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(54) **LOCKING COOLER WITH INTERNAL COMPARTMENT**

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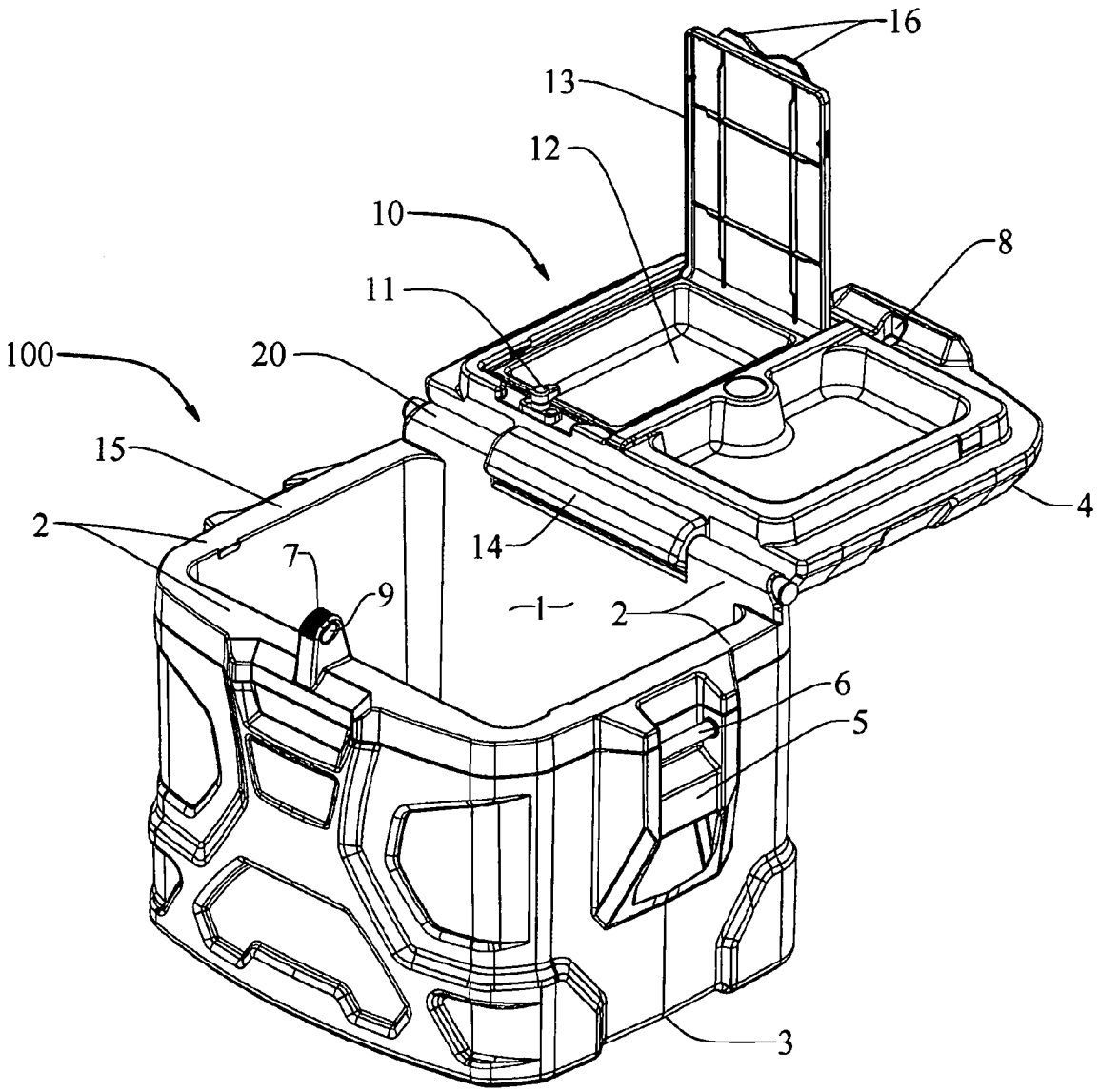
(57) **ABSTRACT**

A portable cooler with a locking system including and interior compartment within the lid of the portable cooler for the secure storage of items, said interior compartment held closed by various means to prevent the interior compartment from opening while the portable cooler is in the closed position to prevent the spilling of the contents of the interior compartment into the interior space of the cooler.



