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(54) **MULTI TRANSFORMING BAG**

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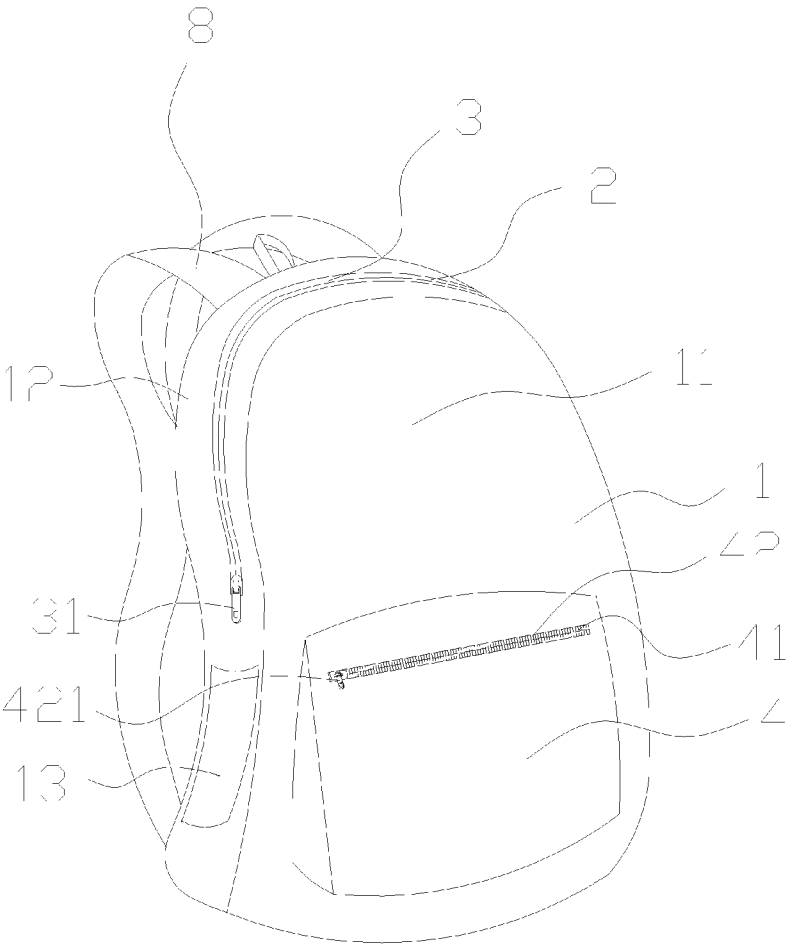
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USPC **224/614**; 383/38; 383/6

(57) **ABSTRACT**

The present invention reveals a multi transforming bag which is a backpack that can be transformed into a jute bag or a shoulder bag. It comprises a main body which is made of soft and easy-folded material, a first opening on the upper and central part of the main body, a first zipper on 2 sides of the first opening, a zipper slider is disposed on the first zipper which comprises a first zipper puller which can be pulled from outside of the main body, and a second zipper puller which can be pulled from inside of the main body; the main body is separated into a front part and a back part, the downward of the front part comprises a first bag, the first bag has a horizontal second opening, and the 2 sides of the second opening are attached with the second zipper for sealing and opening the second opening.



