US 20180085250A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2018/0085250 A1**

**Weinstein** (43) **Pub. Date: Mar. 29, 2018**

(54) **COLD PACK AND STORAGE CONTAINER FOR PERISHABLES**

(71) Applicant: **Randy Howard Weinstein**, Windsor, CA (US)

(72) Inventor: **Randy Howard Weinstein**, Windsor, CA (US)

(21) Appl. No.: **15/280,988**

(22) Filed: **Sep. 29, 2016**

**Publication Classification**

(51) **Int. Cl.**

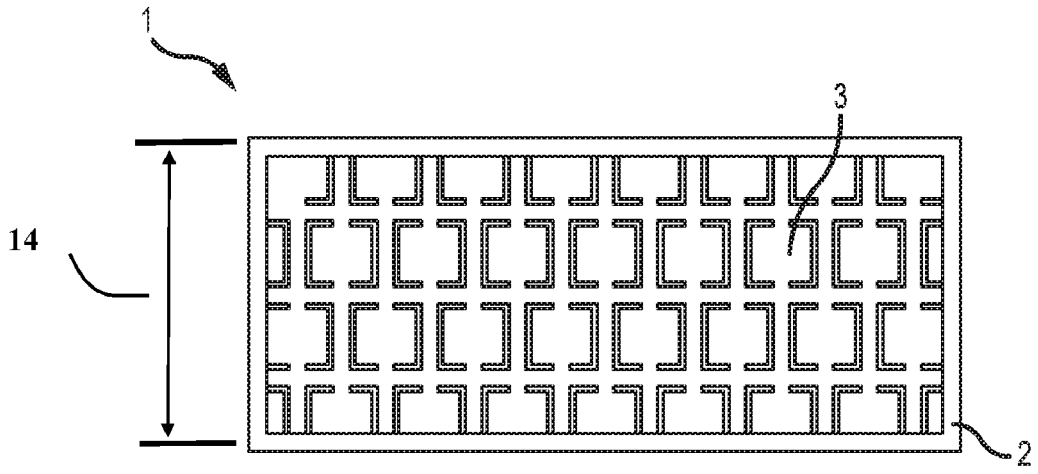
| | |
|---|---|
| ***A61F 7/10*** | (2006.01) |
| ***A61F 7/02*** | (2006.01) |
| ***B65D 81/18*** | (2006.01) |
| ***B65D 81/38*** | (2006.01) |

(52) **U.S. Cl.**

CPC ..... ***A61F 7/10*** (2013.01); ***A61F 7/02*** (2013.01); *A61F 2007/0008* (2013.01); ***B65D 81/382*** (2013.01); ***B65D 81/18*** (2013.01)

(57) **ABSTRACT**

A heat sealed cold pack with a plurality of broken boarder pockets for both holding a substance with a high heat of fusion, such as gel refrigerant consistently throughout the cold pack and allowing the gel refrigerant to migrate throughout the gel pack. The volume of each pocket is variable in response to flexibility and cooling capacity. A two container system that integrates the cold pack.



