US 20150168045A1

(19) **United States**

(12) **Patent Application Publication**

Schmitz et al.

(10) **Pub. No.: US 2015/0168045 A1**

(43) **Pub. Date: Jun. 18, 2015**

(54) **COLD WRAP FOR BEVERAGE KEG**

(71) Applicants: **Ruthanne Schmitz**, Hinsdale, IL (US); **Mary Adolf**, Burr Ridge, IL (US)

(72) Inventors: **Ruthanne Schmitz**, Hinsdale, IL (US); **Mary Adolf**, Burr Ridge, IL (US)

(21) Appl. No.: **14/633,113**

(22) Filed: **Feb. 26, 2015**

Related U.S. Application Data

(63) Continuation-in-part of application No. 13/596,726, filed on Aug. 28, 2012.

(60) Provisional application No. 61/528,416, filed on Aug. 29, 2011.

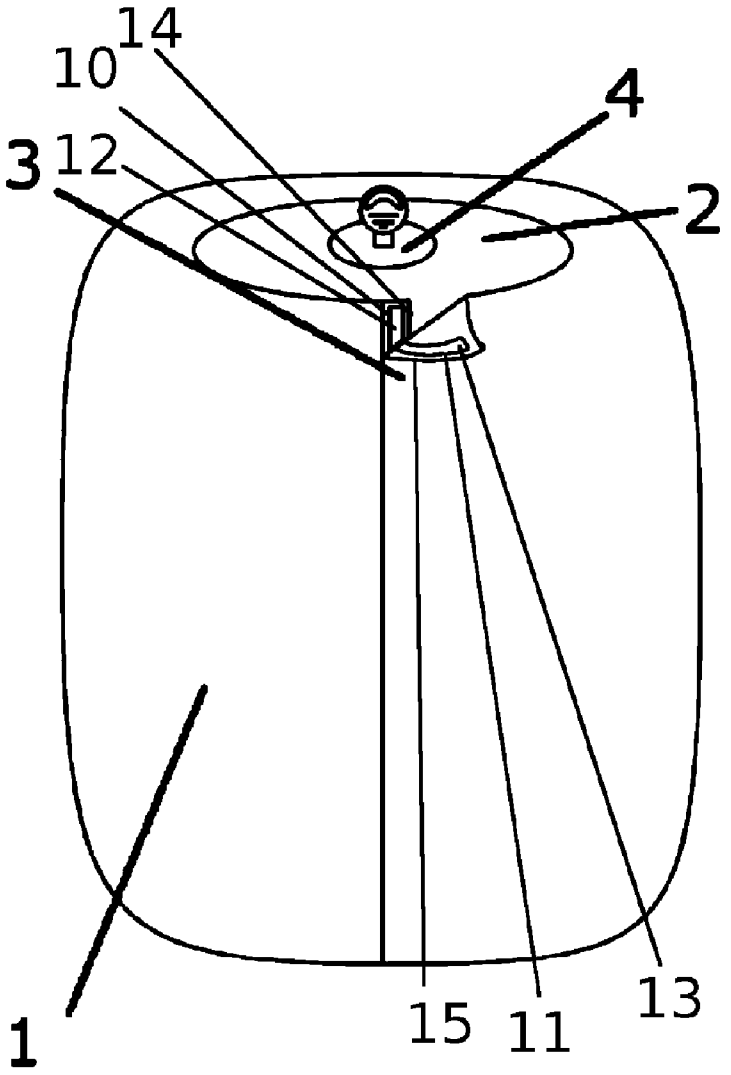
Publication Classification

(51) **Int. Cl.**
F25D 3/06 (2006.01)

(52) **U.S. Cl.**
CPC ***F25D 3/06*** (2013.01)

(57) **ABSTRACT**

A pair of sheets of material surround one or more quantities of refrigerant gel, which may be integral to the wrap or contained within removable gel packs. Integral gel may be permanently installed within the interstice between the layers, or the layers may form an open-ended pocket into which removable gel packs may be slid. The wrap surrounds with keg, and may optionally be fully or partially openable or reclosable so as to accommodate a side tap or for installation and removal. Alternatively no side opening may be provided.