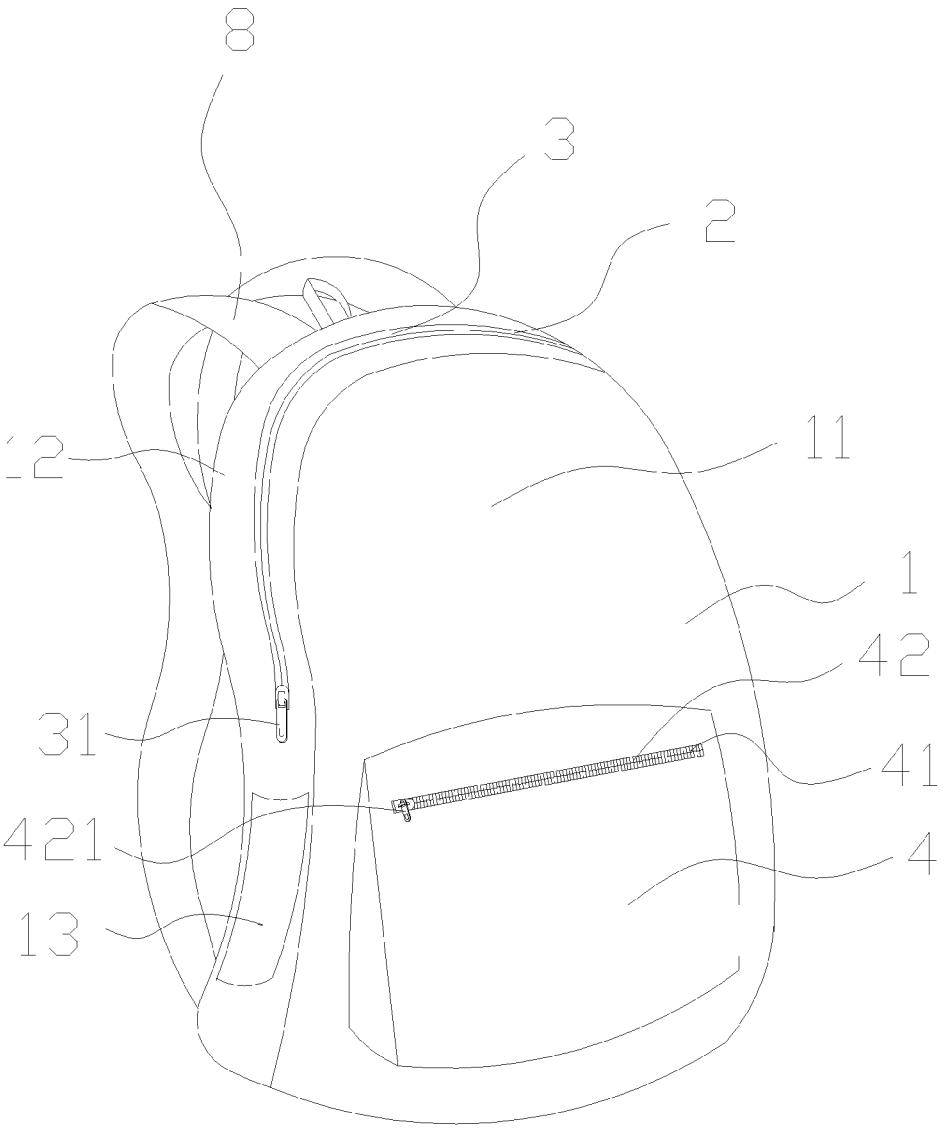


FIG. 1

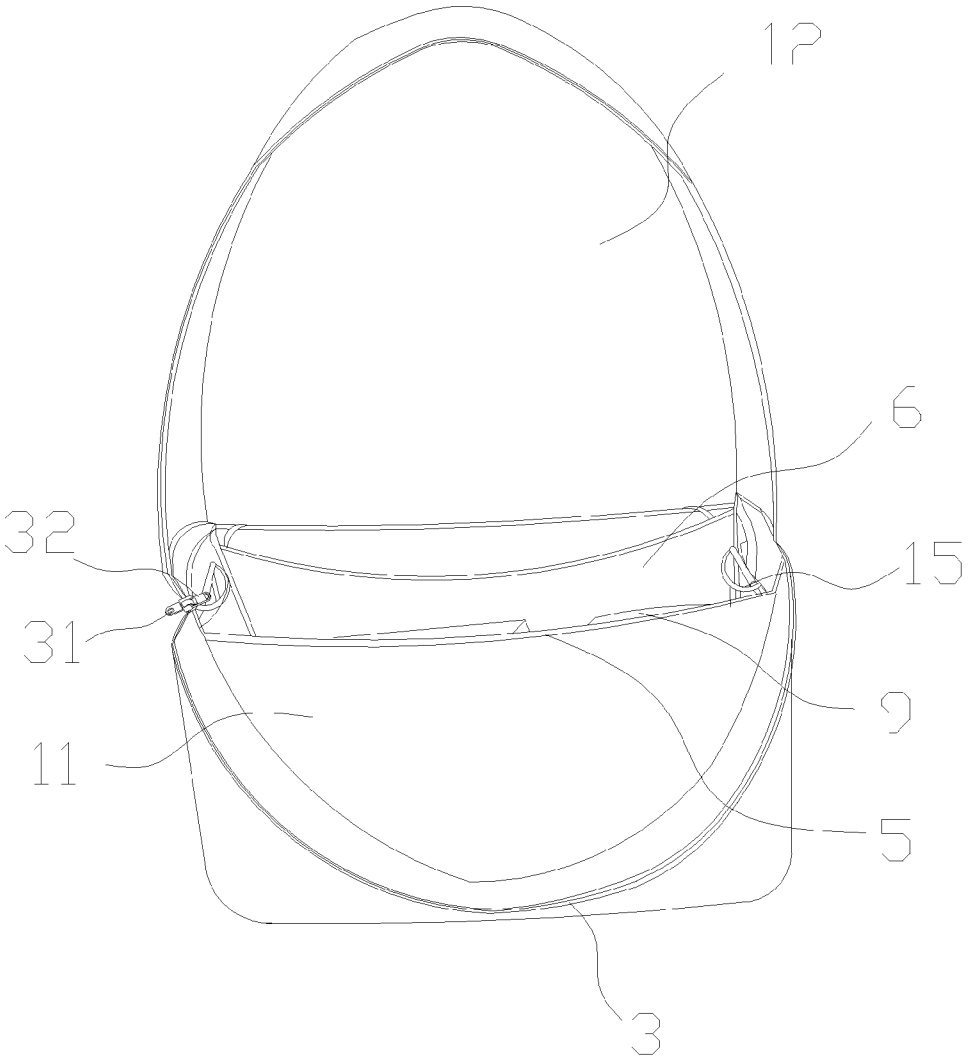


FIG. 2

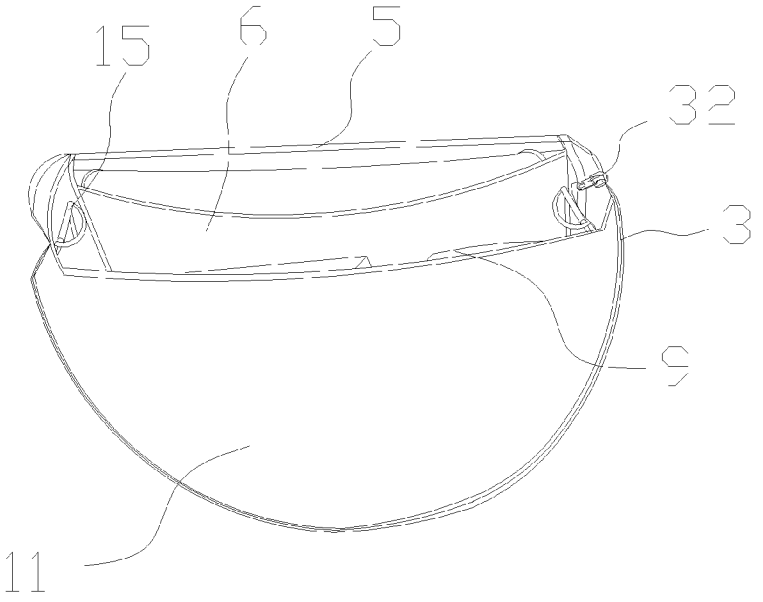


FIG. 3

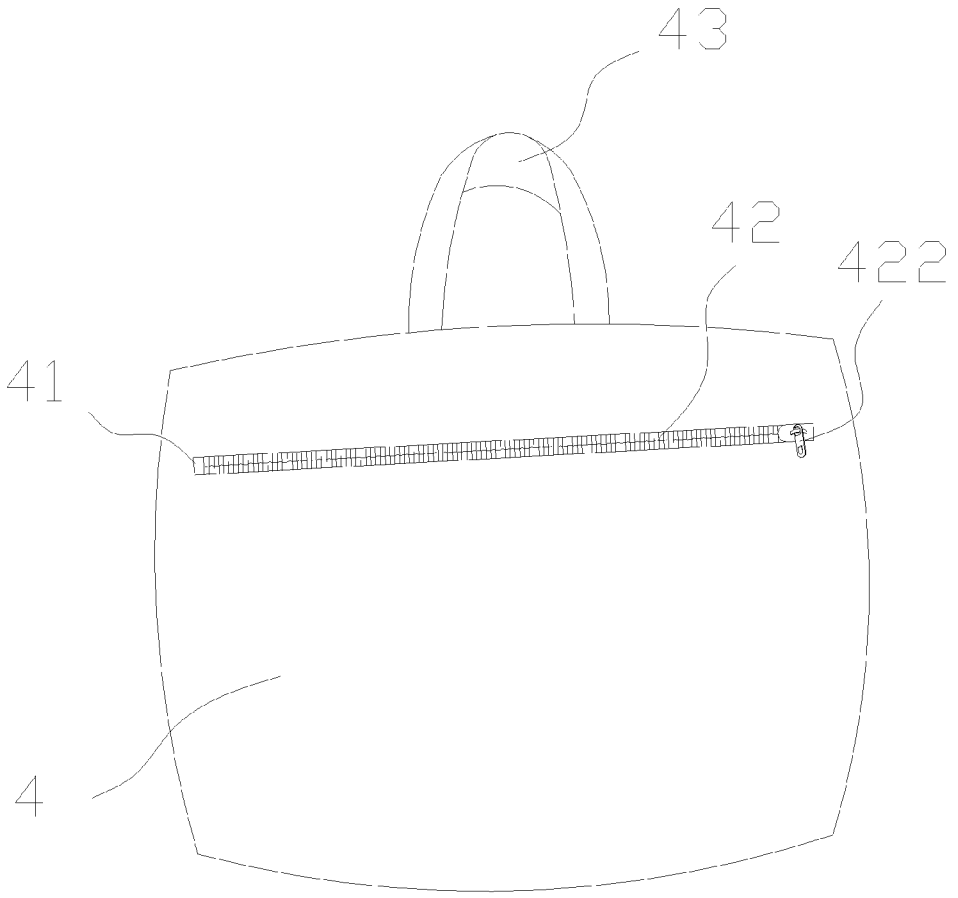