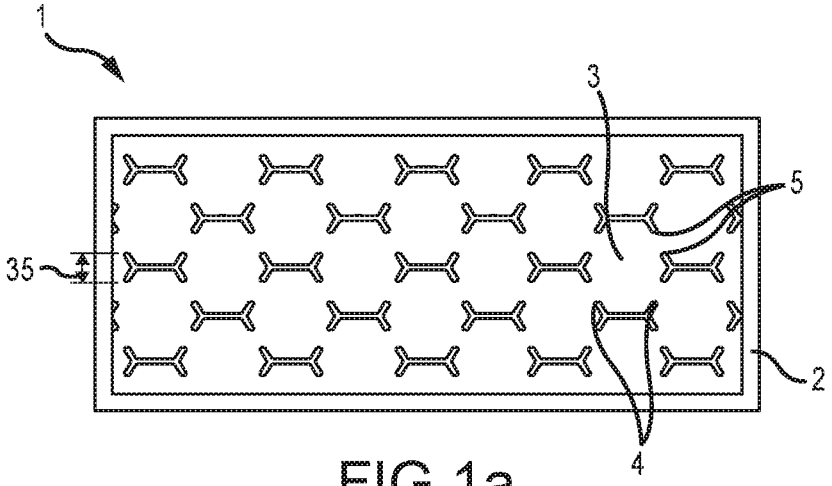



FIG.1a

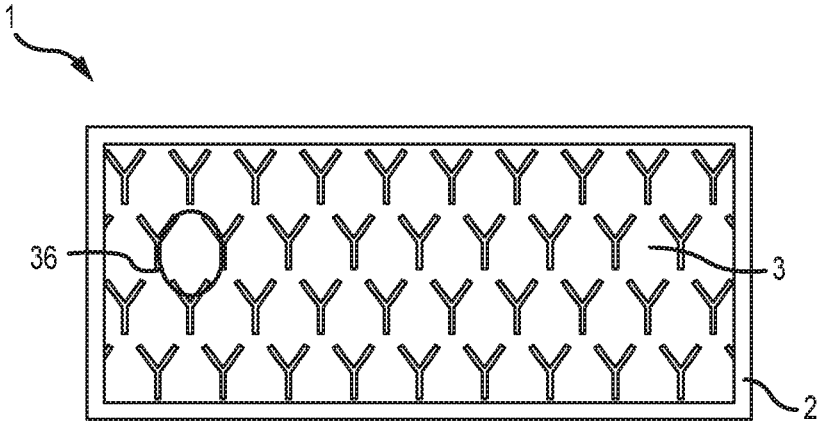



FIG.1b

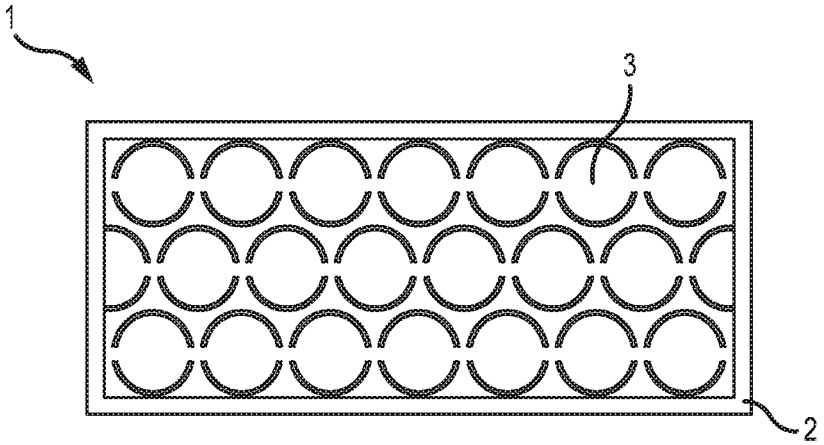



FIG.1c

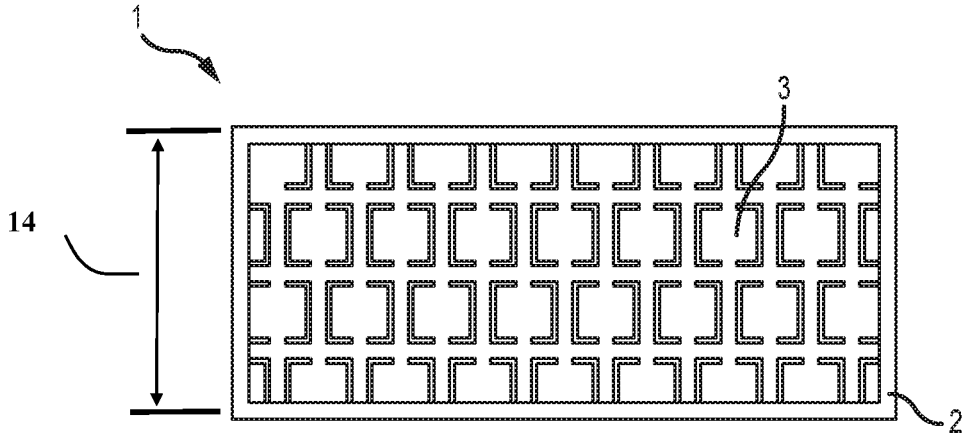



FIG.1d

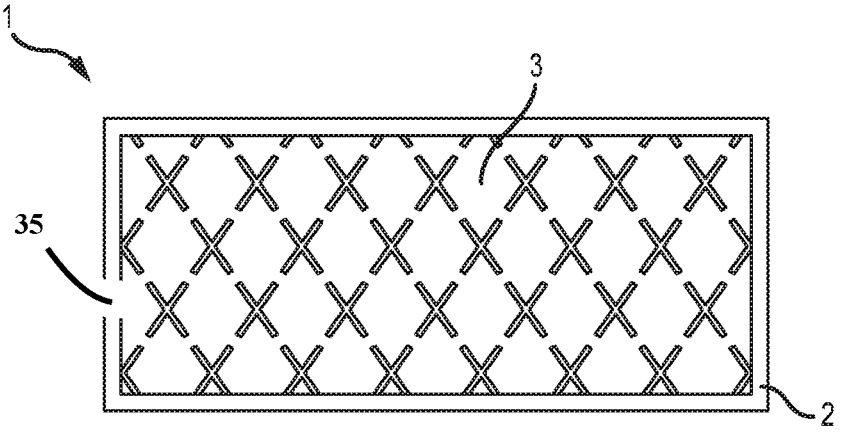



FIG.1e

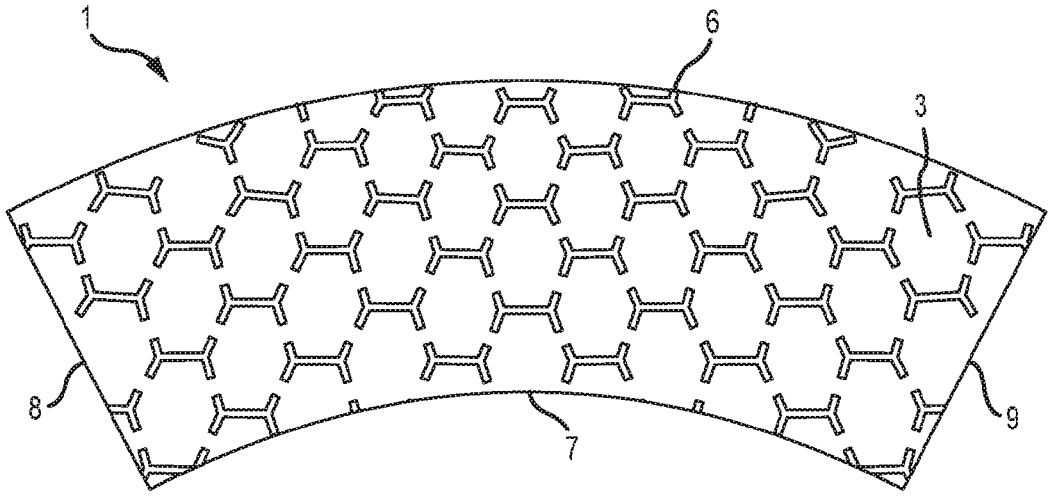



FIG.2

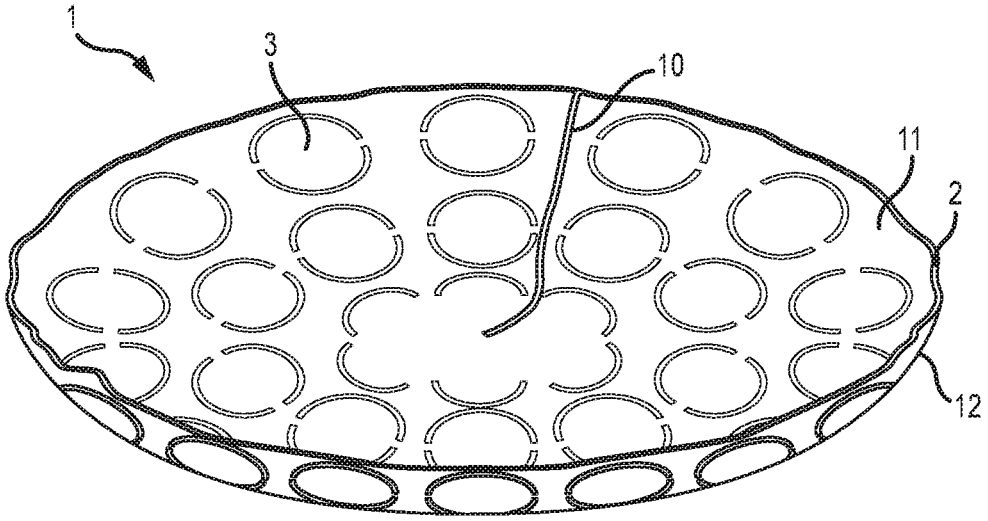



FIG.3

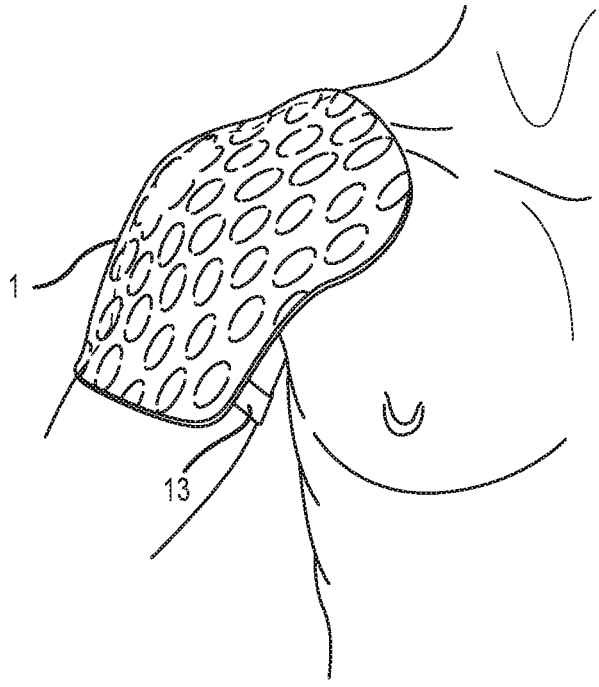



FIG.4a

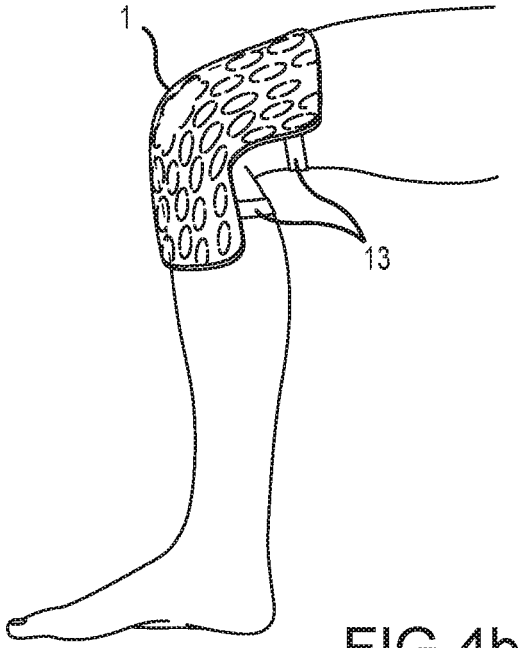



FIG.4b

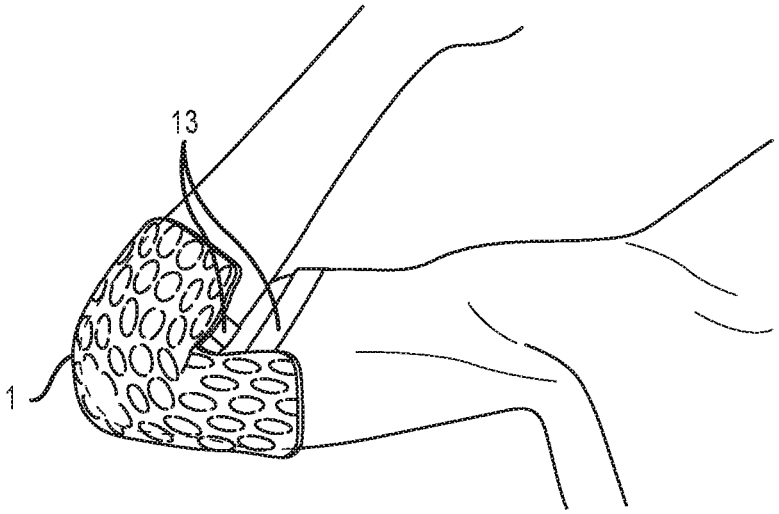



FIG.4c

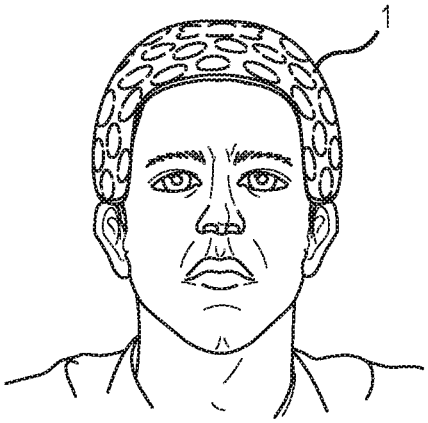



FIG.4d

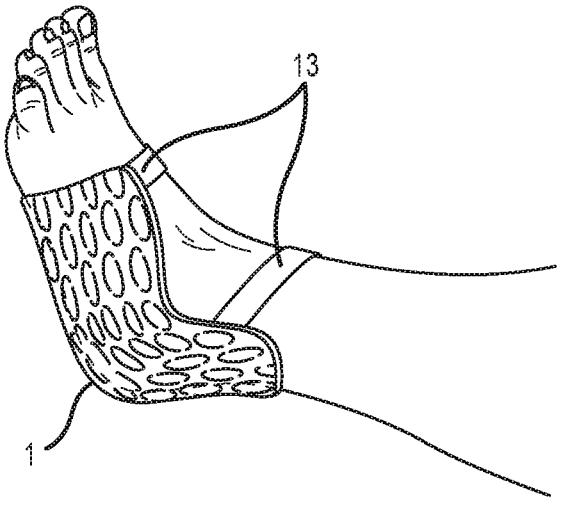



FIG.4e

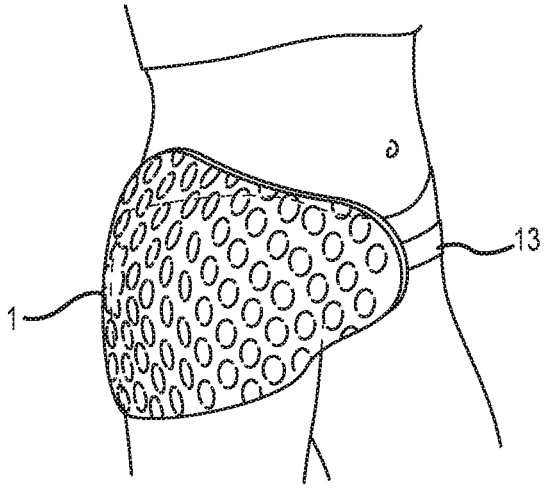



FIG.4f

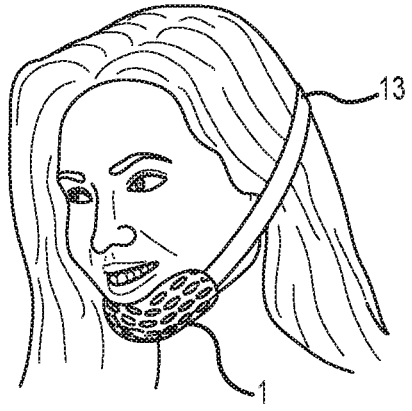



FIG.4g

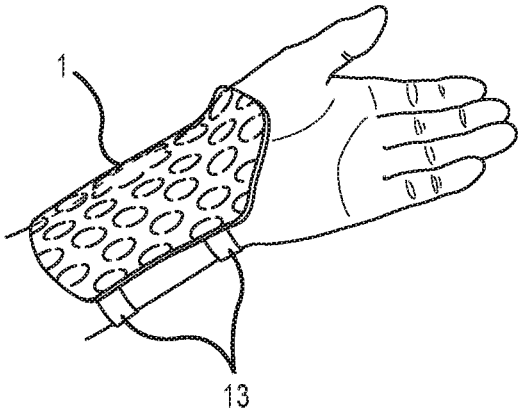



FIG.4h

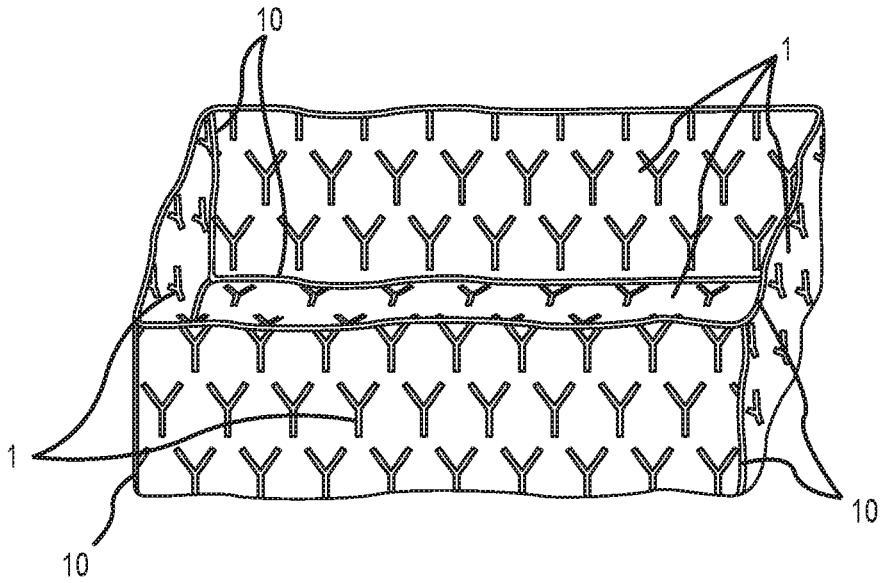



FIG.5

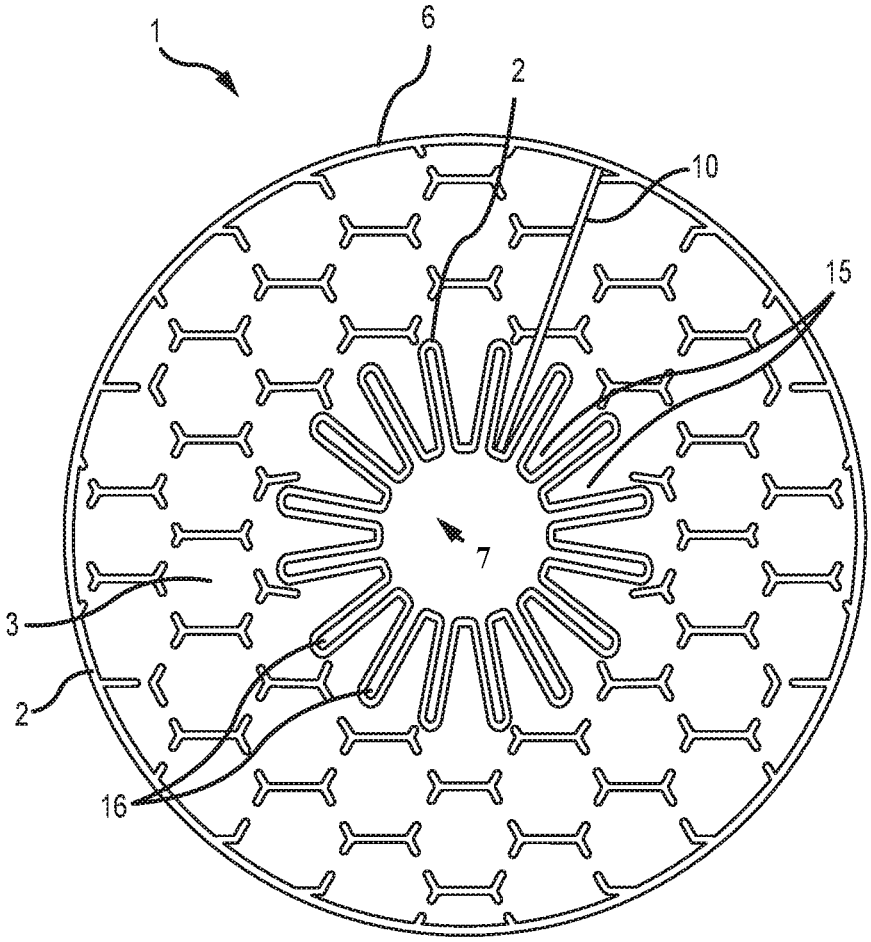



FIG.6

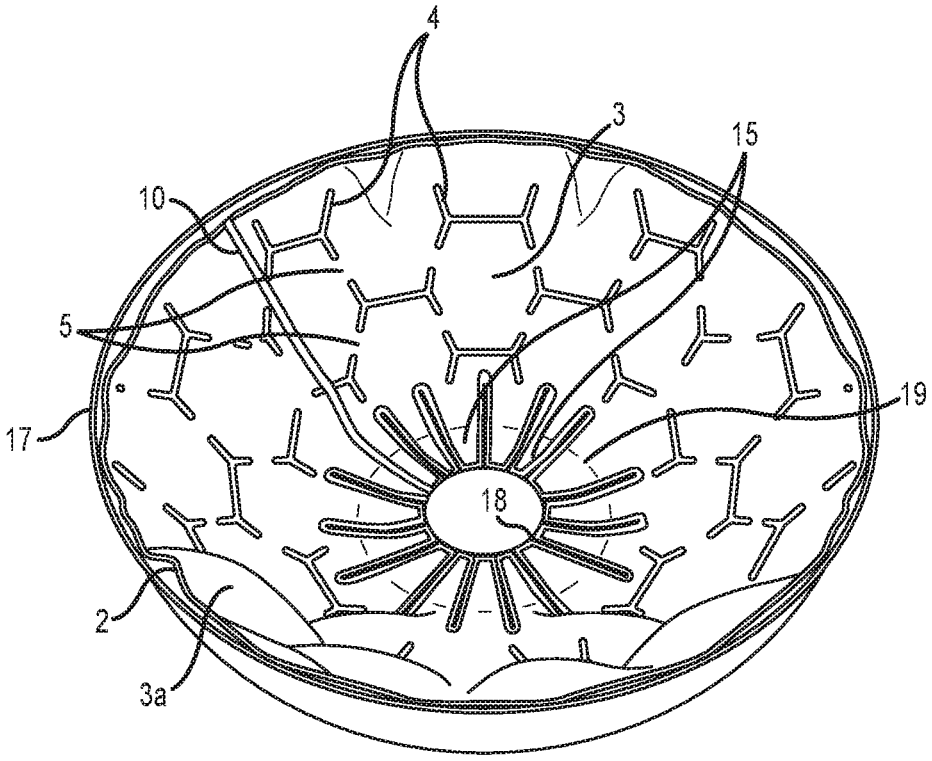



FIG.7

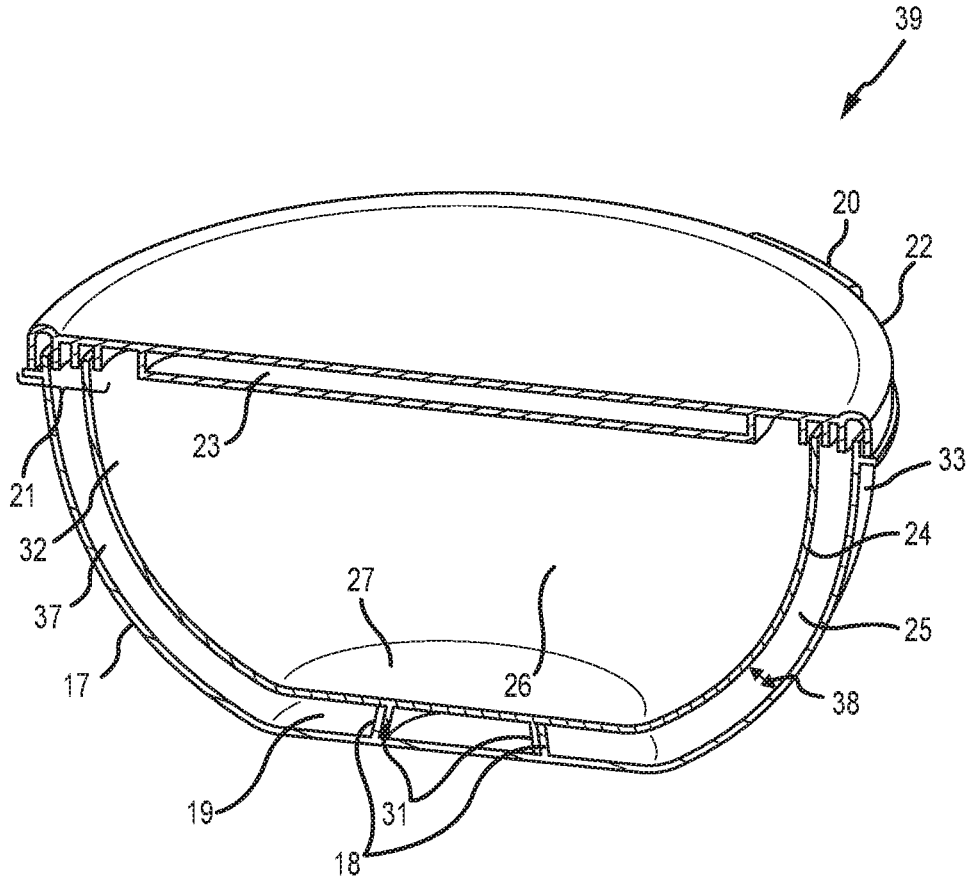



FIG.8

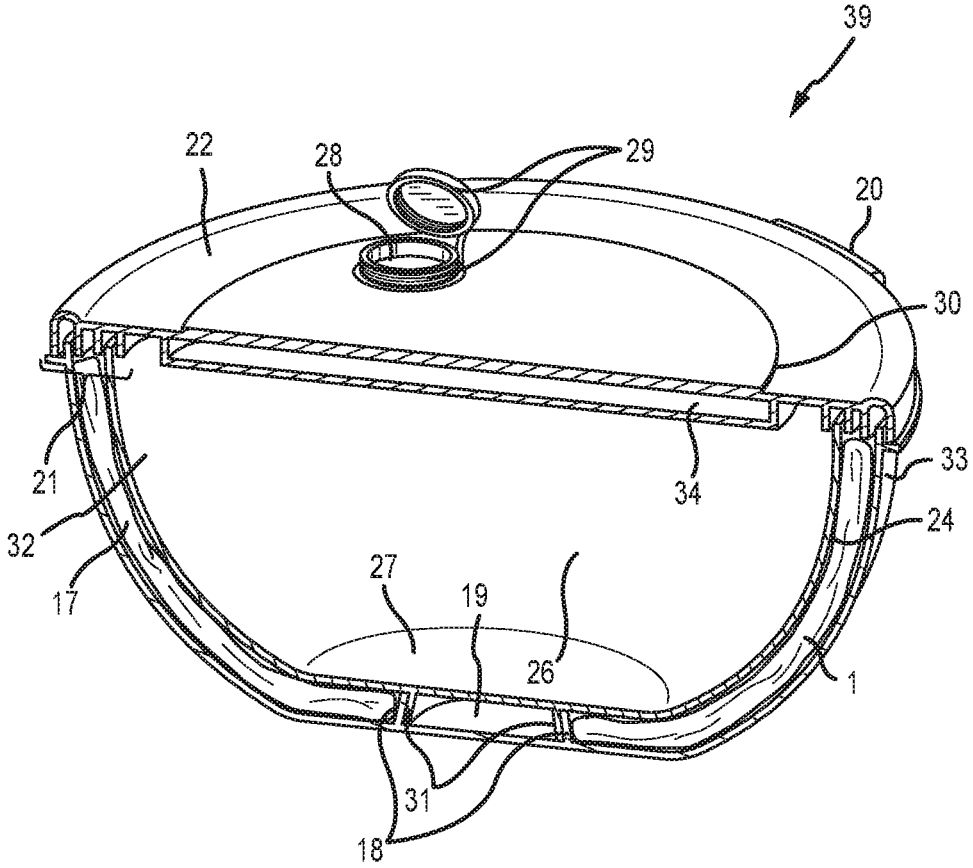



FIG.9

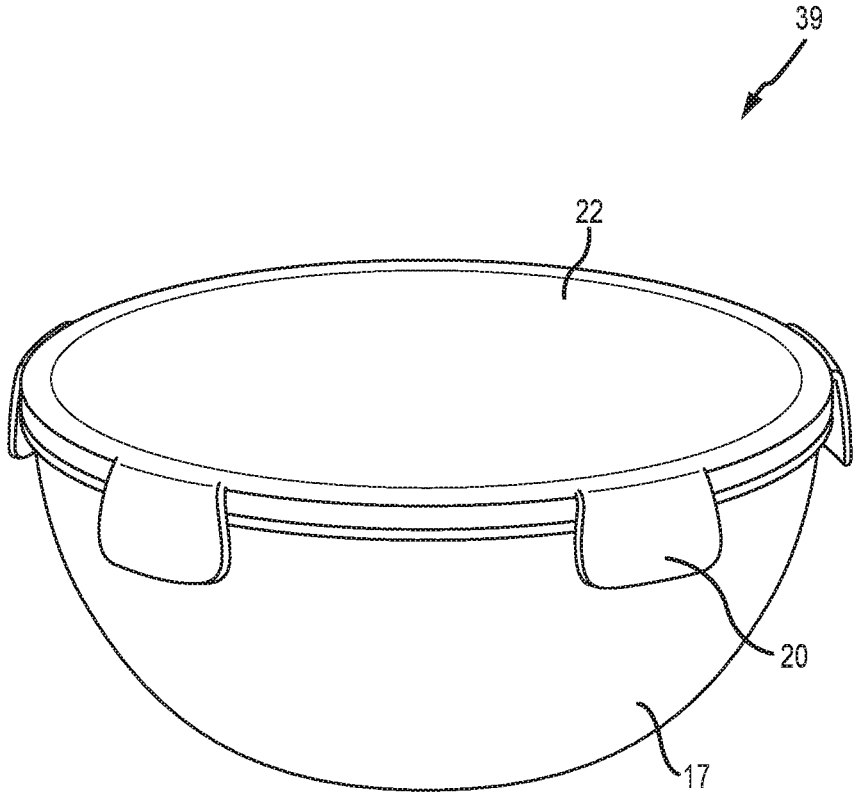



FIG.10

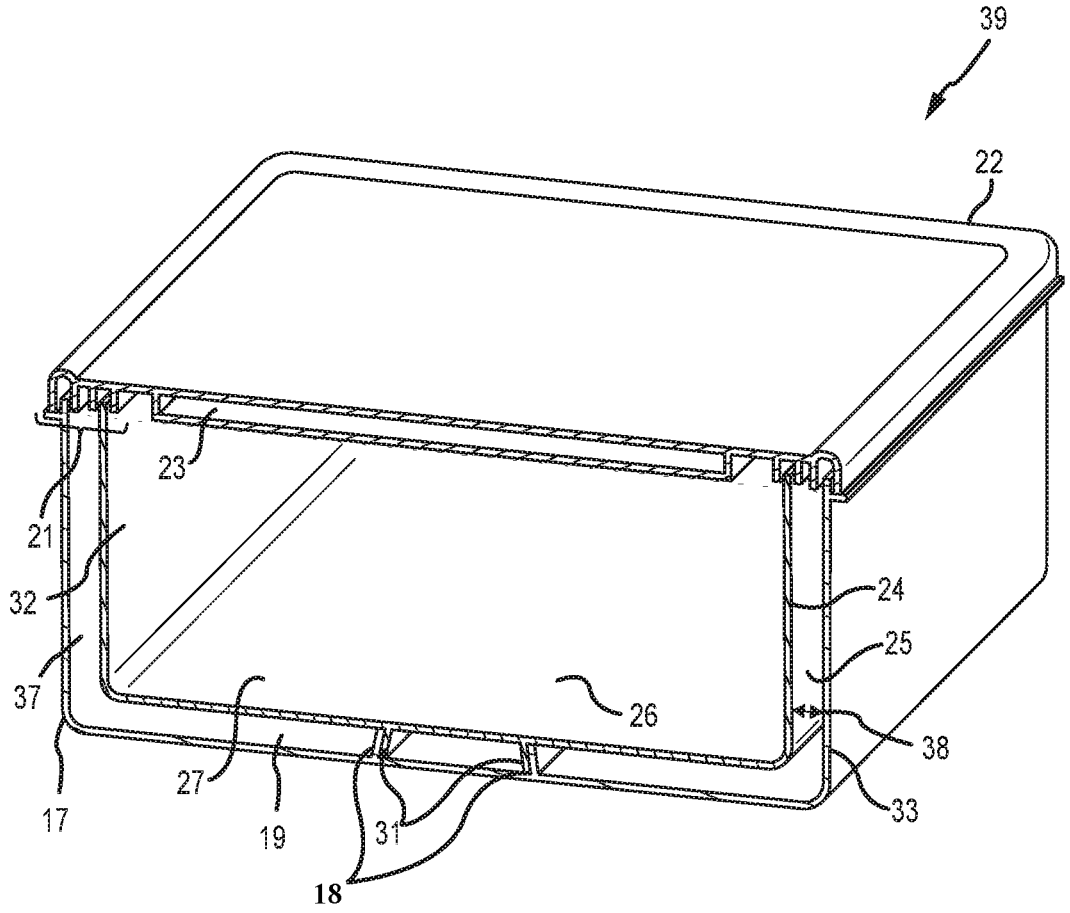



