

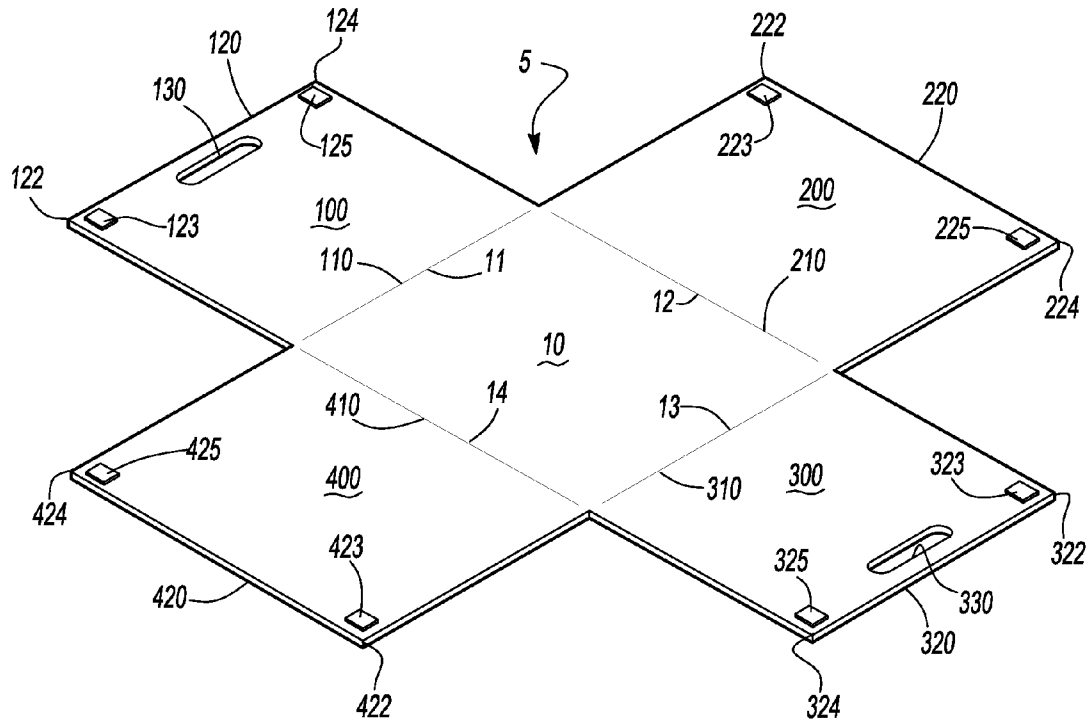


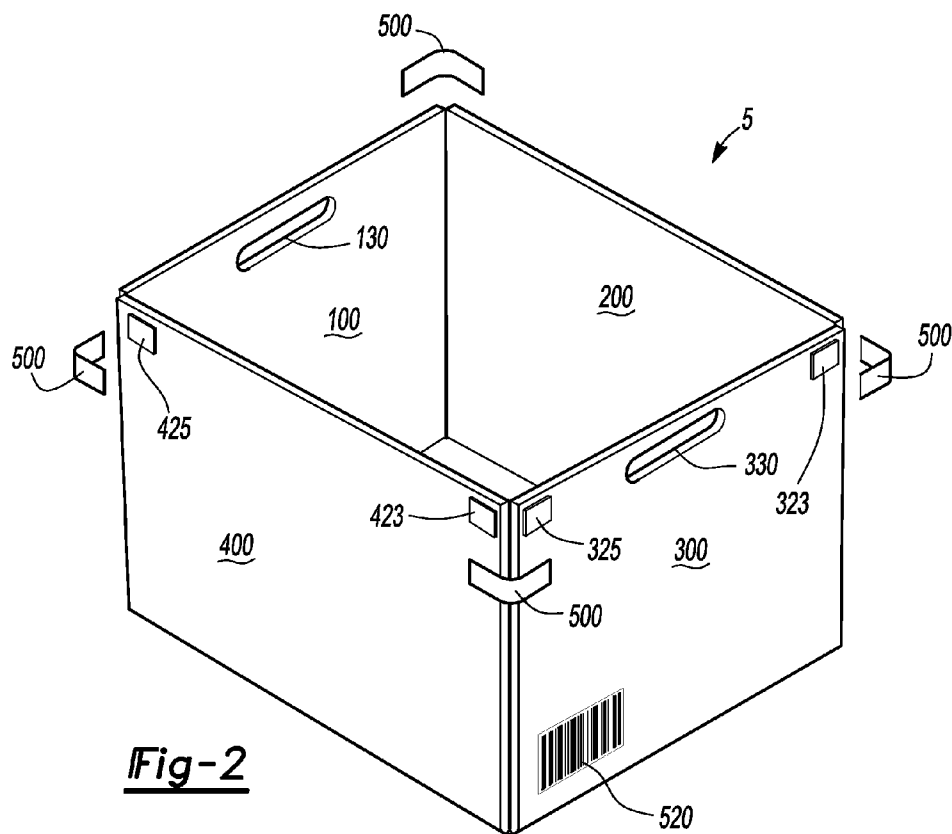
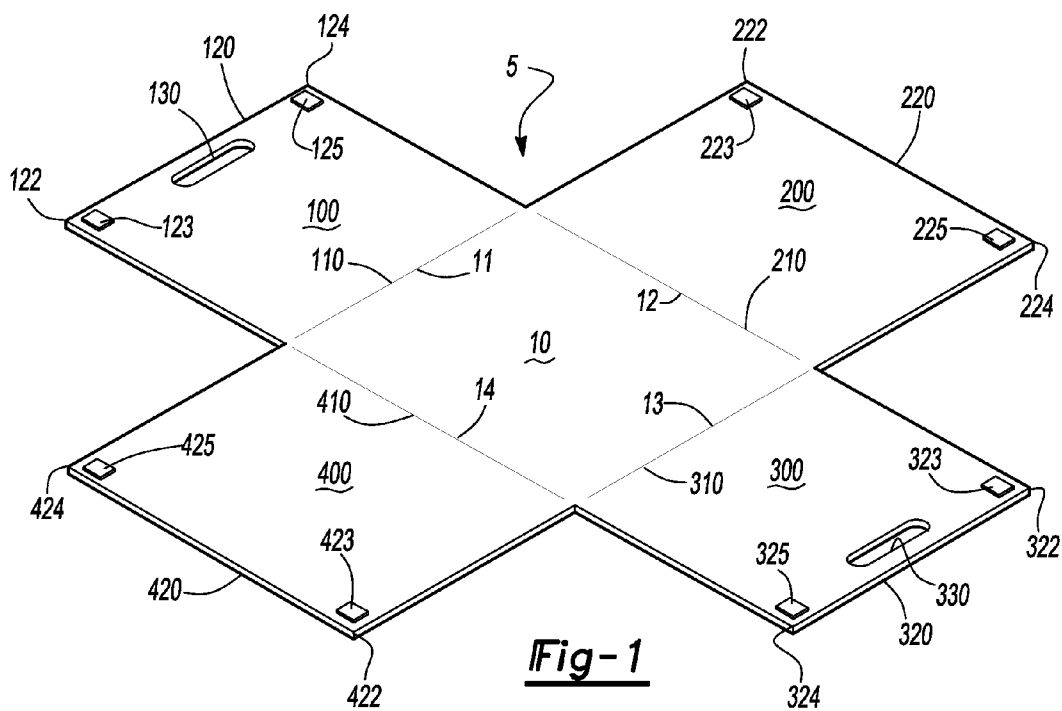
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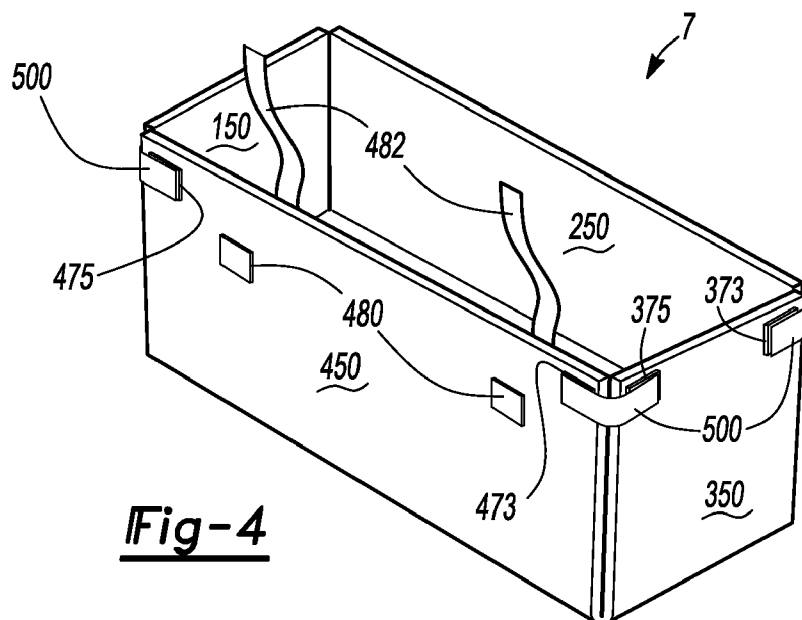
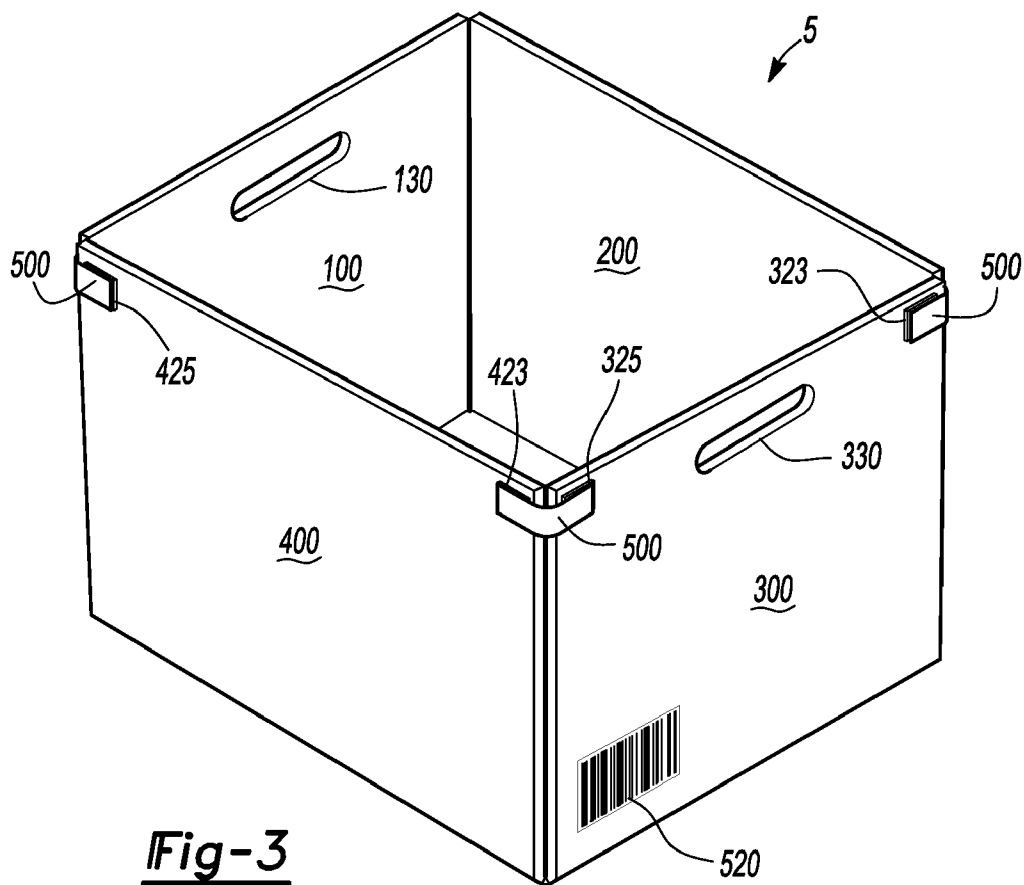
(19) **United States**(12) **Patent Application Publication**
Robinson et al.(10) **Pub. No.: US 2009/0242554 A1**(43) **Pub. Date: Oct. 1, 2009**(54) **REUSABLE CONTAINER**(22) Filed: **Aug. 27, 2008**(75) Inventors: **D. Michael Robinson**, Englewood,
FL (US); **Patricia R. Robinson**,
Englewood, FL (US)**Related U.S. Application Data**(60) Provisional application No. 60/968,173, filed on Aug.
27, 2007.**Publication Classification**(51) **Int. Cl.**
B65D 6/18 (2006.01)(52) **U.S. Cl.** **220/6**(57) **ABSTRACT**

