PLEATED POCKET DEVICE

Inventor: Byron Van Slovis, Hawthorne, CA (US)

Correspondence Address:
Robert E. Krebs
Thelen Reid & Priest LLP
P.O. Box 640640
San Jose, CA 95164-0640 (US)

Assignee: West Coast Trends, Inc., a California Corporation

Appl. No.: 10/633,272

Filed: Jul. 31, 2003

Publication Classification

Int. Cl.7 ............................................ B65D 30/20
U.S. Cl. .................................................. 383/120

ABSTRACT

The present invention is an apparatus and method for forming a pleated pocket device having a back panel having at least one pleat, a first section, and a second section wherein the second section is capable of expanding more than the first section, and a front panel connected to the back panel to form a cavity adjacent to the second section.
PLEATED POCKET DEVICE

FIELD OF THE INVENTION

[0001] The present invention relates to a pleated pocket device. Particularly, the present invention relates to a pleated pocket device to secure loose items such as a fluid container, cell phone, and other similar items.

BACKGROUND OF THE INVENTION

[0002] In the past, individuals that engaged in sports or exercise normally had to forgo drinking water or other fluids because it was not convenient to carry bottles filled with fluids during the exercise. This is even more difficult when the individual has to carry other equipment such as a golf bag, camping equipment, baby carry bags, and the like.

[0003] By way of example, a golfer spends many hours outside, in the open, and often during hot and sunny weather. Although many golfers ride on golf carts, many others prefer to walk, because carts are not allowed on many golf courses, and quite often out of a preference for walking, as endurance is considered by many to be an integral part of the game. Indeed, professional golfers are required to walk the course during tournament play (although a few Senior PGA tournaments allow cart play on extremely hilly courses). However, due to the effort required to carry or roll a golf bag, it is very awkward for a golfer to attempt to carry any type of beverage or sports bottle while transporting the golf bag.

[0004] Golfers often walk many miles during a game (the average distance walked on a round of golf is about 5 miles), carrying their own bag and clubs in a backpack style golf bag (usually called a stand bag or a carry bag). Thus, it is essential to the walking golfer to have access to fluids during a game. Most golf bags are not designed or built to accommodate the storage of beverages or fluid containers. Thus, many golfers carry a fanny-pack style drink holder; others carry an over-the-shoulder type of drink holder. These types of drink holders are simply another item to carry, remove and replace during a game.

[0005] Many carry bags over the years have incorporated fluid container holders. Since a carry bag is generally carried horizontally across the golfer's back, the possible locations and configurations of integrated drink holders are limited. Integrated drink holders are generally fabricated with a foam or other covered substrate, resulting in a bulky, rigid extrusion attached to the bag, usually to a pocket, that protrudes rudely from the bag even when not in use. This results in added weight to the bag and thus, additional weight for the golfer to carry. Furthermore, all such drink holders are external, extending outward and creating instability with a large beverage container while walking. Moreover, an elegantly designed high-end golf bag is generally designed to be visually pleasing, and such drink holders can interrupt the contours and lines of a bag and/or pocket design.

[0006] Thus, there is still a need for a holder that may be integrated into clothes or a sports bag, such as a golf bag, in a more streamlined fashion to reduce weight, hold a variety of small, medium, or large items with stability, and provide a visually pleasing uninterrupted surface when not occupied with the item(s).

BRIEF DESCRIPTION OF THE INVENTION

[0007] The present invention is an apparatus and method for forming a pleated pocket device having a back panel having at least one pleat, a first section, and a second section wherein the second section is capable of expanding more than the first section, and a front panel connected to the back panel to form a cavity adjacent to the second section.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The accompanying drawings, which are incorporated into and constitute a part of this specification, illustrate one or more embodiments of the present invention and, together with the detailed description, serve to explain the principles and implementations of the invention.

[0009] In the drawings:

[0010] FIGS. 1A and 1B illustrate an embodiment of the present invention.

[0011] FIGS. 1C and 1D illustrate a cross-section of FIG. 1B along axis X-X and Y-Y, respectively.

[0012] FIG. 2 illustrates another embodiment of the present invention.