FIG. 11

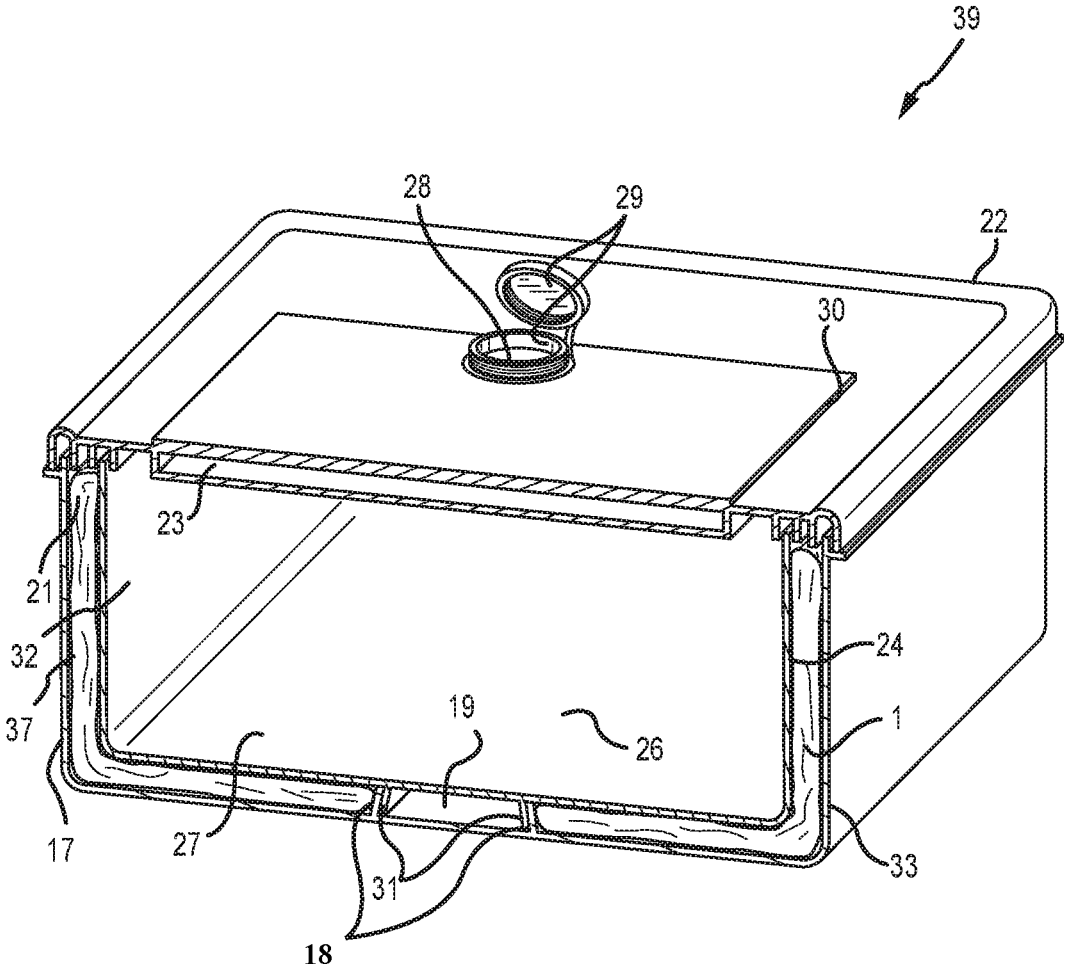



FIG.12

# COLD PACK AND STORAGE CONTAINER FOR PERISHABLES

## BACKGROUND

**[0001]** The present invention relates to cold packs and storage containers for perishables.

**[0002]** Cold packs are indispensable in todays world. They have numerous commercial and non commercial uses, such as cooling food, medical materials, or chemicals. Traditionally cold packs have an exterior shell that is either hard or soft. The hard shell cold packs are useful in many applications but suffer from drawbacks including lack of flexibility, and thickness due to the shell material. Many soft shell cold packs suffer from drawbacks including inability to hold consistent thickness or shape. A cold pack that is flexible, thin, and consistent in thickness and shape would be very useful in many applications.

**[0003]** At social events, or in kitchens, two containers or other shaped containers are often stacked together, the bottom container holds a small amount of ice, the top container is placed on the ice and contains perishables. The ice in the bottom