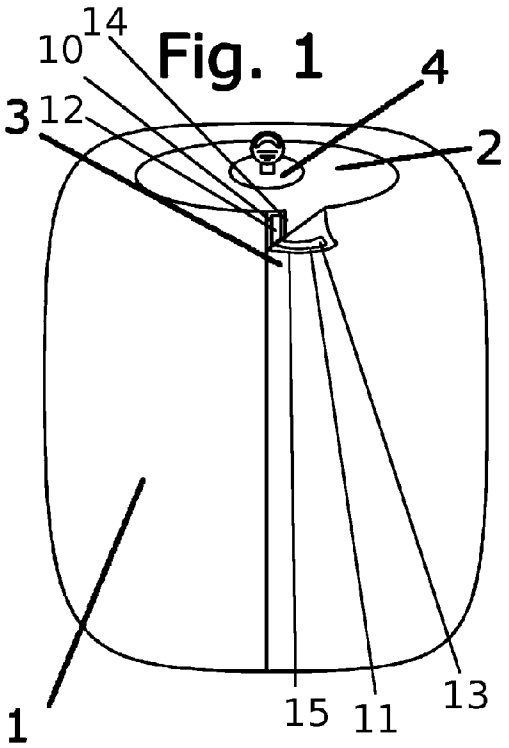


Fig. 1

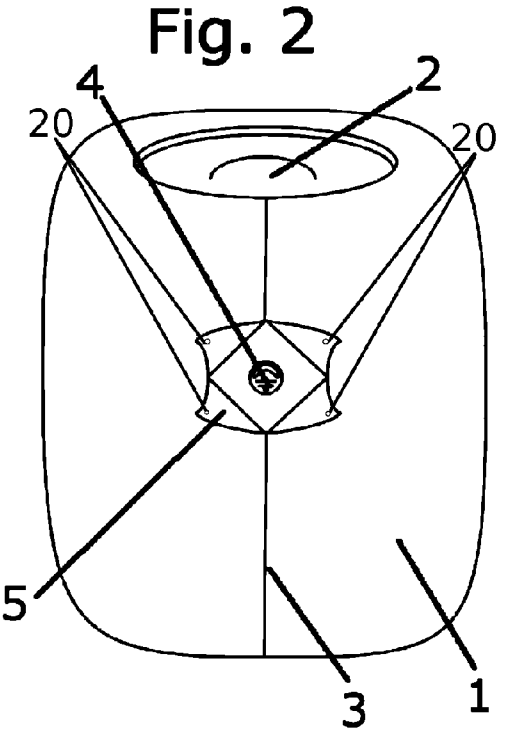


Fig. 2

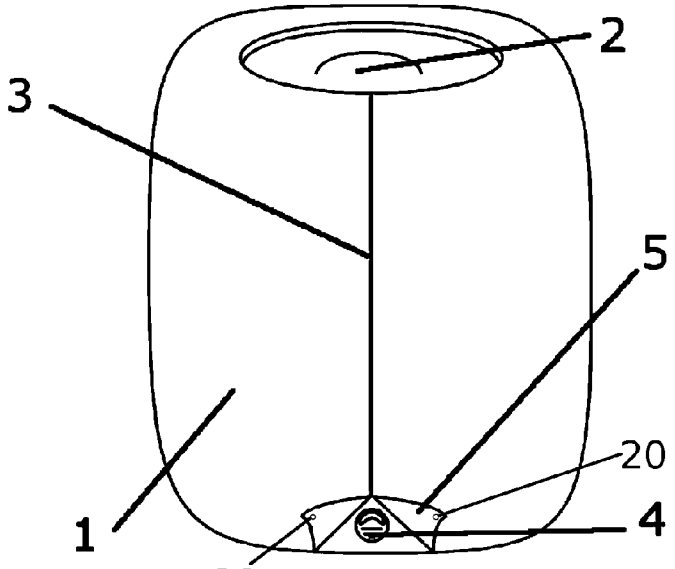
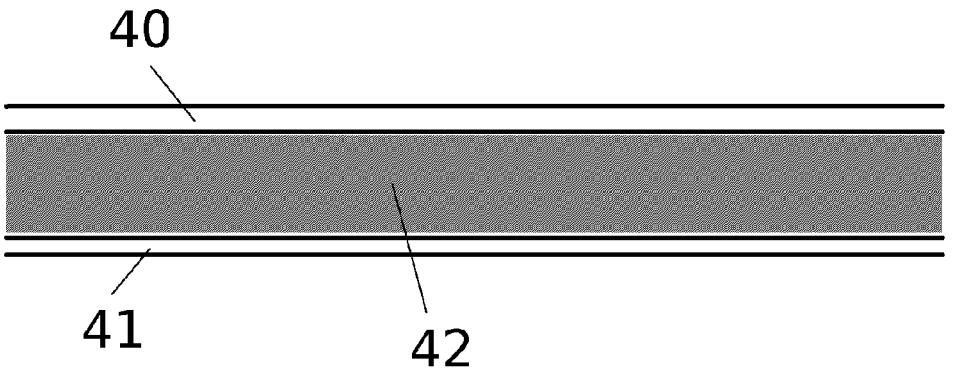


