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(54) **DEVICE FOR SUSPENDING OR SUPPORTING ITEMS IN AN ICE CHEST**

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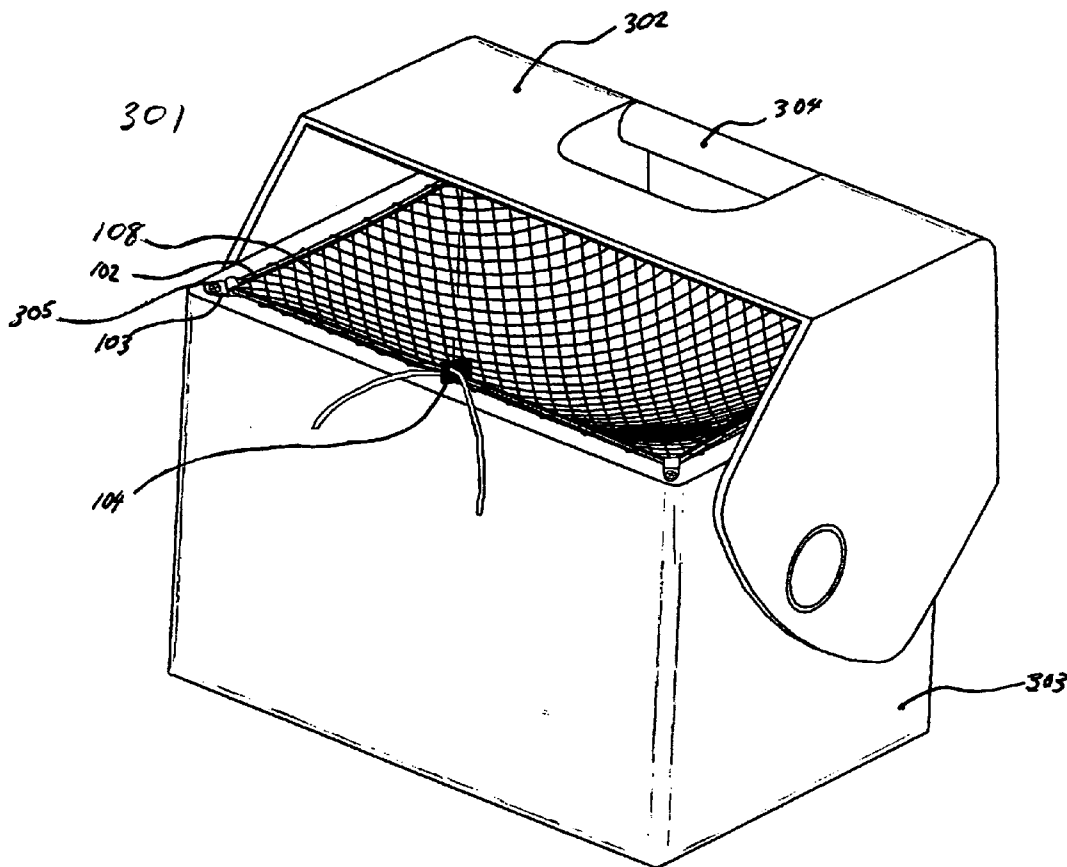
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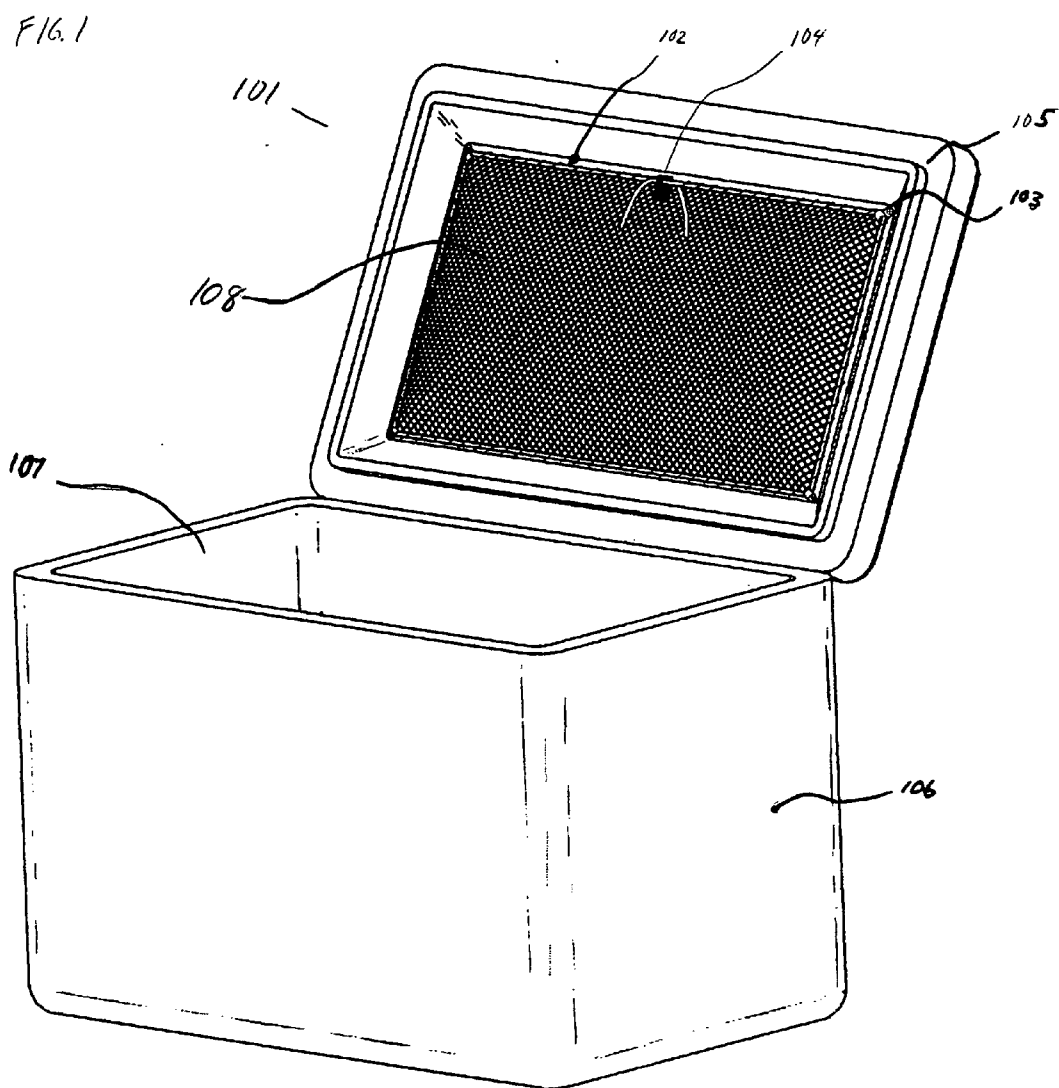
(57) **ABSTRACT**

