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(54) **COLLAPSIBLE AND FEATHERWEIGHT TRAVEL BAG**

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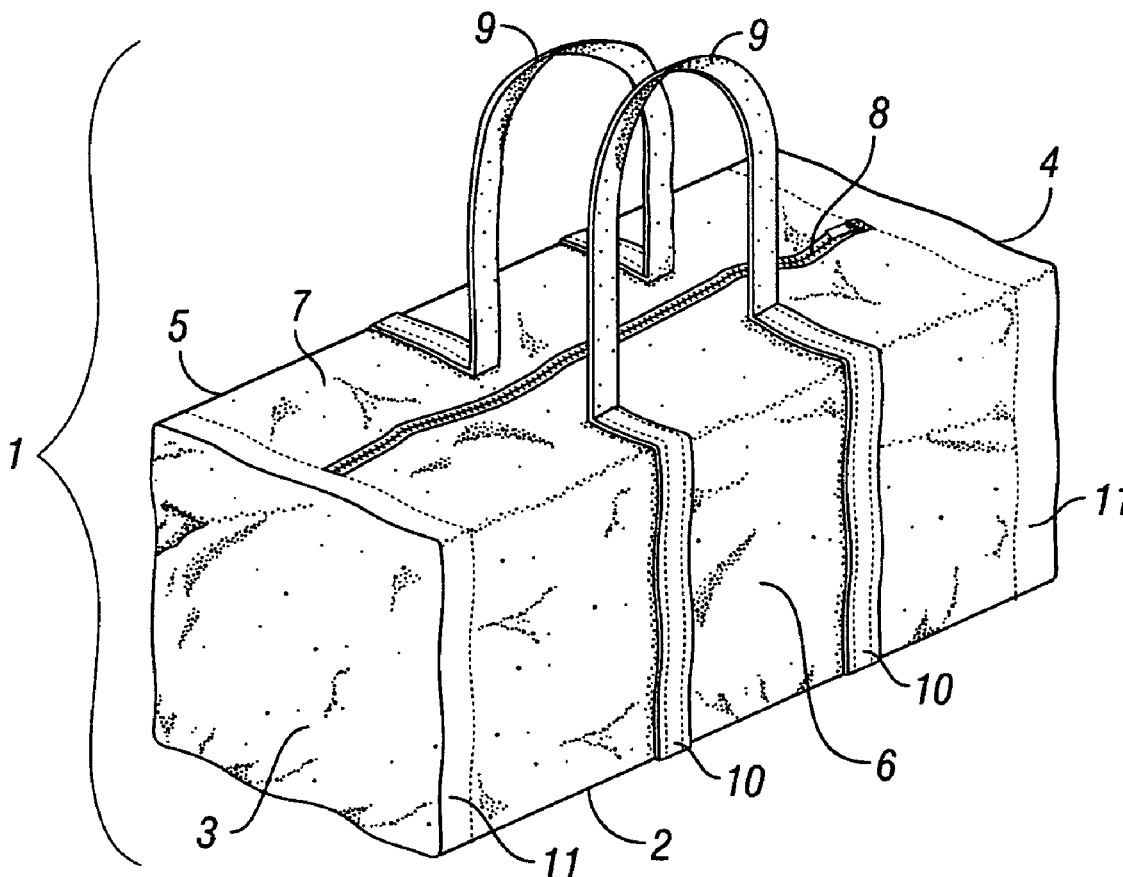
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(57) **ABSTRACT**

A collapsible, featherweight travel bag and method of using the same, wherein said travel bag collapses into a pocket that is preferably embedded into the bag or that is embodied in a separate carry case.