A reusable container to transport groceries and the like from the point of purchase which can be closed to a condition for storage in which the container utilizes minimum space to an open position to receive the groceries and the like.

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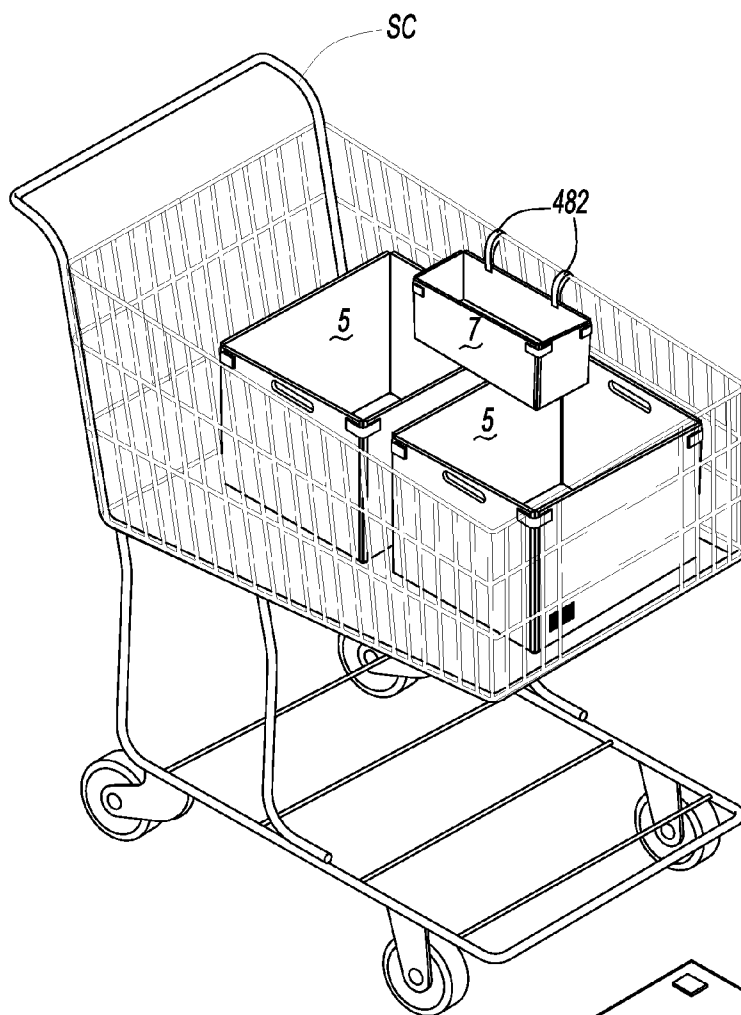