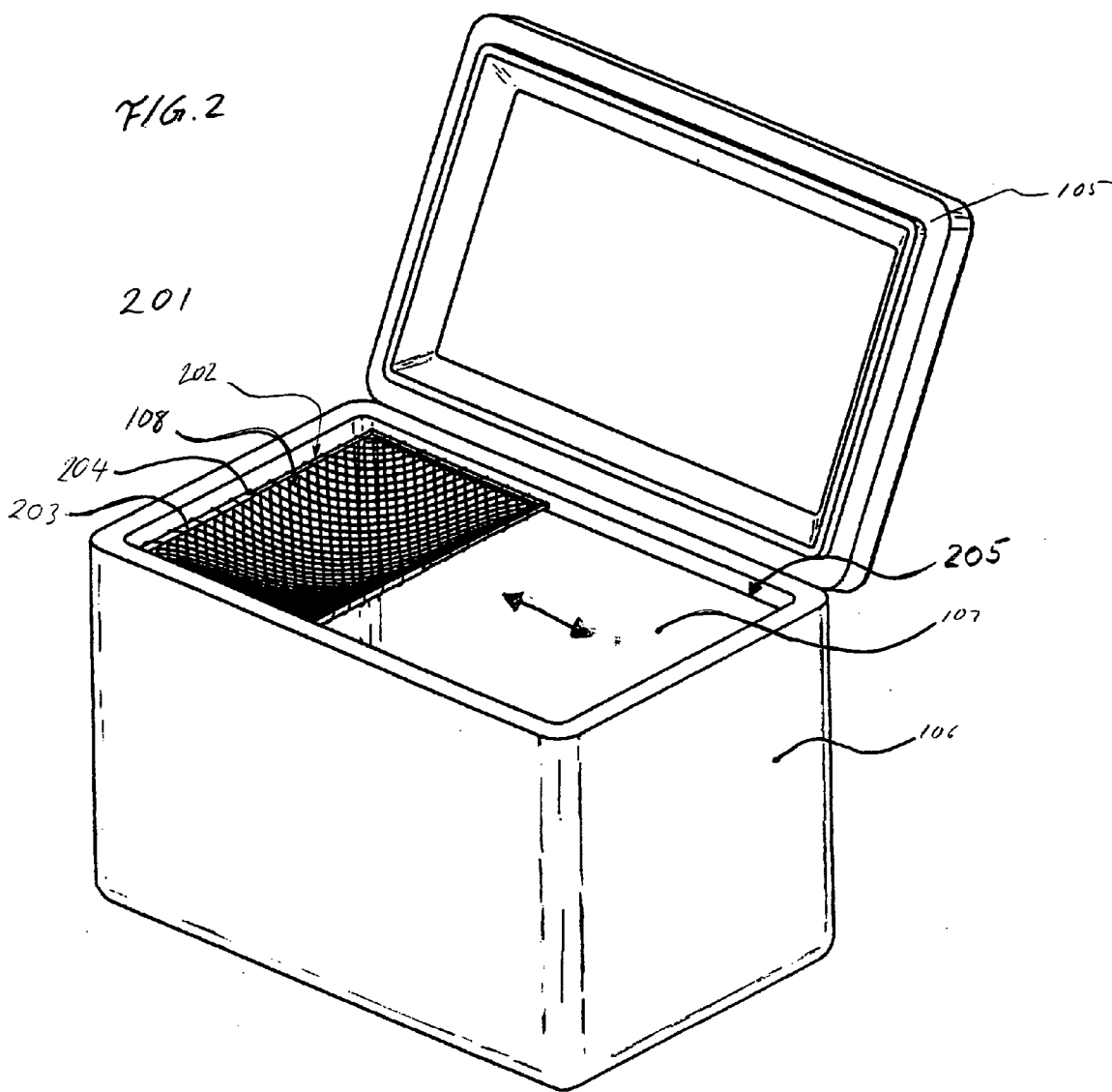
A device for suspending and supporting various items including ice cubes or the like in common ice chests. The disclosed embodiments are comprised of an assembly of components including flexible fabric that is supported at its borders by a rigid frame or elastic frame, which is then attached to the ice chest with mounting components that are installed by the consumer or molded to the ice chest body during manufacturing. Items are placed on top of the fabric located at or near the top of the ice chest preventing the items from falling to the bottom of the ice chest where they may be damaged.