container keeps the contents in the top container fresh for an extended period of time. The two container cooling system is problematic. One problem is that the ice melts into water. As the ice dissipates, the top container sinks into the bottom container, potentially displacing the water which may spill. Even if there is no spillage, it is often messy to clean up. Also, the ice is consistently cooling the base of the top container, but not the sides. This leads to inconsistent cooling. Another problem is that there must be ice available. A two container system would benefit from consistent, reliable and clean cooling system.

**[0004]** Cold packs are often used medically, to cool certain areas of the body, such as the shoulder, elbow, heel, or head. The problem with medical cold packs is that they aren't shaped to fit efficiently on curved body parts. The medical cold packs are often bulky, have poor flexing capability, and are expensive. The medical industry would benefit from flexible and inexpensive cold packs.

## SUMMARY

**[0005]** The present invention relates to cold packs for cold therapy, and cooling perishables.

**[0006]** According to one aspect of the present invention, a cold pack includes a sack with a first sheet, a second sheet, each sheet having an outer perimeter, the sack having first edge, a second edge, a top edge and a bottom edge, the first sheet and second sheet are substantially the same size, and shape, the first and second sheet are sealed together along the outer perimeter of each sheet whereby a water tight sack is formed. The cold pack further includes a plurality of pockets integral to the sack, the first sheet and the second sheet are fused together at one or more points whereby resulting in pockets, each pocket having a fused perimeter portion and an unfused perimeter portion whereby a broken line boarder bounds each pocket. The cold pack further includes a substance with a high heat of fusion fills the sack including each pocket whereby each pocket holds a substantially equal amount of the substance according to the pockets relative size and the substance with a high heat of fusion is substantially uniformly distributed throughout the plurality of pockets.

