The present invention is directed to a frozen beverage holder and method of making the same, the frozen beverage holder formed from a frozen block with one or more orifices formed in the frozen block adapted to receive a beverage container. The beverage holder may be formed entirely from a frozen liquid, semi-liquid, semi-solid, or gaseous material, and may also include height positioning devices or steps to position a beverage container inserted into the orifices at a desired height, a storage area and drainage channel formed into the frozen beverage holder, and a business card holder formed as a groove in the frozen beverage holder and configured so that a business card may be vertically inserted into the groove. The present invention is also directed at a mold for making the frozen beverage holder.
FIG. 7A

ICE-HOLE PRODUCTS

FIG. 7B

ICE-HOLE PRODUCTS
FROZEN BEVERAGE HOLDER AND
METHOD OF MAKING SAME

RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Patent Application 61/343,767, filed on May 4, 2010.

BACKGROUND OF THE INVENTION

[0002] The present invention is generally directed to a beverage holder made from a frozen substance that may be used to hold and support one or more beverages. Specifically, the present invention is directed to a frozen beverage holder that comprises one or more orifices or receptacles to accept variously sized and shaped beverage containers.

[0003] Various products and methods exist in order to maintain beverages at typically desired cold temperatures. Generally, these products and methods can be broken down into three (3) main approaches: (i) insulation devices; (ii) cooled cavities; and (iii) a combination of each. For example, insulation devices may comprise what are commonly known as "coozies," also known as a "can cooler," "beer sleeve," or "stubby holder." These devices are generally manufactured from an insulating material in a shape that receives a beverage can or bottle. This device does not continuously cool the beverage, but rather seeks to maintain the pre-existing temperature of the beverage as long as possible.

[0004] Cooled cavities may comprise nothing more than a bucket, filled with ice, within which beverages may be deposited. To some extent, cooled cavities may include standard and miniature refrigerators.

[0005] Combinations of both insulation devices and cooled cavities may comprise the general cooler, a device that manufactured from an insulating material and may be filled with ice or other coolants to maintain the inner cavity at a low temperature.

[0006] However, each of these devices have significant drawbacks. Insulating devices alone generally rely upon the temperature of the beverage, and therefore their efficacy reduces over time. Cooled cavities are generally bulky and inconvenient, and must be carried by the user even after all beverages have been exhausted. Moreover, cooled cavities such as coolers generally do not support beverages once opened. In fact, it is common practice to use a cooled cavity to reduce the temperature of a beverage, remove the beverage from the cooled cavity, and use an insulating device such as a cooie to maintain the beverage temperature.

[0007] Accordingly, a device and method of cooling beverages without the aforementioned drawbacks is desirable.

SUMMARY OF THE INVENTION

[0008] Aspects of the invention may include a beverage holder formed from a frozen block, comprising one or more orifices formed in the frozen block, adapted to receive a beverage container.

[0009] Aspects of the present invention may also include a beverage holder formed entirely from a frozen liquid, semi-liquid, semi-solid, or gaseous material, comprising: one or more orifices formed in the frozen block, the one or more orifices of a generally cylindrical shape and adapted to receive a beverage container, the one or more orifices comprising height positioning devices or steps to position a beverage container inserted into the orifices at a desired height; a storage area and drainage channel formed into the frozen beverage holder; and a business card holder formed as a groove in the frozen beverage holder and configured so that a business card may be vertically inserted into the groove.

[0010] Aspects of the present invention may also include a mold for forming a frozen beverage holder, the mold comprising: a bottom surface, the bottom surface comprising protrusions shaped to occlude the frozen material from areas that will form orifices in the frozen beverage holder for receiving beverage containers; and side surfaces connected to the bottom surface such that the mold is substantially liquid-tight.

[0011] These and other aspects will become apparent from the following description of the invention taken in conjunction with the following drawings, although variations and modifications may be effected without departing from the spirit and scope of the novel concepts of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The present invention can be more fully understood by reading the following detailed description together with the accompanying drawings, in which like reference indicators are used to designate like elements. The accompanying figures depict certain illustrative embodiments and may aid in understanding the following detailed description. Before any embodiment of the invention is explained in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangements of components set forth in the following description or illustrated in the drawings. The embodiments depicted are to be understood as exemplary and in no way limiting of the overall scope of the invention. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting. The detailed description will make reference to the following figures, in which:

[0013] FIG. 1 illustrates a frozen beverage holder in accordance with some embodiments of the present invention.