FIG. 4

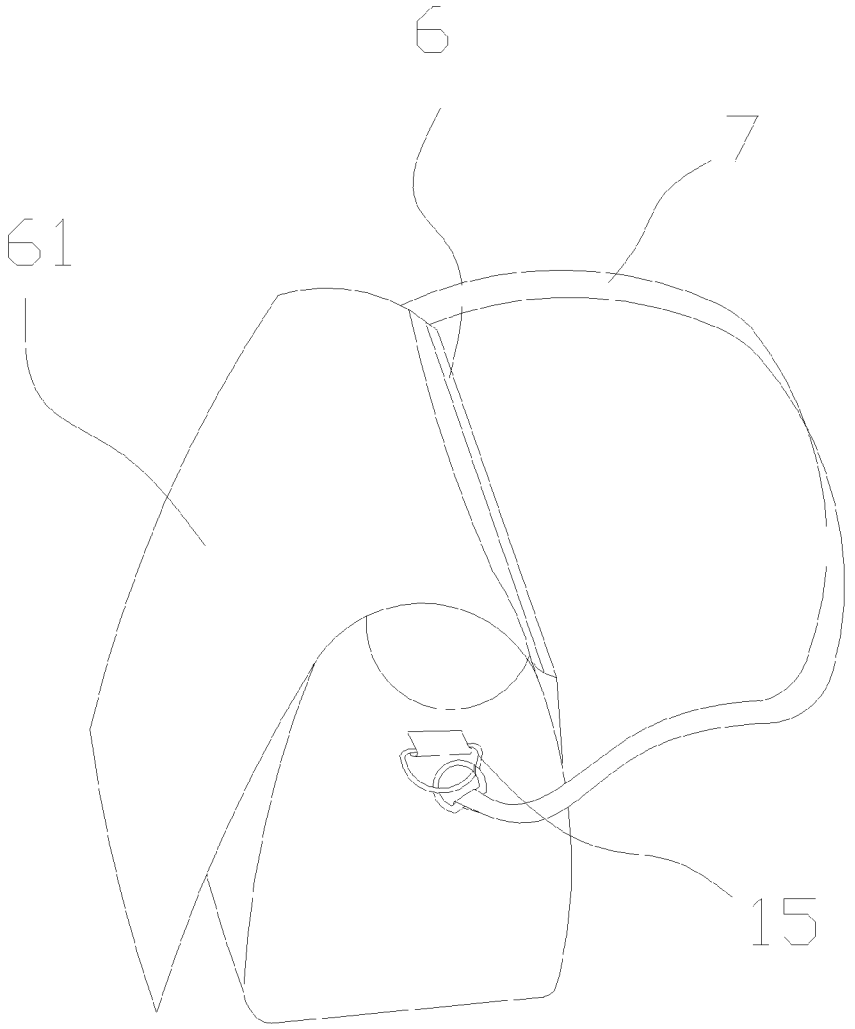


FIG. 5

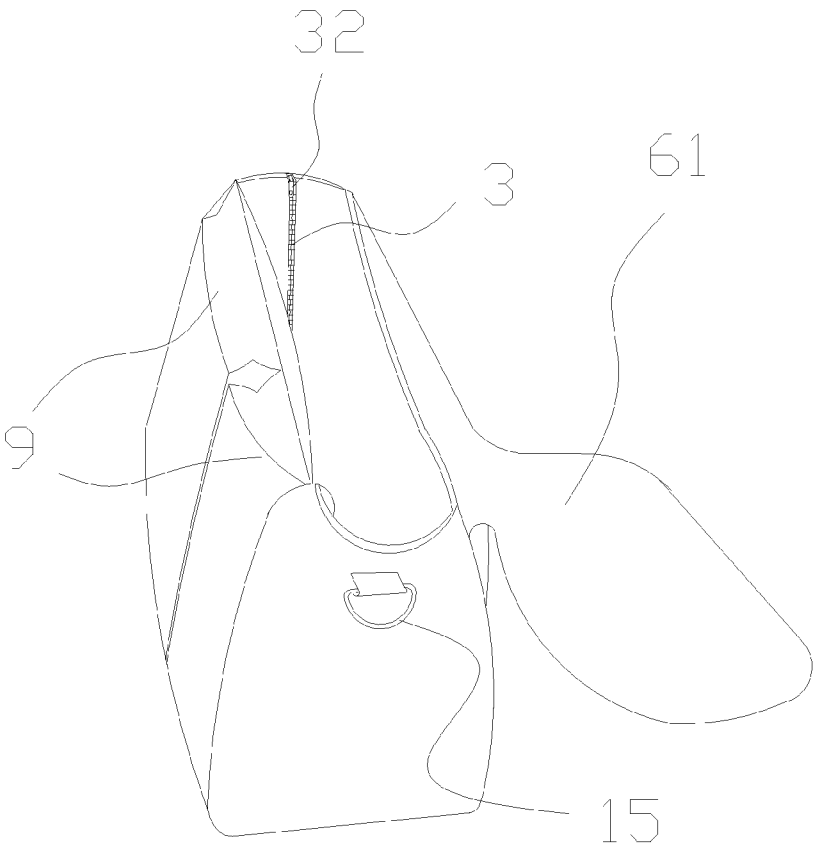


FIG. 6

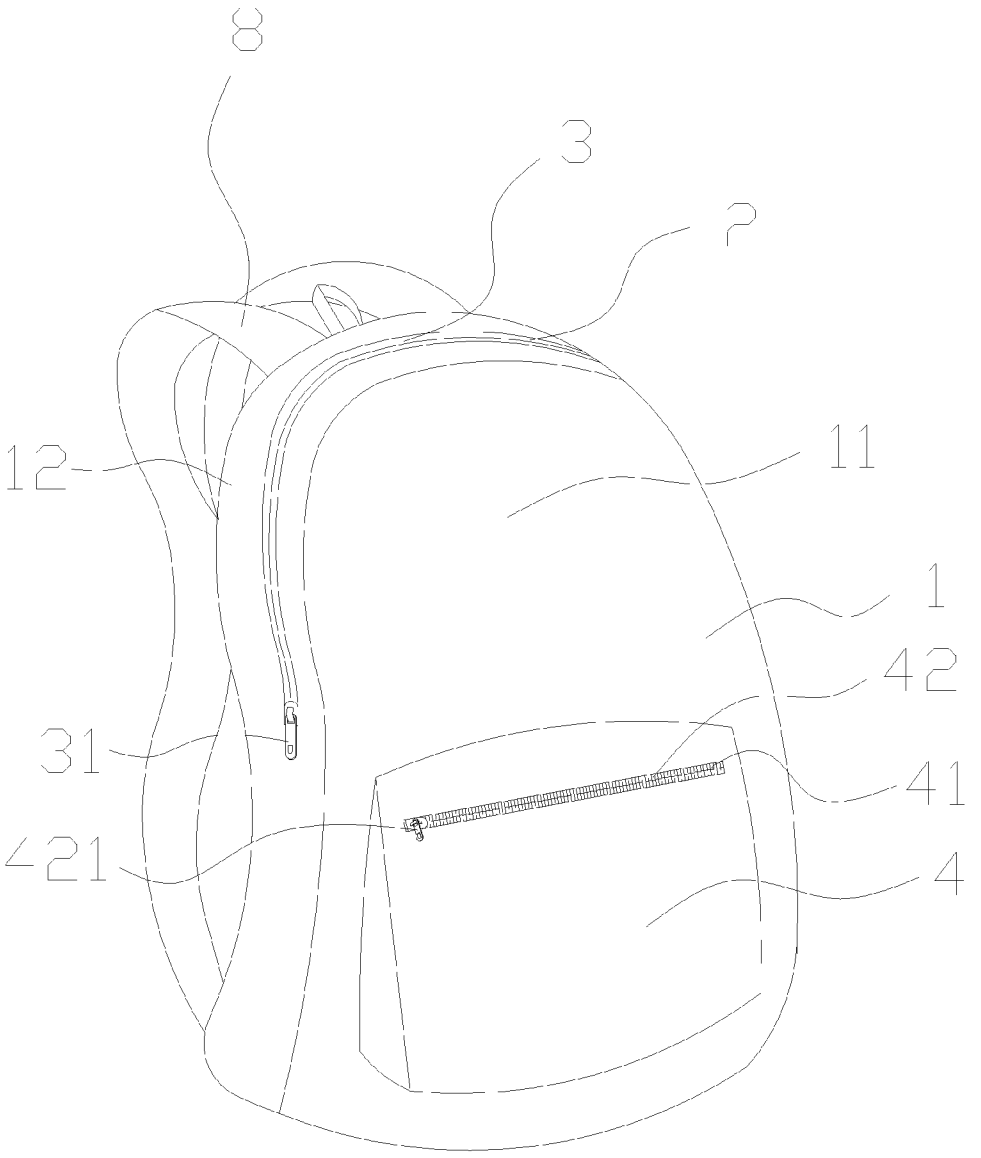