[0013] FIG. 3 illustrates the present invention in use with a fluid container.

[0014] FIGS. 4A and 4B illustrate the present invention in use with articles such as a golf bag and a jacket, respectively.

[0015] FIG. 5 is a block diagram illustrating a method of the present invention.

[0016] FIGS. 6A, 6B, 6C, and 6D illustrate an example of the present invention in accordance with one embodiment of the present invention.

DETAILED DESCRIPTION

[0017] Embodiments of the present invention are described herein in the context of a pleated pocket device. Those of ordinary skill in the art will realize that the following detailed description of the present invention is illustrative only and is not intended to be in any way limiting. Other embodiments of the present invention will readily suggest themselves to such skilled persons having the benefit of this disclosure. Reference will now be made in detail to implementations of the present invention as illustrated in the accompanying drawings. The same reference indicators will be used throughout the drawings and the following detailed description to refer to the same or like parts.

[0018] In the interest of clarity, not all of the routine features of the implementations described herein are shown and described. It will, of course, be appreciated that in the development of any such actual implementation, numerous implementation-specific decisions must be made in order to achieve the developer's specific goals, such as compliance with application- and business-related constraints, and that these specific goals will vary from one implementation to another and from one developer to another. Moreover, it will be appreciated that such a development effort might be complex and time-consuming, but would nevertheless be a routine undertaking of engineering for those of ordinary skill in the art having the benefit of this disclosure.

[0019] The present invention relates to a pleated pocket device to secure loose items such as a fluid container, cell phone, or other similar items. The pleated pocket device may
be used as a separate device or may be integrated into an article such as a sports bag to provide for a more streamlined fashion to reduce weight, hold a variety of containers with stability, and provide a visually pleasing uninterrupted surface when not occupied with an item.

[0020] Referring now to FIGS. 1A and 1B illustrating an embodiment of the present invention. The pleated pocket device, generally numbered 10, may have a back panel 100 and a front panel 116. The back panel 100 may have a first portion 102, a second portion 104, and a third portion 106. As illustrated in FIG. 1A, first portion 102 may have two pleats 108a and 108b, but the number of pleats is not meant to be limiting since any number of pleats will work. The pleats 108a, 108b are folds of even width made by doubling the material upon itself and stitching 110a, 110b the folds in place. The pleats 108a and 108b may be stitched 110a, 110b down the length of the first portion 102 through a top section 112 of the second portion 104 near the centerline Z. However, the stitch 110a, 110b may extend only down the length of first portion 102.

[0021] Second portion 104 may be attached to the first portion 102 at the top section 112. The second portion 104 may also be attached to the third portion 106 at a bottom section 114. The third portion 106 may be circular in shape to simulate the shape of a typical sports bottle bottom. However, those of ordinary skill in the art will now realize that the third portion 106 may be any shape, such as a square, to adapt to any shape of the loose item.

[0022] Second portion 104 may be a trapezoidal shape to allow for expansion in the pleated pocket device. Top section 112 may be longer than bottom section 114 which expands the bottom of the pleated pocket device 10. The extra length at bottom section 114 further forms the inverted "V" shape of pleats 108a, 108b. It was also found that without second portion 104, the item, such as a fluid container, would not be stable within the pleated pocket device 10. The container would not touch the bottom of the device 10, would not be positioned securely within the device 10, and in fact, would be pushed out of the device 10.

[0023] FIGS. 1C and 1D illustrate a cross-section of FIG. 1B along axis X-X and Y-Y, respectively. FIG. 1C is a cross-section of FIG. 1B along axis X-X illustrating pleats 108a, 108b. Pleat 108b is formed from folding the material at 150 and 152 and rigidly fixed in place with stitches 110b. Pleat 108a is formed from folding the material at 154 and 156 and rigidly fixed in place with stitches 110a. FIG. 1D is a cross-section of FIG. 1B along axis Y-Y. Pleats 108b is formed from folding the material at 150 and 152. Pleat 108a is formed from folding the material at 154 and 156. As described above, pleats 108a, 108b from an inverted V shape. Thus, distance d1 is longer in length than d2.

