A multifunctional convertible sewn or knitted article that is made from flexible materials is convertible to a three-dimensional item with functions unassociated with functions of the original article that can be further transformed into a carrying device. It comprises an article portion and a container for this article portion that is incorporated into this article and is constructed in accordance with a desired predetermined shape and design of items into which the article can be transformed. The incorporated container is used such a way that when the article is encompassed inside the container and parts of the container are joined together along their sides by fastening means it takes the predetermined three-dimensional shape of the desired item. The size of the container must correspond to the volume of the article encompassed inside in such a way that when the article is encompassed and closed inside the container, additional filler is not needed to take a desired three-dimensional shape.
MULTIFUNCTIONAL CONVERTIBLE ARTICLE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention is in the field of sewn knitted products. This is a convertible sewn or knitted article made from flexible material, which gains through transformations a specific utility in a plurality of different situations. The applicable areas to which the present invention pertains are many. One such area is that of wearing apparel. The present invention more particularly relates to a transformation of sewn or knitted garment where this garment may be encompassed inside itself with the help of the built-in container with predetermined shape and design in a manner, which can transform it into the three-dimensional object with functions unassociated with wearing such as:

[0003] a self-container for storage and preservation which is always readily at hand
[0004] a stuffed toy
[0005] a pillow
[0006] a toy-pillow
[0007] a decorative cushion
[0008] a carrying device: carrying bag or knapsack in case of big articles; waistband sac or purse in case of small articles
[0009] in case of small articles: a miniature stuffed toy, a home decoration, a key ring toy, a key ring purse, a car decoration, a Halloweendecoration, a Christmas tree decoration, a miniature stuffed tourist souvenir and the like
[0010] a stuffed decoration with indicia used as a promotional logo
[0011] a stuffed three-dimensional object with any other functions that can be discovered.

[0012] The present invention can be useful as well for the transformation of any detachable part of the wearing apparel such as: a detachable hood, a detachable lining, detachable sleeves and the like.

[0013] After the first transformation a new object can have one or more new functions. For example: a winter jacket can be transformed to a stuffed toy or to a toy-pillow. After the second transformation this object can be transformed further to another object with new one or more functions. For example: the stuffed toy or the toy-pillow can be transformed to a knapsack that has two functions: to carry the winter jacket and to carry small items in it's one or more pockets.

[0014] The present invention allows the owner of the convertible article to decide in what object to transform his convertible article and also decide what function of this object to use. When the owner is a child, he can transform his wearing apparel or a detachable part of this apparel into a stuffed toy or a toy-pillow in order to enjoy carrying it and playing with it or using it as a pillow to comfort himself during his rest time. When the owner needs to remove his outer garment and not wear it as the ambient temperature increases or in the places where it is warm enough (in the car, in the cinema, in the mall, in the store and the like), the owner wants to free his hands from his garment. He can convert it to a carrying device in order to store it and not lose it by enfolding it inside the incorporated container and releasing hidden strings and attaching them to buttons designed for this purpose. The function of carrying is not limited only by carrying the convertible article itself but the converted carrying device has a receptacle to carry small-sized goods in it.

[0015] If the convertible article is a small item such as: a t-shirt, a hat, a baby clothes, a scarf and the like it can be transformed into a miniature stuffed toy or into a small carrying bag, or into a waistband bag, or into a purse. This miniature items are easy to carry along and the owner has his piece of clothing ready for changing but hidden for others.

[0016] In the case of flat sewn or knitted products such as shawls, blankets, sleeping bags, towels and the like, the present invention allows one to enfold them into the container with predetermined shape and design and to use it, besides the already mentioned functions, for their convenient carriage, storage and preservation. Or if the owner is a child the convertible flat sewn or knitted article can also have an educational function. For example: in order to present to a child the concept of three-dimensional geometric figures and the way these three-dimensional geometric figures are constructed we could convert the sewn or knitted article into a three-dimensional geometrical object such as: cylinder, pyramid, cube, sphere and the like.

[0017] 2. Description of the Prior Art

[0018] Garments which may be converted into carrier bags or similar luggage carriers are generally well-known in the prior art. It is also known in the art to provide a garment wherein a pouch is provided for receiving the garment in a folded arrangement for convenient carriage and storage. Convertible garments that provide carrying bags have general application for use as tote or utility bags. Garment and pouch arrangements provide outerwear to accommodate changing weather inclemency in a readily portable pouch. For these and other reasons, convertible garments have been provided in the form of outerwear and active sportswear apparel.