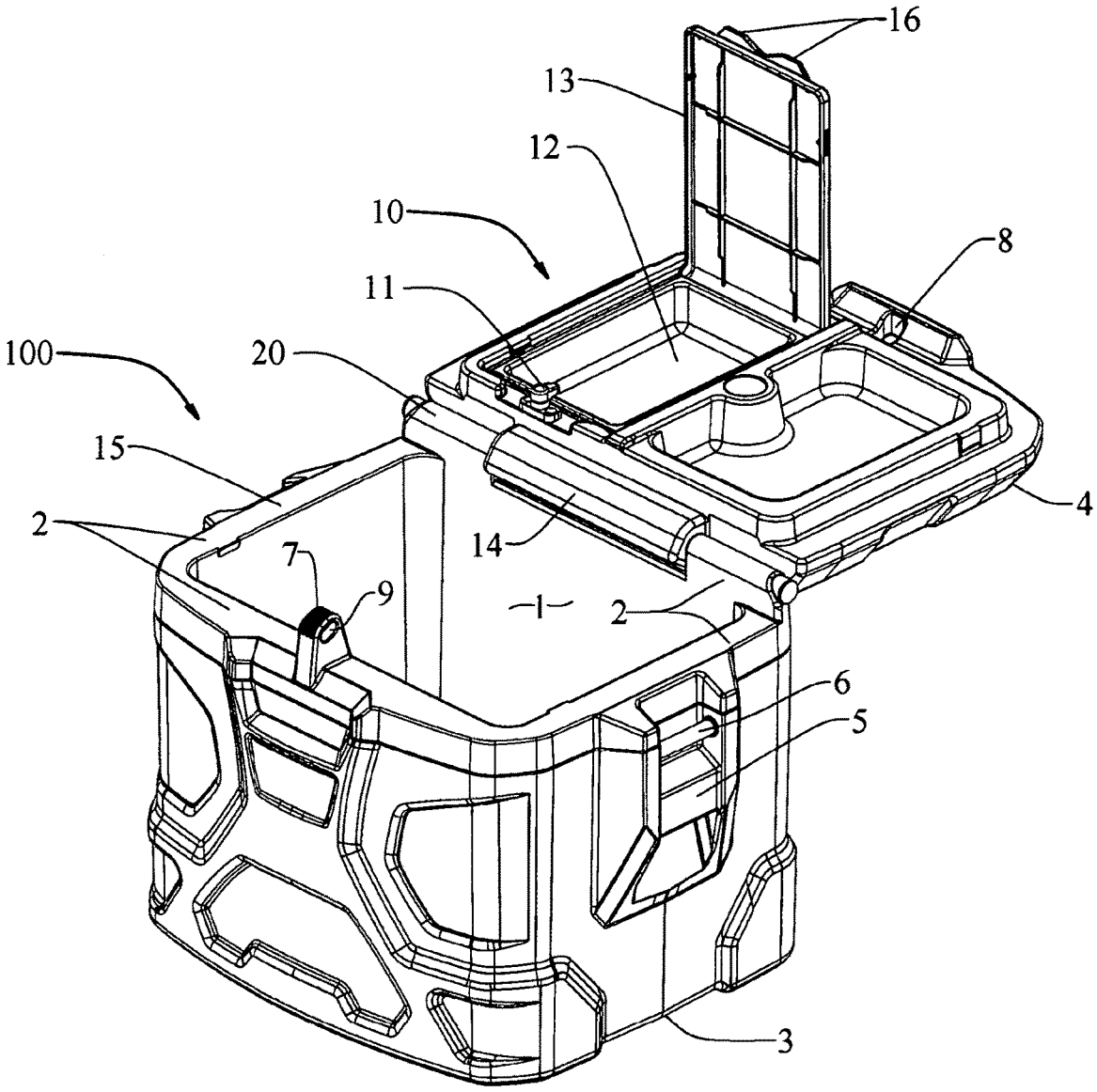


Fig. 1

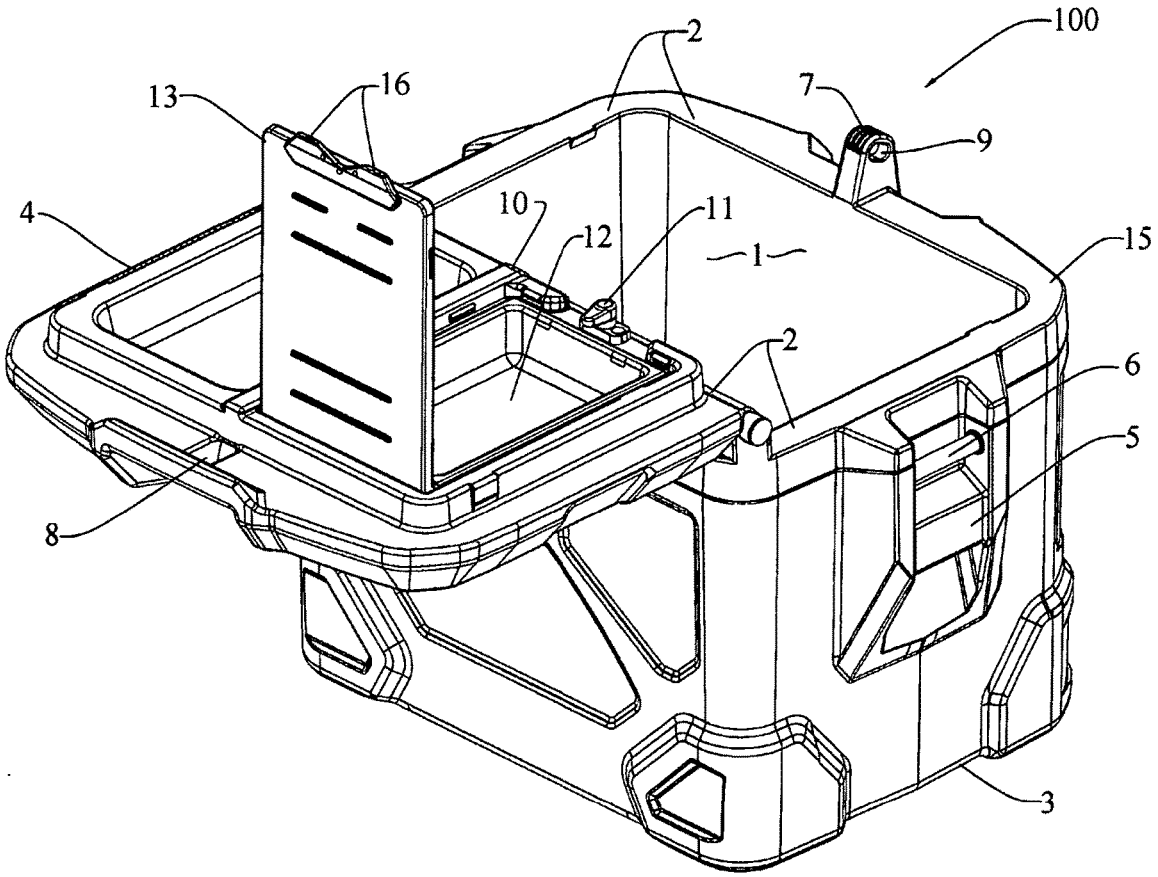


Fig. 2

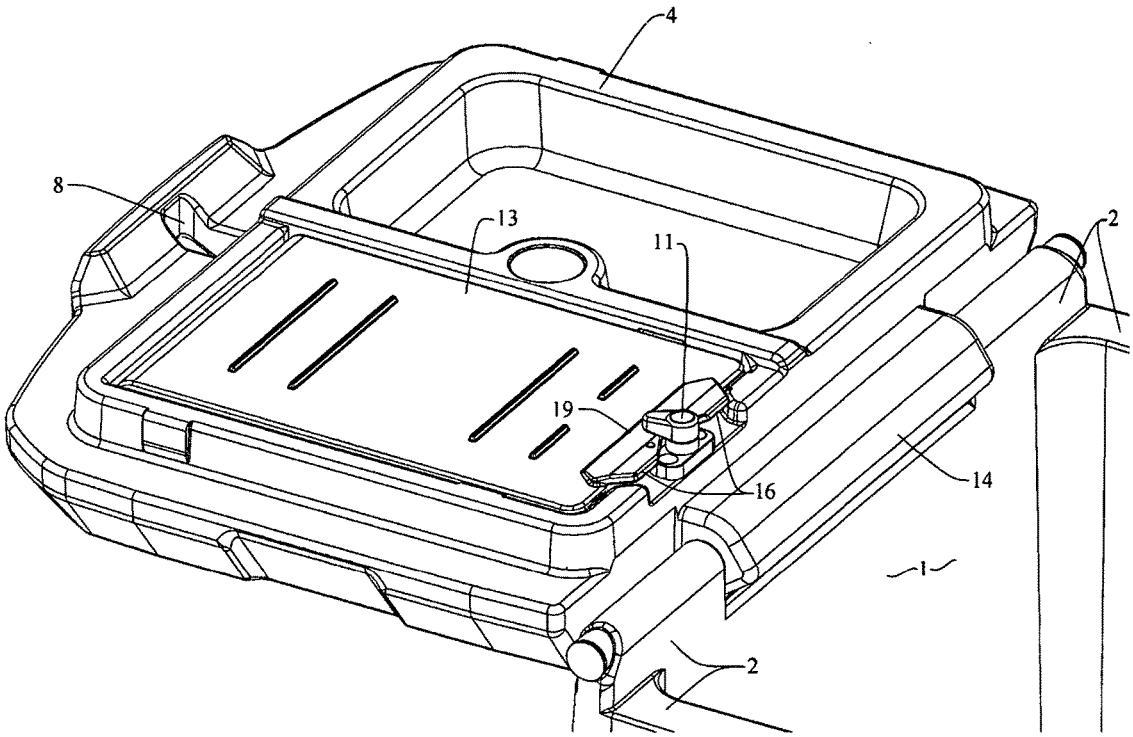


Fig. 3

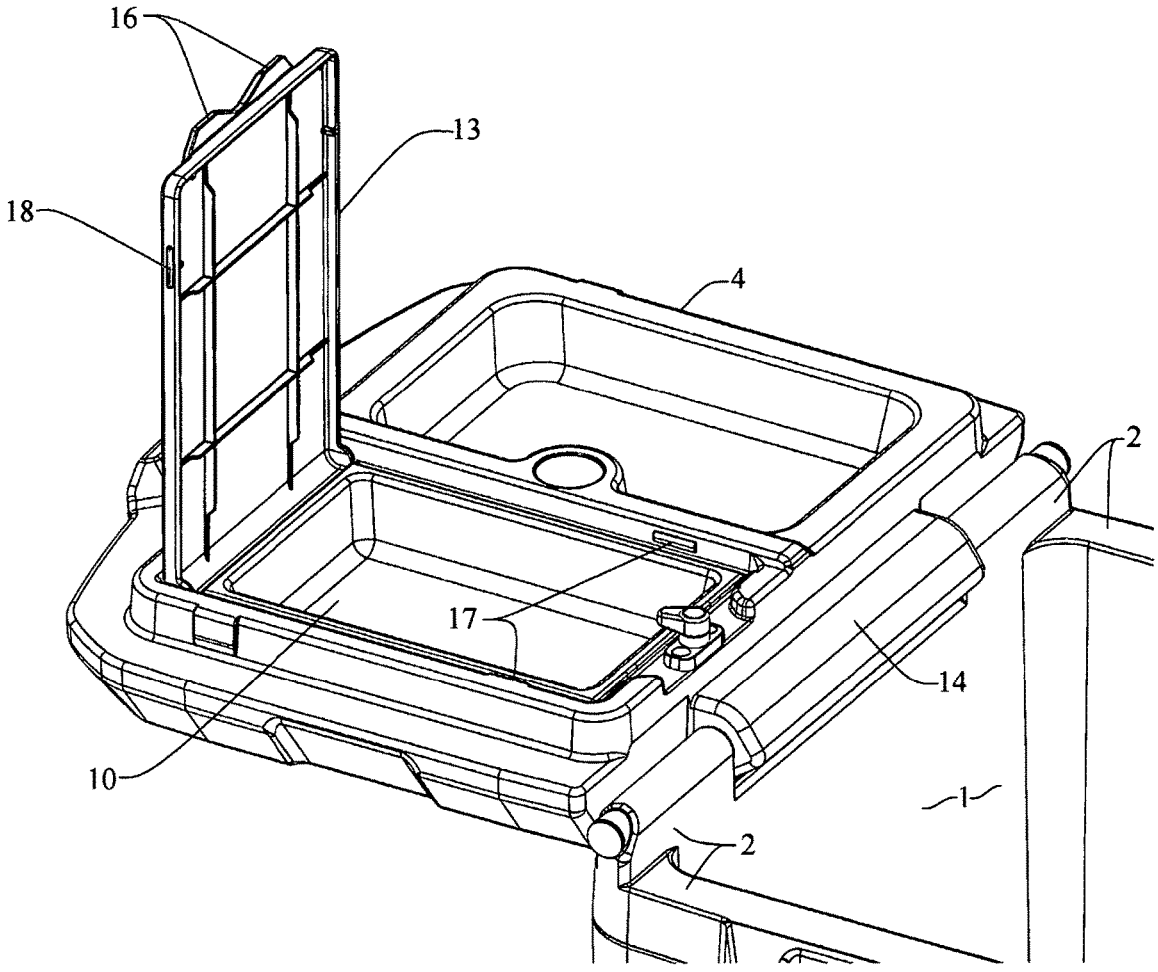


Fig. 4

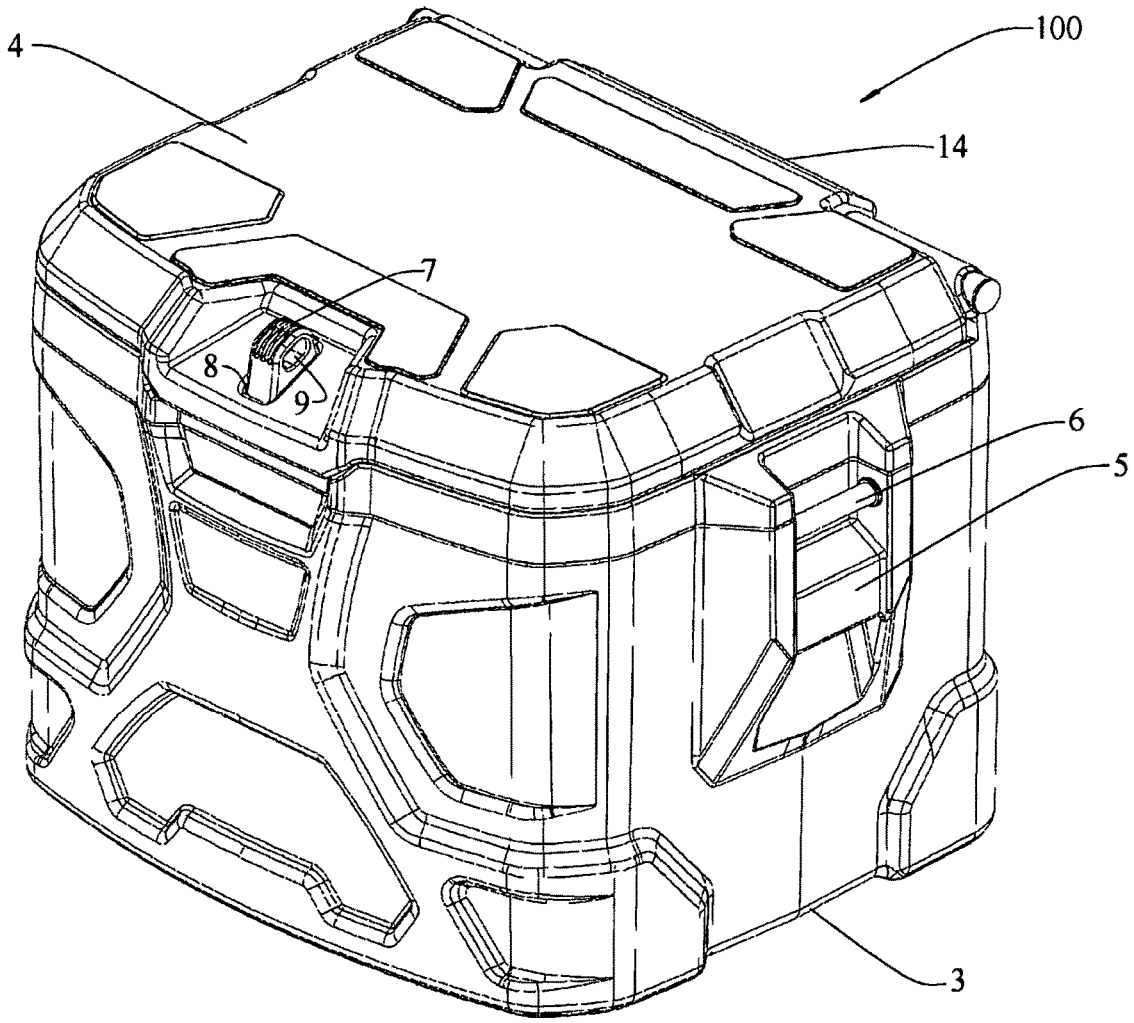


Fig. 5

LOCKING COOLER WITH INTERNAL COMPARTMENT

FIELD OF THE INVENTION

[0001] This patent disclosure relates generally to the field of portable thermally insulated containers.

BACKGROUND

[0002] The use of thermally insulated portable containers is widely known. Such containers, commonly referred to as "coolers," are widely used for many functions, but primarily for the transportation and storage of perishable goods such as foods and drinks. Portable coolers are most commonly used to keep perishable goods cold, sometimes by employing ice or cold packs within the coolers.

[0003] One limitation of the standard portable cooler is that melting ice or condensation from cold packs will create a wet environment within the cooler, which may affect items stored within it. Various devices have been developed in the past to protect dry goods from this wet environment. The use of multiple compartments, as in U.S. Pat. No. 6,536,228 to Hall, is a common solution. Shelves or inserts above the water level, as in U.S. Pat. No. 5,605,056 to Brown, are also common. These solutions are primarily designed for storage of foods, and are thus designed to store comparatively large objects.

[0004] Another limitation of the standard cooler is that the contents are not secured, and may be tampered with if unattended. Portable coolers with locking mechanisms are well known. U.S. Pat. No. 4,436,214 to Henderson, for example, details a portable cooler with a combination lock to prevent unauthorized access to the contents of the cooler.