[0014] FIG. 2A-2F illustrates multiple variations in the size, shape, and details of a frozen beverage holder in accordance with some embodiments of the present invention.

[0015] FIG. 3A-3D depicts a detailed view of positioning devices that may be utilized by a frozen beverage holder in accordance with some embodiments of the present invention.

[0016] FIG. 4 illustrates a storage area that may optionally be formed integral to a frozen beverage holder in accordance with some embodiments of the present invention.

[0017] FIG. 5 illustrates a frozen beverage holder with internal beverage cavities, in accordance with some embodiments of the present invention.

[0018] FIG. 6 illustrates a frozen drink holder configured to receive various lighting devices, in accordance with some embodiments of the present invention.

[0019] FIG. 7A-7D illustrates a frozen drink holder configured to present marketing material, in accordance with some embodiments of the present invention.

[0020] FIG. 8 illustrates a mold that that may be used to make a frozen drink holder in accordance with some embodiments of the present invention.

[0021] FIG. 9 illustrates a mold that that may be used to make a frozen drink holder in accordance with some embodiments of the present invention.

[0022] FIG. 10 illustrates a mold that that may be used to make frozen drink holders in accordance with some embodiments of the present invention.
Before any embodiment of the invention is explained in detail, it is to be understood that the present invention is not limited in its application to the details of construction and the arrangements of components set forth in the following description or illustrated in the drawings. The present invention is capable of other embodiments and of being practiced or being carried out in various ways. Also, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting.

DETAILED DESCRIPTION OF THE INVENTION

The matters exemplified in this description are provided to assist in a comprehensive understanding of various exemplary embodiments disclosed with reference to the accompanying figures. Accordingly, those of ordinary skill in the art will recognize that various changes and modifications of the exemplary embodiments described herein can be made without departing from the spirit and scope of the claimed invention. Descriptions of well-known functions and constructions are omitted for clarity and conciseness. Moreover, as used herein, the singular may be interpreted in the plural, and alternately, any term in the plural may be interpreted to be in the singular.

With reference to FIG. 1, a frozen beverage holder 10 in accordance with some embodiments of the present invention will be discussed. Frozen beverage holder 10 is generally made from a frozen block 11, which may be any frozen liquid, semi-liquid, semi-solid, or gas. Frozen block 11 may comprise one or more beverage chambers 110 configured to receive a beverage container. Beverage chamber 110 may extend entirely through frozen block 11 (not shown) or may terminate within frozen block 11 (as shown in FIG. 1), at bottom 113. Each beverage chamber may optionally further comprise a positioning device for maintaining a desired height of a beverage container inserted into the beverage chamber 110. For example, FIG. 1 depicts two (2) steps 111, 112 that are sized to hold beverage containers of a certain diameter at a certain height. Note that while beverage chambers 110 are depicted as round, or cylindrical, such chambers may be of any shape and size suitable to receive a beverage container.

Unlike other cooling devices, frozen beverage holder 10 is formed entirely from a frozen material. This provides several benefits. First, use of a frozen beverage holder in accordance with some embodiments of the present invention provides for a direct interface between a beverage container and the frozen material, thereby providing optimal cooling. Additionally, because the frozen beverage holder in accordance with some embodiments of the present invention is comprised entirely of a frozen material, once melted there is no waste or unnecessary containers. Additionally, as the frozen beverage holder begins to melt, liquid may puddle in the beverage chambers, thereby maintaining a direct interface with the beverage container and cooling the beverage container efficiently.

