A multiple compartment bag having various detachable pouches. The disposable container has a first panel and a second panel. A plurality of sealing seams extend throughout the disposable container and define various detachable pouches. At least one of the pouches is surrounded about each side by other pouches. Each of the multiple detachable pouches includes a top, a bottom, two sides and an opening proximate the top of the detachable pouch to provide an entry for an item to be stored within the detachable pouch.
COMPARTMENTED PACKAGE WITH MULTIPLE DETACHABLE POUCHES

BACKGROUND

[0001] 1. Field

[0002] The invention relates to the field of disposable container products, and in particular to providing a convenient compartmented package having multiple detachable pouches capable of storing various items.

[0003] 2. Description of the Related Art

[0004] Reusable zipper bags made a notable impact on the home consumer market in the 1980's. The reusable zipper bag is small, and convenient for storing and carrying various items. Do to the pliable material properties of a flexible plastic slipper bag, at times it is much more convenient to store items in a plastic bag rather than in a bulky container or box since pliable plastic bags can fit in spaces where you would not be able to put a box, such as when storing food items or leftovers in the refrigerator where space is substantially limited.

[0005] Reusable bags are convenient for organizing and categorizing small items, such as screws/nails, school supplies, toys, art supplies, jewelry, and just about anything that will fit inside a plastic bag. The kitchen is one area where pliable plastic bags are commonly used more frequently. Many people use them for storing various items in the refrigerator/freeze such as liquids, sauces, gravies, fruits and vegetables, and/or anything that is likely to leak out of the container or fall loose in the refrigerator.

[0006] Reusable zipper bags have many uses. They are particularly useful for packing a child’s school lunch. The ability to zip them up, or reseal these bags is conducive to quickly resealing the bag so that items will stay fresh from external bacteria and contamination.

[0007] Frequently, in a school lunch, a parent or caregiver will oftentimes pack various small snacks like peanuts, fruits, sandwiches or cookies in a plurality of different reusable bags. Each of the snack bags are then placed in a larger lunch bag or lunch container. The disadvantage is that a number of plastic bags of various sizes have to be purchased and stored at home to account for the various sizes and shapes necessary for storage. There is currently no system currently on the market that is capable of organizing a variety of different items together in a single package in which each of the various pouches formed therein can be individually detached. On the contrary, a child at school has to fumble through various plastic bags during their lunch period in an attempt to open the reusable zipper on the plastic bag which in itself can prove to be quite challenging for a young child. Thus, there is a need for a quick and easy solution for a compartmented package having multiple detachable pouches.

SUMMARY

[0008] An object of the present invention is to provide a compartmented package having multiple detachable pouches. The compartmented package is constructed to include various detachable storage compartments into which a variety of different items may be stored.

[0009] The disposable container has a first panel and a second panel. A plurality of sealing seams extend throughout the disposable container define various detachable pouches. At least one of the pouches is surrounded about each side by other pouches. Each of the multiple detachable pouches includes a top, a bottom, two sides and an opening proximate the top of the detachable pouch to provide an entry for an item to be stored within the detachable pouch.

[0010] In another embodiment, at least two of the pouches are positioned such that their openings are disposed orthogonal to each other.

[0011] This and other objects, features, and/or advantages may accrue from various aspects of embodiments as described in more detail below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Various exemplary embodiments of this invention will be described in detail, wherein like reference numerals refer to identical or similar components or steps, with reference to the following figures, wherein:

[0013] FIG. 1 illustrates an exemplary compartmented package having multiple detachable pouches.

[0014] FIG. 2 depicts the compartmented package having multiple detachable pouches of various sizes and shapes.

[0015] FIG. 3 shows a compartmented package arranged for a meal having multiple detachable pouches.

[0016] FIGS. 4-5 illustrate the compartmented package being capable of folded into a convenient compact carrying package.

[0017] FIGS. 6-7 depict another exemplary compact arrangement for the compartmented package.

[0018] FIG. 8 illustrates an exemplary process for making the compartment bag system.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

[0019] Particular embodiments of the present invention will now be described in greater detail with reference to the figures.

