CONCEALABLE STRETCH PANEL FOR CARRYING LOOSE ITEMS ON LUGGAGE AND THE LIKE

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ABSTRACT

The present invention relates to luggage and baggage of all types. A concealable panel is incorporated into articles of baggage, including traditional luggage, suitcases, backpacks, school bags, and carry cases of all types to selectively form an outer accessory pocket. While the panel is preferably made of a stretchable mesh-net, it may also be made of a solid woven or knitted fabric materials, being elastic or inelastic. The panel is attached along one edge to the inside of a pocket on the carry case and it includes releasable devices such as resilient clasps to attach the opposed end to the outer wall of the carry case. When not in use, the panel may be folded upon itself and stored in the pocket, which includes a zipper closure device.
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CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to provisional application No. 60/497,450, filed Aug. 22, 2003, the disclosure of which is incorporated herein by reference and made a part of this disclosure.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] This invention pertains to the field of luggage, including items such as all types of carry cases, including suitcases, backpacks and the like. More particularly, this invention relates to a concealable stretch panel for carrying loose items on the carry case when needed, but is retractable to a concealed position when not in use.

[0004] 2. Description of the Prior Art

[0005] The use of baggage, including traditional luggage, suitcases, backpacks and the like, has been increasingly common, not only for individuals traveling extensively away from their homes, but also for individuals commuting to and from work or traveling on a limited basis. Often such articles of baggage generally include openings either on one side or another of the article or pivotable panels which are closed by closure mechanisms such as zippers or the like.

[0006] In using such articles of baggage, most individuals complete packing their belongings into the carry case and often find either prior to departure or while en route that they have need to pack additional items, either being items they had forgotten to pack or items they acquired after beginning their travels. In such instances it is often necessary for them to open the baggage en route to insert the forgotten or newly acquired items. In some instances, opening the baggage may be cumbersome while traveling since many articles of luggage often include a pivotable panel which must be totally unzipped and disconnected and pivoted away from the carry case.

[0007] In some instances, articles of baggage have been provided with pockets placed on the outside of the baggage for insertion of additional items. However, many of these pockets are insufficient in size to carry articles larger than those which would normally fit into an individual’s handbag or jacket pocket. In fact, in some instances, the outside pockets are constructed of a mesh material which allows them to expand to hold various size items, and the elastic material is adapted to return to its original size when the items are removed.

[0008] U.S. Pat. No. 6,328,146 to Siwak relates to baggage with a retractable beverage container pocket in which the pocket is constructed of mesh material and has an elastic strap along the upper edge that allows the pocket to expand to support various size containers such as bottled water. When not in use, the pocket is intended to be held collapsed against or inside the article of luggage by a closure mechanism such as a zipper to conceal the pocket for aesthetic appearance purposes. The pocket disclosed in the Siwak patent is attached at opposed ends and is enclosed in a zippered shroud so that when the zipper is opened and the shroud is made to separate, the pocket expands outwardly and is attached at the two opposed ends. In the fully open position, the pocket assumes a generally cylindrical configuration as it is intended for reception and holding only a single beverage container.

[0009] The present invention relates to a concealable panel for forming an external pocket for carrying loose items on all types of baggage, including carry cases such as luggage, backpacks and the like, wherein the panel is attached along a single edge to an outer portion of the carry case and made to retract completely within a compartment provided on the same outer portion of the carry case.

SUMMARY OF THE INVENTION

[0010] An article of baggage is disclosed, which comprises an enclosure for carrying personal articles or the like, the enclosure having at least one outer wall portion and a panel attached at least at a first end to the outer wall portion. The panel has at least one releasable connecting device associated with a second end generally opposite the first end to releasably attach the second end to the outer wall portion to form an outer pocket for retaining articles or the like. The outer wall portion of the enclosure includes a storage pocket for reception and storage of the panel when not in use.