While the frozen beverage holder 10 is illustrated as a rectangular block comprising two (2) beverage chambers, a frozen beverage holder in accordance with the present invention may be of any shape or size, and may comprise any number of beverage chambers. For example, and with reference to FIG. 2A, a frozen beverage holder 210 may comprise a rectangular frozen block 211 with one (1) beverage chamber 212. With reference to FIG. 2B, a frozen beverage holder 220 may comprise a rectangular frozen block 221 with six (6) evenly spaced beverage chambers 222. With reference to FIG. 2C, a frozen beverage holder 230 may comprise an oval shaped frozen block 231 with six (6) beverage chambers 232 arranged in an asymmetric pattern. With reference to FIG. 2D, a frozen beverage holder 240 may comprise an oval shaped frozen block 241 with two (2) beverage chambers 242. With reference to FIG. 2E, a frozen beverage holder 250 may comprise a cylindrical frozen block 251 with a single beverage chamber 252 disposed coaxially with the frozen block 251.

In addition to various arrangements and design choices in the shape of the frozen beverage holder and the number and spacing of beverage chambers, frozen beverage holders may further comprise trays or other storage areas, indent, or surfaces formed into the frozen block. For example, the frozen beverage holder 260 depicted in FIG. 2F comprises a rectangular frozen block 261 that comprises single beverage cavity 262 and a formed tray 263. Formed tray 263 may be used to hold any number of things, including without limitation, sliced lemons, limes, or other garnishments, or shrimp, shellfish, or other food items.

In utilizing the frozen beverage holder, it is desirable to have as much of the beverage container in direct contact with the frozen block. However, the beverage container must be easily removable. Given the varying sizes of beverage containers (e.g., beverage cans, bottles, and cups), a mechanism is useful to maintain each type of beverage container at a particular desired height. Generally, the smaller the diameter of the beverage container, the larger the vertical height of the container. For example, when comparing beer bottles, standard beverage cans, and plastic cups, beer bottles generally have the smaller diameter and the largest height.

With reference to FIG. 3A-D, a detailed view of positioning devices that may be utilized by a frozen beverage holder in accordance with some embodiments of the present invention. With reference to FIG. 3A, a cross-section of a positioning device 310 in accordance with some embodiments of the present invention is depicted. Positioning device 310 is comprised of a series of steps 311, 312, and 313 shaped into the beverage chamber. A beverage container of a certain diameter will sit on one of steps 311, 312, or 313.

With reference to FIG. 3B, a cross-section of positioning device 320 is depicted. Positioning device 320 comprises angled walls 321 that form the beverage chamber, and a bottom surface 322. Because of the angled walls, a beverage container of a certain diameter will sit at a particular height. However, because of the continually angled walls, unless the beverage container has a matching angled walls, support for a beverage container (such as a standard beverage can) will be limited to the contact points with angled walls 321.

With reference to FIG. 3C, a cross-section of a positioning device 330 is depicted. Positioning device 330 comprises angled walls 331 much like the device illustrated in FIG. 3B. However, positioning device 330 further comprises ridges 332, 333. The beverage chambers and location of the ridges 332, 333 may be sized and located such that beverage containers inserted into beverage chamber may sit on the ridges 332, 333, thereby providing additional support.

With reference to FIG. 3D, a cross-section of a positioning device 340 is depicted. Positioning device 340 is comprised of protrusions 341, 342 in a generally cylindrical beverage chamber. As with the other positioning devices, protrusions 341, 342 provide support at different heights for
beverage containers of different diameters. Note that the positioning devices illustrated in FIG. 3A-D are exemplary only. Additional or different positioning devices or designs may be utilized to maintain the location of beverage containers in beverage chambers in each of an X, Y, and Z direction.

[0034] As briefly discussed above, frozen beverages holders in accordance with the present invention may further comprise trays or other storage areas, indentors, or surfaces formed into the frozen block. FIG. 4 illustrates a storage area 40 that may optionally be formed integral to a frozen beverage holder in accordance with some embodiments of the present invention. Storage area 40 may be formed in frozen block 410, and may comprise an indented bottom surface 420, with side walls 430, 431, 440, 441. Alternatively, the storage area may be formed integral to one or more sides of the frozen block 410, thereby reducing the number of side walls (not shown). In some embodiments, storage area 40 may further comprise a drainage mechanism 450. Drainage mechanism may comprise a notch, hole, or orifice that allows liquids to drain from storage area 40. For example, if storage area 40 is used to hold shrimp cocktail, as the frozen beverage holder begins to melt at ambient temperature, it is not desirable to have water-logged shrimp. Accordingly, the storage area 40 may drain liquid as it accumulates. Storage area 40 may be of any shape or size, and the shape, size, and dimensions of storage area 40 depicted in FIG. 4 are exemplary only.