[0024] The device further has a front panel 116. The front panel 116 has a bottom 120 that may be attached to the back panel 100 at the third portion 106. Bottom 120 may be rigidly fixed to the outer edges of third portion 106. The front panel 116 may also have a first side 122 opposite a second side 124. The first side 122 and second side 124 may be rigidly fixed to the back panel 100 second portion 104 and the bottom end 140 of first portion 102 as illustrated in FIG. 1A. First side 122 may be rigidly fixed to the first and second portion first outer edge 142 and second side 124 may be rigidly fixed to the first and second portion second outer edge 144. When front panel 116 is rigidly fixed to back panel 100, a cavity 132 is formed to hold any item, such as a fluid container. Front panel 116 may be rigidly fixed to back panel 100 by stitching, gluing, or any other similar means.

[0025] FIG. 2 illustrates another embodiment of the present invention. The pleated pocket device, generally numbered 202, may have a back panel 204 and a front panel 206, both may be formed form a single sheet of material. The back panel 204 has a top edge 208 and a bottom edge 210. As illustrated in FIG. 2, back panel may have two pleats 212a, 212b, but the number of pleats is not meant to be limiting since any number of pleats will work. The pleats 212a, 212b are folds of even width made by doubling the material upon itself and stitching 214a, 214b the folds in place as is further illustrated and described above with reference to FIGS. 1C and 1D. The pleats 212a, 212b may be stitched 214a, 214b near the centerline Z and down the length of the back panel 204 as far as necessary to securely hold an item in the pleated pocket device 202.

[0026] Top edge 208 may be longer in length than bottom edge 210 such that the back panel forms a trapezoidal shape. This allows for expansion, in width and depth, of the pleated pocket device 202 near the bottom edge. Moreover, the extra length at bottom section 114 further forms the inverted "V" shape of pleats 212a, 212b. It was also found that the items remained positioned securely within the pleated pocket device 202.

[0027] The back panel 204 may also be attached to a bottom panel 216 at bottom edge 210. A bottom panel 216 may be circular in shape to simulate the shape of a typical sports bottle bottom. However, those of ordinary skill in the art will now realize that the bottom panel 216 may be any shape, such as a square, to adapt to any shape of the loose item.

[0028] Front panel 206 may be fixedly attached to back panel 204. Front panel 206 has a bottom 218 that may be rigidly fixed to the outer edges of bottom panel 216. The front panel 206 may also have a first side 220 opposite a second side 222. The first side 220 and second side 222 may be rigidly fixed to the back panel 216 as illustrated in FIG. 1A. First side 220 may be rigidly fixed to the first outer edge 224 and second side 222 may be rigidly fixed to the second outer edge 226. When front panel 206 is rigidly fixed to back panel 202, a cavity is formed to hold any item, such as a fluid container. Front panel 206 may be rigidly fixed to back panel 204 by stitching, gluing, or any other similar means.

[0029] FIG. 3 illustrates the use of an embodiment of the present invention as an integral part of an article. Pleats 108a, 108b form an inverted V shape 138 that allow for the internal expansion, in width and depth, of back panel 100 when a fluid container (shown in phantom) 200 is put into the pleated pocket device 10. Pleats 108a, 108b also provide for less expansion at the top end 134 than at the bottom section 114 to create an envelope or pouch to provide stability while the beverage container 200 is in the pleated pocket device 10. When an item is not in the pleated pocket device 10, pleats 108a, 108b allow for the device 10 to lay flat or flush against the article.

[0030] Pleated pocket device 10 may be incorporated into articles such as a golf bag accessory 300 (as shown in FIG. 3A), a jacket 302 (as shown in phantom in FIG. 3B), a baby
stroller, camping equipment, or any other similar articles. Pleated pocket device 10 may be made from any type of material that is sturdy, long lasting, and may be waterproof. The material may also be the same material the article is made of.