[0011] At least a portion of the panel is preferably of mesh construction, but may be of conventional woven or knitted fabric. The panel includes a first fabric section at the first end, the first fabric section being connected to the outer wall portion and the mesh portion being connected to the first fabric section. Preferably, at least two releasable connecting devices are attached to the second end of the panel for releasably attaching the second end to the outer wall portion to form the outer pocket. Furthermore, the panel further comprises a second fabric section at the second end portion and the at least two releasable connecting devices are attached to the second fabric section.

[0012] Preferably, the first and second fabric sections are woven. The portion of the panel of mesh construction is preferably formed of interconnected nylon or nylon/polyester blend elastic yarns such that the mesh portion of the panel is elastic. The releasable connecting devices are preferably releasable spring clasps. Furthermore, the enclosure is preferably at least one of a carry bag, suitcase, schoolbag, and backpack.

[0013] In the preferred embodiment, the article of baggage comprises: an enclosure for storing personal articles or the like, and having at least a bottom wall portion and a plurality of sidewall portions; a panel of fabric or the like attached at a first end to one of the sidewall portions, the panel having a second end which is free and being movable between a withdrawn position and an extended position; a pocket associated with the at least one side wall portion in the region of the panel for reception and storage of the panel when in the withdrawn position, the pocket including closure means for selectively closing and opening the pocket for respectively storing the panel therein or for permitting withdrawal of the panel therefrom to form the pocket on the side wall portion. At least two releasable connecting devices are attached to the free end of the panel, and at least two corresponding attachment devices are respectively positioned on the at least one side wall portion for attachment by
the connecting devices when the panel is in the extended position for forming an accessory pocket on the side wall portion. The enclosure may be at least one of a carry bag, suitcase, schoolbag and backpack or the like, having at least a bottom wall, a top wall and a plurality of side walls defining an interior storage space for receiving and storing personal articles of the like.

[0014] A method is disclosed for forming an accessory pocket on an article of baggage, the article of baggage including an enclosure having a plurality of walls defining an internal storage space for receiving personal articles of the like, comprising:

[0015] a) positioning a panel of material or the like adjacent an outer surface of one said walls;
[0016] b) attaching one end of the panel to the adjacent wall, the other end of the panel being free;
[0017] c) providing releasable connecting devices on the free end of the panel;
[0018] d) providing correspondingly spaced attachment devices on the one wall for connection by the releasable connecting devices when the free end of the panel is extended to a distalmost position; and
[0019] e) extending the free end of the panel to the distalmost position and releasably connecting the connecting devices to the correspondingly position attachment devices to form an accessory pocket on the enclosure.

[0020] According to the method, at least a portion of the panel is comprised of an elastic mesh material such that the accessory pocket is releasable to allow insertion of articles of personal property or the like to be inserted therein. The elastic mesh material preferably includes CORDURA® brand fibers.

[0021] The invention also relates to a stretch panel attached at a first end to an outer wall of an article of baggage, the panel having releasable spring clasps at the free end thereof, the releasable clasps adapted for releasably connecting the free end to corresponding attachment devices on the outer wall. The attachment devices are spaced from the attached first end of the panel such that the panel is extendable toward the attached devices to form an outer accessory pocket on the outer wall of the article of baggage.

[0022] The outer wall of the article of luggage preferably includes a storage pocket in the region of the attached first end of the panel for storage of the panel when not in use. The storage pocket has closure means for opening the storage pocket to facilitate storage of the panel therein and for permitting extension of the panel therefrom when needed to form an external accessory pocket on the article of baggage. The first end of the panel is preferably attached to the outer wall inside the storage pocket.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0023] FIG. 1 is a left side perspective view from above, of an article of luggage incorporating the concealable stretch panel forming a pocket for carrying loose items constructed according to the invention, the stretch panel comprised substantially of a cargo net-type stretchable material panel;

[0024] FIG. 2 is a cross-sectional view taken along lines 2-2 of FIG. 1, illustrating the concealable stretch panel in the extended position and attached to an outer portion of the main body of the article of luggage by releasable spring clasps;

[0025] FIG. 3 is a left side perspective view of the lower portion of the article of luggage of FIG. 1, illustrating the zippered compartment for reception of the stretch panel of the invention in its concealed location;

[0026] FIG. 4 is a cross-sectional view taken along lines 4-4 of FIG. 3;