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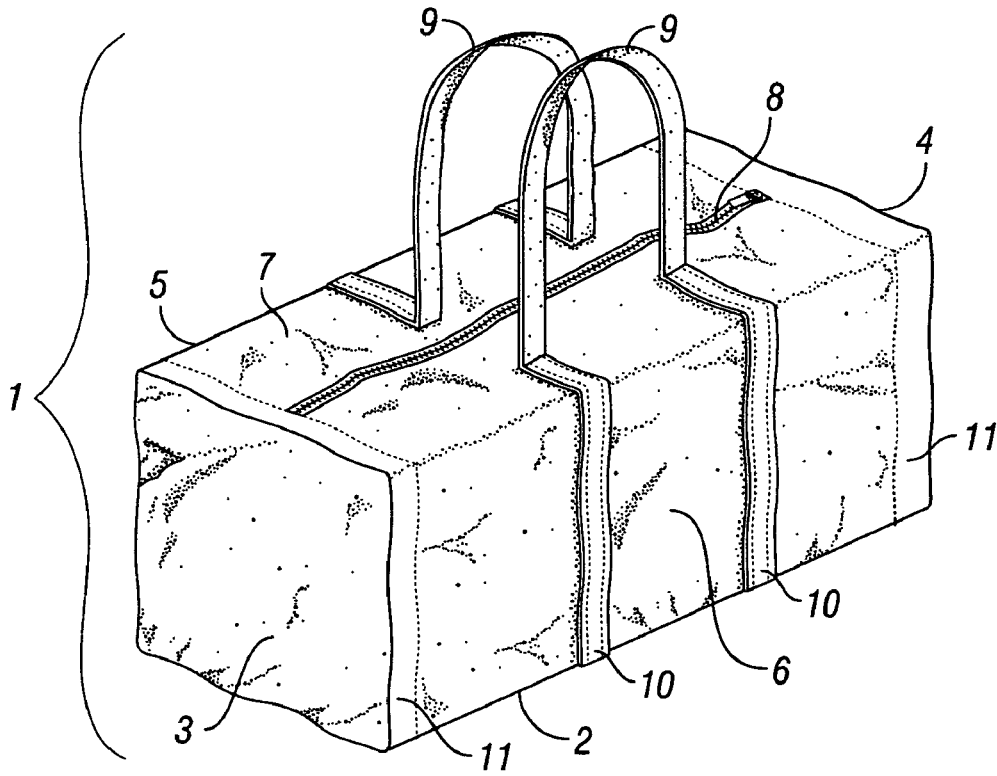