[0031] Referring now to FIG. 4A, an embodiment of the present invention incorporated into a golf bag accessory. A brief description of the golf bag accessory is provided for an understanding of the present invention. The golf bag accessory 300 may attach onto a typical golf bag through the use of any releasable locking means such as a snaps 302a, 302b, 302c (where n is an integer), Velcro, or stitching. The golf bag accessory 300 may have various pockets that are opened and closed with zippers 304a, 304b. As illustrated, the pleated pocket device 10 is formed as an integral part of the golf bag accessory 300 where the pleats 108a, 108b are formed from a continuous sheet of material used to form the golf bag accessory. However, as illustrated in FIG. 3, the pleated pocket device 10 may be formed from a separate sheet of material and flexibly attached to an article.

[0032] In use with a fluid container 200 (shown in phantom), pleats 108a, 108b provide for the expansion in width and depth of the pleated pocket device 10. Additionally, pleats 108a, 108b provide for less expansion at the top end 134 and at the bottom end 306 of the pleated pocket device 10 to create an envelope or pouch to provide stability for the fluid container 200.

[0033] FIG. 5 is a block diagram of a method of the present invention. A determination is made as to whether the pleated pocket device is to be integrated and formed as part of an article, such as a sports bag, at 426. If yes, then the pleats are formed at 406 from the same material as the article. If no, then a determination is made as to whether the pleated pocket device is formed from a single sheet of material at 428. If yes, then a back panel may be formed from a single sheet of material at 424. If no, a first portion may be cut from a single sheet of material at 400. A second portion may also be cut from a single sheet of material at 402. The second portion may then be attached to first portion at 404.

[0034] The pleats may then be formed at 406 and stitched in place at 408. The pleats may be held in place by other means such as glued, a snap, or any other similar means. Moreover, the pleats may extend through the length of first portion and part of second portion. A third portion may be cut from a single sheet of material at 410 and attached to the second portion at 412. A front panel may be cut from a single sheet of material at 414. If the pleated pocket device is attached to an article, such as a sports bag, at 416, then the first, second, and third portions are attached to the article at 420 and the front panel may be then attached to the first, second, and third portions at 422. The pleated pocket device may be rigidly fixed directly onto the article or may be rigidly fixed as an integral part of the article. If the pleated pocket device is not attached to an article at 416, then the front panel may be attached to the first, second, and third portions at 418.

[0035] Example 1 illustrates the method of the present invention with reference to FIGS. 5A, 5B, 5C, and 5D. Example 1 is an illustration with respect to the embodiment described in FIGS. 1A, 1B, 1C, and 1D. Example 1 is merely for illustration purposes and is not intended to be limiting. Those of ordinary skill in the art will now realize that various dimensions and ratios may be used to create the pleated pocket device.

EXAMPLE 1

[0036] As shown in FIG. 5A, first portion 102 may be cut from a single sheet of material. First portion may have a height, H1 of about 12 cm, a length, L1 of about 6 cm and L2 of about 9 cm. Second portion 104 may also be cut from a single sheet of material having a trapezoidal shape with H2 of about 11.5 cm and L3 of about 21 cm and L4 of about 22 cm. First portion 102 and second portion 104 are attached together by stitching at 502.

[0037] Pleat 108b may be formed by folding the material at line W-W toward centerline Z and stitched 110b in place as shown in FIG. 5B. Pleats 108a may be formed by folding the material at line V-V toward centerline Z and stitched 110a in place as shown in FIG. 5B. As illustrated in FIG. 5B, stitch 110a and 110b are stitched into a top portion of second portion 104. However, stitch 110a, 110b need not extend into second portion 104 and may extend only through first portion 102. Since second portion 104 is formed as a trapezoid with length L3 greater in length than L4, the extra material causes the pleats 108a, 108b to form an inverted V shape with a length L5 of about 1.5 cm. However, those of ordinary skill in the art will now realize that pleats 108a, 108b may be parallel to each other if L3 is equal to L4.

[0038] A third portion 106 may be cut from a single sheet of material and stitched 504 to second portion as illustrated in FIG. 5C. Third portion 106 may have a height H3 of about 12.8 cm and a diameter d of about 10.7 cm.

[0039] As shown in FIG. 5D, front panel 116 may have a height H4 of about 13.9 cm and a length L6 of about 12 cm. With reference to FIG. 1A, front panel 116 may then be fixedly attached to the first, second, and third portions as described above.