**[0007]** According to one aspect of the present invention, a storage container includes an outer container with an interior surface, an exterior surface, an open top and a base. The storage container further includes, an inner container with an interior surface, an exterior surface, an open top and a base, the inner container is substantially the same shape as the outer container and having a volume smaller than the outer container such that it fits in the outer container. The storage container further includes one or more spacers connecting the inner container with the outer container whereby forming a substantially uniform space between the interior surface of the outer container and exterior surface of the inner container. The storage container further includes a cold pack for fitting within the space between the inner surface and the outer surface such that the cold pack substantially fills the space, with a portion to accommodate the one or more spacers.

**[0008]** According to one aspect of the present invention, a storage container includes an outer container with an interior surface, an exterior surface, an open top and a base. The storage container further includes, an inner container with an interior surface, an exterior surface, an open top and a base, the inner container is substantially the same shape as the outer container and having a volume smaller than the outer container such that it fits in the outer container. The storage container further includes one or more spacers connecting the inner container with the outer container whereby forming a substantially uniform space between the interior surface of the outer container and exterior surface of the inner container. The storage container further includes a cold pack for fitting within the space between the inner surface and the outer surface such that the cold pack substantially fills the space, with a portion to accommodate the one or more spacers. The storage container further includes a cold pack with a sack with a first sheet, a second sheet, each sheet having an outer perimeter, the sack having first edge, a second edge, a top edge and a bottom edge, the first sheet and second sheet are substantially the same size, and shape, the first and second sheet are sealed together along the outer perimeter of each sheet whereby a water tight sack is formed. The storage container further includes a cold pack with a plurality of pockets integral to the sack, the first sheet and the second sheet are fused together at one or more points whereby resulting in pockets, each pocket having a fused perimeter portion and an unfused perimeter portion whereby a broken line boarder bounds each pocket. The storage container further includes a cold pack with a substance with a high heat of fusion fills the sack including each pocket whereby each pocket holds a substantially equal amount of the substance according to the pockets relative size and the substance with a high heat of fusion is substantially uniformly distributed throughout the plurality of pockets.

## BRIEF DESCRIPTION OF THE DRAWINGS

**[0009]** The drawings illustrate, by way of example only, embodiments of the present invention

**[0010]** FIG. **1***a* is a diagram of an embodiment of a cold pack with substantially hexagon shaped pockets.

**[0011]** FIG. **1***b* is a diagram of an embodiment of a cold pack showing substantially hexagon shaped pockets.

**[0012]** FIG. **1***c* is a diagram of an embodiment of a cold pack showing substantially circle shaped pockets.

**[0013]** FIG. **1***d* is a diagram of an embodiment of a cold pack showing substantially square shaped pockets.

**[0014]** FIG. **1***e* is a diagram of an embodiment of a cold pack showing substantially diamond shaped pockets.

**[0015]** FIG. **2** is a diagram shows a plan view of an embodiment of a cold pack with a top edge arc and bottom edge arc.

**[0016]** FIG. **3** is a perspective view of an embodiment of a cold pack configured for medical uses.

**[0017]** FIG. **4***a* is a side view of an embodiment of a cold pack configured for medical use, shown strapped to a shoulder.

**[0018]** FIG. **4***b* is a side view of an embodiment of a cold pack configured for medical use, shown strapped to a knee.

**[0019]** FIG. **4***c* is a side view of an embodiment of a cold pack configured for medical use, shown strapped to an elbow.

**[0020]** FIG. **4***d* is a side view of an embodiment of a cold pack configured for medical use, shown strapped to a head.

**[0021]** FIG. **4***e* is a side view of an embodiment of a cold pack configured for medical use shown strapped to a heel.

**[0022]** FIG. **5** is a perspective view of an embodiment of a cold pack.

**[0023]** FIG. **6** is a perspective view of an embodiment of a cold pack configured to fit in a storage container such as a bowl.

**[0024]** FIG. **7** is a perspective view of an embodiment of a cold pack filled with gel refrigerant, shown in a storage container shaped like a bowl.

**[0025]** FIG. **8** is a cross-sectional view of an embodiment of a storage container showing a stacked inner and outer container and a lid.

**[0026]** FIG. **9** is a cross-sectional view of an embodiment of a storage container showing the stacked inner and outer container, the cold pack, and a lid.

**[0027]** FIG. **10** is a perspective view of an embodiment of a storage container showing an outer container, and lid.

**[0028]** FIG. **11** is a cross-sectional view of an embodiment of a storage container showing a stacked inner and outer container and a lid.

**[0029]** FIG. **12** is a cross-sectional view of an embodiment of a storage container showing the stacked inner and outer container, the cold pack, and a lid.

## DETAILED DESCRIPTION

**[0030]** The term cold pack **1** is used in the specification to describe embodiments of the invention. FIGS. **1***a*-**1***e* depict varying embodiments of a cold pack **1**, specifically each with a different pocket **3** pattern. As shown in FIG. **1***a*, each pocket **3** is similar to a hexagon, or partial hexagon shape. The boarder **36** of the pocket **3** includes a fused portion **4** and an unfused portion **5**. The fused portion **4** and unfused portion **5** alternate, creating the pocket **3**. The pocket boarder **36** holds a substance with a high heat of fusion **3***a* (shown in FIG. **7**), such as gel refrigerant or water, but also allows the substance **3***a* to migrate between the pockets **3**. The Substance with a high heat of fusion **3***a* will simply be referred to as "gel refrigerant," though note that the gel refrigerant **3***a* is exchangeable with other substances commonly used in cold packs. The ability for the gel refrigerant **3***a* to migrate is important when the cold pack **1** is filled from an opening **35** (as shown in FIG. **1***e*). The gel refrigerant **3***a* must be able to migrate from the point of entrance or filling point, the opening **35** into each pocket **3**. Once the cold pack **1** is filled with gel refrigerant **3***a* the opening **35** is heat sealed closed. The broken boarder **36** of the pocket which includes the fused portion **4** and the unfused portion **5** fulfils two purposes: to allow the gel refrigerant **35** to migrate from the filling point **35** throughout the cold pack **1** and to support the gel refrigerant **3***a* so that it maintains a substantially uniform distribution throughout the cold pack **1**. This purpose can be achieved through any number of configurations. For example, FIG. **1***b* shows the pockets **3** in a form similar to a hexagon. It is different than the shape in FIG. **1***a*; the hexagon like shape is of a different character, but it functions similarly in that it allows for the gel refrigerant **3***a* to migrate but also supports the gel refrigerant **3***a* and contains a portion of within the pocket **3**. FIG. **1***c* shows off-set circle pockets **3** and FIG. **1***e* shows diamond shape pockets, both having the same functions. The shape of the pocket **3** also affects the flexibility.

**[0031]** As shown in FIG. **3**, the cold pack **1** includes a first sheet **11** and a second sheet **12** heat sealed together at each sheets outer perimeter **2**. As shown in FIG. **1***d*, the result of heat sealing results in a sac **14** shown with pockets **3**. The pocket boarder **36** is formed by heat sealing the first sheet **11** and second sheet **12** together at the fused portion **4**. For example, in FIG. **1***e* the 'x' pattern is heat fused and the boarder **2** is formed by heat fusing the first sheet **11** and second sheet **12** together. This is the same for all of the cold packs **1** illustrated. For further example in FIG. **1***c*, the half circle pattern is heat fused. An opening **35** is unfused until the cold pack **1** is filled with gel refrigerant **3***a*. Once the cold pack **1** is filled, the first sheet **11** and second sheet **12** are heat sealed together at the cold pack opening **35** to create a water-tight-sealed sack **14**.

**[0032]** The sheets **11** and **12** may be of any suitable polymer, such as polyethylene, polyester, polypropylene, nylon, poly-vinyl chloride, and combinations of these materials, such as laminates of multiple materials. The sheet material may be selected to be free of latex and other allergenic materials. The cold pack **1** can have a fiber texture on the exterior of the sheets **11** or **12** for comfortable contact with skin of the body.

**[0033]** The cold pack **1** shown in FIG. **2**, includes the pockets **3**, a top edge **6** and a bottom edge **7**, a first edge **8** and a second edge **9**. The cold pack **1** is cut to form a top edge **6** with an arc shape of a substantially uniform radius. The cold pack **1** is further cut to form the bottom edge **7** with an arc shape of a substantially uniform radius. The arc of the bottom edge **7** has a smaller radius than the arc of the top edge **6**. If the first edge **8** and the second edge **9** are heat sealed together the resulting cold pack **1** is shaped similar to a cone without an apex. Though a cold pack **1** in the form of a cone with an apex is possible. The cold pack **1** is configurable.