[0027] FIG. 5 is a left side perspective view from above, of an alternative embodiment of the concealable stretch panel forming a pocket for carrying loose items constructed according to the invention, wherein the stretch panel is completely detachable from the connecting panel by a two-part separable zipper, the panel shown in the attached position in solid lines as well as in the detached position in dotted lines;

[0028] FIG. 6 is a cross-sectional view taken along lines 6-6 of FIG. 5 illustrating the stretch panel in the extended position and attached by releasable connecting devices to the outer panel of the article of luggage;

[0029] FIG. 7 is a left side perspective view from above, of another alternative embodiment of the invention, wherein the concealable stretch panel is incorporated into a traditional backpack and the cargo mesh-net material panel has been substituted by an elastic stretch material panel, or non-elastic material panel, which is preferably woven; and

[0030] FIG. 8 is a cross-sectional view taken along lines 8-8 of FIG. 7, illustrating the concealable stretch panel of FIG. 7 in the extended position for reception of loose articles.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

[0031] In the description which follows, the inventive concealable panel is contemplated for incorporation into all types of carry cases which are referenced to herein generally as articles of baggage. As noted previously, such articles of baggage may include traditional luggage, suitcases, backpacks, school bags, professional brief cases and the like, all being referred to herein generally as articles of baggage.

[0032] Referring initially to FIG. 1, there is shown a left side perspective view from above, of an article of luggage incorporating concealable stretch panel 12 extended to form a pocket 13 for carrying loose items constructed according to the invention. The article of luggage may be in the form of the carry case as shown, with or without wheels, for traveling purposes, and it may be constructed of a fabric material such as nylon, polyester or blends thereof, or it may be constructed of traditional suitcase materials such as leather, vinyl, or combinations thereof.

[0033] Referring now again to FIGS. 1 through 4, the stretchable material panel is preferably constructed of a stretch net material similar to those used in cargo net panels which are generally provided with sport utility vehicles for retaining articles in position in the cargo area. In particular, the mesh-net is preferably made of a blend of elastic members combined with nylon or nylon/polyester blends.
which are interconnected or knitted to form the mesh. Alternatively, the panel may be woven of a nylon/polyester blend fiber, such as the product marketed by, E. I. DuPont De Nemours, Wilmington, Del., under the registered trademark CORDURA®. CORDURA® fibers are also extensively used to fabricate the main portions of fabric carrying cases. The net panel may also be constructed by attaching such stretch fibers at various locations to form a net or, as noted, alternatively, it may be constructed by a weaving or knitting process to provide a stretchable net panel. Still alternatively, the panel may be woven as a conventional piece of woven fabric of the same or alternative blends of fibers as is used in the article of luggage, with or without the elastic members incorporated.

In FIG. 1, the panel 12 is attached to the outer panel 14 of the article of luggage by a fabric panel 16 which is, in turn, attached to the lower portion of a zippered pocket 18 by stitches 20 shown in FIG. 4. The fabric panel 16 may be of the same material as is used to make the article of luggage and is readily foldable as indicated in FIG. 4 to permit retraction and concealment of the stretch panel 12 into the pocket 18.

As can be seen in FIGS. 1 to 4, the stretch panel 12 includes at the free end, a pair of spring clasps 22, 24, which include spring-biased release bars for releasably attaching the clasps to eyelets 26, 28 attached to the outer panel 14 of the article of luggage.

In operation, the stretch material panel is folded upon itself as shown in the cross-sectional view of FIG. 4, when not in use, whereby it is inserted into the pocket 18 provided on the outside of the article of luggage and placed in a concealed position whereby the pocket is closed with the zipper 30. When additional items are to be carried by the carry case and the carry case is either full or in a location where opening panel 14 presents some difficulty, the pocket 18 may be quickly opened by releasing zipper 30 and extending the stretch panel 12 to the position shown in FIG. 1, whereby clasp devices 22 and 24 may be attached to the eyelets 26, 28 respectively. Thereafter, a plurality of extra items can be inserted into the pocket formed by the space between the outer panel 14 and the stretch panel 12 for retention and transporting along with the article of luggage.