[0040] While embodiments and applications of this invention have been shown and described, it would be apparent to those skilled in the art having the benefit of this disclosure that many more modifications than mentioned above are possible without departing from the inventive concepts herein. The invention, therefore, is not to be restricted except in the spirit of the appended claims.

What is claimed is:

1. A pleated pocket device, comprising:
   a back panel having at least one pleat, a first section, and a second section wherein said second section is capable of expanding more than said first section; and
   a front panel connected to said back panel to form a cavity adjacent to said second section.

2. The device of claim 1 wherein said back panel further comprises a third section adjacent said second section to form a cavity bottom.

3. The device of claim 1 wherein said second section is capable of expanding in width and depth.

4. The device of claim 1 wherein said back panel is formed from a single sheet of material.

5. The device of claim 1 wherein said at least one pleat is formed near a centerline of said back panel.
6. (Withdrawn) A method for making a pleated pocket device, comprising:
   cutting a back panel from a sheet of material having a first section and a second section wherein said second section is longer in width than said first section;
   forming at least one pleat in the first section;
   stitching said at least one pleat;
   cutting a front panel from a sheet of material; and
   joining said front panel to said back panel to form a cavity adjacent to said second section;
   wherein said second section is capable of expanding more than said first section.
7. The method of claim 6 wherein said at least one pleat is located adjacent a centerline of said back panel.
8. The method of claim 6 further comprising:
   cutting a third section;
   stitching said third section to said second section and said front panel to form a cavity bottom.
9. The method of claim 6 wherein said second section is capable of expanding in width and depth.
10. An apparatus for making a pleated pocket device, comprising:
    means for cutting a back panel from a sheet of material having a first section and a second section wherein said second section is longer in width than said first section;
    means for forming at least one pleat in the first section;
    means for stitching said at least one pleat;
    means for cutting a front panel from a sheet of material; and
    means for joining said front panel to said back panel to form a cavity adjacent to said second section;
    wherein said second section is capable of expanding more than said first section.
11. The apparatus of claim 10 wherein said at least one pleat is located adjacent a centerline of said first portion.
12. The apparatus of claim 10 further comprising:
    means for cutting a third section;
    means for stitching said third section to said third section and said front panel to form a cavity bottom.
13. The apparatus of claim 10 wherein said second section is capable of expanding in width and depth.
14. A pleated pocket device, comprising:
    a back panel having:
    a first section having a first pleat and a second pleat; and
    a second section coupled to said first section,
    wherein said second section is capable of expanding more than said first section;
    a front panel connected to said back panel to form a cavity adjacent to said second section.
15. The device of claim 14 wherein said back panel further comprises a third section adjacent said second section to from a cavity bottom.
16. The device of claim 14 wherein said second section is capable of expanding in width and depth.
17. The device of claim 14 wherein said first pleat and said second pleat form an inverted “V” shape.
18. The device of claim 14 wherein said first pleat and said second pleat are formed near a centerline of said first section.
19. A pleated pocket device, comprising:
    a back panel having a first section coupled to a second section, said first section and said second section having a first pleat and a second pleat, and
    a front panel connected to said back panel to form a cavity adjacent to said second section,
    wherein said second section is capable of expanding more than said first section.
20. The device of claim 19 wherein said back panel further comprises a third section adjacent said second section to from a cavity bottom.
21. The device of claim 19 wherein said second section is capable of expanding in width and depth.
22. The device of claim 19 wherein said first pleat and said second pleat form an inverted “V” shape.
23. The device of claim 19 wherein said first pleat and said second pleat are formed near a centerline of said first section.
24. A pleated pocket device, comprising:
    a back panel having a top section and a bottom section, the bottom section longer in length than the top section;
    at least one pleat formed in said back panel; and
    a front panel coupled to said bottom section to form a cavity,
    wherein said bottom section is capable of expanding more than said top section and wherein said back panel is formed from a single sheet of material.
25. The device of claim 24 further comprising a bottom panel adjacent said bottom section to from a cavity bottom.
26. The device of claim 24 wherein said bottom section is capable of expanding in width and depth.
27. The device of claim 24 wherein said at least one pleat is formed near a centerline of said back panel.

* * * * *