Fig. 3



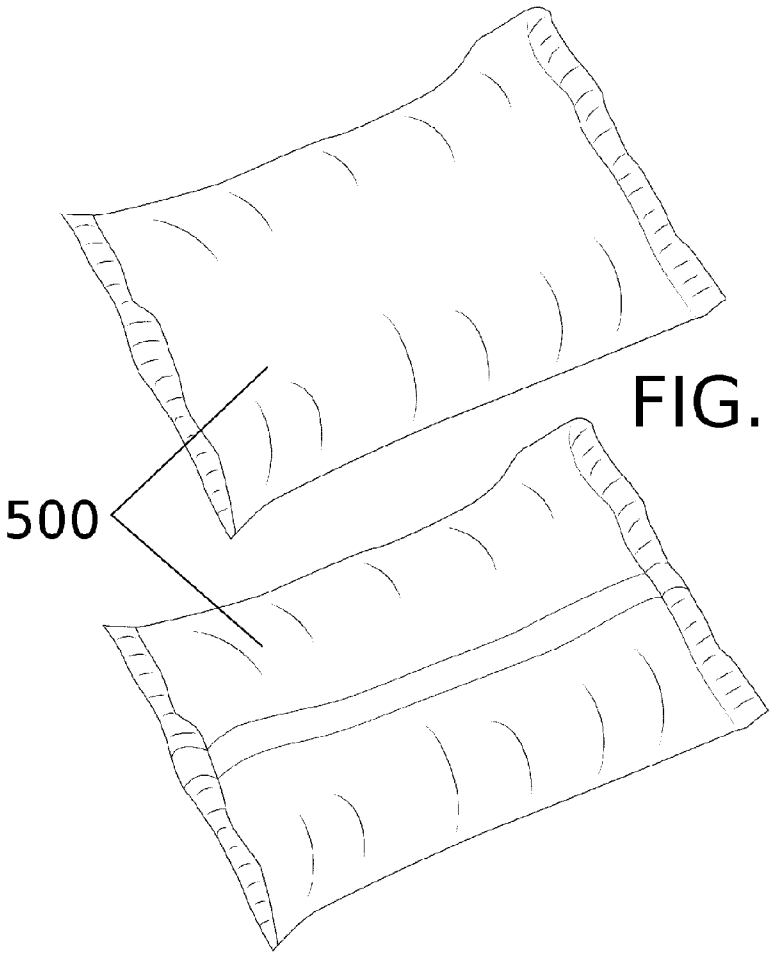
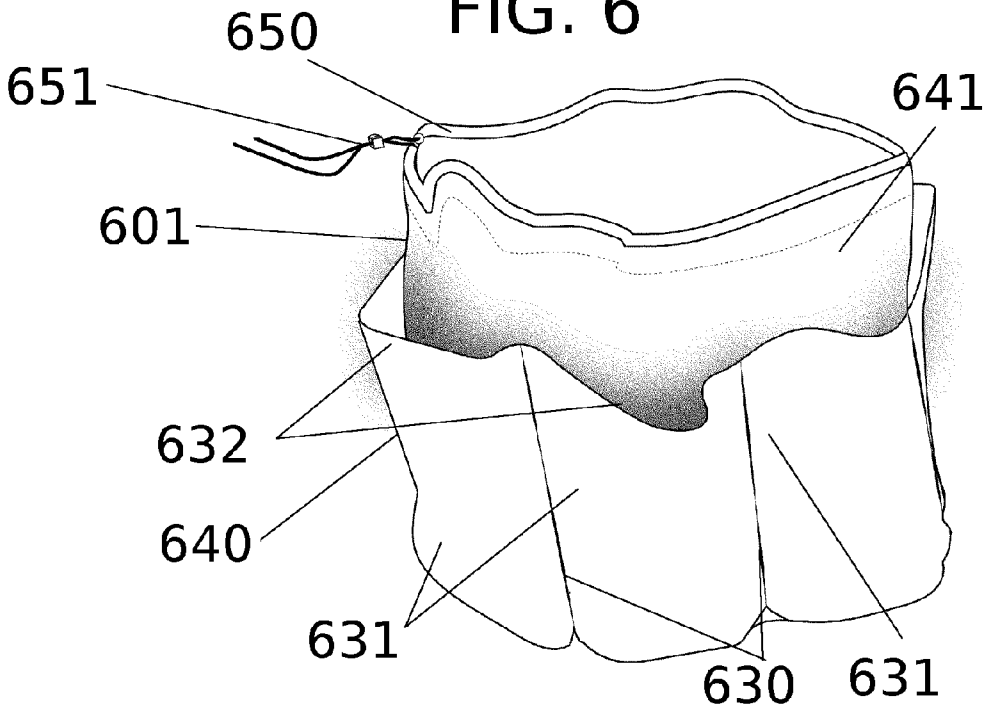