FIG. 1

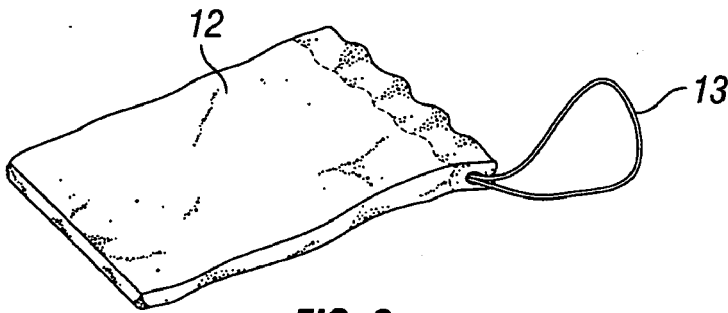


FIG. 2

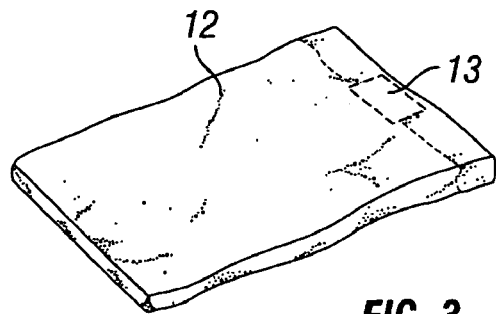


FIG. 3

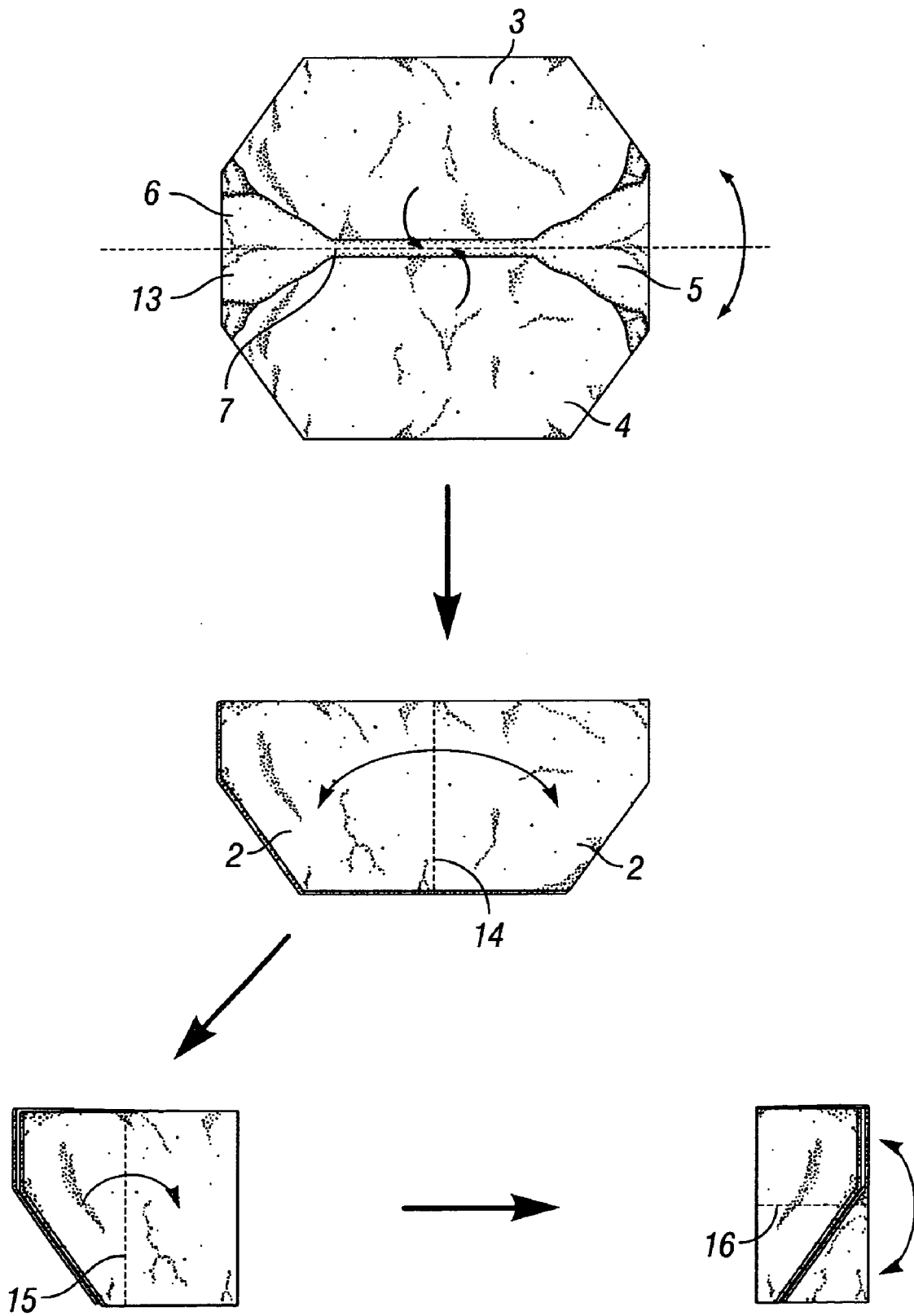


FIG. 4

COLLAPSIBLE AND FEATHERWEIGHT TRAVEL BAG

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority from provisional patent application No. 60/613,367.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable.

BACKGROUND OF THE INVENTION

[0003] 1. Field of Invention

[0004] This application claims priority from provisional patent application No. 60/613,367. The present invention relates to the field of collapsible travel bags.