[0020] FIG. 1 illustrates an exemplary multiple compartment bag or container system 10 including a plurality of detachable sub-pouches 16 configured in a variety of different sizes and shapes. The compartment bag system 10 comprises a first panel 12 and a second panel 14 that forms the front and back faces of the compartment bag system 10. A plurality of seams 15 are disposed throughout the compartment bag system 10 and define the plurality of detachable pouches 16 of varying size and shape.

[0021] The seams 15 of the various detachable pouches 16 may be formed in a variety of different ways, including, but not limited to, gluing, fusing, welding and/or any other suitable method for adhering the first panel 12 and the second panel 14 to each other.

[0022] As shown in FIG. 1, the compartment bag system 10 includes a pair of longitudinal seams 15a and 15b disposed along the outermost side edges of the compartment bag system 10. The longitudinal seams 15a and 15b define an outer enclosure for the compartment bag system 10. Various other smaller sub longitudinal seams 15c-15f are constructed between the outer longitudinal seams 15a and 15b that further define the inner-outer edges of the various pouches 16.

[0023] The compartment bag system 10 includes a pair of outer transverse seams 15g and 15m that create the outermost upper and lower edges of the compartment bag system 10. Together, the outer longitudinal seams 15a, 15b and the outer transverse seams 15m and 15n define the outer edges of the enclosure for the compartment bag system 10. Various other sub transverse seams 15p-15s are constructed between the
outer transverse seams 15m and 15n that further define the inner outer edges of the various pouches 16.

Although the various edges above are described as longitudinal and transverse edges defining upper and lower edges, it is to be understood that these definitions are not intended to fix the orientation of the compartment bag system 10 in any particular configuration but are merely defined for clarity and exemplary demonstrative purposes. It is to be understood that various shapes and configurations are possible and the outer edges may take any shape including but not limited to curved shapes as well.

Another feature of this concept is to provide various angular seams 15r-15v for triangular, curvilinear and/or other obtuse shaped pouches. For example, FIG. 1 depicts a plurality of pouches 16a and 16b having angular seams 15r-15v that defines triangular shaped detachable pouches. Curvilinear and/or other shaped seams (such as shown n FIG. 2) is also within the scope of this concept.

As shown in FIG. 1, at least two pouches 16g and 16h are constructed so that there openings 17a, 17b are positioned orthogonal to each other. Other pouches show the openings for the various pouches to be disposed in a variety of different positions relative to each other. Likewise, it is shown that the pouch opening 17b of the pouch 16b is centrally disposed to the interior of the compartment bag system 10. Various other pouches completely surround the pouch 17b so that pouch 17b does not border an edge of the compartment bag system 10 but is completely surrounded by other pouches 16.

Perforations 20 may be disposed within any of the internal seams 15c-15v. The various pouches 16 may be individually separated at any one of the various perforations 20 within the internal seams 15c-15v to remove any one of the various pouches 16 from the compartment bag system 10.

Likewise, perforations 20 may be placed adjacent to any of the seams 15c-15v. That is, the perforation 20 may be disposed on a side of one of the pouches that is intended to have that particular side opened and/or separate the pouch from the remainder of the compartment bag system 10. For example, FIG. 1 shows a perforation 20a disposed along the right edge of the pouch 16a. In use, the pouch 16a may be completely separated from the compartment bag system 10 along perforation lines 20b and 20c. Once detached, the perforation 20a may be torn away so that the items stored in the pouch 16a may be accessed through the perforated opening 20a.

Various ones of the pouches 16 may be constructed as re-sealable packages that will allow a user to reseal the pouch 16 for continuous use. This is useful in that oftentimes it is advantageous to be able to reseal the pouch 16 in order to maintain product freshness of an item disposed within the pouch 16. For example, when a disposable product with a short shelf-life, such as cheese, fruits, pasta and the like is exposed to bacteria, the shelf-life of that particular product deteriorates rapidly. The ability to reseal these types of contents back into the bacteria-free environment within the interior of a sealed pouch 16 would be critical to ensuring its freshness.