FIG. 5

FIG. 6


650
651
641
601
632
640
631
630
631

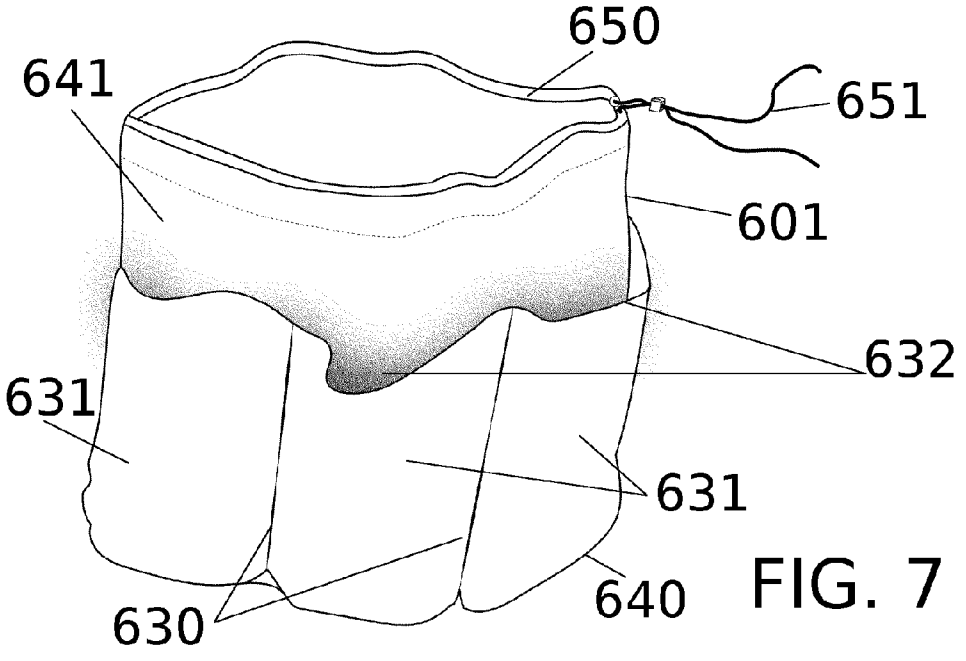

650
641
651
601
632
631
631
640
630

FIG. 7

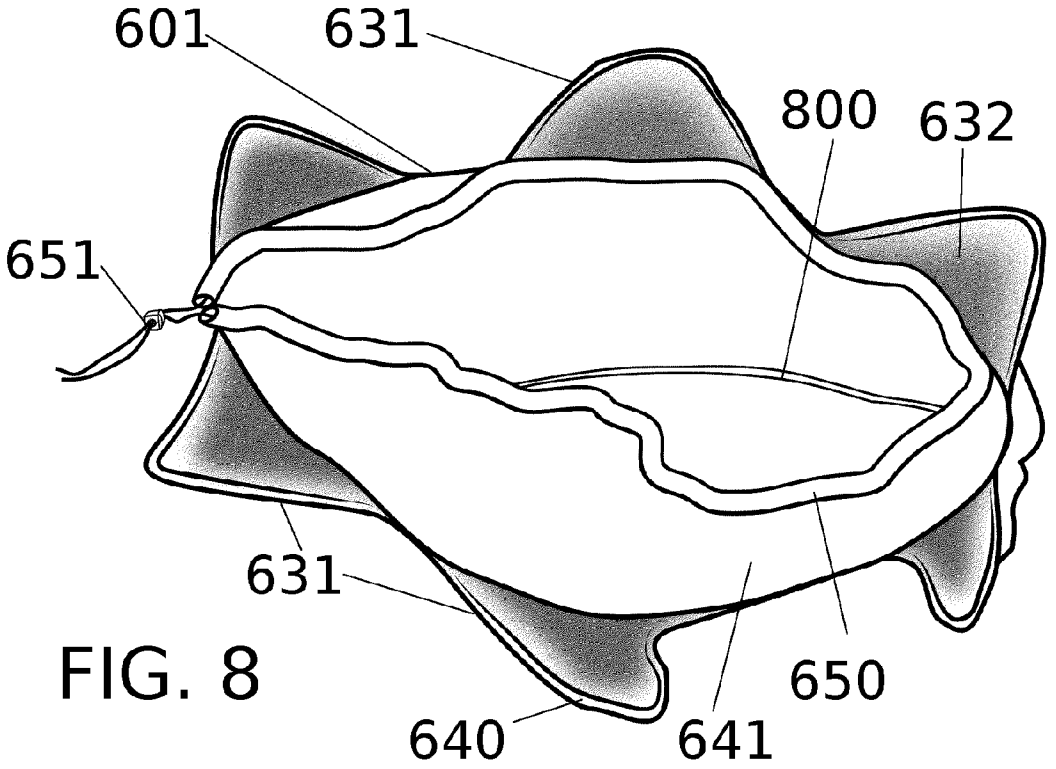

601
631
800
632
651
631
650
640
641

FIG. 8

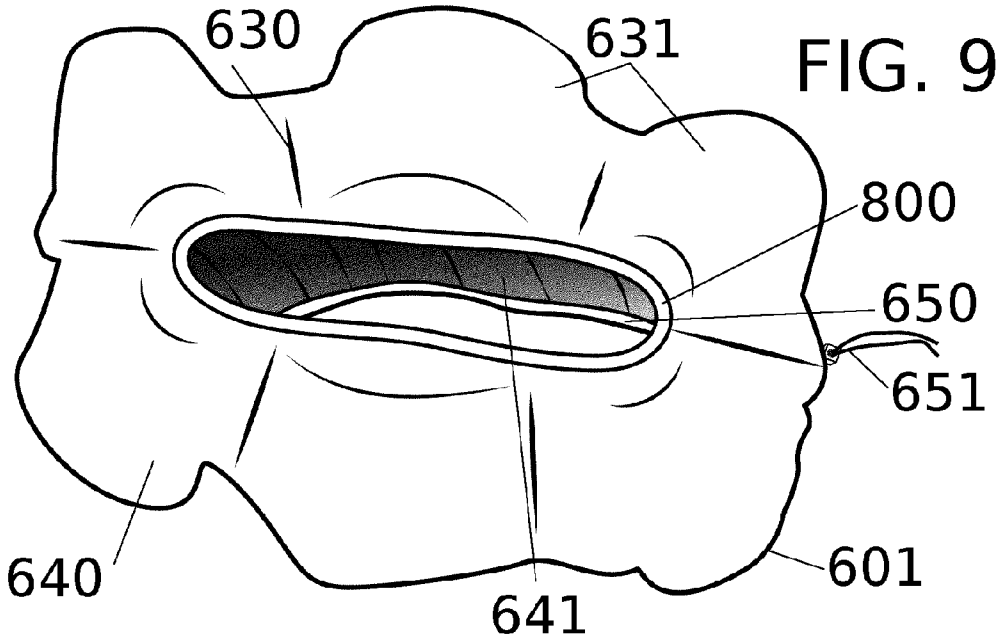

630
631
800
650
651
640
641
601

FIG. 9

COLD WRAP FOR BEVERAGE KEG

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of copending U.S. Utility patent application Ser. No. 13/596,726, which claims the benefit of U.S. Provisional Patent Application No. 61/528,416, filed Aug. 29, 2011, which is hereby incorporated by reference.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

PARTIES TO A JOINT RESEARCH AGREEMENT

[0003] Not Applicable

REFERENCE TO SEQUENCE LISTING, A TABLE, OR A COMPUTER PROGRAM LISTING COMPACT DISK APPENDIX

[0004] Not Applicable

BACKGROUND OF THE INVENTION

[0005] The invention relates generally to the field of beverage cooling, and specifically to re-usable cold wraps containing a refrigerant gel for application to beverage cooling kegs.

[0006] Beverage kegs are typically used to store and dispense large quantities of a contained beverage for consumption by a large number people. The contained beverage is most often beer, but other beverages, such as root beer, are commonly available. While many indoor keg set-ups feature a specially designed refrigerator to keep the keg and its contents cool, such devices are relatively fixed to the location of installation, and therefore may not always be available, especially at outdoor events and especially where a full sized keg or barrel is desired to provide beverages to a large number of people.

[0007] The prior art discloses a number of wraps and bags that may be applied to a beverage keg to keep it cool. Some simply involve an air or neoprene insulating layer, while others apply ice or a freezable refrigerant gel. Within wraps that apply a refrigerant gel, those known in the art tend to be bulky (making them difficult to store, freeze, transport, and install), tend to be fiddly to properly fit around a keg, and generally lack special access points for kegs that feature a tap at the side or bottom, rather than at the top, particularly increasingly popular disposable mini kegs. Further, many of the prior art keg wraps employing a gel employ manually inserted gel packs stored in pockets. While this type of system provides versatility, it also greatly increases the number of parts that must be separately managed and cared for.