Referring now to FIGS. 5 and 6, there is shown an alternative embodiment of the concealable mesh-net stretch panel 112 of the invention which is similar to the construction of the previous embodiment shown in FIGS. 1 to 4. However, the panel 112 of FIGS. 5 and 6 is attached to the fabric panel 116 by a connector panel 117 and a separable zipper 119, having separable halves 115 and 121. The separable zipper 119 is of the type generally used to attach half sections of articles of clothing whereby the zipper halves may be completely detachable from each other as shown in FIG. 5.

Referring further to FIGS. 5 and 6, the mesh-net panel includes a pair of clasps 122, 124 which are respectively attached to eyelets 126, 128 as shown and which function in the same manner as the clasps previously described in connection with the embodiment of FIGS. 1 to 4.

Referring now to FIGS. 7 and 8, there is shown another alternative embodiment of the invention, wherein the concealable stretch panel 212 is incorporated into a traditional backpack 211 and is attached to the backpack in the same manner as is the mesh-net stretch panel of FIGS. 1 to 4, i.e., by being sewn or otherwise attached to fabric panel 216, which is concealable within zippered pocket 218. The pocket 218 is provided with zipper 230 for closure purposes to completely conceal the stretch panel. However, in this embodiment, the panel 212 is in the form of a stretch panel which is either knitted or woven of elastic yarns in place of the cargo-type mesh-net of the previous embodiments. A woven inelastic panel may also be used.

The embodiments of FIGS. 7 and 8 provides increased coverage for the loose articles to be carried as opposed to the mesh-net of the previous embodiments which generally expose the articles to air circulated through the openings of the mesh-net. In addition, it should be noted that the embodiments of FIGS. 7 and 8 also includes spring clasps 222, 224 which are attachable to the panel 214 of the backpack by attaching the clasps to eyelets 226, 228 in the same manner as is disclosed in the previous embodiments. As in the previous embodiments, when the stretch panel is not required, the clasps 222, 224 are simply released from the eyelets 226, 228 and the panel is folded upon itself and inserted into the pocket 218 for concealing purposes. Thereafter, the zipper 230 is closed to provide complete concealment of the stretch panel 212.

Still alternatively, the panels in each of the above embodiments disclosed may be in the form of woven or knitted fabric materials similar to the fabric used in many articles of luggage, and it may be made of either elastic or inelastic fibers. Further in the case of leather-type luggage, the panel may be made of leather or vinyl, or combinations thereof.

It should be readily understood that the various embodiments disclosed herein can be combined in any desired manner. For example, the mesh-net embodiment of FIGS. 1 to 4 can be incorporated into the backpack of FIG. 7, and the woven or knitted fabric material panel 212 of FIGS. 7 and 8, in elastic or inelastic form, can be incorporated into the embodiments of FIGS. 1 to 4 and FIGS. 5 to 6, with or without stretch capability, depending upon the indicated needs and required uses dictated by the market.

I claim:

1. An article of baggage, which comprises an enclosure for carrying personal articles or the like, said enclosure having at least one outer wall portion and a panel attached at least at a first end to said outer wall portion, said panel having at least one releasably connecting device associated with a second end generally opposite said first end to releasably attach said second end to said outer wall portion to form an outer pocket for retaining articles or the like.

2. The article of baggage according to claim 1, wherein said outer wall portion of said enclosure includes a storage pocket for reception and storage of said panel when not in use.

3. The article of baggage according to claim 2, wherein at least a portion of said panel is of mesh construction.

4. The article of baggage according to claim 3, wherein said panel includes a first fabric section at said first end, said first fabric section being connected to said outer wall portion and said mesh portion being connected to said first fabric section.
5. The article of baggage according to claim 4, wherein at least two releasable connecting devices are attached to said second end of said panel for releasably attaching said second end to said outer wall portion to form said outer pocket.

6. The article of baggage according to claim 5, wherein said panel further comprises a second fabric section at said second end portion and said at least two releasable connecting devices are attached to said second fabric section.