FIG. 7

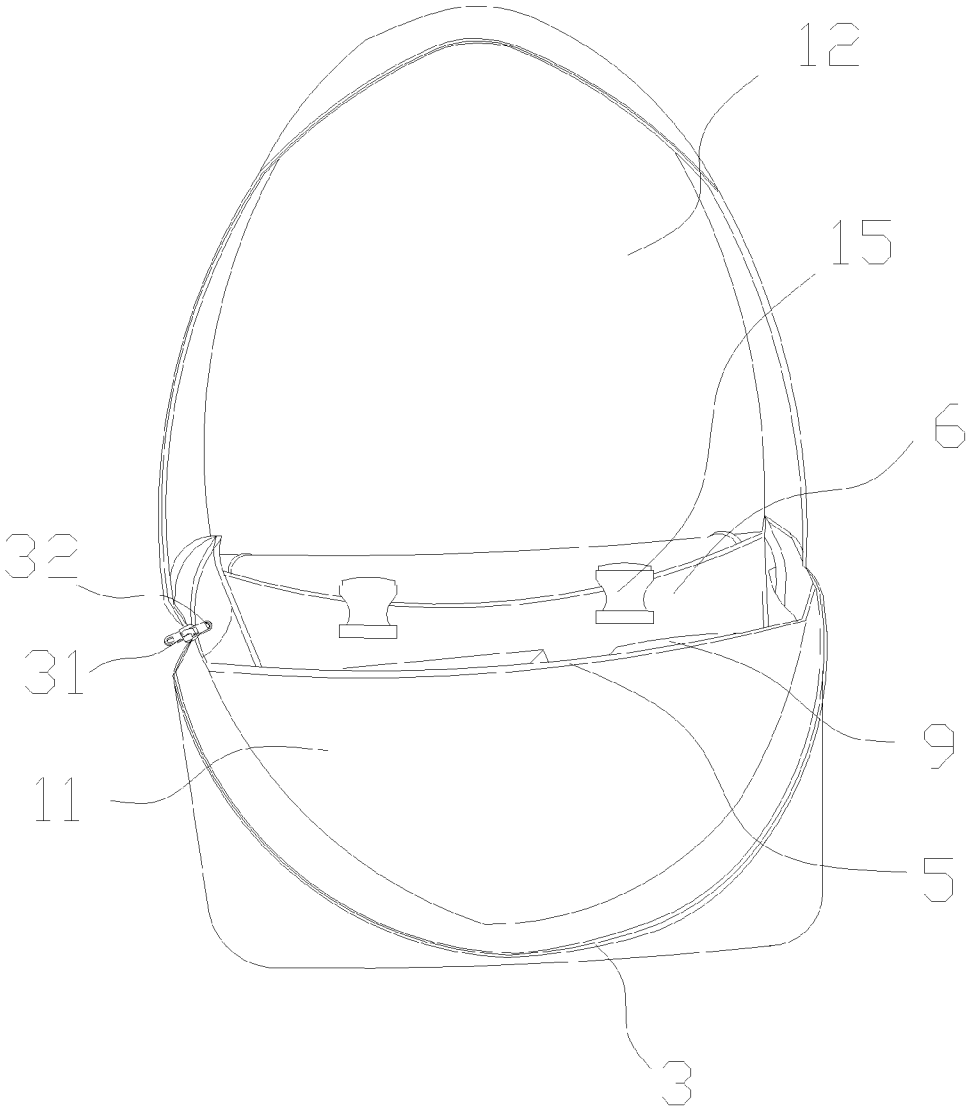


FIG. 8

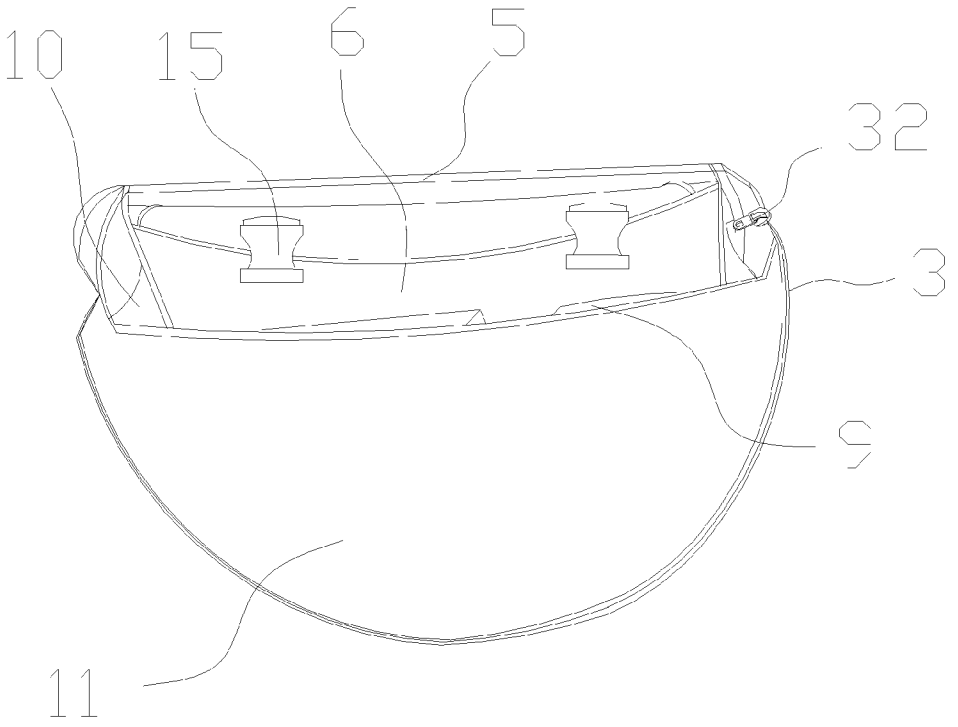


FIG. 9

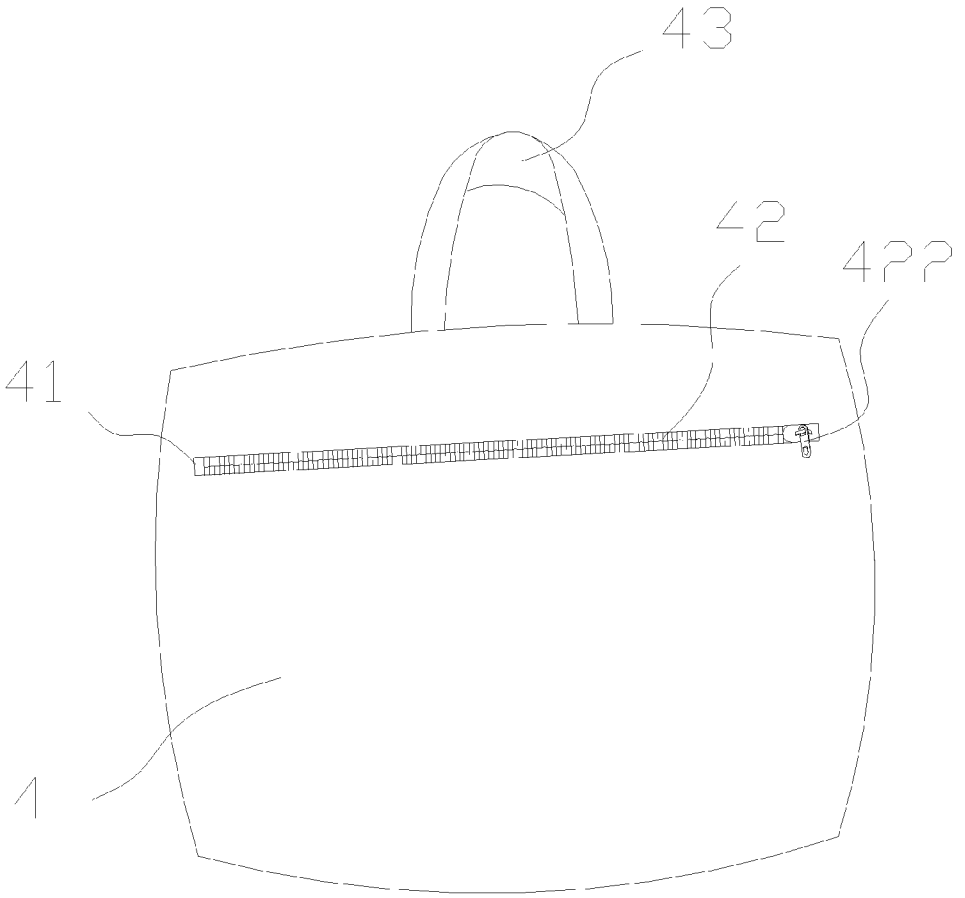


FIG. 10