The resealable pouch may integrate any number of different closure and resealable closing mechanisms 24. The re-sealable closing mechanisms 24 may be, for example, an adhesive, a zipper storage and/or any other resealable mechanism in accordance with this subject disclosure. The pouches 16 can be constructed of various materials, and in different sizes for use with various different products, such as for sandwiches, snacks, and/or for various purposes. Various other purposes may be for compartmentalizing makeup, beads, jewelry and/or various other items.

The re-sealable pouch 16 may utilize resealable closing mechanism 24 that are sliders in which the closure mechanism is a press-and-seal locking mechanism that operates by bringing together a first lip portion of the locking mechanism with a second lip portion of the locking mechanism and causing the lips on both faces of the pouch to interlock and seal the opening of the pouch. Sliderless zippers may also be used in which the re-sealable mechanism is also closed using a press-and-seal technique to squeezes the lips on both faces of the pouch together to cause them to interlock and seal along the length of the opening.

Likewise, as shown in FIG. 1, a conventionally known zipper 22 (such as a Ziploc® closing mechanism) may be disposed on a single pouch 16. In this embodiment, the zipper 22 includes a first portion and a second portion that sealed by the zipper 22.

It is to be understood that various types of closing mechanisms 24 may be used according to the subject disclosure. That is the closing mechanism 24 may be a non-resealable closing mechanisms intended for a single use opening application.

The compartment bag system 10 may be constructed as a flexible bag made from one or many different commonly known materials. The compartment bag system 10 may be made of thin, flexible, plastic film, or plastic textile, such as but not limited to a variety of plastics films, Polyethylene (LDPE, LLDPE, etc.) and the like. The compartment bag system 10 may be used for storing, containing and transporting various items, such as foods, produce, powders, jewelry, makeup, medicine, ice, waste, or the like.

The pouches 16 may be constructed of a durable material able to withstand moderate to extreme heat (such for use in a microwave oven and boiling in hot water) as well as moderate to extreme cold temperatures (such as storage of various items in a freezer). The various pouches 16 may be adapted for storing ice packs to keep certain items cold. In the alternative, the pouches 16 may be used to contain heat packs to keep various other items warm and well heated as necessary.

Each of the pouches 16 may contain additional perforations or vent holes to allow air and other liquids of gases to enter into the interior of the pouch. For example, a pouch 16 may be adapted for use to cook rice therein. As such, hot water is allowed to flow through the perforations in the pouch 16 and to come into contact with the food; rice noodles, pasta, and/or other types of items disposed inside of the bag. The bags may be tough heat-sealed nylon or polyester to withstand the extreme temperatures of boiling water. Alternatively, the various pouches 16 may also be used for liquids such as juices and/or other aqueous items.

FIG. 2 depicts a plurality of pouches 16 configured to include various exemplary ornamental shapes and sizes. As shown, the shapes of the various pouches 16 may resemble a gun, a car, a heart, a caricature and/or any other object according to this subject disclosure.

Likewise, the pouches 16 may include various types of indicia printed thereon. The imprinting may be helpful to identify the expiration of the product stored therein. Various animated imprints may be provided thereon such as caricatures, shapes and/or other designs. For example, the pouch
16 may include various indicia, designs and/or other aesthetic logos. The pouch 16 may be made of any color or pattern and of any shape and size, including but not limited to a name, images/objects, whimsical designs, logos, cartoon characters, numbers, geometric shapes, animals, birds, flowers, decorative embroidery, alphanumeric markings, and/or combination thereof and/or other indicia. Various themes may be integrated as a part of the configuration of the compartment bag system 10, such as a Halloween, Christmas, Birthday, Bathroom, Kitchen, Garage and/or any other theme based configuration.

[0039] The indicia may be a barcode, or the like. As shown in FIG. 3, an imprintable space 25 may be provided on the resealable pouch so that a user may mark on the pouch various notes such as the type of item stored therein, an expiration date, and/or other type of information.

[0040] The perforation lines 20 around the various shapes are disposed so that when the pouch 16 is torn away from the remainder of the compartment bag system 10, the shape of the animated image is outlined by the torn perforation 20. The various food items stored in the compartment bag system 10 are fun and aesthetically pleasing to the child and more likely to encourage the child to want to tear open and eat their food.

