



(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
18.12.2013 Bulletin 2013/51

(51) Int Cl.:
A45F 3/04 (2006.01) A45C 3/00 (2006.01)

(21) Application number: **12744413.1**

(86) International application number:
PCT/KR2012/000834

(22) Date of filing: **06.02.2012**

(87) International publication number:
WO 2012/108644 (16.08.2012 Gazette 2012/33)

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

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(30) Priority: **10.02.2011 KR 20110011901**

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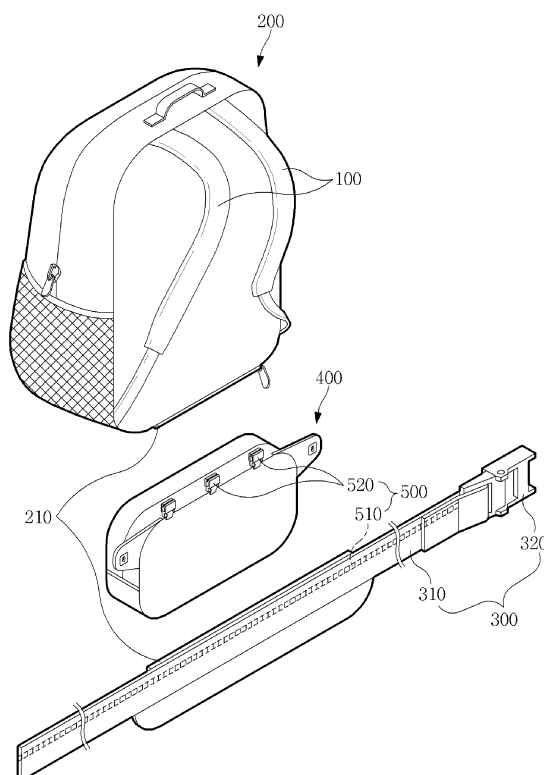
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(54) **SEPARATING TYPE BACKPACK**

(57) The present invention relates to a separating type backpack, which includes an upper side backpack including a shoulder strap; a lower side backpack including a belt member coupled to the upper side backpack

which can be attached to or detached from the belt member; and a first sliding device which is used for coupling the lower side backpack to be slidably moved according to the belt member.

[Fig. 1]



Description

[Technical Field]

[0001] The present invention relates to a separable backpack in which an upper backpack and a lower backpack are separable from each other such that the lower backpack or the upper backpack located on the back of a wearer is individually movable to the front of the wearer in a sliding manner.

[Background Art]

[0002] In general, a backpack contains various shapes of receiving spaces to enhance space utilization. Such a backpack is provided with a shoulder strap to allow a wearer to sling the shoulder strap over the shoulder.

[0003] However, when one needs to stow or retrieve articles from the backpack, the wearer must take off the shoulder strap in order to move the backpack to the front of the wearer and, after finishing use of the backpack, must again sling the shoulder strap to locate the backpack at the back of the wearer.

[Disclosure]

[Technical Problem]

[0004] To solve the above-described problem, it is an object of the present invention to provide a separable backpack in which an upper backpack and a lower backpack are separable from each other such that each of the lower backpack and the upper backpack located on the back of a wearer is individually movable in a sliding manner to the front of the wearer along the periphery of the waist of the wearer, which results in easier storage of articles.

[Technical Solution]

[0005] In accordance with an aspect of the present invention, the above and other objects can be accomplished by the provision of a separable backpack including an upper backpack having a shoulder strap, a lower backpack having a belt member to which the upper backpack is separably coupled, and a first sliding device configured to couple the lower backpack and the belt member to each other such that the lower backpack is moved along the belt member in a sliding manner.

[0006] The first sliding device may include a first zipper unit that consists of zipper parts sequentially coupled to one another in a longitudinal direction of the belt member, and a first slider, one side of which is located at the lower backpack and the other side of which is coupled to the first zipper unit such that the first slider is moved along the first zipper unit in a sliding manner.

[0007] The first slider may include one slider or a plurality of sliders.

[0008] The upper backpack and the belt member may be separably coupled to each other via a zipper.

[0009] Any one of one end of the lower backpack and one side of the belt member may be provided with a fixing hole, and the other one may be provided with a retainer that is configured to be inserted into the fixing hole.

[0010] The belt member may include a belt and a buckle mounted to one end of the belt so as to couple one end and the other end of the belt to each other, and the buckle may include a buckle main body having a through-bore for penetration of the other end of the belt, and a fixing piece, one end of which is connected to one end of the belt and the other end of which is provided with a fixing protrusion that is rotatably located in one side of the through-bore of the buckle main body to press and fix the belt penetrating the through-bore.