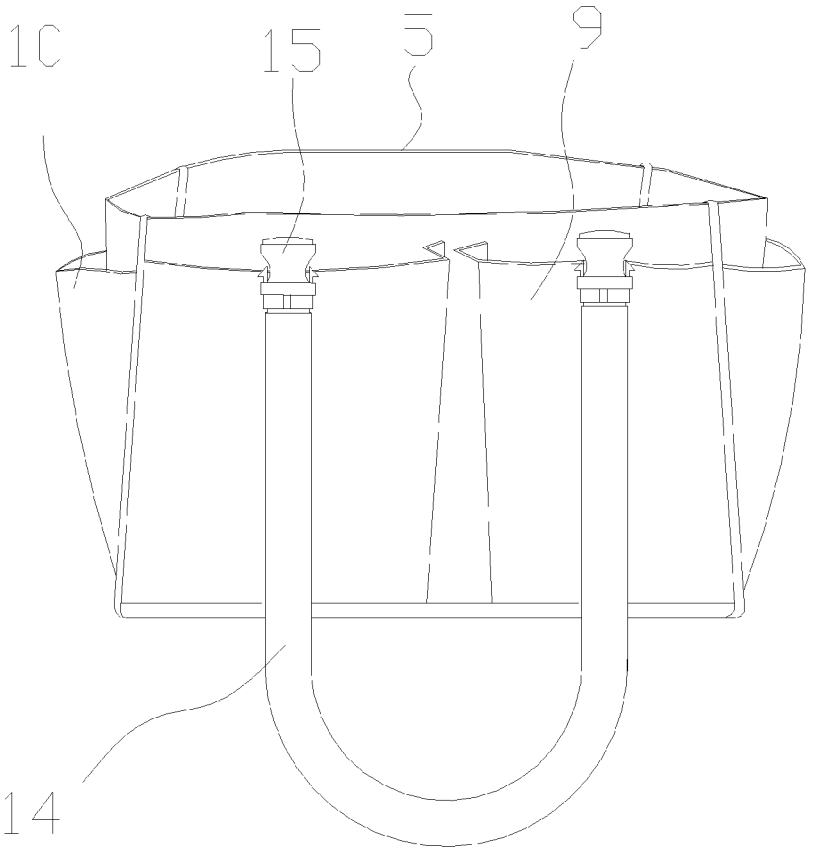


FIG. 11

MULTI TRANSFORMING BAG

FIELD OF THE INVENTION

[0001] The present invention relates to a backpack, particularly to a multi-transforming bag.