[0005] 2. Description of Prior Art

[0006] There are a variety of luggage and travel bags on the market. In the realm of luggage and travel, the consuming public is constantly looking for a product that is strong, lightweight, collapsible and easy to use. In the industry of travel bags, convenience and ease of use are of paramount importance. Many improvements have been made, and are commonly seen in airports, for instance, the numerous models of overnight suitcases carried by travelers, bearing wheels and telescoping handles. While numerous improvements such as these have been made in the luggage industry, a constant dilemma of travelers is how to transport the greatest possible weight of luggage, while staying within the carry-on and baggage limits of most commercial carriers.

[0007] Every traveler's nightmare is the situation when a flight desk check-in clerk or flight attendant tells a traveler that a given bag is too full or bulky, or that constraints of a particular cabin will require repacking, checking, or leaving behind a particular travel bag. Given the infinitely confusing array of travel restrictions on dimensions, weight and the number of bags that can be carried on to a plane, this nightmare all too frequently comes true. The traveler, who is frequently already at the airport, bus or ferry terminal is faced with the dilemma of what to do with the extra three pounds of socks, sweaters, gifts, etc. Should the excess be mailed home? Should a new suitcase be purchased? Is a different flight required? Does the traveler check the carry-on as an extra check-in luggage, thus depriving him or herself of personal items typically placed in carry-on during the voyage? These problems are all too common.

[0008] There is also a constant problem of how to negotiate a return trip with gifts and treasures acquired on a trip, particularly if the suitcases were already full on the original flight. Most consumers loathe the idea of traveling with an empty suitcase in hand, much less the prospect of buying a new overpriced suitcase at the destination or the airport, but there are very few alternatives for today's traveler. Short of walking around with an unsightly garbage bag (that tears), purchasing a new suitcase, or mailing home expensive packages, there are no readily available solutions.

[0009] Additionally, with present luggage technology, there is a problem with collapsibility. An extra suitcase is not only irritating to carry while traveling, but it also means that

a consumer is forced to find a place to store the extra suitcase when not in use, thus depriving the owner of valuable closet or attic space.

[0010] The present invention offers an alternative to traveling consumers—a collapsible travel bag that is elegant in style and function.

SUMMARY OF THE INVENTION

[0011] Accordingly, it is the objective of the present invention to provide a featherweight collapsible travel bag that is easy to store and yet strong enough to carry an appreciable amount of luggage.

[0012] It is a further object of the present invention to provide a featherweight travel bag that may be stored in a traveler's existing luggage in case the need arises for an extra suitcase.

[0013] It is an object of the present invention to provide a featherweight travel bag that may be stored in the user's home, office or apartment with minimal use of space.

[0014] It is a further object of the present invention to provide a featherweight travel bag that is resistant to tearing and the stresses of commercial travel.

[0015] It is yet another object of the present invention to provide a featherweight travel bag that is made of material without excess metal or materials that would cause unnecessary security concerns at travel checkpoints.

[0016] It is still a further object of the present invention to provide a featherweight travel bag that is relatively inexpensive, and while durable, not so precious that the user would be concerned of disposing of the travel bag.

[0017] It is still a further object of the present invention to employ fabric materials in construction of the featherweight travel bag that are both strong and light.

[0018] Other objectives of the invention will become apparent to those skilled in the art once the invention has been shown and described.

BRIEF DESCRIPTION OF THE DRAWING

[0019] The manner in which these objectives and other desirable characteristics can be obtained is explained in the following description and attached drawings in which:

[0020] **FIG. 1** is a perspective view of an embodiment of the featherweight travel bag as it would appear when filled with luggage.

[0021] **FIG. 2** is a perspective view of a carry case for the featherweight travel bag with a fastener in the form of a drawstring.

[0022] **FIG. 3** is a perspective view of a carry case for the featherweight travel bag with a fastener in the form of a synthetic material having both a layer of tiny hooks and a complementary layer of clinging pile.

[0023] **FIG. 4A** is a perspective sequence depicting a preferable method of preparing the featherweight travel bag for storing in a carry case.