Fig-5

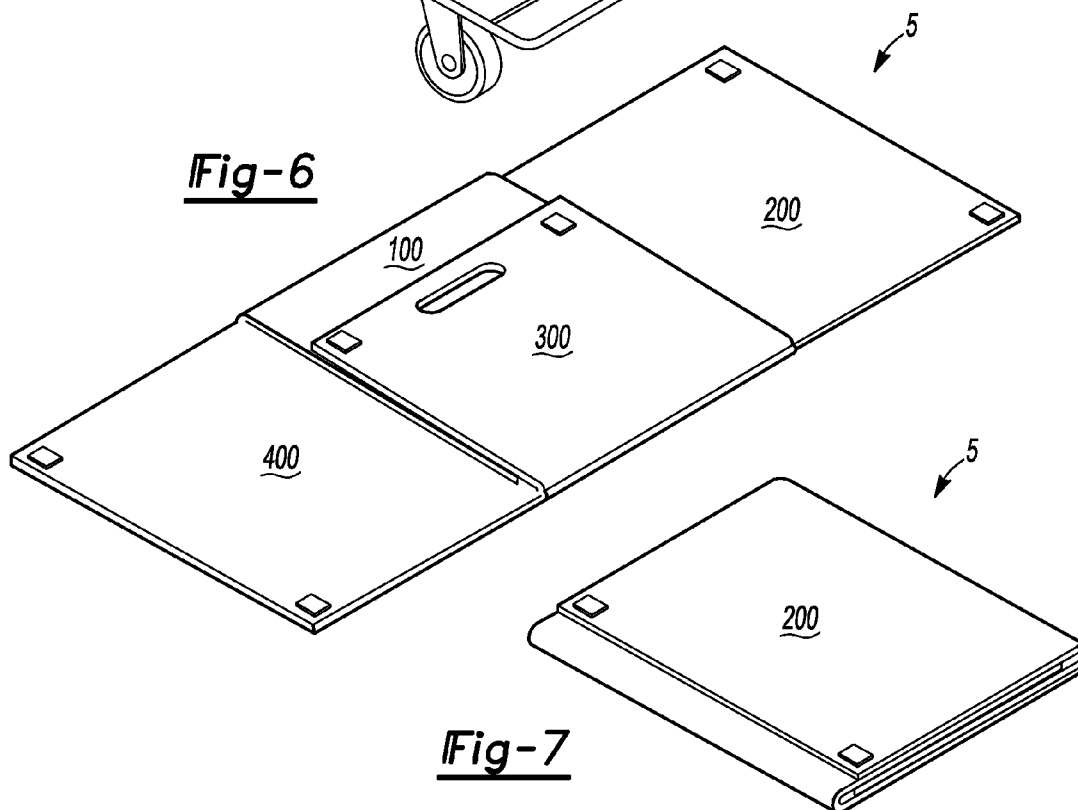


Fig-6

Fig-7

REUSABLE CONTAINER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This Application is a Non-Prov of Prov (35 USC 119(e)) application 60/968,173 filed on Aug. 27, 2007, which is herein incorporated by reference.

FIELD OF THE INVENTION

[0002] The present invention is directed to a reusable container for transporting groceries and the like from the point of purchase and more particularly to such a container which can be readily broken down for storage.

BACKGROUND OF THE INVENTION

[0003] An estimated 500 billion to 1 trillion new plastic bags are produced and used by consumers worldwide each year, with billions of the bags ending up as litter. In the United States, over 350 billion plastic bags, sacks and wraps are consumed annually. The amount of energy required to produce these plastic bags and the pollution associated with the disposal thereof is enormous.

[0004] When individuals purchase groceries, plastic bags are typically used to contain and transport purchased items from the store to a final destination. The used plastic bags are usually disposed of in the garbage or provided for recycling. Although recycling can be a more favorable alternative for the disposal of the plastic bags, even recycling requires additional energy to produce items from the recycled plastic. As such, the use of cloth bags and heavy plastic bags has been implemented for containers that can be used multiple times for transporting purchased grocery items. However, such cloth bags and heavy plastic bags have a limited lifetime of use and promote clutter of storage space during storage. Therefore, a container for transporting items that can be reused and is easily and conveniently stored when not in use is desired.

SUMMARY OF THE INVENTION

[0005] The present invention includes a simple to use foldable plastic container. As such, the present invention has utility as a foldable container that can be reused for containing and transporting items.

[0006] The foldable container has five panels. One of the panels is a center panel and four of the panels are side panels. The center panel is rectangular in shape with four edges, each of the four edges attached to an adjoining edge of one of the side panels. Each side panel is oppositely disposed from and spaced apart from a side panel that is across the center panel. Each side panel also has an outer edge that is oppositely disposed from the adjoining edge that is attached to one of the edges of the center panel. The outer edge of the side panel adjoins two outer corners of the panel, each outer corner having an attachment region. Each side panels can be rotated or pivoted about its adjoining edge until all of the side panels are generally at a 90 degree angle with respect to the center panel. In this position the attachment regions of the outer corners for one side panel are proximate to the attachment regions of adjacent side panels and thereby affords for the side panels to be attached to each other and form a container. The container can be used to contain and transport items, such as grocery items, and afterward the attachment of adjacent attachment regions can be terminated and the panels folded upon each other. Folding the panels upon each other affords a

flat structure that can be easily stored. In some instances, a container that has been assembled can be placed within a shopping cart and used while shopping. In other instances, an assembled container can be attached to the side of a shopping cart and used to contain small and/or delicate items.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] A better understanding of the present invention can be had by referring to the drawings wherein:

[0008] FIG. 1 is a top perspective view of the container of the present invention in a collapsed position;

[0009] FIG. 2 is a side perspective view of the container shown in FIG. 1 ready to be secured in condition for use;