[0011] A support protrusion may be formed at an inner surface of the through-bore at a position corresponding to the fixing protrusion so as to press one lateral surface of the belt along with the fixing protrusion that presses the other lateral surface of the belt.

[0012] The fixing protrusion and the support protrusion may press the belt between the zipper parts within the through-bore.

[0013] Meanwhile, both ends of the shoulder strap may be connected respectively to one side and the other side of the belt member such that the shoulder strap has a U-shaped form, and the upper backpack may be coupled to one surface of the shoulder strap.

[0014] One end of the shoulder strap may be separably connected to the buckle of the belt member.

[0015] The separable backpack may further include a second sliding device provided between the shoulder strap and the upper backpack, the second sliding device serving to couple the upper backpack and the shoulder strap to each other such that the upper backpack is moved along the shoulder strap in a sliding manner.

[0016] The second sliding device may include a second zipper unit that consists of zipper parts sequentially coupled to one another in a longitudinal direction of the shoulder strap, and a second slider, one side of which is located at the upper backpack and the other side of which is coupled to the second zipper unit such that the second slider is moved along the second zipper unit in a sliding manner.

[0017] Any one of one end of the upper backpack and one side of the shoulder strap may be provided with a fixing hole, and the other one may be provided with a retainer that is configured to be inserted into the fixing hole.

[Advantageous Effects]

[0018] According to the present invention, an upper backpack and a lower backpack that constitute a separable backpack are separable from each other to allow a wearer to selectively carry at least one of the upper backpack and the lower backpack. As the upper back-

pack and/or the lower backpack are configured to be movable from the back to the front of the wearer in a sliding manner using a sliding device, convenience and efficiency of storage of articles may be enhanced.

[Description of Drawings]

[0019]

FIG. 1 is an exploded perspective view showing a first embodiment of a separable backpack according to the present invention,

FIG. 2 is a perspective view showing an assembled state of the separable backpack according to the first embodiment,

FIG. 3 is a sectional view showing a buckle of the separable backpack according to the first embodiment,

FIG. 4 is a perspective view showing a sliding device of the separable backpack according to the first embodiment,

FIG. 5 is a perspective view showing a coupled state of a belt and a lower backpack of the separable backpack according to the first embodiment,

FIG. 6 is a view showing a use state of the separable backpack according to the first embodiment,

FIG. 7 is a perspective view showing a second embodiment of the separable backpack according to the present invention, and

FIG. 8 is a perspective view showing a coupled state of an upper backpack and a shoulder strap according to the second embodiment.

[Best Mode]

[0020] Reference will now be made in detail to the exemplary embodiments of the present invention, examples of which are illustrated in the accompanying drawings, to assist those skilled in the art in easily practicing the present invention. However, various alternative embodiments of the present invention are possible and the present invention is not limited to the embodiments that will be described hereinafter. In addition, in the drawings, illustration that is irrelevant to description is omitted for clarity of description of the present invention, and the same reference numbers will be used throughout the drawings to refer to the same or like parts.

<First Embodiment>

[0021] A separable backpack according to the present invention consists of an upper backpack 200 and a lower backpack 400, which are separable from each other. The upper backpack 200 and/or the lower backpack 400 may be movable between the back and the front of a wearer in a sliding manner using a first sliding device 500, which may enhance convenience of storage. That is, receiving articles that have a high use frequency in the sliding mov-

able backpack may remove inconvenience caused when the wearer must take off the backpack.

[0022] According to the first embodiment of the present invention, the separable backpack has a feature in that the lower backpack 400 is movable in a sliding manner between the back and the front of the wearer via the first sliding device 500.

[0023] The separable backpack according to the first embodiment of the present invention, as exemplarily shown in FIGS. 1 and 2, consists of the upper backpack 200, which is equipped with a pair of shoulder straps 100, and the lower backpack 400 which is located below the upper backpack 200 and equipped with a belt member 300. The lower backpack 400 and the belt member 300 are connected to each other via the first sliding device 500. The first sliding device 500 serves to couple the lower backpack 400 and the belt member 300 to each other such that the lower backpack 400 is movable along the belt member 300 in a sliding manner.

[0024] Hereinafter, a configuration of the separable backpack according to the present embodiment will be described in more detail.

[0025] The upper backpack 200 is configured to be worn on the back of the wearer. The upper backpack internally defines a storage space that is open or closed by a zipper. Additionally, the upper backpack is provided at an outer surface thereof with one or more storage pockets (not shown) for storage of small articles. Each shoulder strap 100 is connected to an inner surface of the upper backpack so as to be slung over the shoulder of the wearer.