[0035] FIG. 5 illustrates a frozen beverage holder 50 with internal beverage cavities 520, 530, in accordance with some embodiments of the present invention. Frozen beverage holder 50 may be formed from a frozen block 510. Frozen block 510 may comprise internal beverage cavities 520, 530. Internal beverage cavities may be formed in any shape or size, and may be positioned at any location within frozen block 510. Internal beverage cavities may be formed by occluding the material that forms the frozen block 510 or by freezing a mold or membrane (either empty or filled with a liquid) within the frozen block 510. For example, the mold from which the frozen block 510 is made may include an insert in the shape of internal beverage cavity 520, 530. Alternatively, a membrane—for example filled with a beverage—may be frozen within the frozen block 510. Because certain liquids, particularly liquids with a higher alcohol content, freeze at lower temperatures than water and other liquids, a membrane filled with an alcoholic beverage could be frozen within the frozen block 510. In order to access the internal beverage cavities—either to fill or remove the cavities—access holes 521, 531 may be used. For example, straws 522, 532 may be inserted into access holes 521, 531 in order to drink liquid stored in the internal beverage cavity 520, 530.

[0036] With reference to FIG. 6, a frozen drink holder 60 configured to receive various lighting devices, in accordance with some embodiments of the present invention will now be discussed. Frozen drink holder 60 may be formed from frozen block 610. In addition to the features discussed above (e.g., beverage chambers with or without positioning devices, storage areas, internal beverage cavities, etc.) a frozen drink holder 60 may comprise orifices 620, 630 to receive lighting devices. For example, orifice 620 may be sized to receive the insertion of a "glow-stick," or other illuminating device. Orifice 630 may be sized to receive a "glowing" device of a different size and shape, for example "glow bracelets" or "glow necklaces." Although illuminating devices may be frozen with the frozen block 610, it may be more desirable to include orifices in the frozen beverage holder 60 into which lighting devices may be inserted. Use of lighting devices such as "glow sticks" may cause the entire frozen beverage holder 60 to glow, and emit light from the lighting device. Note that it is contemplated that any type of lighting or illuminating device may be used, including powered lighting devices (e.g., incandescent, fluorescent, neon, or light emitting diodes (LED) devices).

[0037] With reference to FIGS. 7A-7D, a frozen drink holder configured to present marketing material, in accordance with some embodiments of the present invention will be discussed. It is anticipated that a use of frozen beverage holders in accordance with some embodiments of the present invention may be as novelty items used to market other goods or services. For example, during a concert or other such outdoor event, frozen beverage holders in accordance with the present invention may be provided by a company seeking additional advertisement. Accordingly, marketing components may be desired.

[0038] With reference to FIG. 7A, a beverage holder 70 may be formed from frozen block 701, and may have shaped into the frozen block 701 a name, logo, trademark, or emblem 702. For example, FIG. 7A shows the company’s “Ice-Hole Products” shaped into the frozen block 701. This shape may be shaped during the formation of the frozen block 701—e.g., by including the shape of the name, logo, trademark or emblem in the mold itself. Alternatively, the name, logo, trademark, or emblem may be shaped after formation of the frozen block 701, for example by manual carving, laser engraving, or by branding with a heated device.

[0039] FIG. 7B illustrates a business card holder 711 which may be formed into frozen beverage holder 71 in accordance with some embodiments of the present invention. The detail portion of FIG. 7B depicts a cross section of the business card holder, which may formed from a crevasse 712 created between two sloping walls 713, 714. Because walls 713, 714 may slope towards each other, thereby narrowing crevasse 712, a business card or other marketing material may be inserted and held by a type of interference fit.

[0040] With reference to FIG. 7C, marketing material 721 may be frozen internal to the frozen beverage holder 72. If the frozen block is formed from a clear or generally clear frozen material, the marketing material 721 may be visible.