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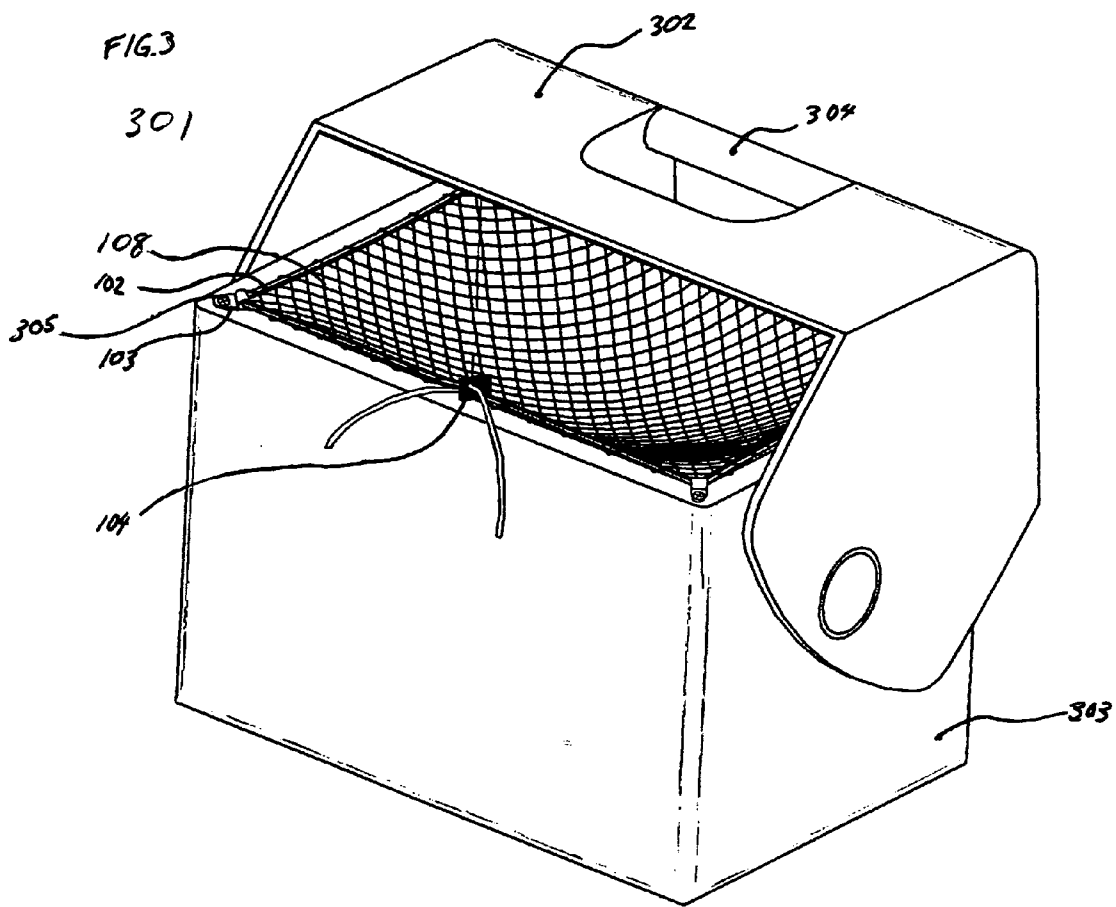
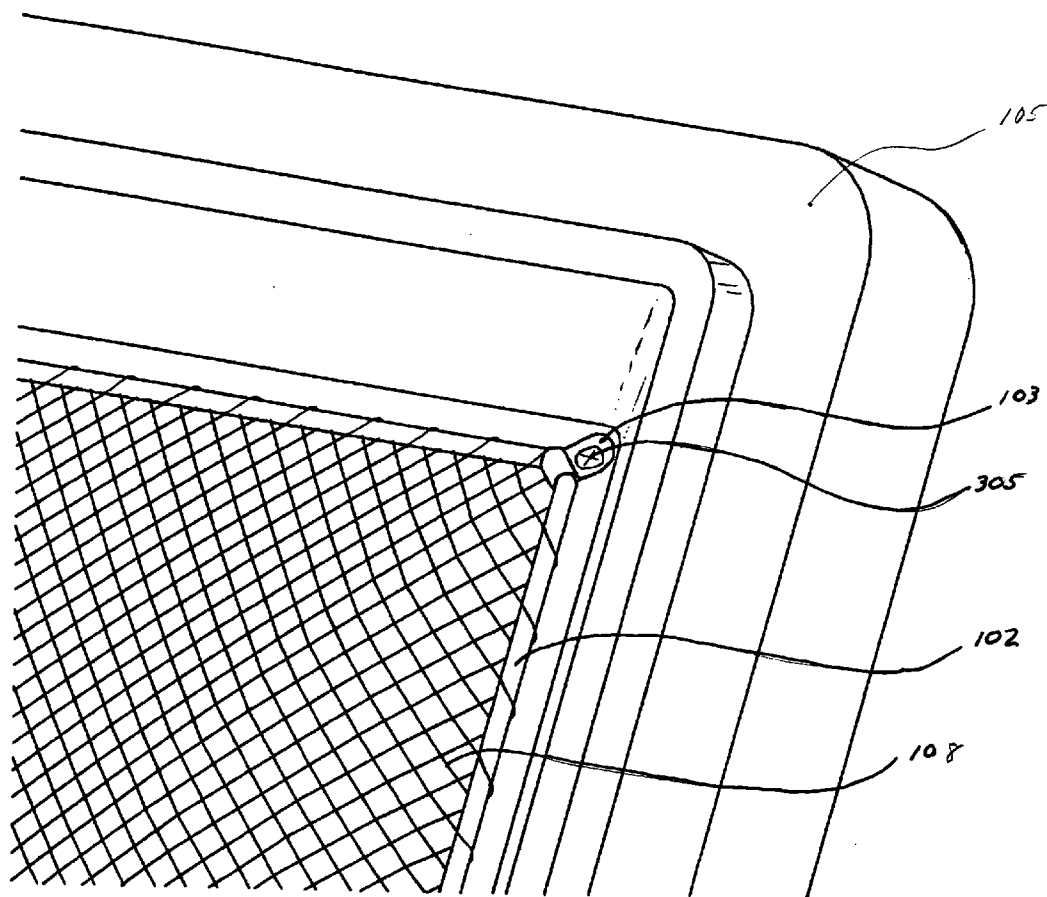


