hinge 20 can be a continuous or piano type hinge that includes one or more barrel portions 22 and 24 that are in the form of cylinder shaped parts forming integral parts of base 12 and back plate 16. Pivot 26, such as a pin, can secure barrels 22 and 24 together. Although barrel portions 22 and 24 are shown as being molded as part of either base 12 and back plate 16, as an alternative, they can be separate pieces that are used to couple base 12 and back plate 16 together.

[0025] In one form, back plate 16 has a body portion 17 and a head portion 30 that extends upwardly (away from hinge 20) and forms an anchor point 31 for attaching cup holder 10 to another thing. Body portion 17 can be hard body that is formed from a material, such as a plastic, that tends to retain its shape under normal conditions. In one form, anchor 31 is formed from an opening 32 proximate to the top end 34 of head portion 30 and the recessed anchor portion 36 formed in the front of head portion 30 above opening 32. The rear of head portion 30 can include a rearwardly projecting anchor portion 38 opposite recessed anchor portion 36. A string or rope like device, such as adjustable lanyard 39 can be threaded through opening 32, surround recessed anchor portion 36 and rearwardly projection anchor portion 38 and attached thereto using a cow hitch knot or any other suitable knot. Adjustable lanyard 39 can include an adjustable clamp 37 or lock to adjust the length of lanyard available on one side of clamp 37.

[0026] A cantilevered tray, such as retaining rind 40, can be provided for use as a beverage container stabilizer or holder. In one form, cantilevered tray 40 is coupled to back plate 16 by an approximately 270 degree continuous or piano type hinge 48. Hinge 48 can be located, for example, along the top of the body portion 17 where it meets head portion 30 of back plate 16. In one form, either side of the top of body portion 17 form support shoulders 19 that support cantilevered tray 40 when it extends in front of back plate 16 at approximately a right angle.

[0027] As used here, an approximately 270 degree hinge is a hinge that allows movement only through approximately 270 degrees. Such a 270 degree hinge can be accomplished either from the hinge itself or from obstructions in the pieces it connects that prevent movement that is significantly more than 270 degrees. For example, it can be obstructed from moving greater than 270 degrees by support shoulders 19 that contact a portion of 270 degree hinge 48 to prevent further movement. In this case, 270 degree hinge allows the cantilevered tray 40 to move from a position approximately parallel back plate 16 (and to the rear of back plate 16) 270 degrees around the top of body portion 17 to a position at approximately a right angle to back plate 16 (or approximately horizontal when in use) and extending outwardly in front of back plate 16.

[0028] In one form, hinge 48 is a continuous or piano type hinge that includes one or more barrel portions 52 and 54 that are in the form of cylinder shaped parts forming integral parts of cantilevered tray 40 and back plate 16. Pivot 56, such as a pin, can secure barrels 52 and 54 together. Although barrel portions 52 and 54 are shown as being molded as part of cantilevered tray 40 and back plate 16, as an alternative, they can be separate pieces that are used to couple cantilevered tray 40 and back plate 16 together.

[0029] Cantilevered tray 40 can include an opening 42 sized to let a variety of sizes and shapes of beverage containers to fit therein. Opening 42 can be comprised of a semicircle 44 and a slot 46 that extends from semicircle 44 all the way to hinge 48. In this manner, opening 42 also forms a notch out of one end of cantilevered tray 40 that allows cantilevered tray to pass 270 degrees around back plate 16 from the rear of back plate 16 over the top and head portion 30 and around to the front of back plate 16 at a 90 degree angle. Opening 42 provides sufficient clearance for head portion 30 to clear without interference during such a rotation.

[0030] In use, cantilevered tray 40 can be swung in a 270 arc from a closed position parallel the rear of back plate 16, up and over head portion 30 and down until it is approximately perpendicular to back plate 16 (in the open position) and/or approximately horizontal to the ground, in use, when cup holder 10 is secured to another object. Cup holder 10 can be attached to a variety of things, including a telescoping handle found on many forms of modern luggage. Typically, when the telescoping handle of a piece of luggage is extended, adjustable lanyard 39 is placed over the handle and brought to the bottom of the telescoping handle. That portion of lanyard 39 that is opposite clamp 37 from the luggage can be pulled through clamp 37 so that lanyard 39 tightens around the telescoping handle until cup holder 10 is secured to the luggage.

[0031] At this point, a beverage container 100 could be placed within opening 42 and held by cup holder 10 in those instances where the beverage container 100 is contoured such that the bottom portion of the beverage container can fit through opening 42 and is also contoured such that the entire beverage container cannot fit through opening 42. For example, a tapered cup that is wider at the mouth and smaller at its base would be held at that point where the radius of the cup slightly exceeds the radius of the semicircular portion 44 of opening 42.

[0032] Additionally, base 12 could be swung open 90 degrees from a closed position where it is parallel to the front of back plate 16 downward until it is in an open position approximately perpendicular to back plate 16 and/or approximately horizontal to the ground, in use, when cup holder 10 is secured to another object. A beverage container could be placed through opening 42 so that it rests on base 12 and, if it fits, within well 14. Both well 14 and cantilevered tray 40 provide additional stability to the beverage container contained therein. Slot 46 is also designed to allow a mug handle to be placed within opening 42. In certain circumstances, such as where a beverage container might not otherwise fit, cantilevered tray 40 can be kept in the closed position and base 12 can be used by itself to hold the beverage container.