[0041] With reference to FIG. 7D, an accessible cavity 731 may be formed within the frozen beverage holder 73. This accessible cavity 731 may be configured to receive marketing material 732 or other material (e.g., a menu) through an access slot. In this manner, a plurality of frozen beverage holders 73 may be formed, and each may receive different (or identical) marketing material 732. As noted with regard to FIG. 7C, if the frozen block is formed from a clear or generally clear frozen material, the marketing material 732 may be visible.

[0042] Various frozen beverage holders have been discussed. With reference to FIG. 8, a mold 80 that that may be used to make a frozen drink holder in accordance with some embodiments of the present invention will now be described. In one of its simplest forms, mold 80 may comprise an open rectangular box, or cavity, that comprises a bottom surface 801, and side walls 802, 803, 804, and 805. Protrusions 806 in the shape of beverage chambers may extend from the bottom surface 801 of the mold 80. When filled with a liquid, semi-liquid, semi-solid, or gas, and frozen, a block with two (2) beverage chambers will be formed. The shape of the mold 80
may dictate the shape of the final frozen beverage holder, and accordingly the mold may be of any shape or size desirable to the user.

[0043] With reference to FIG. 9, a mold 90 that that may be used to make a frozen drink holder in accordance with some embodiments of the present invention will be discussed. Mold 90 may comprise an open, generally rectangular box with a bottom surface 901, and side walls 910, 911, 912, 913. Mold 90 may further comprise extrusions 914 shaped in the inverse, or negative, of beverage chambers. Mold 90 may further comprise an extrusion 915 shaped in the inverse, or negative, of a storage area, including an extrusion 916 that forms a drainage mechanism. Mold 90 may further comprise an extrusion shaped in the inverse, or negative of a business card holder or other such marketing component.

[0044] Additionally, mold 90 may comprise functional elements that may assist in the removal of a shaped frozen block from the mold 90. For example, planar variations or fluting 918 in each side wall 910, 911, 912, 913 may assist in breaking the contact between the frozen block and mold walls, thereby assisting in removal of a shaped, frozen ice block from the mold 90.

[0045] Mold 90 may be comprised of any material. Certain materials may be more desirable due to their performance at reduced temperatures, their waterproof nature, and their mold release characteristics. Additional elements such as cost, availability, and ability to manufacture into complex shapes may be taken into account when selecting mold materials. For example, silicone and flexible rubber may be used due to their flexible nature in removing shaped frozen blocks from the mold. Polypropylene may be used for its firmer, rigid characteristic that may be desirable in forming intricate shapes into frozen blocks. Polypropylene may be used for its material characteristics in both mold forming and freezing. Note that these materials are exemplary only, and it is contemplated that molds for forming frozen beverage holders in accordance with some embodiments of the present invention may be made from any material. Additional materials may include silicone, silicone blends, polypropylene, polystyrene, high impact polystyrene, acrylonitrile butadiene styrene, polyethylene terephthalate, polyester, polycarbonates, polyvinyl chloride, polyurethanes, polycarbonate, polyvinylidene chloride, polyethylene, polycarbonate/acylonitrile butadiene styrene, polyurethanes, acrylonitrile/buta diene/styrene, polyetheretherketone, phenolics, urea-formaldehyde, melamine formaldehyde, polyactic acid, and plastarch materials.

[0046] Additionally, each protrusion used to make each component—positioning devices, storage areas, internal beverage cavities, internal lighting cavities, marketing components, etc.—may be removable. In this manner, when preparing the mold for use, the user may select which components are desired in the final frozen block and may insert the protrusions necessary for each desired component, while omitting protrusions for undesired components.

[0047] Molds may be used to make single frozen beverage holders or a plurality of frozen beverage holders. For example, and with reference to FIG. 10, a mold that that may be used to make a plurality of frozen drink holders in accordance with some embodiments of the present invention will now be discussed. Mold 100 may comprise a generally rectangular shaped open box 1010, divided into four (4) subordinate areas 1021, 1022, 1023, and 1024. Each subordinate area may comprise a protrusion 1025 from the bottom surface of the mold in the shape of a beverage chamber. Additional details as discussed above (e.g., beverage chambers with or without positioning devices, storage areas, internal beverage cavities, internal lighting cavities, marketing components, etc.) may be present in the mold 100. Additionally, it is contemplated that walls 1026, 1027 may be removable, thereby allowing the user to select how many beverage chambers is desired in the final, frozen beverage holder.