7. The article of baggage according to claim 6, wherein said first and second fabric sections are woven.

8. The article of baggage according to claim 7, wherein said portion of said panel of mesh construction is formed of interconnected nylon or nylon/polyester blend elastic yarns such that said mesh portion of said panel is elastic.

9. The article of baggage according to claim 8, wherein said releasable connecting devices are releasable spring clasps.

10. The article of baggage according to claim 9, wherein said enclosure is at least one of a carry bag, suitcase, schoolbag, and backpack.

11. An article of baggage, which comprises:

   a) an enclosure for storing personal articles or the like, and having at least a bottom wall portion and a plurality of sidewall portions;

   b) a panel of fabric or the like attached at a first end to one of said sidewall portions, said panel having a second end which is free and being movable between a withdrawn position and an extended position;

   c) a pocket associated with said at least one side wall portion in the region of said panel for reception and storage of said panel when in the withdrawn position, said pocket including closure means for selectively closing and opening said pocket for respectively storing said panel therein or for permitting withdrawal of said panel therefrom to form said pocket on said side wall portion;

   d) at least two releasable connecting devices attached to the free end of said panel; and

   e) at least two corresponding attachment devices respectively positioned on said at least one side wall portion for attachment by said connecting devices when said panel is in said extended position for forming an accessory pocket on said side wall portion.

12. The article of baggage according to claim 11, wherein said enclosure is at least one of a carry bag, suitcase, schoolbag and backpack having at least a bottom wall, a top wall and a plurality of side walls defining an interior storage space for receiving and storing personal articles or the like.

13. The article of baggage according to claim 12, wherein said panel is generally rectangular in shape and includes at least a portion of elastic mesh construction to facilitate forming an outer stretch pocket for insertion of accessory articles of the like therein.

14. The article of baggage according to claim 13, wherein said panel comprises woven fabric borders along each side, said panel being attached to said at least one side wall portion by said fabric border at said first end and said releasable connecting devices being attached to said fabric border at said free end of said panel.

15. The article of baggage according to claim 12, wherein at least a portion of said panel is comprised of woven or knitted fabric.

16. The article of baggage according to claim 12, wherein said closure means for said panel storage pocket comprises a zipper and said panel is attached to said sidewall portion inside said storage pocket.

17. A method of forming an accessory pocket on an article of baggage, said article of baggage including an enclosure having a plurality of walls defining an internal storage space for receiving personal articles of the like, comprising:

   a) positioning a panel of material or the like adjacent an outer surface of one said walls;

   b) attaching one end of said panel to said adjacent wall, the other end of said panel being free;

   c) providing releasable connecting devices on said free end of said panel;

   d) providing correspondingly spaced attachment devices on said one wall for connection by said releasable connecting devices when said free end of said panel is extended to a distalmost position; and

   e) extending said free end of said panel to said distalmost position and releasably connecting said connecting devices to said correspondingly position attachment devices to form an accessory pocket on said enclosure.

18. The method of forming an accessory pocket on an article of baggage according to claim 17 wherein at least a portion of said panel is comprised of an elastic mesh material such that said accessory pocket is extensible to allow insertion of articles of personal property or the like to be inserted therein.

19. The method of forming an accessory pocket on an article of baggage according to claim 18, wherein said elastic mesh material includes CORDURA® brand fibers.

20. A stretch panel attached at a first end to an outer wall of an article of baggage, said panel having releasable spring clasps at the free end thereof, said releasable clasps adapted for releasably connecting said free end to corresponding attachment devices on said outer wall, said attachment devices being spaced from said attached first end of said panel such that said panel is extendable toward said attached devices to form an outer accessory pocket on said outer wall of said article of baggage.

21. The stretch panel according to claim 20 wherein said outer wall of said article of baggage includes a storage pocket in the region of said attached first end of said panel for storage of said panel when not in use, said storage pocket having closure means for opening said storage pocket to facilitate storage of said panel therein and for permitting extension of said panel therefrom when need to form an external accessory pocket on the article of baggage.

22. The stretch panel according to claim 21 wherein said first end of said panel is attached to said outer wall inside said storage pocket.

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