FIG. 4



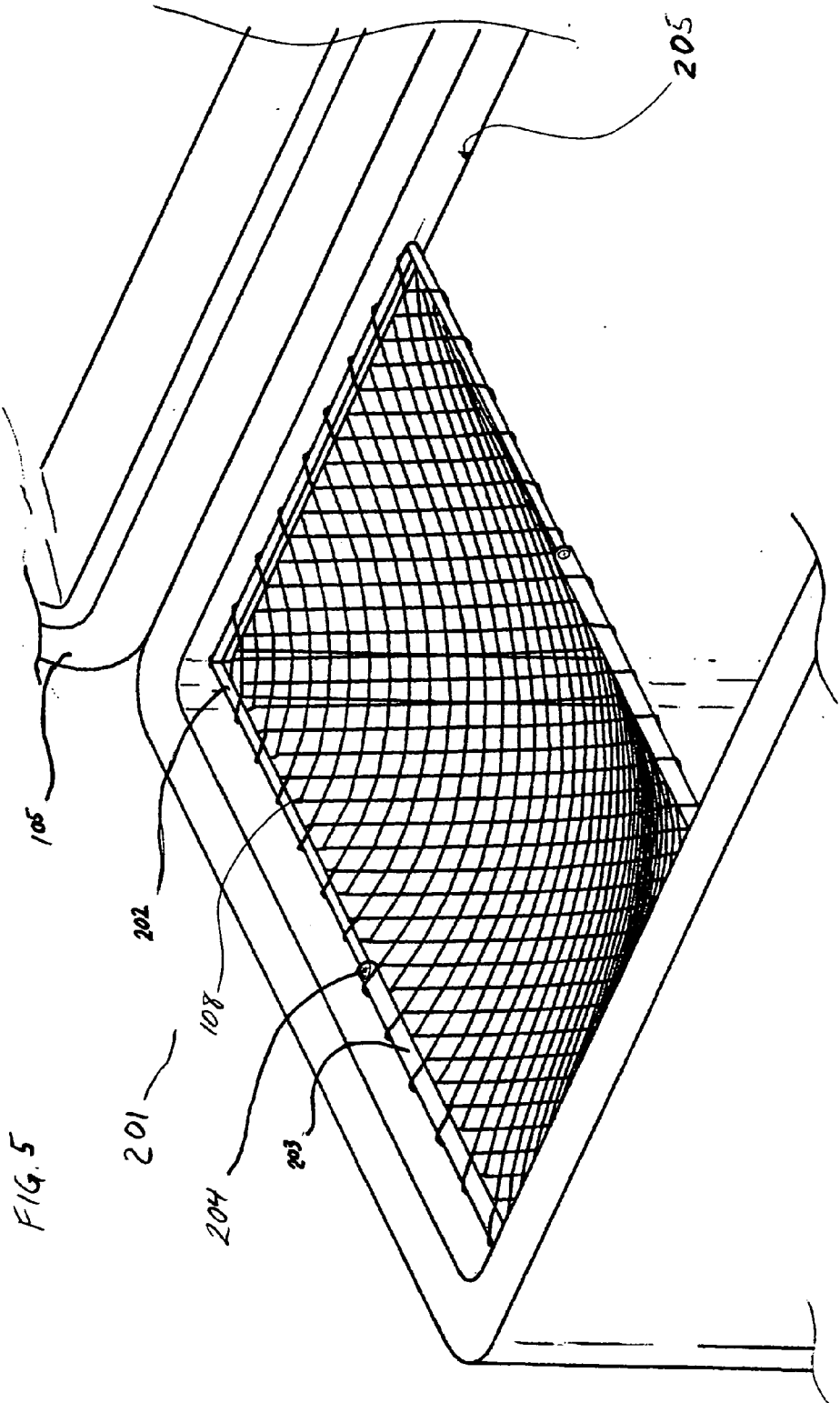


FIG. 5

DEVICE FOR SUSPENDING OR SUPPORTING ITEMS IN AN ICE CHEST

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The invention relates generally to the field of suspending or supporting mechanisms and specifically to suspending and supporting items in ice chests.