[0026] The pair of shoulder straps 100 is respectively formed at both sides of the upper backpack 200 to allow the wearer to sling the shoulder straps 100 over his/her shoulders.

[0027] The lower backpack 400 is configured to be worn around the waist of the wearer. The lower backpack 400 internally defines a storage space that is open or closed by a zipper. The belt member 300 is coupled to the lower backpack so as to surround the waist of the wearer.

[0028] The belt member 300 includes a belt 310 and a buckle 320 mounted to one end of the belt 310, the buckle 320 serving to connect both ends of the belt 310 to each other.

[0029] The belt 310 takes the form of an elongated band and is formed of soft fabric or leather. As such, the belt 310 may stably come into close contact with the waist of the wearer.

[0030] The buckle 320, as exemplarily shown in FIG. 3, serves to connect both ends of the belt 310 to each other so as to secure the belt to the waist of the wearer. The buckle 320 includes a buckle main body 321 having a through-bore 321a for penetration of the other end of the belt 310, and a fixing piece 322, one end of which is provided with a connecting portion 322a that is connected to one end of the belt 310 and the other end of which is provided with a fixing protrusion 322b that is rotatably

located at one side of the through-bore 321a of the buckle main body 321 to press and fix the belt 310 that penetrates the through-bore 321 a.

[0031] That is, if the fixing piece 322 is rotated to be perpendicular to the buckle main body 321 (i.e. rotated clockwise in FIG. 3), the fixing protrusion 322b of the fixing piece 322 escapes from the through-bore 321a as exemplarily shown by a dot-dot-dashed line of FIG. 3, thereby allowing the other end of the belt 310 to smoothly penetrate the through-bore 321a of the buckle main body 321. Then, in such a state, if the fixing piece 322 is rotated to be parallel to the buckle main body 321 (i.e. rotated counterclockwise in FIG. 3), the fixing protrusion 322b enters the through-bore 321a as exemplarily shown by a solid line of FIG. 3, thereby pressing and fixing the belt 310 located in the through-bore 321a.

[0032] In this case, the fixing piece 322 maintains a current state so long as the fixing piece 322 is not artificially rotated clockwise in FIG. 3. As such, both ends of the belt 310 remain in a coupled state.

[0033] Here, a support protrusion 321b is formed in the through-bore 321a at a position corresponding to the fixing protrusion 322b that presses the belt 310. The support protrusion 321b and the fixing protrusion 322b simultaneously press both lateral surfaces of the belt 310 to achieve increased fixing force.

[0034] Meanwhile, each of the fixing protrusion 322b and the support protrusion 321b has a triangular pyramidal shape, the width of which is gradually tapered toward a tip end. With this configuration, the fixing protrusion and the support protrusion may more firmly press and fix the belt 310.

[0035] The upper backpack 200 is separably connected to the belt member 300.

[0036] More specifically, a lower end of the upper backpack 200 and an upper end of the belt member 300 are separably coupled to each other via a zipper 210. In other words, when connecting the upper backpack 200 and the belt member 300 to each other using the zipper 210, ease in wearing and carrying of the backpack may be increased. When separating the upper backpack 200 from the belt member 300, individual carry of the upper backpack 200 and the lower backpack 400 is possible.

[0037] Although not shown in the drawings of the present invention, the upper backpack 200 and the lower backpack 400 may be separably coupled to each other using a known connection device, such as a zipper, a fabric hook-and-loop structure (so-called Velcro tape), or the like.

[0038] The first sliding device 500, as exemplarily shown in FIG. 4, serves to more easily move the lower backpack 400 to the front of the wearer. The first sliding device is provided between the lower backpack 400 and the belt member 300.

[0039] More specifically, the first sliding device 500 includes a first zipper unit 510 that consists of zipper parts sequentially coupled to one another in a longitudinal direction of the belt 310 of the belt member 300, and a first

slider 520, one side of which is located at the lower backpack 400 and the other side of which is coupled to the first zipper unit 510 such that the first slider 520 is moved along the first zipper unit 510 in a sliding manner.

[0040] The first sliding device 500 having the above-described configuration may stably move the lower backpack 400 coupled to the first slider 520 in a sliding manner as the first slider 520 is moved along the first zipper unit 510 in a sliding manner.