[0041] FIG. 3 illustrates an exemplary use for the compartment bag system 10 being used to arrange and organize a meal. As shown, various items 26 for a lunch meal are arranged in the compartment bag system 10. For example, a sandwich, grapes, a juice, cookies, chips, apple wedges and a utensil may be conveniently arranged and stored in the compartment bag system 10. As discussed in more detail later, a handle 28 may be integrated into the compartment bag system 10 to assist in carrying the compartment bag system 10.

[0042] The advantage of utilizing the compartment bag system 10 of the subject disclosure is that a parent or care provider can better organize the various items placed in their child’s lunch and those eaten by the child. Likewise, it is easy for the parent or caregiver to keep track of what the child has eaten from the compartment bag system 10 as the remaining uneaten portions can remain intact and attached to the compartment bag system 10.

[0043] Since the compartment bag system 10 is flexible, the various items stored in the pouches 16 of the compartment bag system 10 can be folded in a compact manner and conveniently placed into a lunch bag, lunch box, backpack or the like.

[0044] FIGS. 4-7 illustrate another aspect of the subject disclosure in that the compartment bag system 10 may be constructed to be conveniently folded in a compact manner to place in a lunch bag, a box, a backpack or the like. FIGS. 4-5 show the compartment bag system 10 being folded longitudinally in a billfold manner. Various handle openings 28 are provided in the compartment bag system 10 and aligned so that when the compartment bag system 10 is folded the various handle openings 28 are aligned in order for a user to easily carry the compartment bag system 10.

[0045] FIGS. 6-7 further depict a compartment bag system 10 being folded along a horizontally fold in a billfold manner. Likewise, the various handle openings 28 may be arranged and aligned so that the user again can conveniently carry the compartment bag system 10. In this embodiment, the handle openings are formed by perforations 20. The perforations 20 may be torn out when the user desires to use handles 28 to conveniently carry the compartment bag system 10 and its contents.

[0046] The compartment bag system 10 may be constructed in a variety of different ways. Most plastic bags are heat sealed together. Some are bonded with adhesives or are stitched. However, in this exemplary construction, the compartment bag system 10 may be constructed in the following manner.

[0047] FIG. 8 illustrates at least one exemplary method for constructing the compartment bag system 10 using a bag producing machine 30. The components of the bag producing machine 30 are not to scale and can be altered in accordance with this subject disclosure. In the bag producing machine 30, a first panel 12 and a second panel 14 may be fed along a path that aligns the two panels 12, 14 adjacent to each other. The first panel 12 and second panels 14 are fed into various welding heads 50, 52, 54 of a bag producing machine 30. The various welding heads 50, 52, 54 are located along the path in which the first panel 12 and the second panels 14 travel. The various welding heads 50, 52, 54 seal the first panel 12 and the second panel 14 together at predetermined positions and orientations in order to construct the variously configured pouches 16 in the compartment bag system 10.

[0048] For example, a first set of welding heads 50 are adapted to create continuous longitudinal welds 15 along the outermost side edge seams 15a, 15b of the compartment bag system 10 to create an outer enclosure therefore.

[0049] Although only one is shown, various inner longitudinal welds 51 are created at various predetermined lengths to define internal seams 15c-15f defining the inner side edges of the individual pouches 16 disposed between the outer longitudinal side edges 15a, 15b within the compartment bag system 10.

[0050] At various other locations along the longitudinal length of the compartment bag system 10, various other welding heads 52 are provided to create transverse welds to define the various transverse seams 15m-15p within the compartment bag system 10.

[0051] Furthermore, various angular welding heads 54 may be disposed along the length of the compartment bag system 10 to define the seams or edges of at least one pouch 15r-15v having an angular edge within the compartment bag system 10. It is to be understood that various obtuse or curvilinear welds are possible to define the various obtuse or curvilinear seams throughout the subject disclosure.

[0052] Several design options and features are available for the pouches. The pouches may include gussets (not shown) to provide more rigidity to the strength of the pouch and to allow a greater volume to be placed and supported by the various pouches 16 in the compartment bag system 10. The construction of the pouches 16 may be constructed sufficiently rigid enough to stand up on a shelf or a refrigerator. Compared to boxes, cartons, or jars, the pouches 16 of this subject disclosure use less material and can folded, stored and/or carried in a compact and easy manner.