[0048] It will be understood that the specific embodiments of the present invention shown and described herein are exemplary only. Numerous variations, changes, substitutions and equivalents will now occur to those skilled in the art without departing from the spirit and scope of the invention. Accordingly, it is intended that all subject matter described herein and shown in the accompanying drawings be regarded as illustrative only, and not in a limiting sense, and that the scope of the invention will be solely determined by the appended claims.

What is claimed is:

1. A beverage holder formed from a frozen block, comprising:
   one or more orifices formed in the frozen block, adapted to receive a beverage container.

2. The beverage holder of claim 1, wherein the one or more orifices comprise height positioning devices to position a beverage container inserted into the orifices at a desired height.

3. The beverage holder of claim 2, wherein the height positioning devices comprise steps formed into the frozen block.

4. The beverage holder of claim 2, wherein the orifices have a decreasing diameter as the depth of the orifice in the frozen block increases, and wherein the decreasing diameter of the orifices comprise the height positioning devices.

5. The beverage holder of claim 1, wherein the orifices are generally cylindrical in shape.

6. The beverage holder of claim 1, wherein the frozen block if formed from a frozen liquid, semi-liquid, semi-solid, or gaseous material.

7. The beverage holder of claim 1, further comprising a storage area formed in the frozen block.

8. The beverage holder of claim 7, wherein the storage area comprises a drainage channel.

9. The beverage holder of claim 1, further comprising a published material holder formed in the frozen block.

10. The beverage holder of claim 9, wherein the published material holder is a business card holder, and wherein the business card holder is formed as a groove in the frozen block configured so that a business card may be vertically inserted into the groove.

11. The beverage holder of claim 1, wherein the beverage holder is comprised entirely of a frozen material.

12. The beverage holder of claim 1, wherein the orifices provide a direct interface between the frozen beverage holder and the beverage container.

13. A mold for forming a frozen beverage holder, the mold comprising:
   a bottom surface, the bottom surface comprising protrusions shaped to occlude the frozen material from areas that will form orifices in the frozen beverage holder for receiving beverage containers; and
   side surfaces connected to the bottom surface such that the mold is substantially liquid-tight.
14. The mold according to claim 13, wherein the bottom surface further comprises a protrusion for occluding the frozen material from an area that will form a storage area in the frozen beverage holder.

15. The mold according to claim 13, wherein the side surfaces comprise planar variations.

16. The mold according to claim 13, wherein the mold is comprised of a material selected from the group consisting of: silicone, silicone blends, polypropylene, polystyrene, high impact polystyrene, acrylonitrile butadiene styrene, polyethylene terephthalate, polyester, polyamides, polyvinyl chloride, polyurethanes, polycarbonate, polyvinylidene chloride, polyethylene, polycarbonate/acylonitrile butadiene styrene, polymethyl methacrylate, polytetrafluoroethylene, polyetheretherketone, phenolics, urea-formaldehyde, melamine formaldehyde, polylactic acid, and starch materials.

17. The mold according to claim 13, wherein the side surfaces comprise four side surfaces arranged in a substantially quadrilateral shape.

18. The mold according to claim 13, wherein the side surfaces comprise a single side surface arranged in a substantially round, substantially oval, or substantially oblong shape.

19. The mold according to claim 13, wherein the mold accepts various protrusions selected by a user, and wherein the protrusions shaped to form the orifices are moveable and removable.

20. A beverage holder formed entirely from a frozen liquid, semi-liquid, semi-solid, or gaseous material, comprising: one or more orifices formed in the frozen block, the one or more orifices of a generally cylindrical shape and adapted to receive a beverage container, the one or more orifices comprising height positioning devices or steps to position a beverage container inserted into the orifices at a desired height; a storage area and drainage channel formed into the frozen beverage holder; and a business card holder formed as a groove in the frozen beverage holder and configured so that a business card may be vertically inserted into the groove.