[0019] Hitherto a number of garments were already proposed for utilizing the transformed garment as only a carrying bag (see, for example U.S. Pat. Nos. 4,476,587, 4,347,629, 4,689,831, 4,307,470, 5,165,111 or 4,389,735) only a toy or (see, for example U.S. Patent No. 4,543,669.

[0020] However, this particular invention intends to give to the owner a choice of converting the article to a stuffed toy, toy-pillow or to carrying bag or other three-dimensional item depending of the situation and his desire. When converted to toy-pillow it is useful if the owner needs a restful and relaxing position (in the car, in the cinema, a child in his stroller). When converted to a toy in the case of a child-owner it is useful for playing and in meantime carrying this article with him, freeing his accompanied adults from the responsibility of carrying his stuff. After all, this toy or toy-pillow can be converted to the carrying device using fastening strings that are incorporated into the toy or toy-pillow, but before hidden. When the garment is not needed for its wearing purposes (the season for the garment is changed or the child is grown-up or the garment is out of fashion) it can be preserved as a toy or as a toy-pillow or as a stuffed decoration or as a decorative cushion.

SUMMARY OF THE INVENTION

[0021] A primary object of the invention, accordingly, is to provide a convertible article made from flexible material that when the owner doesn’t need it for its particular purposes could be folded in the incorporated container, transformed and used as a three-dimensional item with completely different from previous purposes.
A second object of the invention is to provide a convertible article that can be folded in the incorporated container and further can be transformed to a carrying device for itself in order not to be lost and to free the owner's hands from carrying the article.

A third object of the invention is to provide a convertible article, which can be used after transformation as a carrying device for itself and for small-sized items in a receptacle designed for this purpose.

A forth object of the invention is to provide a container for the article for protection, preservation and storing. This container is incorporated into the article in such a way that not to interfere with the intended use of the article.

A fifth object of the invention is to provide a container for the article for protection, preservation and storing when the article is not needed but at the same time being useful as another object with other functions.

The container for the convertible article has one or more parts which are shaped such a way that, when joined together, their sides correspond by the length and can be fastened in order to build the predetermined three-dimensional container. These parts can have one or more details of design depending of the nature of the transferred object. They also can have darts and/or curved seams in order to form the tree-dimensional shape. The manner of joining the pieces and the means of joining the pieces are arbitrary. They must have a fastening means such as: zippers or buttons and loops/ buttonholes or snap-fasteners or others all around the parts' shape in order to close these parts together with the encompassed article inside. What the construction of the container must achieve is a predetermined three-dimensional shape which encompasses a volume of the convertible article and which is sufficient to accommodate the article without requiring any other external agent to reach the proper volume.

Parts of the incorporated container for the convertible article can be attached to any part of the article and be part of the article's design. They can be attached to the shell of the article and be visible before transformation or they can be attached to the lining if the article has one. Some of the parts can be hidden inside between the exterior surface and lining if the article has one or inside the pocket and be invisible before transformation.

Constructional parts of the container, which are visible before transformation are parts of decorative design of this article and can be functional by themselves as a logo or and as a pockets.

Carrying straps or fastening strings for a carrying device are incorporated into the container. They attached to the surface of the one of the container's parts and hidden while the container is not used as a carrying device and will be released during the transformation into a carrying.

While the invention has application beyond garments, the preferred embodiment will be discussed with regard to garments only.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGS. 1-6 are front and back views of the preferred embodiment of the present invention:

a) a front view of the winter jacket with a hood,

b) a back view of the winter jacket with a hood,

c) an upper view of the turtle stuffed toy-pillow,

d) a bottom view of the turtle stuffed toy-pillow

e) a side view of the turtle knapsack.

FIG. 1 is a front view of the preferred embodiment of the present invention in the unfolded state. It looks like an ordinary front view of the winter jacket with a hood.

FIG. 2 is a back view of the preferred embodiment of the present invention in the unfolded state. On the back part there is an upper portion of the container with an animal design (turtle). It consists of two parts and is applied such that the head of the animal is applied on the back of the hood and the body of the animal applied on the back of the jacket.

FIG. 3 is a side view of the preferred embodiment of the present invention in its folded state. It is an upper view of the container in the shape of the animal (turtle). It looks like the design on the back of the jacket from FIG. 2 with added elements of the animal (paws and tail) that were hidden in the unfolded state.

FIG. 4 is a front view of the preferred embodiment of the present invention in its folded state.

FIG. 5 is a bottom view of the preferred embodiment of the present invention in its folded state.