[0024] It is to be noted, however, that the appended drawings illustrate only typical embodiments of this inven-

tion and are therefore not to be considered limiting of its scope, for the invention may admit to other equally effective embodiments.

DETAILED DESCRIPTION OF THE INVENTION

[0025] **FIG. 1** is a perspective view of the featherweight travel bag **1** as it typically appears in fully expanded position when it is filled with luggage. This embodiment of the present invention takes the form of a duffel bag, although other embodiments are contemplated. While the featherweight travel bag **1** could also have a more cylindrical shape, **FIG. 1** depicts a duffel shape of a rectangular box configuration defined by six planar sides fixedly connect to one another. First side **5** and second side **6** form the duffel bag sides. First end **3** and second end **4** preferably form the duffel bag ends. Top side **7** and bottom side **2** preferably form the top and bottom surfaces of the featherweight travel bag **1** with duffel bag shape. More specifically, the featherweight travel bag **1** is preferably defined by a first end **1** and a second end **4**, with each of the foregoing ends forming a four-edged polygon. The respective top edges of the first end **3** and second end **4** are preferably fixedly connected to one another by top side **7**, which forms a rectangular plane between first end **3** and second end **4**. Directly opposite top side **7** is bottom side **2**, which preferably forms the bottom of the featherweight travel bag **1**. This bottom side **2** preferably forms a planar surface fixedly connecting the lower edges of said first end **3** and second end **4**. First side **5** and second side **6** are opposite surfaces of the featherweight travel bag **1** that form the duffel bag side surfaces. First side **5** is a planar surface with two of four edges (those edges perpendicular to the ground in **FIG. 1**) fixedly connected at opposite ends to first end **3** and second end **4**. First side **5** has the two remaining edges (those horizontal to the ground on **FIG. 1**) preferably fixedly connected to top side **7** and bottom side **2**. Second side **6** is a planar surface with two of four edges (those edges perpendicular to the ground in **FIG. 1**) fixedly connected at opposite ends to first end **3** and second end **4**. Second side **6** has its two remaining edges (those horizontal to the ground on **FIG. 1**) preferably fixedly connected to top side **7** and bottom side **2**.

[0026] The featherweight travel bag **1** also is shown with handle means **9** which are fixedly connected to the top side **7**. Typically, the handle means **9** are sewn to top side **7**, and forming looping handles typical of many commercially available duffel bags, including but not limited to those made from nylon. The handle means **7** depicted in **FIG. 1** are two looping handles appearing on opposite sides of fastening means **8**, which extends along the central length of top side **7**. The fastening means **8** is a zipper, how other mechanisms could be employed, for instance snaps, Velcro®, hooks or buttons, so long as the primary function is to open and close the featherweight travel bag **1**.

[0027] The featherweight travel bag **1** and a plurality of its side surfaces are preferably fixedly connected to one another by sewing. The travel bag **1** is made from exceptionally light fabrics that are adapted to this type of connection. However, it should be noted that multiple surfaces could be formed from a single congruous piece of fabric. For instance, it is contemplated that the top side **7**, second side **6**, bottom **2** and first side **5** depicted could be formed from one piece of fabric, with the respective surfaces defined by sewing on

edges of the first end **3** and second end **4**. While **FIG. 1** depicts a primarily rectangular container shaped travel bag **1**, it is to be noted that the bag is not rigid in form as its construction is fabric. **FIG. 1** is one preferable shape for featherweight travel bag **1**, but other shapes and sizes are also contemplated. Also noted in **FIG. 1** are center bands **10**, which preferably extend from the handle means **9** down and around the featherweight travel bag **1** to provide additional strength and support for the bag. Reinforced ends **11** are also preferable improvements shown that provide additional support where the first end **3** and second end **4** meet with the remaining surfaces (sides) of the featherweight travel bag **1**.