SUMMARY OF THE INVENTION

[0008] Accordingly, the invention is a beverage keg cooling wrap. A pair of sheets of material surround one or more quantities of refrigerant gel, which may be integral to the wrap or contained within removable gel packs. Integral gel may be permanently installed within the interstice between the layers, or the layers may form an open-ended pocket into which removable gel packs may be slid. The wrap surrounds with keg, and may optionally be fully or partially openable or reclosable so as to accommodate a side tap or for installation and removal. Alternatively no side opening may be provided.

[0009] Additional features and advantages of the invention will be set forth in the description which follows, and will be apparent from the description, or may be learned by practice of the invention. The foregoing general description and the following detailed description are exemplary and explanatory and are intended to provide further explanation of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The accompanying drawings are included to provide a further understanding of the invention and are incorporated into and constitute a part of the specification. They illustrate invention and, together with the description, serve to explain the principles of the invention.

[0011] FIG. **1** illustrates the first exemplary embodiment fitted around a common top-tapped beverage keg, displaying the cold wrap **1**, the keg **2**, Velcro strip **3**, the tap **4**, the first fastening point **10**, the second fastening point **11**, the first Velcro surface **12**, the second Velcro surface **13**, the first lesser edge **14**, and the second lesser edge **16**.

[0012] FIG. **2** illustrates the second exemplary embodiment fitted around a side-tapped beverage keg, and featuring an opening to accommodate the tap, displaying the cold wrap **1**, the keg **2**, the Velcro strip **3**, the tap **4**, the opening **5**, and the corner fastening means **20**.

[0013] FIG. **3** illustrates the third exemplary embodiment fitted around a bottom-tapped beverage keg, and featuring an opening to accommodate the tap, displaying the cold wrap **1**, the keg **2**, the Velcro strip **3**, the tap **4**, the opening **5**, and the corner fastening means **20**.

[0014] FIG. **4** illustrates a sectional view of the inside of the keg wrap, displaying the pair of sheets of material **40** and **41**, and the refrigerant gel **42**.

[0015] FIG. **5** illustrates a top and bottom view of the refrigerant gel packs **500** of the fourth exemplary embodiment.

[0016] FIG. **6** illustrates a left side elevated perspective view of the second exemplary embodiment, displaying the cold wrap **601**, the seams **630**, the pockets **631**, the pocket top openings **632**, the pair of sheets of material **640** and **641**, the drawstring channel **650**, and the drawstring **651**.

[0017] FIG. **7** illustrates a right side elevated perspective view of the fourth exemplary embodiment, displaying the cold wrap **601**, the seams **630**, the pockets **631**, the pocket top openings **632**, the pair of sheets of material **640** and **641**, the drawstring channel **650**, and the drawstring **651**.

[0018] FIG. **8** illustrates a top view of the fourth exemplary embodiment, displaying the cold wrap **601**, the pockets **631**, the pocket top openings **632**, the pair of sheets of material **640** and **641**, the drawstring channel **650**, the drawstring **651**, and the elastic band **800**.

[0019] FIG. **9** illustrates a bottom view of the fourth exemplary embodiment, displaying the cold wrap **601**, the seams **630**, the pockets **631**, the pair of sheets of material **640** and **641**, the drawstring channel **650**, the drawstring **651**, and the elastic band **800**.

DETAILED DESCRIPTION OF THE INVENTION

[0020] Referring now to the invention in more detail, FIG. **1** shows the first exemplary embodiment of the invention fitted to a standard top-tapped beverage keg. The invention, in its most basic embodiment, comprises a refrigerant wrap **1**

surrounding a beverage keg **2**. In the first exemplary embodiment, the wrap **1** may be held in place by Velcro strip **3**; the refrigerant wrap **1** leaves the top-located tap **4** exposed. The Velcro strip **3** is comprised of a first Velcro surface **12** affixed to one of the sheets of material **40** of the cold wrap **1** at the first attachment point **10**, and a second Velcro surface **13** affixed to one of the sheets of material **40** of the cold wrap **1**) at the first attachment point **13**. The two Velcro surfaces **12** and **13** are preferably complementary hook and loop surfaces or vice versa. Optionally, the Velcro surfaces **12** and **13** may be absent, resulting in a seamless sleeve such as the fourth exemplary embodiment of FIGS. **6-9**. The cold wrap **1** comprises a hollow membrane of flexible material, for example a plastic or elastic sheet, woven, or knit synthetic fiber material, such as nylon. Notably, the given preferred materials are nonabsorbent such that condensation and spillage from the keg **2** may be easily cleaned and dried, allowing the invention to be stored quickly after use without risk of developing mold.