BACKGROUND

[0002] In short term journey or business trip, people usually carry a backpack to be a substitution of luggage case, such backpack can carry more stuffs with its larger volume, however, it also occupied larger restoring space when it is not being used. People would carry shoulder bags which can be held by single shoulder on the way to work or a short distance trip. This type of bags have smaller volume, thus, they are convenient to be used, so they become popular, but they are not suitable for long way travel or business trip due to its small capacity. Women carry handbags which are convenient to carry personal belongings when they go working or shopping however, each of these three types of luggage carriers only can be used in one specific condition. Nowadays, people need the bags which have more functions.

SUMMARY

[0003] To overcome the disadvantages of aforementioned 3 types of luggage carriers, the present invention provides a multi-transforming bag which comprises:

[0004] A main body which is made of soft and easy-folded material;

[0005] A first opening is on the upper and central part of the main body;

[0006] A first zipper is disposed on 2 sides of the first opening for sealing and opening the first opening;

[0007] A zipper slider is on the first zipper for sealing and opening the first opening;

[0008] The zipper slider comprises a first zipper puller which is disposed on the outside of the main body, and a second zipper puller which is disposed on the inside of the main body;

[0009] The main body is separated into front part and back part along with the first zipper. The downward of the front part comprises a first bag which is for restoring the folded main body. The first bag has a horizontal second opening, and the 2 sides of the second opening are attached with the second zipper for sealing and opening of the second opening.

[0010] The default state of the present invention is a double strap backpack, there are 2 shoulder straps are attached on the back of the back part by sewing. The positive side of the second zipper comprises an outside zipper puller which can be pulled from the outside of the first bag, and an inside zipper puller which can be pulled from the inside of the first bag.

[0011] To transform a double strap backpack into a jute bag, the whole procedures are as following:

[0012] To keep the back part of the backpack up, and fold the under part of the main body of the backpack to fit the size of the first bag, fold the top part of the main body of the backpack from the position of the 2 end points of the second opening, and combine the folded top part and the bottom part, then, to open the second zipper, push the bottom of the first bag upward, and make the inside surface of the first bag go through the opening of the first bag to be a new outside surface. Because the first bag is fixed on the bottom of the main body by sewing, thus, the original outside surface of the first bag becomes an inside surface of the first bag when the bottom of first bag goes through the opening of the first bag, and the bottom of the main body also goes with the bottom of the first bag inside the first bag which is inside before, till the rest part of the transforming bag completely goes into the first bag. Finally, to flip over the top of the second opening, make the inside zipper puller to be outside. In the meanwhile, the original inside surface of the first bag becomes the outside surface of the jute bag. The second zipper shall be closed after all procedures above have been done.

[0013] The backpack type of present invention can also be transformed into a shoulder bag or a hand bag, the whole procedures are as following:

[0014] Firstly, to open the first zipper and first opening, fold down the front part to outside of the main body at the position of 2 end points of the first opening, and keep the top of the front part merge with the bottom of the front part and the back part merge with the bottom of the back part, thus, the second zip puller on the first zipper comes outside. Secondly, to close the first zipper by pulling the second zip puller, the under part of the main body will be completely wrapped by the folded and combined the front and back parts, the inside surface of the front and back parts become the new outside surface. To close the first opening to form the bottom of the shoulder bag, and push the first opening to make the under part of the main body go inside out, the inside of the under part of the main body becomes a part of appearance of transformed shoulder bag or handbag, and the inside part of the top of front and back parts become inside layer of transformed shoulder bag or handbag. Finally, to adjust the shape of the bag, the transforming procedure is done. By combining with single shoulder strap or carry-handles, the transformed bag can be used as shoulder bag or handbag according to the need of the user.

[0015] In some embodiments, the main body further comprises a first frame which is positioned on the line of the 2 endpoints of the first opening. The first frame makes it easier for the backpack to be transformed into a shoulder bag or a handbag.

[0016] In some embodiments, the inside of the back part comprises a second bag, the position of the second bag is below the first frame. The second bag will increase the capacity of the transforming bag.

[0017] In some embodiments, the inside of the second bag comprises a bag cover, the inside of the main body comprises a single shoulder strap, and the 2 endpoints of the single shoulder strap are fixed under the 2 endpoints of the first opening by buckles. The bag cover not only makes the shoulder bag have a better appearance, but also makes the loaded goods hardly to fall out. The design of single shoulder strap makes it easier to be carried.

[0018] In some embodiments, the inside of both of the front and the back parts comprise a carry-handle which is fixed by the buckles in the front and the back parts under the first frame. The carry-handles make it easier to be carried when the bag is transformed into a handbag.

[0019] In some embodiments, the buckles are one of the following devices:

Buckle ring for suitcase, buckle ring for handbag, spring buckle, hook buckle or hanging buckle.

[0020] In some embodiments, the soft and easy-folded material is Nylon or Polyester.

[0021] In some embodiments, the hand grip is positioned on the top of the inside of the first bag. When the bag is transformed into a jute bag type, the hand grip is on the top of the bag, to make it easier to be carried.

[0022] In some embodiment, the inside of the front part comprises 2 pockets which are positioned under the first frame to increase the capacity of the multi transforming bag.

[0023] In some embodiments, the main body comprises a storing bag which is positioned under the 2 end points of the first opening to increase the capacity of the multi transforming bag.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] FIG. **1** is the default state external view of backpack type of the transforming bag.

[0025] FIG. **2** is the scheme of partial transforming of what is shown in FIG. **1**.

[0026] FIG. **3** is the scheme of another partial transforming of what is shown in FIG. **1**.

[0027] FIG. **4** is the external view of jute bag type of the transforming bag in first embodiment.

[0028] FIG. **5** is the external view of shoulder bag type of the transforming bag in first embodiment.

[0029] FIG. **6** is the scheme of the inside structure of the shoulder bag shown in FIG. **5**.

[0030] FIG. **7** is the external view of backpack type of the transforming bag in second embodiment.

[0031] FIG. **8** is the scheme of partial transforming of what is shown in FIG. **7**.

[0032] FIG. **9** is the scheme of another partial transforming of what is shown in FIG. **7**.

[0033] FIG. **10** is the external view of jute bag type of the transforming bag in second embodiment.

[0034] FIG. **11** is the external view of handbag type of the transforming bag in second embodiment.

DETAILED DESCRIPTION OF THE INVENTION

[0035] The detailed description with figures of present invention is as following:

First Embodiment

[0036] FIGS. **1** to **6** display a multi transforming bag.

