This invention relates to a lightweight foldable tote that can fold into a smaller bag without creating excessive wrinkles when the bag is eventually returned to its larger size and folds up as small as possible when folded in conjunction with the form, structure and design of the invention. In a preferred embodiment, the invention is made of waterproof material.
**FOLDING COLLAPSIBLE BAG**

[0001] This application claims the benefit of U.S. Provisional Application 61/651,091 filed May 24, 2012.

**BACKGROUND OF THE INVENTION**

[0002] This present invention relates to the field of designer tote bags. More particularly, the present invention relates to a light-weight foldable tote that can fold into a smaller bag contained within itself without creating excessive wrinkles when the bag is eventually returned to the larger size. In the field of tote bags it is often desirable to have a larger bag that can be folded up into a smaller bag when the user has less things to carry and so that it can be easily stored within another bag. Alternatively it is often desirable to have a small bag that can be expanded to a full size tote if the user has a need for more carrying space without the bag having excessive wrinkles caused by having been folded. Further, it is also sometimes desirable to have a bag made of waterproof material, such that when it rains, the contents are protected from the elements.

[0003] In the field of tote bags, there exist a number of foldable bags. A Longchamp style bag provides a tote bag that can be folded into a smaller bag with the original handles extended. However, this bag is almost never used in its folded form because it is inconvenient to fold and the folded-form is not sufficiently small to pack within another bag. Also available on the market are reusable, low end folding bags, for example, Baqua bags. These bags fold to a very small size, but are not stylish, do not contain a method of closing the bag, are not durable nor waterproof. Finally, there was a designer plastic bag used as a cover for finer bags that could fold into a pocket on the outside of the bag. These bags were not durable enough to be used as their own bag, however, and could only be used as a cover for existing bags. As it was only a cover bag to protect the actual bag from rain, the question of wrinkles on the expanded version was not addressed, allowing the bags to remain wrinkled.

[0004] The present invention provides an easily foldable tote bag that allows for the reduction of wrinkles caused by the folding process and material without compromising the style, durability or functionality of the tote. The present invention also provides for maximum compaction of the bag.

**SUMMARY OF INVENTION**

[0005] The present invention is a light-weight tote with a folding pattern incorporated into the design of the bag and an inner pocket for the bag to fold into. In a particular embodiment of the invention, the bag contains snaps on the bottom to assist with the folding, as well as snaps on the side on which the straps fold onto and attach.

[0006] In a preferred embodiment of the invention, the bag is made from a light-weight waterproof material, preferably a 140 Denier heavy weave ripstop with an 1.5 oz urethane coating, such as gore-tex, ultras and/or a nylon material. The straps of the bag are made from similar waterproof materials, preferably a three part system of densely woven fabric, microporous polyurethane coating and a durable water repellent finish. The structure strap and/or handle straps are also made of a light-weight waterproof material and preferably are made of a tough durable fabric with a polyurethane coating that remains flexible, abrasion resistant, lightweight, and waterproof.

[0007] The combination of the invention’s thin material and design allows for the body of the bag within the pouch in its folded form to form two pocket-like sections of the bag that could hold a small phone, credit card, money, and/or keys. The invention also provides an optional strap that can be connected in different ways to increase the ability of the bag to be carried contiguously on the shoulder or across the body. In one embodiment of the invention, the strap can be attached to D-Rings on the side of the main body opening to function as a shoulder strap. The strap can also be run through the luggage strap on the back to allow the bag to be carried as a backpack.

**DESCRIPTION OF THE DRAWINGS**

[0008] FIG. 1 is a depiction of an embodiment of the invention in its unfolded/expanded form.

[0009] FIG. 2 is a depiction of the invention in its completely folded/compacted form.

[0010] FIG. 3 is a depiction of the invention in the preliminary folding stages, showing the directions and points of folding.

[0011] FIG. 4 is a depiction of the invention in mid-folding, showing elements of the invention not visible in either the completely unfolded or folded states.

[0012] FIG. 4(a) is a depiction of the invention in a latter mid folding, showing elements of the invention not visible in either the completely unfolded or folded states.