[0010] FIG. 3 is a side view of the container shown in FIGS. 1 and 2 ready for use;

[0011] FIG. 4 is a side perspective view of another preferred container of the present invention;

[0012] FIG. 5 is a view illustrating the containers of the present invention ready for use in a grocery shopping cart;

[0013] FIG. 6 is a top perspective of the container of the present invention being folded into a storage condition; and

[0014] FIG. 7 is a top perspective view of the container of the present invention in a folded storage condition.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0015] Referring now to FIG. 1, a preferred container of the present invention is shown generally at reference numeral 5. The foldable container 5 has a center panel 10, the panel 10 having four edges 11, 12, 13 and 14. Joined to the center panel 10 at the respective edges are four side panels 100, 200, 300 and 400. The side panel 100 has an adjoining edge 110 that is attached to the edge 11 of the center panel 10. Likewise, the side panels 200, 300 and 400 have adjoining edges 210, 310 and 410 that are attached to the edges 12, 13 and 14, respectively, of the center panel 10. A "living hinge" is preferably formed at the attachment of the edges 11, 12, 13, 14 with the panels 100, 200, 300 and 400 respectively.

[0016] The side panels 100, 200, 300 and 400 each have an outer edge 120, 220, 320 and 420, respectively. The outer edge 120 of the side panel 100 joins an outer corner 122 to an outer corner 124. The same is true with the other side panels as illustrated in FIG. 1. Proximate to each of the outer corners is an attachment region. For example, the side panel 100 has an attachment region 123 proximate to the outer corner 122 and an attachment region 125 proximate to the outer corner 124. The same is true for the other side panels.

[0017] Upon rotation or pivoting of the side panels 100, 200, 300 and 400 about the adjoining edge 110, 210, 310 and 410 respectively, adjacent side panels have attachment regions proximate to each other. For example, as illustrated in FIG. 2, the attachment region 325 of the side panel 300 is proximate to the attachment region 423 of the side panel 400. Also illustrated in FIG. 2 is the use of an attachment strap 500, which affords for the attachment of the attachment region 325 to the attachment region 423. In this manner, the side panel 300 is attached to the side panel 400, the panel 400 is attached to the side panel 100, the side panel 100 is attached to the side panel 200, and the side panel 200 is attached to the panel 300. Thus the container 5 made from five panels can be assembled, disassembled and reassembled a plurality of times as needed. It is appreciated that the attachment regions and the attachment strap can include any attachment mechanism known to

those skilled in the art, illustratively including hook-and-loop fasteners, clips, buttons, snaps, releasable adhesives, and the like. It is also appreciated that the center panel **10** and the side panels **100**, **200**, **300** and **400** are made from polymer materials.

[0018] Also included with at least two of the side panels can be a handle mechanism. As illustrated in FIGS. **1-3**, the side panels **100** and **300** have a handle mechanism **130** and **330**, respectively. Although the figures illustrate the handle mechanism in the form of a slot within the side panel, any handle mechanism known to those skilled in the art can be used illustratively including a slot, a lip extending from the side panel, a handle attached to the side panel, a knob attached to the side panel and the like.

[0019] Another embodiment of the foldable container is illustrated in FIG. **4** at reference numeral **7**. The foldable container **7** has a center panel (not numbered) and four side panels **150**, **250**, **350** and **450**. Similar to the embodiment shown in FIGS. **1-3**, the embodiment shown in FIG. **4** has an attachment region at opposite corners of the side panels. For example, the side panel **350** has an attachment region **373** and an attachment region **375**. The side panel **450** has an attachment region **473** and an attachment region **475**, the attachment region **473** being proximate to the attachment region **375** when the side panels are in an upright position. Thus in a like manner to the embodiment described above, the center panel and four side panels which are connected by "living hinges" to provide a foldable container that can be used to contain and/or transport items. In addition, the embodiment shown in FIG. **4** includes a pair of attachment regions **480** with attachment straps **482**. The straps **482** afford for attaching the foldable container **7** to another object. Similar to the embodiment described above, the attachment regions **480** and the attachment straps **482** can include any attachment mechanism known to those skilled in the art, illustratively including hook-and-loop fasteners, straps that attach using snaps, straps that attach using buttons, straps that attach using clips and the like.