[0005] Portable coolers are commonly used by workers to carry food and drink to the workplace, particularly in locations where there is no access to refrigeration. In such locations, secure storage space is often unavailable, making it difficult to stow personal items. It would be advantageous to provide a locking cooler assembly which also has a secondary feature of securely storing personal items while protecting them from the other contents of the cooler.

SUMMARY OF THE INVENTION

[0006] The present invention provides for a securable interior compartment within the lid of a cooler employing a locking mechanism. This comparatively small internal compartment allows the user of the cooler to store personal items, such as keys, wallets, or phones within the space protected by the lock on the cooler. Various means possibly including but not limited to a latch, fins overlapping the hinges covers of the cooler, and snaps in the interior compartment and its cover are incorporated in order to prevent the release of items contained within the interior compartment in the lid of the portable cooler.

BRIEF DESCRIPTION OF DRAWINGS

[0007] FIG. **1** is a front right side perspective view of a portable cooler having the inventive design;

[0008] FIG. **2** is a rear left side perspective view of the portable cooler shown in FIG. **1**;

[0009] FIG. **3** is a partial top left side view of the portable cooler shown in FIG. **1**;

[0010] FIG. **4** is a partial top left side view of the portable cooler shown in FIG. **1**;

[0011] FIG. **5** is front right side perspective view of a portable cooler shown in FIG. **1**.

DETAILED DESCRIPTION

[0012] As pictured in FIG. **1** and FIG. **2**, the present invention is primarily embodied in a portable cooler **100** with a thermally insulated interior space **1** defined by vertical walls **2**, a bottom **3**, and a lid **4**. The portable cooler **100** in the preferred embodiment features a pair of carrying handles **5** and a pair of strap supports **6** for a shoulder strap (not pictured). A locking mechanism **7** penetrates the lid **4** through a locking slot **8**, allowing for the portable cooler **100** to be locked in a closed position by placing a common padlock through a shackle hole **9** in the locking mechanism **7**.

[0013] An interior compartment **10** is provided for stowing additional items within the cooler. An interior compartment **10** is defined within the lid **4** of the portable cooler **100** by means of a depression **12** in the lid **4** and a compartment cover **13** hinged to the lid **4** and securable by means of a compartment latch **11** to protect against unintentional opening compartment cover **13** resulting in the release of items stowed in the interior compartment **10**.

[0014] The lid **4** of the portable cooler **100** is affixed to one of the vertical walls **2** by means of a hinge **14**, which allows the portable cooler **100** to be opened. The hinge **14** is eccentrically shaped to allow for hard stops at positions perpendicular to the rim **15** of the interior space **1** and parallel to the rim **15** of the interior space **1** in both an open and a closed position. FIG. **1** depicts the portable cooler **100** with the lid **4** in the open parallel position. In this orientation, the compartment cover **13** can be opened without any fear of contents of the interior compartment **10** spilling out into the interior **1**.

[0015] FIG. **3** depicts the compartment cover **13** in the closed position. The latch **11** can be selectably rotated to either release or secure the compartment cover **13** by either overlapping the closure plate **19** to push the compartment cover **13** closed or by clearing the closure plate **19** to allow the compartment cover **13** to be pulled open. To additionally protect against accidental opening of the interior compartment **10**, the compartment cover **13** features a pair of protruding fins **16** which extend beyond compartment cover **13** and engage the hinge frame **20** adjoining the outer wall **1**, preventing the compartment cover **13** from opening when the lid **4** is in the closed position even if the compartment latch **11** is not in its closed position.

[0016] FIG. **4** depicts the compartment cover **13** in the open position. The compartment cover **13** is hinged at the end of the lid **4** opposite the cooler hinge **14** to allow the protruding fins **16** to interface with the hinge frame **20**. The interior compartment **10** also features nubs **17** which snap into corresponding slots **18** in the compartment cover, further securing the interior compartment **10** and preventing accidental opening of the compartment cover **13**.