[0013] FIG. 5 is a depiction of the invention in the final folding stages.

[0014] FIG. 6 is a depiction of the back of the invention, including elements for alternate embodiments.

**DETAILED DESCRIPTION**

[0015] Referring now to the invention in more detail, a collapsible, waterproof tote bag 1 is shown in FIG. 1 with main body 10 comprising front wall 10a and rear wall 10b which form interior space 9 that can be closed at the top using zipper 6. The main body 10, in a preferred embodiment, is comprised of a waterproof fabric. Handle strap 7 runs from a starting point about the halfway point from the center to the left side of the bottom of the front of main body 1, under structure strap 17 and above zipper 6 where it forms a handle 2 and reconfigures below the zipper and runs through to point 8, midway point from the center to the right side of the bottom of front wall 10a. Handle strap 7 and 8' and handle 2' are exactly parallel to handle straps 7 and 8 and handle 2, except that they are on rear wall 10a. Snap 3 is located on the top of handle strap 8 near where it forms handle 2 and matching snap portion 3a is on handle strap 8 approximately 1/3 of the way from the bottom of main body 10 to the zipper 6. Snap portions 4, 4a, 3, 3a, 4' and 4a' are on the matching positions on handle straps 7, 8 and 7' respectively. Snap portions 3, 3a, 4, 4a, 3, 3a', 4' and 4a' are spaced so that when fastened, handles lay flat against front walls 10a and 10b without excess slack. Snap portions 3, 3a, 4 and 4a' can be seen in FIG. 6. Snap 18 is located in the center of handle 1 and snap 18' is located on the top center of handle 2. Snaps 18 and 18' can be connected to join handles 2 and 2' to allow them to function as a single strap.

[0016] Structure strap 17 runs all the way around the main body 10 below zipper 6, crossing over handle straps 7, 8, 7 and 8'. Interior pouch 5 is designed to rest in the inner space 9 of main body 10 between handle straps 7 and 8', just below zipper 6. Handle straps 7, 7', 8 and 8', handles 2 and 2',
structure strap 17, interior pouch 5' and flap 12, in a preferred embodiment, are all made of waterproof material.

[0017] FIG. 2 shows the tote bag 1 of the invention folded into interior pouch 5. Interior pouch 5 can be closed by attaching the fastening 11 on pouch closure flap 12 to the fastener loop 11a on the bottom of pouch 5. After the tote bag is folded into interior pouch 5, handle 13 is exposed.

[0018] FIG. 3 shows tote bag 1 during the initial stages of the folding process. Handle straps 7, 8, 7a and 8a are designed to be folded such that snap portion 3 connects to snap portion 3a, snap portion 4 connects to snap portion 4a, snap portion 3 connects to snap portion 3a and snap portion 4 connects to snap portion 4a. Handle strap 7 is connected to handle strap 7b, and handle strap 8 is connected to handle strap 8b by bottom strap 8b across bottom 14. Snap portions 16 and 16a are equally placed along strap 7b, while strap portions 15 and 15a are equally placed along strap portion 8b. Bottom 14 can fold such that snap portions 15 and 16 connect to snap portions 15a and 16a respectively.

[0019] FIG. 4 shows tote bag 1 during the secondary stage of folding. Front wall 10a and rear wall 10a are designed such that main body 10 can be folded such that zipper 6 has been folded outward over structure strap 17. Main body 10 is also constructed such that rear wall rear wall 10a can be folded inwards along handle strap 7 and 8, making main body 10 the width of internal pouch 5. FIG. 4. The stitching 21 connecting the internal pouch 5 to the body 10 stops an equal length, preferably a half inch from each end of internal pouch 5 for ease of rolling body 10 into internal pouch 5. Pouch closure flap 12 rests behind internal pouch 5 when tote bag 1 is fully expanded and is connected to fastener 11 on the top of pouch closure flap 12, which connects to fastener loop 11a in compact form. Fastener loop 11a is on the bottom of internal pouch 5. FIG. 4a. Fastener 11 also connects to closure panel 11b found on an interior pocket on the inner space 9 of main body 10. FIG. 5 shows main body 10 being rolled up into internal pouch 5 through internal pouch opening 25. Fastener 11 is shown on the top of pouch closure flap 12. Fastener loop 11a is shown on the bottom of internal pouch 5.