This is actually also the bottom portion of the container that was hidden in its unfolded state between the exterior back part of the jacket and its lining back part and that can be separated from the garment for cleaning purposes. (Only the outer carved edge of a turtle’s shell 23, which is the part of the upper portion of the container, doesn’t relate to the bottom portion of the container). This is also the inner side of the carrying bag or knapsack with the receptacle clothed by zipper and the fastening strings attached to the front paws of the animal toy which will be passed around the shoulders.

FIG. 6 is a side view of the preferred embodiment of the present invention in its folded state. It is an upper view of the winter jacket. This figure represents a transparent view from the lining side and how the bottom portion of the toy-pillow-cushion-knapsack is folded and hidden between the back inside layer and the back external layer of the jacket.

FIG. 7 is a front view of a convertible jacket.

FIG. 7a is a back view of a convertible jacket with only one part of a container.

FIG. 7b is a carrying bag in the form of a butterfly with the jacket encompassed inside.

FIG. 8 is a front view of a convertible jacket with one part of a container.

FIG. 8a is a back view of a convertible jacket with second part of a container.

FIG. 8b is a front view of a heart with the jacket encompassed inside.

FIG. 9 is a front view of a convertible bathrobe, where two front pockets are two parts of the container.

FIG. 9a is a carrying bag in the form of the fish with the bathrobe encompassed inside.

FIG. 10 is an upper view of a convertible blanket with a boy figure with completed head, hands and feet.

FIG. 10a is a bottom view of a semi folded convertible blanket with a boy torso and legs.

FIG. 10b is a front view of a stuffed toy of a boy.

FIG. 11 is an upper view of a convertible sleeping bag.
FIG. 11a is a toy-pillow in the form of a star with the sleeping bag encompassed inside.

FIG. 12 is an upper view of a convertible towel with constructional parts of a cylinder.

FIG. 12a is a cylinder with the towel encompassed inside.

FIG. 13 is a front view of a convertible t-shirt with one part of a container attached to the front and other part of the container is hidden inside a front pocket.

FIG. 13a is a miniature stuffed toy in the form of a maple leaf or a key ring toy with the t-shirt encompassed inside.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIGS. 1-6 the preferred embodiment of the present invention is shown. For this particular design the form of a turtle was chosen for the container with a predetermined idea to be used as a toy or as a toy-pillow or as a decorative cushion or as a knapsack. But it can be any other design of an animal or an object.

The garment portion, generally designated 10, shown in FIGS. 1 and 2, is comprised of the front of the garment body 11, of the back of the garment body 12, two sleeves 13 and 14 and a hood 15.

On the front view of the garment in FIG. 1 we can see that hood 15 is attached to the garment’s back by a sewing method and to the garment’s front by snap-fasteners 15a (in this particular design, but it can be attached with buttons and loops/buttonholes or with a zipper also). It is important because in order to enfold the garment into the container we have to unfasten these snap-fasteners, to detach the front portion of the hood 15 from the front portion of the garment 11. In the seam that connects the hood’s lining and the garment’s back lining a zipper 12a is inserted in order to have the opening between the lining surface and the external surface of the garment through which the hidden before transformation bottom portion of the container 30 (FIG. 4) can be taken out for further transformation. But this opening can be designed in other place on the lining.

The upper container portion, shown in FIG. 2, comprised of the body of an animal portion 21 (shell of the turtle) attached on the back part of the garment 12 and the head of an animal portion 22 (head of the turtle) attached on the back of the hood 15 and generally designated 20. The preferred method of attachment is sewing. All along the contour of the shape 20 (upper part of the container), between upper portion of the head of an animal 22 (head of the turtle) and the hood 15 and between upper portion of the body of an animal 21 (shell of the turtle) and the back of the garment body 12 separated sides of zippers (which allow, when transformation is needed, to join two parts of the container: upper part FIGS. 2-20 and bottom part FIG. 5-30) are inserted: 21a, 21b, 22a, 22b.

One side of a zipper 21a and one side of a zipper 21b are inserted by sewing method in such a way that they are not visible on garment body back 21 because they are covered by outer edge of a turtle’s shell 23, which is a separate part of the pattern. The outer edge of the turtle’s shell 23 is attached only by the inner contour of its pattern along with one side of a zipper 21a and one side of another zipper 21b.

The starting point of inserting zippers 21a and 21b is point 21e and the finishing points are 21c and 21d: the points where the body part of the turtle (shell) 21 connects with the head part of the turtle 22.