[0037] The multi transforming bag comprises a main body **1** which is made of soft and easy-folded material, a single shoulder strap **7** and double shoulders strap **8**, a first opening **2** which is on the upper and central part of the main body **1**, and a first zipper **3** which is disposed on two sides of the first opening **2** for sealing and opening of the first opening **2**. The soft and easy-folded material is Nylon. In this embodiment, the first zipper **3** is fixed on the both sides of the first opening **2** by sewing; in other embodiments, the first zipper **3** can be sticked on the first opening **2** by viscose. A zipper slider is disposed on the first zipper **3**; the zipper slider comprises a first zipper puller **31** which can be pulled from outside of the main body **1** and a second zipper puller **32** which can be pulled from inside of the main body **1**.

[0038] The main body **1** comprises a storing bag **13** which is positioned under the 2 end points of the first opening **2** to increase the capacity of the multi transforming bag. The main body **1** is separated into a front part **11** and a back part **12** along with the first zipper **3**. The downward of the front part **11** comprises a first bag **4** which is for restoring the folded main body **1**. A hand grip **43** is disposed on the top of inside of the first bag **4**. The first bag **4** has a horizontal second opening **41**, and the 2 sides of the second opening **41** are attached with the second zipper **42** for sealing and opening the second opening **41**. In this embodiment, the second zipper **42** is fixed on both sides of the first opening **2** by sewing; in other embodiments, the first zipper can be sticked on the first opening **2** by viscose. The second zipper **42** comprises a zipper slider which contains an outside zipper puller **421** which can be pulled from outside of the first bag **4** and an inside zipper puller **422** which can be pulled from inside of the first bag **4**.

[0039] The double shoulder straps **8** are fixed on the back part **12** of the main body **1** by sewing. The main body **1** further comprises a first frame **5** which is horizontally disposed on or below the line of the 2 endpoints of the first opening **2**. The inside of the back part **12** comprises a second bag **6** which is positioned below the first frame **5**, the inside of the front part **11** comprises two front bags **9** which are positioned below the first frame **5**. The inside of the main body **1** comprises two buckles **15** which are positioned inside the main body **1** under the two endpoints of the first opening **2**, the buckles **15** are ring buckles, and the single shoulder strap connects to the inside of the main body **1** through the buckles **15**. The inside of the second bag **6** comprises a bag cover **61**.

[0040] As shown in FIG. **1**, the default state of the present invention is a double strap backpack. The shoulder strap is disposed in the second bag **6**.

[0041] To transform a double strap backpack into a jute bag, the whole procedures are as following:

[0042] To upside down the main body **1** of the backpack, keep the back part **12** face on top, fold the under part of the main body **1** of the backpack to fit the size of the first bag **4**, fold the top part of the main body **1** of the backpack from the position of 2 endpoints of the second opening **41**, and combine the folded top part from below, then, to open the second zipper **42**, push the bottom of the first bag **4** upward, and make the inside surface of the first bag **4** go through the opening of the first bag **4** to form a new outside surface. Because the first bag **4** is fixed on the bottom of the main body **1** by sewing, the original outside surface of the first bag **4** becomes the inside surface of the first bag **4** when the bottom of the first bag **4** goes through the opening of the first bag **4**, and the bottom of the main body **1** also goes with the bottom of the first bag **4** inside, till the rest part of the transforming bag completely goes into the first bag **4**. Finally, to flip over the top of the second opening **41**, and make the inside zipper puller **422** comes outside. Then, the original inside surface of the first bag **4** becomes the outside surface of the jute bag as shown in FIG. **4**. The whole procedure is done when the second zipper **42** is closed.

[0043] The backpack type of present invention can also be transformed into a single shoulder bag, the whole procedures are as following:

[0044] To take out the single shoulder strap **7** from the second bag **6**, open the first zipper **3** and first opening **2**, and fold down the front **11** and back **12** parts to outside of the main body **1** at the position of 2 endpoints of the first opening **2**. To keep the top of the front part **11** merged with the bottom of the front part **11** and the back part **12** merged with the bottom of the back part **12**, thus, the second zip puller **32** on the first zipper **3** comes outside. To close the first zipper **3** by pulling the second zip puller **32**, the under part of the main body **1** will be completely wrapped by folded and combined front **11** and back **12** parts, the inside surface of the front **11** and back **12** parts become the new outside surface. To closed the first opening **2** to form the bottom of the shoulder bag and push the first opening **2** to make the under part of the main body **1** go inside out, then, the inside of the under part of the main body becomes a part of appearance of transformed shoulder bag or

handbag and the inside part of the top of front **11** and back **12** parts becomes the inside layer of transformed shoulder bag, Finally, to adjust the shape of the bag and connect the single shoulder strap **7** to the bag by the buckles **15**. The backpack can be transformed into the shoulder bag as shown in FIG. **6**.

[0045] The default state of present invention is a double shoulder backpack. Due to the usage of the first bag **4**, the present invention can be transformed into a hand-lifting jute bag. To reduce the occupied storing space when the backpack is not being used, the backpack will be easier to be carried. The resent invention can also be transformed into a shoulder bag. It makes the present invention become more practical. In addition, in this embodiment, the main body **1** is made of Nylon, thus, the product of present invention is soft and flexible, it makes present invention easier to be folded.

Second Embodiment

[0046] FIGS. **7** to **11** display a multi transforming bag which comprises:

[0047] A main body **1** which is made of soft and easy-folded material, a carry-handle **14** and double shoulder straps **8**, a first opening **2** which is on the upper and central part of the main body **1** and a first zipper **3** which is disposed on two sides of the first opening **2** for sealing and opening of the first opening **2**. The soft and easy-folded material is Polyester, In this embodiment, the first zipper **3** is fixed on both sides of the first opening **2** by sewing; in other embodiments, the first zipper **3** can be sticked on the first opening **2** by viscose. A zipper slider is disposed on the first zipper **3**. The zipper slider comprises a first zipper puller **31** which can be pulled from outside of the main body **1** and a second zipper puller **32** which can be pulled from inside of the main body **1**. The main body **1** comprises a storing bag **13** which is positioned under the 2 endpoints of the first opening **2** to increase the capacity of the multi transforming bag. The main body **1** is separated into a front part **11** and a back part **12** along with the first zipper **3**. The downward of the front part **11** comprises a first bag **4** which is for restoring the folded main body **1**. The top of inside of the first bag **4** comprises a hand grip **43**. The first bag **4** has a horizontal second opening **41**, and the 2 sides of the second opening **41** is attached with second zipper **42** for sealing and opening the second opening **41**. In this embodiment, the second zipper **42** is fixed on both sides of the first opening **2** by sewing. In other embodiments, the second zipper **42** can be sticked on the first opening **2** by viscose. The second zipper **42** comprises a zipper slider which contains an outside zipper puller **421** which can be pulled from outside of the first bag **4** and an inside zipper puller **422** which can be pulled from inside of the first bag **4**. The double shoulder straps **8** are fixed on the back part **12** of the main body **1** by sewing. The main body **1** further comprises a first frame **5** which is horizontally disposed on or below the line that is connected by 2 endpoints of the first opening **2**. The inside of the back part **12** comprises a second bag **6** which is positioned below the first frame **5**. The inside of the front part **11** comprises 2 front bags **9** which are positioned below the first frame **5**. The carry-handles **14** are positioned in the inside of the front part **11** or the back part **12**. Both of the front **11** and back **12** parts comprise two buckles **15** which are positioned inside of the front **11** and back **12** parts and under the first frame **5**. The carry-handles **14** are fixed by buckles **15**. The buckles **15** are plugged buckles, and both of the left and right sides of the main body **1** comprise a side bag **10**.