**[0034]** As shown in FIG. **3**, the gel pack **1** is heat seamed together at the first edge **8** and the second edge **9** (both shown in FIG. **2**) resulting in seam **10** and a curved shape that can be used for medical purposes. Multiple cold packs **1** varying in sizes and shapes may be heat fused together to create a shape needed for the application. The pocket **3** allows the cold pack **1** to curve while maintaining a substantially consistent shape. The curvature is efficiently obtained because the fused portions **4** of the pocket **3** is absent of gel and depressed. When the gel pack curves, the pocket **3**, which bulges because of the gel refrigerant **3***a*, assumes the space to the inside of the curve, and to the outside of the fused portion **4**. The smaller the size of the pocket **3** the greater the curvature the gel pack **1** can

maintain. The larger the size of the pocket **3** the greater volume of gel refrigerant the pocket can hold, but the less curve it can maintain.

**[0035]** As shown in FIG. **4***a-e*, the gel pack **1** can include a strap **13**. The strap **13** is connected to the gel pack **1** and wraps around one or more body parts for hands free application of the cold pack **1** to the body. The depictions in FIG. **4***a*—e are illustrative. The shape and form of the cold pack **1** is configurable to have more or less curvature by changing the size and shape of the pocket **3**, the number of seams **10** or shape of the sack **14**. FIG. **5** shows how multiple cold packs **1** are seamed together (seams **10** are shown) to form a square or rectangle shape.

**[0036]** As shown in FIG. **7**, a cold pack **1** as described in FIG. **6** is contained in an outer container (here depicted as a bowl) **17**. When the cold pack **1** is placed in the outer container **17**, the elongated chambers **15** compress into the elongated cutouts **16** to form a smaller radius but maintain a substantially consisted gel refrigerant **3***a* layer. The cold pack **1** rests substantially flush in the outer container **17**. The gel refrigerant **3***a* is shown giving each pocket a three dimensional shape. The outer container **17** includes a spacer **18** shaped like a cylinder and integral with the bowl. The spacer **18** is hollow inside for receiving another spacer **18**.

**[0037]** As shown in FIG. **6** and FIG. **7**, a cold pack **1** includes a plurality of elongated chambers **15** integral to the gel pack **1** and located at the bottom edge of the cold pack **1**, the elongated chambers **15** are created by elongated cutouts **16** starting at the bottom edge **7** of the cold pack **1** and extending toward the top edge **6** of the gel pack **1**. As shown in FIG. **7**, the portion of the cold pack **1** with elongated chambers **15** and elongated cutouts **16** decreases in diameter and flex under pressure. When the gel pack **1** is place in a bowl-like container **17**, and oriented such that the elongated chambers **15** are located near the base **19**, as shown in FIG. **7**, the decreasing diameter of the bowl **17** puts pressure on the elongated chambers **15**. The pressure causes the elongated chambers **15** to merge into the elongated cutout **16** space, essentially creating a solid area of gel pack with no elongated cutout space **16**. This allows for substantially even cooling across all surfaces except where the spacer **18** is located. The perimeter of the elongated chambers **15** are heat sealed whereby the chambers are for holding the gel refrigerant **3***a*. The gel refrigerant **3***a* moves freely from the pockets **3** in the cold pack **1** into the elongated chambers. Though, it is possible that the elongated chambers **15** are separate from the remainder of the cold pack **1**, it would make filling the cold pack **1** with gel possibly more time consuming.

**[0038]** As shown in FIG. **7**, the gel refrigerant **3***a* fills the pocket **3** so that the surface of the gel pack **1** is slightly wavy. The peak of the wave is approximately at the center of the pocket **3** and the trough is at the fused portion **4**. The difference between the height of the peak and the trough depends on the size of the pocket **3**. The larger the pocket **3**, the greater the difference. Thus, smaller pockets **3** curve better and larger pockets **3** have a greater cooling potential. The cold pack **1** is configurable to balance cooling potential with flexibility by changing the size and shape of the pockets **3**.

**[0039]** FIG. **9** shows a storage container **39** including an outer container **17** and cold pack **1** that includes all of the elements and details as shown and described in FIG. **7**. The cold pack **1** is shown without the details illustrated in FIG. **7**. However, the cold pack **1** shown in FIG. **7** is ideal for integrating with the storage container **39** as shown in FIG. **9**. In addition, storage container **39** includes the inner container **24** which is stacked in the outer container **17** to create the space **38** (as shown in FIG. **8**). The inner container **24** includes a spacer portion **18** or **31**. As shown in FIGS. **8**, **9**, **11**, and **12**, the female portion of the spacer **31** is integral to the inner container base **27** and the male portion of the spacer **18** is integral to the outer container base **19**. The female portion **31** is configured to fit securely in the male portion **18**. As shown in FIGS. **11** and **12**, the spacers **18** and **31**, are square. As shown in FIGS. **8** and **9**, the spacers **18** and **31**, are circles or ovals. The spacers **18** and **31** could conceivably be any shape or located anywhere between the inner container **24** and outer container **17** so long as the resulting space **38** housed the cold pack **1**. As shown, the spacers **18** and **31** are substantially the same height and shape and consisting of a hollow ridge shape. The female portion **31** could be solid, instead of a hollow ridge as shown.

**[0040]** FIGS. **9** and **12** are essentially the same except for their shape and the configuration of the elements that the shape dictates. As shown in FIG. **12**, the storage container **39** is a square or rectangle. The resulting cold pack **1** is therefore square or rectangle. The cold pack **1** is configured essentially as shown in FIG. **5**. The cold pack **1** is created by heat sealing four cold packs **1** to the edges of a cold pack **1** that forms a base, the four cold packs **1** are seamed creating approximately right angles with the base cold pack **1**, all extending in the same direction, and heat seamed at the corners to create an open box structure. The resulting seams **10** are shown in FIG. **5**. One of the cold packs **1** will contain an area that allows for the spacer **18** & **31** to support the inner container **24**. Ideally the area will be a cutout the same shape substantially and the same size as the spacer **18** such that the perimeter of the cold pack cutout rests against the spacer **18** base to stabilize the cold pack **1** from shifting and optimizing the cooling potential. The could pack **1**, ideally, should be substantially the same height and width as the walls of the container it is configured to. It however could be of a height that is shorter.

**[0041]** The storage container **39** also includes a chamber **26** for receiving perishables and a space **38** for receiving one or more cold packs **1**. The perishable chamber **26** is the inner cavity of the inner container **24**. The inner container **24** has an interior surface **32** and an exterior surface **37**. The interior surface **32** is the surface that will support perishables. The space **38** for receiving the cold pack **1** is bounded by the inner container exterior surface **25** and the outer container interior surface **37**. The space **38** is substantially uniform with a substantially consistent width. The space **38** has a consisted slope create by the slope the inner container exterior surface **25** and the outer container interior surface **37**. If the space **38** was irregular, multiple cold packs **1** with pockets of varying size could conceivably be fused together to meet this need.

**[0042]** Unless, a user would like to put the whole storage container **39** in the freezer, the inner container **24** is removable. The inner container **24** is removed so that the cold pack may be removed and chilled or frozen separate from the storage container **39**. This benefit saves freezer space. The cold pack is then placed back into the space **36** and the inner container **24** is placed back inside the outer container such that the female spacer **31** fits substantially snug in the outer

containers **33** male spacer **18**. The inner container **24** and outer container **33** can be made of a variety of materials such as plastic, metal or wood.

**[0043]** The lid **22** as shown in FIGS. **9** and **12**, include a chamber **23** for holding water **3***a*. The chamber **23** also has a raised portion, an air chamber **30**. The air chamber **30** allows for water to expand as it changes state from liquid to solid. The lid **22** includes an opening **28** and a reusable closure cap lid **29**. The chamber **23** can be filled and emptied as needed. The opening **28** and a reusable closure cap lid **29** are position such that the when a user fills the chamber **23** with water or similar substance the air chamber **30** will not fill with water. The chamber **23** may be configured as to size including depth. However, the heat transfer increases as the surface area of the chamber **23** exterior that is exposed to the perishable chamber **26** increases. To maximize heat transfer the chamber **23** should have an area only slightly less than the surface area of the inner container's opening and it should extend into the inner container's opening.

**[0044]** FIGS. **8** and **11** show two variations of a storage container **39**. The essential difference between FIGS. **8** and **11** is the shape of the storage container **39**, the difference in how the cold pack **1** is configured which is discuss above and the lid. The lid **22** as shown in FIGS. **8** and **11**, is similar to the lid FIGS. **9** and **12** in but it is designed to receive gel refrigerant **3***a* in chamber **23**. The gel refrigerant can **3***a* be permanently sealed in the lid **22**. In this case, the lid **22** is removed and placed in a freezer to chill. In the alternative, a gel pack is placed in the chamber **23** and can be removed for freezing.