Other sides of these zippers 21a, 21b, 22a, and 22b are visible on FIG. 5 which depicts the converted toy and at the same time FIG. 5 depicts the bottom portion of the container (excluding the outer edge of the turtle shell 23). The opening along a joining line of the back lining and the hood lining FIG. 6-12a is closed by means of a zipper when the bottom part of container FIG. 6-30 is folded and hidden and the garment is not transformed into another item. The bottom portion of the container FIG. 6-30 is attached from inside to the seam which joins the hood and the back of the garment at point FIG. 6-12b by a little string with a snap-fastener. Another zipper FIG. 6-12c is inserted in the hem of the back part of the garment. It allows reaching the hidden bottom part of the container and attaching it from inside to point FIG. 6-12d to the back portion of the garment by a little string with a snap-fastener. When the garment needs to be cleaned the bottom portion of the container FIG. 6-30 can be completely and easily taken out and separated from the garment and cleaned separately.

The bottom portion of the container FIG. 5 consists of two major parts: the body of the animal 31 and the head of the animal 32, joined together by seam 30a and five small parts: two front paws 33a and 33b, two back paws 34a and 34b and a tail 35. Two front paws 33a and 33b are inserted in seam 30b and two back paws 34a and 34b and the tail 35 are inserted in seam 30c. Details 33a, 33b, 34a, 34b and 35 can easily be folded to the center of the bottom portion of the container in order to be hidden inside between the lining surface and the external surface of the back of the garment FIG. 6.

On the front paws there are the strings with buttonholes 33c, 33d attached to the outer edge of the paw and folded inside and passed through the little loop. The buttons 34c and 34d are attached to back paws in order to be used along with the strings 33c, 33d when transformation to a knapsack is needed.

There is an opening with zipper 31a which is actually an inside pocket for small items.

In the preferred embodiment the article of clothing is shown as a hooded winter jacket but it should be noted that any article of clothing or any article of other sewn or knitted product could be chosen. The only requirement to be considered is the ability of the material of which the article consists to be flexible and to be able to be encompassed inside a container.

What I claim is:

1. A multifunctional convertible sewn or knitted article that made from flexible materials useful with particular purposes and after transformation through enfolding inside the incorporated container useful as a three-dimensional item functional apart from the original article comprising:

   a sewn or knitted article and a container for this article whose size corresponds to the volume of the article encompassed into this container such a way that no additional filler is needed to form a predetermined three-dimensional shape;

   said container having predetermined shape and design, which represents the reproduction of a desired item in which the article can be transformed after enfolding inside the container and the function of which is unassociated with the function of a container;
said container being attached to this article;
said container has at least one part that can be secured along its corresponding sides by means of zippers, or buttons and loops/buttonholes, or snap-fasteners or others and build a receptacle for convertible article;
said container has at least one part that can be flat or prominent depending of desired shape of stuffed container;
said prominent part or parts of the container formed by darts or by curved seams;
said part or parts of the container could be attached to any part of the article;
said part or parts of the container being attached to the surface of the convertible article and being visible and/or said part or parts of the container being attached to the internal surface of the convertible article and being invisible;
said visible part or parts of the container having particular functions in the convertible article by themselves such as: a receptacle for small items, a logo and the like;
said invisible parts of the container can be hidden and secured inside the article between external surface and internal lining (in cases of articles with lining) or inside the pocket or inside the article between one of the container’s parts attached to the external surface of the article and this surface itself;
said stuffed toy having one or more parts such as: body, head, extremities or other predetermined parts;
said parts of the toy can be completed and attached to the article or to the container in predetermined places before transformation or they can be formed after fastening the container;

4a. In case of small articles encompassed inside the container, this container after fastening has the function of miniature decoration or miniature stuffed toy.

5. The container as defined in claim 4, wherein parts of the container form the surface of the stuffed toy.

6. A stuffed toy formed from multifunctional convertible sewn or knitted article that made from flexible materials as defined in claim 4, wherein this toy is being able to be converted to a carrying device for itself.

7. A stuffed toy formed from multifunctional convertible sewn or knitted article that made from flexible materials as defined in claim 4, wherein this toy is being able to be converted to a carrying device having a receptacle for small entities.