[0003] 2. Description of Related Art

[0004] Ice chests have been developed to provide portable cold storage for food and beverage items wherein ice cubes are commonly used to keep the ice chest and its contents cold. These coolers are very common and widely used in the camping, hunting, fishing, medical, research, catering, etc., industry. Ice chests can be semi-flexible or rigid in construction and are generally water or leak proof thus creating considerable amounts of water at the bottom of the cooler as the ice melts. What is needed is a device that allows a user to keep food items and other contents out of or away from this accumulated water without compromising space within the ice chest. What is needed is a device that can be adjusted to fit many different sizes and makes of ice chests.

SUMMARY OF THE INVENTION

[0005] The systems and methods described herein have several features, no single one of which is solely responsible for the desirable attributes of such systems and methods. Without limiting the scope as expressed by the claims that follow, its more prominent features will now be discussed briefly. After considering this discussion, and particularly after reading the section entitled "Detailed Description of the Preferred Embodiments" one will understand how the features of the system and methods provide several advantages over traditional systems and methods.

[0006] Rigid trays developed in the prior art of containing and suspending cooler contents are not flexible, non adjustable and are designed to fit the ice chest that it was intentionally designed for. The trays are too bulky and take up more room in the ice chest than is necessary. Due to the unique design of the present invention, space is optimized above and below said device regardless of the size or volume of the contents. In addition, the present invention will fit a wide variety of ice chests for added versatility, convenience and economy.

BRIEF DESCRIPTION OF DRAWINGS

[0007] FIG. 1 is a perspective view of a cooler with the lid open wherein one embodiment is attached to the underside of the lid.

[0008] FIG. 2 is a perspective view of a cooler with the lid open with an embodiment laying on the cooler ridge near the top of the cooler.

[0009] FIG. 3 is a perspective view of a flip-top-type cooler with an embodiment installed at the top of the cooler body.

[0010] FIG. 4 is an enlarged view of an embodiment installed with mounting hardware to the underside of a cooler lid.

[0011] FIG. 5 is an enlarged view of one embodiment resting on top of the ridge inside the cooler body.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0012] Embodiments of the invention will now be described with reference to the accompanying figures, wherein like numerals refer to the like elements throughout. The terminology used in the description presented herein is not intended to be interpreted in any limited or restrictive manner simply because it is being utilized in conjunction with a detailed description of certain specific embodiments of the invention. In addition, embodiments of the invention may include several novel features, no single one of which is solely responsible for its desirable attributes or which is essential to practicing the invention herein described.

[0013] Referring to FIG. 1, an embodiment of the device for suspending and storing various items including ice cubes or the like typically stored in ice chests is illustrated. When the cooler lid 105 is open the embodiment 101 suspends and stores items up against the lid 105 for easy access and visibility (see also fabric 108 and corresponding components of FIG. 2 and FIG. 3). Ice cubes or the like can be placed within the embodiment to help keep items colder. While the lid is closed, the embodiment 101 suspends said items and keeps them from falling to the bottom of the cooler. Also illustrated in FIG. 1 is one example of how the fabric 108 can be attached to the cord 102. The cord 102 has a diameter small enough to be weaved through the fabric 108 edges. Another method (not shown) to attach the fabric to the cord is to hem the edge of the fabric to create a channel for the cord material. A hem can be made around the cord during fabrication or the cord can be inserted into the hem after the hem is made (all not shown). The fabric 108 can be then mounted to the ice chest lid 105 by installing loop straps 103 or the like to fasten the fabric 108 and cord 102 assembly securely to the undersurface of the lid. Hardware such as stainless steel wood-type screws (see screw 305FIG. 4 and corresponding components) can be a preferred embodiment to attach the loop straps to the cooler lid. Alternatively, fastening embodiments 103 can be molded to the lid during manufacturing (not shown). These embodiments 103 can be made of plastic, aluminum, metal, steel or any rigid or semi rigid material or the like. Cord locks 104 can then be used to secure the proper tension in the cord or allow adjustments to be made to the cord tension. Cord material is passed through the cord locks and a spring actuated mechanism produces pressure on the cord in a clamping fashion preventing the cord from slipping through the lock.