[0020] FIG. 6 shows the back of tote bag 1. Luggage strap 20 is a section of structure strap 17 not connected to rear wall 10a between handle straps 7 and 8. Snaps 3a and 4a appear on rear wall 10a below luggage strap 20. Snaps 3 and 4 on handle straps 7 and 8 can connect to snaps 3a and 4a providing a second securing point for the connection of tote bag 1 to a luggage handle that is passed between luggage strap 20 and rear wall 10a or a primary securing point for a luggage handle wider than luggage strap 20.

[0021] FIG. 6 also shows an embodiment of the tote bag 1 containing D-Rings 19 and 19a on side of main body 10 by the ends of zipper 6. Optional cross-shoulder strap 24 can be attached to D-Rings 19 and 19a to function as an adjustable shoulder strap. Cross-shoulder strap 24 can also be attached on one end to D-ring 19, and then connected under and through luggage strap 20 and attached on the other end to D-ring 19a to form loops that allow the tote bag to be worn as a backpack.

[0022] The advantages of the present invention include, without limitation, providing users with the ability to fold and unfold the bag easily without creating excessive wrinkles on the unfolded bag and for maximum compaction and portability. The invention can be used as a rain guard for another bag, such as a bag that carries the invention when in its compacted version. Further, in its expanded state, the invention can easily attach to luggage via the luggage strap and the snaps on the handles. Additionally, the flap that closes the bag in its compressed state also functions as a closure for an internal pocket when the bag is in its expanded state.

[0023] While the foregoing written description of the invention enables one of ordinary skill to make and use what is considered presently to be the best mode thereof, those of ordinary skill will understand and appreciate the existence of variations, combinations, and equivalents of the specific embodiment, method and examples herein. The invention should not be limited by the above described embodiment, method and examples, but by all embodiments and methods within the scope and spirit of the invention.

1 claim:

1. A tote bag capable of collapsing into a smaller storage configuration, the tote bag comprising:

- a front wall, a bottom wall and a rear wall forming an interior space with a top opening to store articles; a zipper positioned on the top opening to allow closing of said top opening; a front handle connected to the front wall at a position halfway from the center to the left side front wall and a second position halfway from the center to the opposite side of the front wall; and extending beyond the top opening; a rear handle connected to the rear wall at a third position halfway from the center to the left side of the rear wall and at a fourth position halfway from the center to the opposite side of the rear wall and extending beyond the top opening;

- a structure strap connected to the front wall and back wall below the zipper and passing over the front handle and rear handle;

- fastening means located on the center of the front handle and the center of the rear handle to allow the front handle to be connected to the rear handle;

- fastening means located on the portions of the front handle connected to the front wall and the portions extending above the top opening to allow the portions extending above to the top portion to be attached to the portion of the front handle connected to the front wall;

- fastening means located on the portions of the rear handle connected to the rear wall and the portion extending above the top opening to allow the portions extending above to the top portion to be attached to the portion of the rear handle connected to the rear wall;

an interior pouch for receiving the collapsed tote bag, said interior pouch attached in the inner space to the rear wall below the zipper between the portions of the rear handle connected to the rear wall; a fastening means attached to the outside bottom of said interior pouch; a closure panel attached to the rear wall behind the connection of the interior pouch to the rear; a fastening means attached to said closure panel;

2. A tote bag of claim 1 where the attachment of the interior pouch to the rear wall does not extend the full width of the interior pouch;

3. A tote bag of claim 1 where the tote bag is made of waterproof materials
4. A tote bag of claim 1 further comprising D-rings attached below the zipper where the front wall and rear wall are connected.

5. A tote bag of claim 1 wherein a section of the structure strap between the two portions of the rear handle is not connected to the rear wall.

6. A tote bag of claim 1 wherein the fastening means on the front handle, rear handle and bottom wall are snaps.

7. A tote bag of claim 1 wherein the fastening means on the inner pouch is a loop of fabric and the fastening means on the closure panel is a hook.

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