[0041] A fixing structure is provided between the lower backpack 400 and the belt 310 to fix the lower backpack 400 located on the back of the wearer to the belt 310. The fixing structure includes a fixing hole formed in any one of either end of the lower backpack 400 and one side of the belt 310, and a fixing boss formed at the other one so as to be inserted into the fixing hole. Through coupling between the fixing hole and the fixing boss, the lower backpack 400 is fixed to the belt 310 without a risk of movement.

[0042] In one example, the fixing structure, as exemplarily shown in FIG. 5, includes elliptical fixing holes 410 formed respectively in both ends of the lower backpack 400, and elliptical retainers 311 formed at one surface of the belt 310 facing the fixing holes 410, the retainers 311 being smaller than the fixing holes 410 and rotated to vertically or horizontally extend.

[0043] More specifically, after the lower backpack 400 is moved to a portion of the belt 310 provided with the retainers 311 via the first sliding device 500, the retainers 311 of the belt 310 are inserted into the fixing holes 410 of the lower backpack 400 and then rotated by an angle of 90 degrees so as to intersect with the fixing holes 410. Thereby, both ends of the retainers 311 are caught by the fixing holes 410 so as not to be separated from the fixing holes. In this way, the lower backpack 400 may be fixed to one side of the belt 310.

[0044] Alternatively, the fixing structure including the fixing holes 410 and the retainers 311 may be replaced by a fabric hook and loop structure, a button and button-hole structure, or the like.

[0045] A use state of the separable backpack having the above-described configuration according to the present embodiment will hereinafter be described.

[0046] As exemplarily shown in FIG. 6, the wearer slings the shoulder straps 100 of the upper backpack 200 over both shoulders, and then positions the belt 310 of the belt member 300 to surround the waist of the wearer by gripping both ends of the belt 310 with both hands. In such a state, the wearer inserts one end of the belt 310 into the through-bore 321a of the buckle 320 and adjusts the length of the belt 310 such that the belt 310 is stably seated around the waist of the wearer.

[0047] Next, as the fixing piece 322 is rotated, the fixing protrusion 322b of the fixing piece 322 and the support protrusion 321b formed in the through-bore 321a press both lateral surfaces of the belt 310 within the through-bore 321a, thereby fixing one end of the belt 310.

[0048] As such, the wearer may stably carry the upper

backpack 200 and the lower backpack 400 using the shoulder straps 100 and the belt member 300.

[0049] Here, articles having a high use frequency, such as beverages, maps, mobile phones, etc., may be stored in the lower backpack 400, whereas articles having a low use frequency, such as books, blankets, etc., are stored in the upper backpack 200.

[0050] In this case, once the belt member 300 and the upper backpack 200 are separated from each other by opening the zipper 210 that connects the belt member 300 and the upper backpack 200 to each other, the wearer may carry any necessary one of the upper backpack 200 and the lower backpack 400.

[0051] Thereafter, when it is desired to retrieve high use frequency articles, such as a mobile phones, etc., the retainers 311 of the belt member 300 are rotated by an angle of 90 degrees so as to be oriented in the same direction as the fixing holes 410 of the lower backpack 400. As such, the retainers 311 may be separated from the fixing holes 410 to release the lower backpack 400. In such a state, if the lower backpack 400 is pulled to the front of the wearer along the belt member 300, the first slider 520 coupled to the lower backpack 400 is moved in a sliding manner along the first zipper unit 510 that is longitudinally coupled to the belt member 300 to thereby be moved to the front of the wearer. In this way, the wearer may easily retrieve articles stored in the lower backpack 400 at the front side of the wearer.

[0052] Accordingly, the separable backpack of the present invention is configured in such a manner that the upper backpack 200 and the lower backpack 400 are individually provided and in particular, the lower backpack 400 is movable in a sliding manner between the back and the front of the wearer along the belt member 300 via the first sliding device 500, which results in enhanced convenience.

[0053] Hereinafter, another embodiment of the present invention will be described. In the following description, components having the same configuration and function as those of the above-described embodiment are denoted by the same or similar reference numerals, and a repeated description thereof will be omitted.

<Second Embodiment>

[0054] The separable backpack according to the second embodiment of the present invention is configured in such a manner that the upper backpack 200 located at the back of the wearer is movable to the front of the wearer.

[0055] More specifically, the separable backpack according to the second embodiment of the present invention, as exemplarily shown in FIG. 7, consists of the upper backpack 200, which is equipped with a shoulder strap 100', and the lower backpack 400 which is located below the upper backpack 200 and connected to the belt member 300. The upper backpack 200 is movable in a sliding manner along the shoulder strap 100' via a second sliding

device 500'.