8. A multifunctional convertible sewn or knitted article that made from flexible materials useful with particular purposes and after transformation through enfolding inside the incorporated container useful as a toy-pillow or decorative cushion including:

a sewn or knitted article and a container for this article whose size corresponds to the volume of the article encompassed into this container such a way that no additional filler is needed to form a predetermined three-dimensional form of a toy-pillow or decorative cushion;
said container having predetermined three-dimensional form and design, which represents the reproduction of a desired toy-pillow or decorative cushion in which the article can be transformed after enfolding inside the container;
said container being attached to this article;
said container has at least one part that can be secured along its corresponding sides by means of zippers, or buttons and loops/buttonholes, or snap-fasteners or others and build a receptacle for convertible article;
said container has at least one part that can be flat or prominent depending of desired shape of stuffed toy;
said prominent part or parts of the container formed by darts or by curved seams;
said part or parts of the container could be attached to any part of the article;
said part or parts of the container being attached to the surface of the convertible article and being visible and/or said part or parts of the container being attached to the internal surface of the convertible article and being invisible;
said invisible parts of the container can be hidden and secured inside the article between external surface and internal lining (in cases of articles with lining) or inside the pocket or inside the article between one of the container’s parts attached to the external surface of the article and this surface itself;
said toy-pillow or decorative cushion having one or more parts such as: body, head, extremities or other predetermined parts;
said parts of the toy-pillow or decorative cushion can be completed and attached to the article or to the container in predetermined places before transformation or they can be formed after fastening the container;
9. The container as defined in claim 8, wherein parts of the container form the surface of the toy-pillow or decorative cushion.
10. A toy-pillow or decorative cushion formed from multifunctional convertible sewn or knitted article that made from flexible materials as defined in claim 8, wherein this toy-pillow or decorative cushion is being able to be converted to a carrying device for itself;
11. A toy-pillow or decorative cushion formed from multifunctional convertible sewn or knitted article that made from flexible materials as defined in claim 8, wherein this toy-pillow or decorative cushion is being able to be converted to a carrying device having a receptacle for small entities.
12. A carrying device for a multifunctional convertible sewn or knitted article that made from flexible materials including:
a sewn or knitted article and a container for this article;
said container being attached to this article;
said container has at least one part that can be secured along its corresponding sides by means of zippers, or buttons and loops/buttonholes, or snap-fasteners or others and build a receptacle for convertible article;
said container has at least one part that can be flat or prominent depending of desired shape of stuffed container;
said prominent part or parts of the container formed by darts or by curved seams;
said part or parts of the container could be attached to any part of the article;
said part or parts of the container being attached to the surface of the convertible article and being visible and/or said part or parts of the container being attached to the internal surface of the convertible article and being invisible;
said visible part or parts of the container having particular functions in the convertible article by themselves such as: a receptacle for small items, a logo and the like;
said invisible parts of the container can be hidden and secured inside the article between external surface and internal lining (in cases of articles with lining) or inside the pocket or inside the article between one of the container’s parts attached to the external surface of the article and this surface itself;
carrying straps or fastening strings for a carrying device are incorporated into the container. They attached to the surface of the container and hidden while the container is not used as a carrying device and will be released during the transformation into a carrying device.
13. A carrying device for a multifunctional convertible sewn or knitted article that made from flexible materials as defined in claim 12 having a receptacle for small entities.
14. A multifunctional convertible detachable part of sewn or knitted article made from flexible materials useful with particular purposes and after transformation through enfolding this detachable part inside the incorporated container useful as another three-dimensional item functional apart from the original detachable part comprising:
a detachable part of sewn or knitted article and a container for this detachable part whose size corresponds to the volume of the detachable part encompassed into this container such a way that no additional filler is needed to form a predetermined three-dimensional shape;
said container having predetermined shape and design, which represents the reproduction of a desired item in which the detachable part can be transformed and used after the detachable part is encompassed inside the container and the function of which is unassociated with the function of the container;
said container being attached to this detachable part;
said container has at least one part that can be secured along its corresponding sides by means of zippers, or buttons and loops/buttonholes, or snap-fasteners or others and build a receptacle for the detachable part;
said container has at least one part that can be flat or prominent depending of desired shape of stuffed container;
said prominent part or parts of the container formed by darts or by curved seams;
said part or parts of the container could be attached to any part of the detachable part;
said part or parts of the container being attached to the surface of the convertible detachable part and being visible or said part or parts of the container being attached to the internal surface of the convertible detachable part and being invisible;
said visible part or parts of the container having particular functions in the convertible detachable part by themselves such as: a receptacle for small items, a logo and the like;
said invisible parts of the container can be hidden and secured inside the detachable part between external surface and internal lining (in cases of articles with lining) or inside the pocket or inside the detachable part between one of the container’s parts attached to the external surface of the detachable part and this surface itself.