**[0045]** The storage container **39** can be packed in a cooler (not shown) alleviating the need for adding ice or ice packs. The storage container **39** are stacked to save space in the cooler.

**[0046]** An embodiment of the cold pack **1** for medical uses would have pockets **3** of varying size. An area with relatively large pockets **3** and an area with relatively small pockets **3** for flexing around a body curvature.

What is claimed:

**1**. A cold pack comprising

A sack with a first sheet, a second sheet, each sheet having an outer perimeter, the sack having a first edge, a second edge, a top edge and a bottom edge, the first sheet and second sheet are substantially the same size, and shape, the first and second sheet are sealed together along the outer perimeter of each sheet whereby a water tight sack is formed;

A plurality of pockets integral to the sack, the first sheet and the second sheet are fused together at one or more points whereby resulting in pockets, each pocket having a fused perimeter portion and an unfused perimeter portion whereby a broken line boarder bounds each pocket;

A substance with a high heat of fusion fills the sack including each pocket whereby each pocket holds a substantially equal amount of the substance according to the pockets relative size and the substance with a high heat of fusion is substantially uniformly distributed throughout the plurality of pockets.

**2**. A cold pack according to claim **1**, wherein the top edge and the bottom edge are arc shaped, each having a substantially consistent radius, the bottom edge is of a smaller radius than the top edge, the first edge and the second edge are heat sealed together whereby the sack forms a bowl shape.

**3**. A cold pack according to claim **1**, further comprising a plurality of elongated chambers integral to the sack and located at the bottom edge of the sack, the chambers are created by elongated cutouts starting at the bottom edge of the sack and extending toward the top edge of the sack, whereby the bottom portion of the sack decreases and flexes in diameter under pressure, the perimeter of the elongated chamber is heat sealed whereby the chambers are for holding the substance with the high heat of fusion.

**4**. A cold pack according to claim **3**, wherein the substance with a high heat of fusion fills the sack including each elongated chamber.

**5**. A cold pack according to claim **1**, wherein the sack is a heat sealed plastic sack.

**6**. A cold pack according to claim **1**, wherein each pocket of the plurality of pockets are uniformly distributed across the sack.

**7**. A cold pack according to claim **1**, wherein each whole pocket of the plurality of pockets is shaped substantially like a hexagon.

**8**. A cold pack according to claim **1**, wherein each whole pocket of the plurality of pockets is shaped substantially like a triangle.

**9**. A cold pack according to claim **1**, wherein each whole pocket of the plurality of pockets is shaped substantially like a square.

**10**. A cold pack according to claim **1**, wherein each whole pocket of the plurality of pockets is shaped substantially like a circle.

**11**. A cold pack according to claim **1**, further comprising a sealed opening, whereby the substance with a high heat of fusion is inserted and sealed into the sack.

**12**. A cold pack according to claim **1**, wherein each whole pocket of the plurality of pockets is substantially the same size.

**13**. A cold pack according to claim **1**, wherein the cold pack forms a shape to fit the curve of body part such as a head, elbow, knee, or foot, further comprising one or more straps for holding the cold pack to a body parts for hands free heat exchange.

**14**. A cold pack according to claim **13**, wherein each pocket has one or more different volumetric capacities for the substance.

**15**. A cold pack according to claim **1**, further comprising one or more seams.

**16**. A cold pack according to claim **1**, wherein the substance with a high heat of fusion is a gel refrigerant.

**17**. A storage container comprising

An outer container with an interior surface, an exterior surface, an open top and a base;

An inner container with an interior surface, an exterior surface, an open top and a base, the inner container is substantially the same shape as the outer container and having a volume smaller than the outer container such that it fits in the outer container;

One or more spacers connecting the inner container with the outer container whereby forming a substantially uniform space between the interior surface of the outer container and exterior surface of the inner container;

A cold pack for fitting within the space between the inner surface and the outer surface such that the cold pack

substantially fills the space, with a portion to accommodate the one or more spacers.

**18**. A storage container according to claim **17**, wherein the spacer comprises one or more female portions and one or more male portions, the female portion is integral to the interior surface of the outer container base and the male portion is integral the exterior surface of the inner container base (element 1), the female portion and male portion are of substantially the same height whereby the female portion fits within the male portion.

**19**. A storage container according to claim **17**, wherein the one or more spacers is integral to the interior surface of the outer container and integral the exterior surface of the inner container.

**20**. A storage container according to claim **17**, wherein the spacer comprises a female portion and a male portion, the male portion is integral to the interior surface of the outer container base and the female portion is integral the exterior surface of the inner container base, the female portion and male portion are of substantially the same height, whereby the female portion fits within the male portion.

**21**. A storage container according to claim **17**, wherein the inner container is stacked in the outer container, supported by the one or more spacers, such that the inner container base is substantially parallel to the outer container base, the outer container open top is in substantially the same plane as the inner container open top, and the inner container exterior surface and outer container interior surface have substantially the same slope.

**22**. A storage container according to claim **17**, wherein the outer container and inner container are both substantially square shaped.

**23**. A storage container according to claim **17**, wherein the outer container and inner container are both substantially rectangle shaped.

**24**. A storage container according to claim **17**, wherein the outer container and inner container are both substantially bowl shaped.

**25**. A storage container according to claim **17**, wherein the outer container and inner container are both substantially cylinder shaped.

**26**. A storage container according to claim **17**, further comprising a lid having a first side and a second side, and a chamber containing a substance with a high heat of fusion, the outer rim of the second side rests on the outer rim of the inner container opening.

**27**. A storage container according to claim **17**, wherein the first side of the lid is raised for allowing the substance with the high heat of fusion expansion space, and the first side further comprises an opening and closure cap whereby the chamber is filled with and emptied of the substance with a high heat of fusion.

**28**. A storage container according to claim **17**, wherein the cold pack further comprises

A sack with a first sheet, a second sheet, each sheet having an outer perimeter, the sack having first edge, a second edge, a top edge and a bottom edge, the first sheet and second sheet are substantially the same size, and shape, the first and second sheet are sealed together along the outer perimeter of each sheet whereby a water tight sack is formed;

A plurality of pockets integral to the sack, the first sheet and the second sheet are fused together at one or more points whereby resulting in pockets, each pocket having a fused perimeter portion and an unfused perimeter portion whereby a broken line boarder bounds each pocket;

A substance with a high heat of fusion fills the sack including each pocket whereby each pocket holds a substantially equal amount of the substance according to the pockets relative size and the substance with a high heat of fusion is substantially uniformly distributed throughout the plurality of pockets.

**29**. A storage container according to claim **28**, wherein the top edge and the bottom edge are arc shaped, each having a substantially consistent radius, the bottom edge is of a smaller radius than the top edge, the first edge and the second edge are heat sealed together whereby the sack forms a bowl shape.

**30**. A storage container according to claim **28**, further comprising a plurality of elongated chambers integral to the sack and located at the bottom edge of the sack, the chambers are created by elongated cutouts starting at the bottom edge of the sack and extending toward the top edge of the sack, whereby the bottom portion of the sack decreases and flexes in diameter under pressure, the perimeter of the elongated chambers are heat sealed whereby the chambers are for holding the substance with the high heat of fusion.

**31**. A storage container according to claim **28**, wherein the substance with a high heat of fusion fills the sack including each elongated chamber.

**32**. A storage container according to claim **28**, wherein the sack is a heat sealed plastic sack.

**33**. A storage container according to claim **28**, wherein each pocket of the plurality of pockets are uniformly distributed across the sack.

**34**. A storage container according to claim **28**, wherein each whole pocket of the plurality of pockets is shaped substantially like a hexagon.

**35**. A storage container according to claim **28**, wherein each whole pocket of the plurality of pockets is shaped substantially like a triangle.

**36**. A storage container according to claim **28**, wherein each whole pocket of the plurality of pockets is shaped substantially like a square.

**37**. A storage container according to claim **28**, wherein each whole pocket of the plurality of pockets is shaped substantially like a circle.

**38**. A storage container according to claim **28**, further comprising a sealed opening on the cold pack, whereby the substance with a high heat of fusion is inserted and sealed into the sack.

**39**. A storage container according to claim **28**, wherein each whole pocket of the plurality of pockets is substantially the same size.

**40**. A storage container according to claim **28**, further comprising one or more seams forming an open top box with 5 sides and 8 seams, and one or more breaks to accommodate the one or more spacers.

**41**. A storage container according to claim **28**, wherein the substance with a high heat of fusion is a gel refrigerant.

* * * * *