[0053] It will be recognized by those skilled in the art that changes or modifications may be made to the above described embodiment without departing from the broad inventive concepts of the invention. It is understood therefore that the invention is not limited to the particular embodiment which is described, but is intended to cover all modifications and changes within the scope and spirit of the invention.

1. A multiple compartment container having various detachable pouches, the container comprising:
a first panel and a second panel; 
a plurality of sealing seams extending throughout the dispos-
able container that define the various detachable pouches; 
a plurality of curved seams extending within boundary edges of the container that define a curved shape; 
various perforations disposed within the curved seams to define a curved detachable pouch to tear away the curved detachable pouch from a remainder of the container; and 
an opening disposed in the detachable pouches to provide an entry for an item to be stored within the detachable pouch.

2. The multiple compartment container recited in claim 1, wherein a closure mechanism is disposed in the opening to provide a reclosable seal for the opening.

3. The multiple compartment container recited in claim 1, wherein at least one of the seams of the various detachable pouches is formed by at least one of the following processes: gluing, fusing and welding.

4. The multiple compartment container recited in claim 3, wherein the compartment container system further comprises:
a pair of longitudinal seams along the outermost side edges that define the outer enclosure of the compartment container system; and 
various internal longitudinal seams are constructed between the outer longitudinal seams that further define the inner outer edges of the various pouches.

5. The multiple compartment container recited in claim 1, wherein the compartment container system further comprises:
a pair of transverse seams along the outermost upper and lower edges; and 
various inner transverse seams disposed between the outer transverse seams that define the inner outer edges of the various pouches.

6. The multiple compartment container recited in claim 1, wherein various angular seams are provided to create an obtuse shaped detachable pouch.

7. (canceled)

8. The multiple compartment container recited in claim 1, wherein perforations may be disposed within the internal seams, wherein the various perforations are adapted to individually separate anyone of the various pouches from the compartment container system.

9. The multiple compartment container recited in claim 1, wherein perforations are disposed along the outer edge of the compartment container system to allow entry into at least one of the pouches in the compartment container system.

10. The multiple compartment container recited in claim 1, wherein perforation lines define the opening into at least one pouch so that the items in the pouch may be accessed through the perforated opening.

11. The multiple compartment container recited in claim 1, wherein the pouch is a re-sealable package that allows a user to reuse the package for continuous use.

12. The multiple compartment container recited in claim 1, wherein a re-sealable pouch may implement a zipper having a press-and-seal mechanism for use with or without and a locking slider adapted to seal the opening of the pouch.

13. The multiple compartment container recited in claim 1, wherein the pouches are durable and can withstand moderate, extreme heat and cold environments.

14. The multiple compartment container recited in claim 1, wherein perforations in the pouch are constructed in a curvilinear shape.

15. The multiple compartment container recited in claim 1, wherein the closing mechanism is disposed completely within one of the first panel or the second panels of an individual pouch.

16. The multiple compartment container recited in claim 1, wherein the compartment container system is folded in a compact manner and carried by an integrated handle.

17. A multiple compartment bag having various detachable pouches, the disposable bag comprising:
a first panel and a second panel; 
a plurality of sealing seams extending throughout the disposable bag that define the various detachable pouches, at least one of the pouches is surrounded on each side by other pouches, 
each of the multiple detachable pouches comprises a top, a bottom, two sides and an opening proximate the top of the detachable pouch to provide an entry for an item to be stored within the detachable pouch; and 
a closure mechanism is disposed in the opening to provide a reclosable seal for the opening.

18. A compartment container having a detachable pouch, the container comprising:
a first panel and a second panel; 
a plurality of curved seams extending within boundary edges of the container that defines a curved shape; and 
various perforations disposed within the curved seams that define a detachable curved pouch that is adapted to be torn away from a remainder of the container.

19. The compartment container recited in claim 18, wherein the curved pouch has an opening adapted to place or remove an item within the pouch.

20. The compartment container recited in claim 19, wherein a closing mechanism is provided in the opening and is completely disposed within one of the first panel or the second panels of an individual pouch.

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