[0048] As show in FIG. **7**, the default state of the present invention is a double strap backpack. In this state, the carry-handles **14** are disposed in the second bag **6**. To transform a double strap backpack into a jute bag, the whole procedures are as following:

[0049] To upside down the main body **1** of the backpack, make the back part **12** face on top, fold the under part of the main body **1** of the backpack to fit the size of the first bag **4**, fold the top part of the main body **1** of the backpack from the position of two endpoints of the second opening **41** and combine the folded top part from below, then, to open the second zipper **42**, push the bottom of the first bag **4** upward, make the inside surface of the first bag **4** go through the opening of the first bag **4** and form a new outside surface. Because the first bag **4** is fixed on the bottom of the main body **1** by sewing, the original outside surface of the first bag **4** becomes inside surface of the first bag **4** when the bottom of the first bag **4** goes through the opening of the first bag **4**, the bottom of the main body **1** also goes with the bottom of the first bag **4** inside the first bag **4** which is inside out till the rest part of the transforming bag completely goes into the first bag **4**. Finally, to flip over the top of the second opening **41** and make the inside zipper puller **422** come outside. In the meanwhile, the original inside surface of the first bag **4** becomes the outside surface of the jute bag as shown in FIG. **10**. The whole procedure is done when the second zipper **42** is closed.

[0050] The backpack type of the present invention can also be transformed into a shoulder bag, the whole procedures are as following:

[0051] To take out the carry-handles **14** from the second bag **6**, open the first zipper **3** and first opening **2**, fold down the front **11** and back **12** parts to outside of the main body **1** at the position of 2 endpoints of the first opening **2** and make the top of the front part **11** merge with the bottom of the front part **11** and the back part **12** merge with the bottom of the back part **12**, thus, the second zip puller **32** on the first zipper **3** comes outside. To close the first zipper **3** by pulling the second zip puller **32**, the under part of the main body **1** will be completely wrapped by folded and combined the front **11** and back **12** parts. The inside surface of the front **11** and back **12** parts become the new outside surface. Closing the first opening **2**, it would become the bottom of the shoulder bag. Pushing the first opening **2** to make the under part of the main body **1** go inside out, the inside of the under part of the main body would become a part of appearance of transformed shoulder bag or handbag, and the inside part of the top of front **11** and back **12** parts would become the inside layer of transformed shoulder bag. Finally, to adjust the shape of the bag and connect the carry-handles **14** to the bag by the buckles **15**, the backpack can be transformed into the hand bag as shown in FIG. **11**.

[0052] The default state of this present invention is a double shoulder backpack, due to the usage of the first bag **4**, the present invention can be transformed into a hand-lifting jute bag to reduce the occupied storing space when it is not being used, thus, makes it easier to be carried. The present invention can also be transformed into a hand bag, it makes the present invention become more practical. In this embodiment, the main body **1** is made of Polyester, thus, the product of present invention is soft and flexible. Thus it is easier to be folded.

Third Embodiment

[0053] The difference between this embodiment and the first embodiment is there is a carry-handle on the bag, two buckles are fixed in the inside of the front part **11** and the back

part **12** below the first frame **5**. The carry-handles **14** are connected with the inside of the main body of the bag by the buckles **15**. There is a carry-handle besides the single shoulder strap, thus, this embodiment of the present invention is capable of being transformed from the backpack into not only a shoulder bag but also a hand bag varies on the need of the user. In this embodiment, the bag is more practical than what is shown in the first embodiment.

[0054] What shown in aforementioned description with figures are only the better embodiments of present invention, to modulate and variate from the scope of present invention might meet the specifics of what is claimed hereafter.

What is claimed is:

1. A multi transforming bag, which comprises:

A main body (**1**) which is made of soft and easy-folded material;

A first opening (**2**) which is on the upper and central part of the main body (**1**);

A first zipper (**3**) which is disposed on 2 sides of said first opening (**2**) for sealing and opening said first opening (**2**);

A zipper slider is disposed on said first zipper (**3**);

Said zipper slider comprises a first zipper (**31**) puller which can be pulled from outside of said main body (**1**) and a second zipper puller (**32**) which can be pulled from inside of said main body (**1**);

Said main body (**1**) is separated into front part (**11**) and back part (**12**) along with the first zipper (**3**), the downward of said front part (**11**) comprises a first bag (**4**) which is for restoring the folded main body (**1**); said first bag (**4**) has a horizontal second opening (**41**); the 2 sides of said second opening (**41**) are attached with the second zipper (**42**) for sealing and opening of said second opening (**41**).

2. A multi transforming bag of claim **1**, wherein said main body (**1**) further comprises a first frame (**5**), which is horizontally disposed on or below the line that is connected by the 2 endpoints of the first opening (**2**).

3. A multi transforming bag of claim **1**, wherein the soft and easy-folded material is Nylon or Polyester.

4. A multi transforming bag of claim **2**, wherein the inside of the back part (**12**) comprise a second bag (**6**) which is positioned below the first frame (**5**).

5. A multi transforming bag of claim **2**, wherein the inside of both the front part (**11**) and back part (**12**) comprise a carry-handle (**14**), which are fixed by buckles (**15**) , and positioned in said front part (**11**) and back part (**12**) under the first frame (**5**).

6. A multi transforming bag of claim **2**, wherein the soft and easy-folded material is Nylon or Polyester.

7. A multi transforming bag of claim **4**, characterized by:

The inside of the second bag (**6**) comprises a bag cover (**61**);

The inside of the main body (**1**) comprises a single shoulder strap (**7**);

The 2 endpoints of the single shoulder strap (**7**) are fixed under the 2 endpoints of the first opening (**2**) by the buckles (**15**).

8. A multi transforming bag of claim **7**, wherein the inside of both the front part (**11**) and back part (**12**) comprise a carry-handle (**14**), which are fixed by the buckles (**15**) ,and positioned in said front part (**11**) and back part (**12**) under the first frame (**5**).

9. A multi transforming bag of claim **7**, wherein the soft and easy-folded material is Nylon or Polyester.

* * * * *