[0033] In one form, a friction inducing portion 60 can be added to the rear face of back wall 16 that faces the luggage or whatever cup holder 10 is attached to. Friction inducing portion 60 uses increased friction to prevent the cup holder from swinging side to side while in use. In one form, friction inducing portion 60 can be comprised of an elastomeric material. In another form, it can include a plurality of raised ridges. In it's simplest form, it can be formed from a flat piece of elastomeric material that is glued onto back wall 16 and can have tapered edges. By being tapered, the edges will be lower than the main portion of the friction inducing portion

60 and will tend to not come in contact with the luggage (or whatever) which will help prevent the edges from peeling from back wall 16.

[0034] When the cup holder 10 is not longer in use, it can be removed from the luggage. Base 12 can be folded to the closed position. Cantilevered tray 40 can also be folded to the closed position. When it is entirely folded up, it can easily slide into a piece a pocket on the luggage or within the main compartment where it can easily be accessed when desired.

[0035] Referring to FIGS. 12-14, another form of an inventive cup holder 70 is shown that can be made of any suitable material, including synthetic cloth materials or other deformable material that forms a soft body to hold the cup. In one form, cup holder 70 includes a cylindrical piece of material 72 that forms at least a portion of the soft body with an opening in the center to hold the cup. Such material can include one or more layers and can provide some insulating properties similar to can cooler (sometimes referred to as a KOOZIE). A support piece 74 can be provided across the bottom to support a beverage placed inside the cylindrical piece of material and can form another portion of the soft body. An adjustable strap 76 is provided which can be sewn to opposite sides of cylindrical piece of material 72. An adjustable clamp 78 can be provided on adjustable strap 76.

[0036] In use, adjustable strap 76 can be placed around the telescoping handle of a piece of luggage. A portion of the strap 76 can be pulled through adjustable clamp 78 until strap 76 and cup holder 70 are secured to the luggage. A drink can then be held by the luggage and the cup holder 70.

[0037] In one form, cylindrical piece of material 72 can actually be two pieces sewn together to create two seams along which cup holder 70 can be easily folded to allow it to become reasonably flat for easy storage.

[0038] While the present invention has been illustrated and described herein, it should be apparent from the foregoing that other forms of the invention are also possible that would also fall within any of the one or more claims. For example, either of the cup holders depicted could be worn around a persons head. In such case, it would be advisable to keep the lanyard at its full length and to be careful to prevent it from getting caught in anything in order to prevent accidentally choking.

What is claimed is:

1. A cup holder designed for attachment to a suitcase handle, the cup holder comprising:
 - a body portion sized and configured to support a beverage container; and
 - an adjustable loop coupled to the body portion, the adjustable loop configured to surround the suitcase handle and thereby attaching the body to the suitcase, the loop being made from a flexible material.
2. The cup holder of claim 1, wherein the adjustable loop includes an adjustable clamp through which the material comprising the loop is drawn to adjust the size of the loop on one side of the clamp such that the loop on the one side of the clamp is drawn tight around the suitcase handle.

3. The cup holder of claim 1, wherein the body portion includes a base sized and configured to support a beverage container.

4. The cup holder of claim 1, wherein the body portion includes a retaining ring defining an opening sized and configured to support a beverage container.

5. The cup holder of claim 3, wherein the body portion further includes a retaining ring defining an opening sized and configured to support a beverage container.

6. The cup holder of claim 5, wherein the body portion further includes:

- a back plate,
- a first hinge connecting the base to the back plate, the first hinge causing the base plate to be rotatable between a first position approximately parallel to the back plate and a second position that is approximately horizontal when the cup holder is in use;
- a second hinge connecting the retaining ring to the back plate at a position higher up on the back plate than the position on the back plate, the second hinge causing the retaining ring to be rotatable between a first position approximately parallel to the back plate and a second position that is approximately horizontal when the cup holder is in use.

7. The cup holder of claim 6, wherein the base includes a depression forming a retaining wall sized configured to support a beverage container therein.

8. The cup holder of claim 7, wherein the depression further forms a handle on the base.

9. The cup holder of claim 6, wherein the base plate is rotatable approximately 90 degrees between a first position approximately parallel to the back plate and in front of the back plate, and a second position that is approximately horizontal when the cup holder is in use and in front of the back plate.

10. The cup holder of claim 6, wherein the retaining ring is rotatable approximately 270 degrees between a first position approximately parallel to the back plate and behind the back plate, and a second position that is approximately horizontal when the cup holder is in use and in front of the back plate.

11. The cup holder of claim 9, wherein the retaining ring is rotatable approximately 270 degrees between a first position approximately parallel to the back plate and behind the back plate, and a second position that is approximately horizontal when the cup holder is in use and in front of the back plate.

12. The cup holder of claim 12, further comprising a friction inducing portion coupled to the rear face of the backplate, the friction inducing portion configured to create friction with a suitcase when the cup holder is attached to the suitcase.

13. The cup holder of claim 1, wherein the body portion includes a flexible base supported by flexible sidewalls.

14. The cup holder of claim 13, wherein the flexible sidewalls are made from a thermally insulating material.

15. The cup holder of claim 14, wherein the flexible base and flexible sidewalls allow the cup holder to be folded flat.

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