[0028] A primary functionality of the featherweight travel bag **1** is its collapsibility, therefore, exceptionally lightweight, strong materials must be used in its construction. While nylon, cotton and polyester blend fabrics can work, featherweight travel bag **1** is preferably made of fabric that is high-density polyethylene fiber. One such group of suitable fabrics are those made by DuPont corporation and sold under the trademarks TYVEK® and KENSEL®. Particularly suitable for the present invention are TYVEK® products sold under the TYPE 14 TYVEK® and TYPE 16 TYVEK® trademarks. These fabrics offer particularly well-suited characteristics for water resistance, tear resistance, softness, low weight, breathability and mildew resistance. Other such fabrics would include those sold by DuPont under the 1460®, Reflektra® and Supra® trademarks.

[0029] **FIG. 2** depicts a preferable carry case **12** with fastener **13**, which fastener is in the form of a drawstring. The carry case **12** is adapted to hold the collapsed featherweight travel bag **1** and is preferably made from the same material forming the featherweight travel bag **1**. **FIG. 3** is an alternate embodiment of the carry case **12**, however, with fastener **13** formed of a fastener in the form of a synthetic material having both a layer of tiny hooks and a complementary layer of clinging pile, such as that certain fastener sold under the trademark Velcro®. Alternately, in another preferable embodiment, the carry case **12** is not a separate bag, but rather embedded on the side of featherweight travel bag **1** in the form of a pocket into which the entire expandable travel bag **1** may be compressed. Such a pocket is in the range of preferably 3" to 10" in length by 4" to 11" in width, with a 6" width by 7" length being preferable. In other words, the entire travel bag **1** will unfold out of the embedded pocket. When collapsed the entire featherweight travel bag is in the range of ½ to 1 inch in thickness and weighing in the range of between 1.5 to 5.0 ounces in weight.

[0030] An important feature of the present invention is the small size of the carry case **12**, which paradoxically contains a featherweight travel bag **1** that expands to a large size. The featherweight travel bag **1** shown expands to 20 inches long, 18 inches wide and 9 inches tall. The present carry case **12** depicted is seven inches in width by 8 inches in length. When filled with the folded featherweight travel bag **1** shown it is still less than 1.5 inches in height, thus making the travel bag **1** extremely versatile and easy to store in suitcases, closets, etc. Furthermore, the featherweight travel bag **1** and carry case **12** depicted together weigh only 3.3 ounces. The featherweight travel bag **1** depicted is only 3.0 ounces. While these are the specific dimensions of the Figures depicted, it is contemplated that the combined featherweight travel bag **1** and carry case **12** will fall in the range of 2.0 to 12 ounces in weight. The featherweight travel

bag 1 by itself may be in the range of between 1.0 and 11.5 ounces in weight. It is further contemplated that the carry case 12 component of the invention could have a range of volumes (L×W×H) in the range of 4.5 cubic inches to 300 cubic inches. It is further contemplated that the expanded volume of the featherweight travel bag 1 may be in the range of 270 cubic inches to 25,920 cubic inches (based on L×W×H in expanded form).

[0031] FIG. 4 is a perspective sequence depicting a preferable method of preparing the featherweight travel bag 1 for storing in a carry case 12. As shown the featherweight travel bag 1 shown is a primarily rectangular configuration, however with the six sides deflated. FIG. 4 is a deflated version of the travel bag 1 of FIG. 1. The method embodies a series of half-folds until the travel bag 1 is small enough to fit in the carry case 12. Therefore, the first step in the method of preparing the travel bag 1 for storing would involve flattening the travel bag 1 so that as shown in the uppermost figure of FIG. 4, the respective top edges of first end 3 and second end 4 fold toward one another. Secondly, the travel bag 1 is folded along first midline 13 so that the travel bag 1 appears in the flattened condition shown on the second drawing in the sequence, which is then folded in half along a second midline 14 to arrive at the appearance of the third depiction in the sequence. The travel bag 1 is then folded along third midline 15 so it appears as the fourth depiction in the sequence, and then again folded in half along the fourth midline, at which point the travel bag 1 is manually inserted by the user into the carry case 12. Thus, the user is able to manually fold this preferable embodiment of the invention in four folds for storage. It is contemplated that the travel bag 1 could be folded between 3 and 6 times along midlines to achieve a size capable of being inserted into a carry case 12.