[0020] Turning now to FIG. **5**, an illustration of one type of use for the foldable container **5** and the foldable container **7** is shown. The foldable container **5** can be placed within a shopping cart SC. In some instances, the size of the foldable container **5** affords for the container to fit into the bottom of a large shopping cart when filled with items. The side panels of the foldable container **5** are high enough to allow for a two-liter bottle to stand up inside the container and not have the top of the bottle protrude above the side panel. It is appreciated that this height of the side panels affords for the foldable container **5** to sit in the bottom of most automobile trunks full of items and yet allow a user to close the trunk lid without banging into the foldable container **5** and/or items being carried therein. It is also appreciated that for cars with very small trunks, the foldable container **5** can be placed on the back seat or on the front seat.

[0021] The foldable container **7** can have a size that affords for the container to fit inside and hang on a standard grocery cart, thereby allowing an individual to place small and/or delicate items therein. It is also appreciated that the foldable container **7** can be removed from the standard grocery cart during a checkout of the grocery items and then afford for the transport of the small and/or delicate items to a home or final destination without the use of plastic or paper bags. The height of the side panels of the foldable container **7** affords for

the container to be used for its designed purpose but not so high as to interfere with other items placed in the cart SC while shopping.

[0022] In an example, when a consumer reaches the checkout counter to purchase items that have been selected, the foldable container **7** is simply removed from the shopping cart while still full and placed on the counter along with other items being purchased. During the bagging of the purchased items, the bagger can be handed a tote bag containing foldable container **5** or a plurality of foldable containers **5**. The foldable container **5** is then removed from the tote bag, opened and the side panels secured to each other with the attachment mechanism. The bagger then simply places the purchased items into the foldable container **5** instead of using plastic or paper bags. Once the foldable container **5** is full, the container with the items can be placed into the shopping cart SC and taken to a car, removed from the shopping cart SC, placed into the car and then transported to the home or final destination. Once the consumer has reached the home or final destination, they simply remove the foldable container **5** and/or foldable container **7** and take the container(s) into the kitchen or other room for emptying. After the foldable container(s) is empty, the attachment mechanism is released at the adjacent attachment regions and the foldable container folded up as illustrated in FIGS. **6** and **7**. The folded container **5** and/or container **7** can then be placed into the tote bag and stored conveniently and efficiently in the consumer's car such that the containers will be available next time they are needed. In this manner, the use of the foldable containers described herein can greatly reduce the number of plastic or paper bags used by consumers with only a small amount of effort. Although illustrated with respect to a shopping cart SC and the purchase of grocery items, the use of the foldable containers described herein can be used for shopping of non-grocery items and non-shopping purposes.

[0023] It is contemplated that to encourage use of the containers of the present invention grocery chain stores and others may utilize a program which provides based on the number of times that the reusable containers are used by a customer. Obviously each time the customer uses the container the grocery store or the like will save the cost of providing plastic or paper bags for the customer. To enable the grocery retailer or the like to maintain a record of use the container **5** is provided with a bar code **520** (FIG. **3**) which can be used to identify the user and record use by that particular user. Points and prizes then can be awarded at different levels of use.

[0024] While the containers **5** and **7** have been indicated as being produced from a polymer material it should be apparent that other materials can be used as long as the material provides a sturdy and wear resistant container.

[0025] The foregoing drawings, discussion and description are illustrative of specific embodiments of the present invention, but they are not meant to be limitations upon the practice thereof. Numerous modifications and variations of the invention will be readily apparent to those of skill in the art in view of the teaching presented herein. It is the following claims, including all equivalents, which define the scope of the invention.

We claim:

1. A foldable container for carrying groceries or the like and comprising:
 - a center panel;
 - a plurality of side panels with each of said side panels joined respectively to an edge of said center panel by a

living hinge whereby said center panel and said side panels are operable to fold to a condition with pairs of side panels adjacent to each other to form a container; and

means for releasably attaching said adjacent side panels one to the other.

2. The container as defined in claim 1 and in which said container is foldable to a position in which said side panels are atop said center panel.

3. The container as defined in claim 1 and in which said panels are constructed of a polymer material.

4. The container as defined in claim 1 and in which said attaching means comprises hoop and loop fasteners attachable to adjacent side panels of said container.

5. The container as defined in claim 1 and including indicia on said container for identifying the user of the container and each time the container is used.

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