[0021] FIG. **4** shows a sectional view of the cold wrap **1**. The cold wrap **1** may be formed by stitching, fusing, stitching, adhering, or otherwise affixing a pair of sheets of material **40** and **41** together along the first and second lesser edges **14** and **15**, as well as, optionally, the greater edges. Generically, the sheets **40** and **41** may understood to be affixed to one another in a facing manner. Generically, the sheets **40** and **41** need not be the same size, and they need not be affixed around all four edges (one or more edges, for example the top, may be left open) such that the combination of the sheets forms a cylinder (equivalently, the cold wrap **1**) that is sized to surround the side wall of the keg **2**, or a generic target beverage container. In all preferred embodiments, the top and bottom of the keg **2** is left open and uncovered. Each sheet of material may comprise more than one layer. The cold wrap **1** may, optionally, be divided into chambers by fusing, stitching, or otherwise joining the opposing walls **40** and **41** of the hollow membrane together along lines to separate the chambers. The interior cavity of the hollow membrane is filled with a refrigerant gel **42**, suitable for freezing and refreezing, which may be inserted alone or inside of a flexible, impervious bladder. Many such gel materials are known in the prior art. Also optionally, the Velcro strip **3** may be of different widths to attain different amounts of gripping strength, and may be broken into sections to accommodate differently shaped kegs **2**. It would further be acceptable to replace the Velcro strip **3** with an alternative fastening method, such as hooks and eyes, a lace and eyes, clasps, or buckles. Further, the invention specifically contemplates the greater edges of the cold wrap **1** or all edges other than those supporting the Velcro strip **3** as lacking any fastening means, as shown and described, or, in the case of the fourth exemplary embodiment, a closure means such as the drawstring **651** and elastic band **800**. Similarly, the invention lacks any top or bottom covering, as shown, such coverings being generally fiddly and tending to render the keg **2** difficult to move or operate.

[0022] Referring now to the second exemplary embodiment of FIG. **2**, the invention is shown fitted around a beverage keg **2** featuring a tap (**4**) that protrudes from the side at the vertical center. In this configuration, the wrap **1** features an opening **5**, created by short cuts made transverse to the seam held in place by the Velcro strip **3** or to a separate vertical cut, allowing for the wrap **1** to be peeled back around the tap **4**. Additionally, the wrap **1** may feature a corner fastening means **20** for the peeled back corners to attach to the wrap's surface, such as buttons or snaps, thereby holding the opening **5** open in a convenient and visually pleasing manner.

[0023] Referring now to the third exemplary embodiment of FIG. **3**, the invention is shown fitted around a beverage keg **2** featuring a tap **4** that protrudes from the side at the vertical bottom. In this configuration, the lower corners of the wrap **1** peel back around the tap **4**. The corners may be located at the base of the seam held in place by the Velcro strip **3** to form an opening **5**, or may optionally be located along a separate slit or cutout at the bottom of the wrap **1**. Additionally, the lower corners of the wrap **1** could feature a corner fastening means **20** for attachment to the wrap's surface, such as buttons or snaps, thereby holding open the opening **5** in a convenient and visually pleasing manner.

[0024] Referring now to the fourth exemplary embodiment, the cold wrap **601** embodiment encloses the refrigerant gel pack in a flexible, impervious bladder in the form of the gel packs **500**. In the fourth exemplary embodiment, the cavities correspond to a group of pockets **631** formed by seams **630** between the pair of sheets of material **640** (outer) and **641** (inner). Each pocket **631** holds a gel pack **500**. As shown, the pockets **631** are preferably six in number and equally spaced about the cold wrap **601** such that each is about 60° of arc in angular width relative to the beverage container.

[0025] The cold wrap **601**, as with the above-described embodiments, is open on the top and the bottom, but may be restricted on top via a drawstring **651**, which is threaded through a drawstring channel **650**. Similarly, the cold wrap **601** may be restricted on the bottom by an elastic band **800**. The drawstring channel **650** and elastic band **800** may be formed within the combination of the pair of sheets of material **640** and **641**, involving either or both, as necessary.