[0032] It is understood that each of the elements described above, or two or more together may also find a useful application in other types of methods differing from the type described above. While certain novel features of this invention have been shown and described, it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the invention.

I claim:

1. I claim a featherweight travel bag.
2. A featherweight travel bag unit comprising:
 - (a) A plurality of surfaces fixedly connected to one another forming a featherweight travel bag;
 - (b) a handle means fixedly connected to a top side of said featherweight travel bag;
 - (c) a fastening means featured on said featherweight travel bag for opening and closing said travel bag.
3. The featherweight travel bag unit of claim 2, further comprising a carry case adapted to hold said featherweight travel bag.
4. The featherweight travel bag unit of claim 3 wherein said carry case has a volume in the range of 4.5 to 300 cubic inches.
5. The featherweight travel bag unit of claim 2 wherein said travel bag is in the range of 1.0 and 11.5 ounces in weight.

6. The featherweight travel bag unit of claim 3 wherein the combined weight of said travel bag and carry case is in the range of 2.0 to 12 ounces in weight.

7. The featherweight travel bag unit of claim 2 wherein said travel bag has an expanded volume in the range of 270 to 25,920 cubic inches.

8. The featherweight travel bag unit of claim 2 wherein said travel bag is not more than 3.0 ounces.

9. The featherweight travel bag unit of claim 2 wherein said travel bag is in the range of 1.0 and 11.0 ounces in weight.

10. The featherweight travel bag unit of claim 2 wherein said travel bag is in the range of ¼ to 1 inch in thickness when collapsed.

11. The featherweight travel bag unit of claim 2 wherein said travel bag is formed from any of the groups of material consisting of nylon, cotton, high-density polyethylene fibers marketed under TYVEK®, KENSEL®, TYPE 14 TYVEK®, TYPE 16 TYVEK®, DuPont 1460®, Reflektra® and Supra® trademarks.

12. The featherweight travel bag unit of claim 3, wherein said carry case has a fastener.

13. The featherweight travel bag unit of claim 3, wherein said carry case is embedded on a side of said travel bag in the form of a pocket into which said travel bag may be compressed, whereby said travel bag may unfold out of said embedded pocket.

14. The featherweight travel bag unit of claim 13 wherein said pocket is in the range of 3 to 10 inches in length by 4 to 11 inches in width.

15. A featherweight travel bag unit and carrying case wherein:

(a) a featherweight travel bag and carrying case are in the range of 2 to 12 ounces in weight; and,

(b) an expanded volume of said featherweight travel bag is in the range of 270 cubic inches to 25,920 cubic inches.

16. The featherweight travel bag unit and carrying case of claim 15 wherein said travel bag is formed from any of the groups of material consisting of nylon, cotton, high-density polyethylene fibers marketed under TYVEK®, KENSEL®, TYPE 14 TYVEK®, TYPE 16 TYVEK®, DuPont 1460®, Reflektra® and Supra® trademarks.

17. The featherweight travel bag unit of claim 15, further comprising a carry case wherein said carry case has a fastener.

18. The featherweight travel bag unit of claim 15 wherein said travel bag is not more than 3.0 ounces.

19. The featherweight travel bag unit of claim 15 wherein said travel bag is in the range of 1.0 and 11.0 ounces in weight.

20. A method of preparing a featherweight travel bag and carrying case for storage comprising the steps of:

(a) Flattening a travel bag so that respective top edges of a first end and a second end fold toward one another;

(b) Folding said travel bag along a first midline;

(c) Folding said travel bag along a second midline;

(d) Folding said travel bag along a third midline;

(e) Folding said travel bag along a fourth midline; and,

(f) Inserting said folded travel bag into a carry case.