[0017] FIG. **5** depicts the portable cooler with the lid **4** in its closed position, and demonstrates that as long as a padlock (not shown) secures the locking mechanism **7** of the portable cooler **100**, the interior compartment **10** and its contents are inaccessible.

[0018] It will be appreciated that the foregoing description provides examples of the disclosed system and technique. However, it is contemplated that other implementations of the disclosure may differ in detail from the foregoing

examples. All references to the disclosure or examples thereof are intended to reference the particular example being discussed at that point and are not intended to imply any limitation as to the scope of the disclosure more generally. All language of distinction and disparagement with respect to certain features is intended to indicate a lack of preference for those features, but not to exclude such from the scope of the disclosure entirely unless otherwise indicated.

[0019] Recitation of ranges of values herein are merely intended to serve as a shorthand method of referring individually to each separate value falling within the range, unless otherwise indicated herein, and each separate value is incorporated into the specification as if it were individually recited herein. All methods described herein can be performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context.

[0020] The use of the terms "a" and "an" and "the" and "at least one" and similar referents in the context of describing the invention (especially in the context of the following claims) are to be construed to cover both the singular and the plural, unless otherwise indicated herein or clearly contradicted by context. The use of the term "at least one" followed by a list of one or more items (for example, "at least one of A and B") is to be construed to mean one item selected from the listed items (A or B) or any combination of two or more of the listed items (A and B), unless otherwise indicated herein or clearly contradicted by context.

[0021] Accordingly, this disclosure includes all modifications and equivalents of the subject matter recited in the claims appended hereto as permitted by applicable law. Moreover, any combination of the above-described elements in all possible variations thereof is encompassed by the disclosure unless otherwise indicated herein or otherwise clearly contradicted by context.

We claim:

1. A portable cooler comprising:

a body enclosing a thermally insulated interior space bounded by a bottom, a wall, and a lid hinged to said wall such that said lid can move from an open position to a closed position;

a locking mechanism interfacing with said lid such that said thermally insulated interior space cannot be accessed while said lid is in said closed position and said locking mechanism is engaged;

an internal compartment bounded by the interior of said lid and an internal compartment cover;

wherein said internal compartment is not accessible from the exterior of the container body while said lid is in said closed position.

2. The portable cooler set forth in claim **1**, wherein said locking mechanism includes a shackle hole to accommodate a padlock.

3. The portable cooler set forth in claim **1**, wherein said internal compartment cover includes nubs configured to interface with slots in said lid.

4. The portable cooler set forth in claim **1**, wherein said lid is hinged to said body.

5. The portable cooler set forth in claim **1**, wherein said internal compartment cover is hinged to said lid.

6. The portable cooler set forth in claim **1**, wherein said internal compartment cover is securable by means of a latch.

7. A portable cooler comprising:

a body enclosing a thermally insulated interior space bounded by a bottom, a wall, and a lid hinged to said wall such that said lid can move from an open position to a closed position;

a locking mechanism interfacing with said lid such that said thermally insulated interior space cannot be accessed while said lid is in said closed position and said locking mechanism is engaged;

an internal compartment bounded by the interior of said lid and an internal compartment cover;

wherein said internal compartment is physically separated from said thermally interior space while said lid is in said closed position.

8. The portable cooler set forth in claim **2**, wherein said locking mechanism includes a shackle hole to accommodate a padlock.

9. The portable cooler set forth in claim **2**, wherein said internal compartment cover includes nubs configured to interface with slots in said lid.

10. The portable cooler set forth in claim **2**, wherein said lid is hinged to said body.

11. The portable cooler set forth in claim **2**, wherein said internal compartment cover is hinged to said lid.

12. The portable cooler set forth in claim **2**, wherein said internal compartment cover is securable by means of a latch.

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