[0026] The gel packs **500** of the fourth exemplary embodiment are preferably filled with a refrigerant gel composition by weight of about 98% water and 2% sodium polyacrylate. The outer skin of the gel packs **500** is preferably made of a layer of 3 mil linear low-density polyethylene affixed to a layer of 2.5 mil foil. The sheets of material **640** and **641** are, in the fourth exemplary embodiment, preferably made of a 70D×70D×210T rip stop nylon woven material. The seams **630** are preferably of reinforced cross stitching. Each pocket **631** may be optionally closable with a Velcro closure or other fastener, or left without any closure, as shown.

[0027] While the foregoing written description of the invention enables one of ordinary skill to make and use what is presently considered to be the best mode thereof, those of ordinary skill in the art will understand and appreciate the existence of variations, combinations, and equivalents of the specific embodiment, method, and examples herein. The invention should, therefore, not be limited by the above described embodiment, method, and examples, but by all embodiments and methods within the scope and spirit of the invention.

We claim:

1. A beverage container cooling wrap comprising:

(a) a first layer of material;

(b) a second layer of material;

(c) said first layer of material and said second layer of material being affixed to one another in a facing manner;

(d) the combination of said first layer of material and second layer of material forming a cylinder sized to surround a target cylindrical beverage container;

(e) said cylinder being open on both its top and bottom;

(f) said first layer of material and said second layer of material being constructed of a nonabsorbent material;

(g) said first layer of material and said second layer of material defining between them at least one cavity; and

(h) said at least one cavity being filled with one of the group of a refrigerant gel, a refrigerant liquid or a flexible bladder containing a refrigerant gel or liquid;

2. The beverage container cooling wrap of claim **1** wherein:

(a) said first layer of material and said second layer of material are about rectangular in shape and having a first lesser edges and a second lesser edge;

(b) said first layer of material and second layer of material having a lesser dimension about equal to or slightly greater than the exterior surface distance from bottom to top of said target cylindrical beverage container;

(c) said first layer of material and second layer of material having a greater dimension slightly longer than the exterior circumference of said target cylindrical beverage container;

(d) an area along said first lesser edge of said first layer of material on the face opposite said second layer of material being defined as a first fastening point;

(j) an area along said second lesser edge of said second layer of material on the face opposite said first layer of material being defined as a second fastening point;

(k) a fastening means for removably fastening said first fastening point to said second fastening point comprising a first portion and a second portion;

(l) said first portion of said fastening means for removably fastening said first fastening point to said second fastening point being affixed to said first layer of material at said first fastening point; and

(m) said second portion of said fastening means for removably fastening said first fastening point to said second fastening point being affixed to said second layer of material at said second fastening point.

3. The beverage container cooling wrap of claim **2** wherein said means for removably fastening said first fastening point to said second fastening point comprises a pair of complementary strips of hook and loop fabric.

4. The beverage container cooling wrap of claim **2** wherein a slit is made in the shape of said first layer of material and said second layer of material, to accommodate a target cylindrical beverage container having a tap or spigot on its side exterior surface at or near its base.

5. The beverage container cooling wrap of claim **4** wherein said slit is formed by unfastening the lowermost portion of said means for removably fastening said first fastening point to said second fastening point.

6. The beverage container cooling wrap of claim **4** wherein said slit or cutout results in movable flaps overlaying the tap or spigot of said target beverage container, and wherein a corner fastening_means for removably fastening said flaps in an open position is affixed to the exterior surface of said flaps and to the exterior surface of said beverage container cooling wrap.

8. The beverage container cooling wrap of claim **6** wherein said corner fastening means for removably fastening said flaps in an open position comprises snaps.

9. The beverage container cooling wrap of claim **1** wherein said at least one cavity has a top opening, and wherein said at least one cavity contains a flexible bladder containing a refrigerant gel or liquid.

10. The beverage container cooling wrap of claim **9** wherein said at least one cavity is at least two in number and separated by joining said first sheet of material to said second sheet of material along a seam.

11. The beverage container cooling wrap of claim **9** further comprising a drawstring; said drawstring being threaded through a drawstring channel; said drawstring channel being within the combination of said first layer of material and said second layer of material.

12. The beverage container cooling wrap of claim **9** further comprising an elastic band; said elastic band being within the combination of said first layer of material and said second layer of material.

13. The beverage container cooling wrap of claim **9** wherein said first layer of material and said second layer of material are made of a woven nylon material.

14. The beverage container cooling wrap of claim **10** wherein said at least one cavity is six in number, and each of said at least one cavity is about sixty degrees of arc wide.

15. The beverage container cooling wrap of claim **9** wherein said refrigerant gel or liquid is a composition of water and sodium polyacrylate.

16. The beverage container cooling wrap of claim **9** wherein said flexible bladder is composed of 3 mil linear low density polyethylene and 2.5 mil foil.

* * * * *