[0014] FIG. 2 is a perspective view of another embodiment 201 and how it can be used inside a ice chest 106. In this illustration, the fabric 108 is attached to the adjustable frame 202, 203. The frame is weaved into the fabric edges (see also FIG. 5). Another example of how the fabric can be attached to the frame is by making a hem in the edges of the fabric 108 wherein the frame is placed either during fabrication (not shown) or after the hem is made (not shown). The frame can be made of any rigid material such as stainless steel, aluminum or plastic round, rectangular, square tubing and or rod or the like. Round tubing 202, 203 is used in this illustration to demonstrate how the frame can be adjusted to fit any size ice chest. Tube 202 has a smaller diameter than tube 203 and slides into 203 and can be locked into any

position by a screw 204 (see also FIG. 5). Once the proper size is adjusted the entire assembly can then rest on or slide on top of the ridge 205 that is typically found inside most ice chests. Other methods that can be used to create an adjustable frame include but are not limited to, using L-shaped channel material that slide side by side (not shown) or flexible joints within the sides or corners that allow the frame to take on multiple dimensions lengthwise and/or widthwise (also

I claim:

1. A suspension device for ice chest contents including ice cubes or the like against or in close proximity to the underside of an ice chest lid, comprising:

- (a) Flexible fabric that is relatively visually transparent to view contents, sieve-like properties which would enable water droplets within the device to drop to the bottom of the ice chest, thin enough to maximize space and strong enough to support common items typically stored in a portable cooler or ice chest and has an area large enough to support the maximum volume of items; said fabric can be made of polyester, nylon, wool, cotton, plastic, or any compound or material that is capable of producing a thin, flexible, transparent and relatively strong material; said fabric may span the entire area of the underside of the ice chest lid, but may be any size less than that area.
- (b) Four outer edges or sides bordered with a cord-type material to help support the outer edges of the fabric thus preventing the contents from falling out over the edges. This cord-type material can be woven or weaved into the fabric thus providing a way to disassemble the device and make alterations to the dimensions of the fabric so as to accommodate several different size ice chests. Alternatively, a channel or hem may be permanently sewn into the edges utilizing traditional sewing methods and techniques that are characteristic to the fabric used; finishing off the edges with a hem provides a permanent channel wherein said cord can be inserted.
- (c) Loop-type fasteners or the like to attach said cord and said fabric to the ice chest; said fasteners can be mounted to or molded to the underside of an ice chest lid or at or near the top of the inner walls of the ice chest; said fasteners can be made of various material such as metal, steel, aluminum, plastic or the like or any compound or material that is capable of producing a rigid, semi-rigid or flexible body.

(d) A cord locking device that allows the cord tension to be adjusted allowing the outer dimensions of the fabric to expand or contract to fit various sizes of ice chests and to accommodate different sizes or numbers of various items that can be suspended from the device. Once the proper tension is established the cord lock secures the cord in place; said cord can be made of any type material that is stretchable such as shock cord/bungee cord that is typically made with a fabric sheath that encases a rubber band-like or elastic core, or alternatively no-stretch cordage material such as rope, webbing, straps, bands, wire, string, etc, or the like.

2. Any and said device as defined in claim 1 mounted on top or near the top of rigid ice chests wherein said fasteners are attached or molded to the inner surface or top surface of the ice chest walls.

3. A device for suspending food items and other contents typically stored in a rigid bodied ice chest wherein a ridge is present inside said ice chest, just below or several inches below the top lip of the said ice chest comprising:

- (a) A four-sided frame wherein at least two members are adjustable to enable the frame to expand or contract to snugly fit on top of said ridge at or near the top of the ice chest. Said frame is rigid in construction and can be made of plastic, aluminum, steel or steel alloy or metal wire, rod, tubular components or the like.
- (b) Flexible fabric that spans the area within said frame is relatively visually transparent to view contents under the fabric, sieve-like properties which would enable water to pass through, thin and flexible enough to maximize space underneath and strong enough to support heavy items therein. Said fabric described herein can be made of polyester, nylon, wool, cotton, plastic, or any compound or material that is capable of producing a thin, flexible, transparent and relatively strong material.

4. In another aspect an improvement in accordance with the device as defined in claim 3 is disclosed comprising: a non-adjustable, one-piece frame that is rigid in construction to support said fabric and its contents. It is noted that said device is size specific and its use will be limited to ice chests that have corresponding ridge dimensions.

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