[0056] Configurations of the belt member 300 and the lower backpack 400 and connection therebetween are equal to configurations of the belt member 300 and the lower backpack 400 and connection therebetween according to the above-described embodiment, and thus a repeated description of this will be omitted hereinafter.

[0057] The shoulder strap 100' has an elongated shape. One end of the shoulder strap is connected to the belt member 300 located at the back of the wearer and the other end of the shoulder strap is connected to the belt member 300 located at the front of the wearer such that the shoulder strap passes over one of the shoulders of the wearer. The upper backpack 200 is coupled to the shoulder strap 100' located at the back of the wearer.

[0058] That is, both ends of the shoulder strap 100' are coupled to the belt member 300 at the back and front of the wearer respectively such that the wearer diagonally slings the shoulder strap for stability of wearing.

[0059] Here, the other end of the shoulder strap 100' is separably coupled to the belt member 300, which may increase convenience when the wearer slings or releases the shoulder strap 100' over or from the shoulder. Preferably, the other end of the shoulder strap 100' is separably coupled to a connector 301 formed at an upper end of the buckle 320 of the belt member 300.

[0060] In one example, after a fastening loop is mounted to the other end of the shoulder strap 100', the fastening loop may be fastened to the connector to achieve the aforementioned separable coupling. In another example, after a fabric hook and loop structure is attached to the other end of the shoulder strap 100', the other end of the shoulder strap 100' may penetrate the connector 301 and be attached to the belt member using the Velcro tape as exemplarily shown in FIG. 7.

[0061] Note that various other known coupling means may be applied so long as they realize separable coupling of a belt, a shoulder strap, suspenders, and the like.

[0062] The second sliding device 500' serves to couple the upper backpack 200 and the shoulder strap 100' to each other such that the upper backpack 200 is moved in a sliding manner along the shoulder strap 100'. The second sliding device 500' includes a second zipper unit 510' that consists of zipper parts sequentially coupled to one another in a longitudinal direction of the shoulder strap 100', and a second slider 520', one side of which is located at the upper backpack 200 and the other side of which is coupled to the second zipper unit 510' such that the second slider 520' is moved in a sliding manner along the second zipper unit 510'.

[0063] In other words, if the second slider 520' is moved in a sliding manner along the second zipper unit 510', the upper backpack 200 secured to the second slider 520' is simultaneously moved in a sliding manner.

[0064] As such, in the same manner as the above-described first embodiment, in a state in which the belt member 300 is worn on the waist of the wearer, the other end of the shoulder strap 100' connected to the belt member

300 is coupled to the buckle 320 of the belt member 300 located at the front of the wearer, completing a process of putting on the upper backpack 200.

[0065] In such a state, if the upper backpack 200 is pulled toward the shoulder of the wearer, the second slider 520' coupled to the upper backpack 200 is moved in a sliding manner along the second zipper unit 510' that is longitudinally coupled to the shoulder strap 100', thereby allowing the upper backpack 200 to be located at the front of the wearer by passing over the shoulder of the wearer. In this way, the wearer may easily stow or retrieve articles from the upper backpack 200.

[0066] Meanwhile, the upper backpack 200 is secured to one side of the shoulder strap 100' located at the back of the wearer via a fixing structure. The fixing structure includes a fixing hole formed in any one of one end of the upper backpack 200 and one side of the shoulder strap 100', and a retainer formed at the other one so as to be inserted into the fixing hole.

[0067] In one example, as exemplarily shown in FIG. 8, a fixing hole 201 may be formed in one end of the upper backpack 200, and a retainer 101' may be formed at one side of the shoulder strap 100' so as to be inserted into the fixing hole 201, so as to secure or release the upper backpack 200 to or from the shoulder strap 100'.

[0068] Although the embodiments of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims.

Claims

1. A separable backpack comprising:

an upper backpack having a shoulder strap;
a lower backpack having a belt member to which the upper backpack is separably coupled; and
a first sliding device configured to couple the lower backpack and the belt member to each other such that the lower backpack is moved along the belt member in a sliding manner.

2. The separable backpack according to claim 1, wherein the first sliding device includes:

a first zipper unit that consists of zipper parts sequentially coupled to one another in a longitudinal direction of the belt member; and
a first slider, one side of which is located at the lower backpack and the other side of which is coupled to the first zipper unit such that the first slider is moved along the first zipper unit in a sliding manner.

3. The separable backpack according to claim 2,

wherein the first slider includes one slider or a plurality of sliders.

4. The separable backpack according to claim 1, wherein the upper backpack and the belt member are separably coupled to each other via a zipper.

5. The separable backpack according to claim 1, wherein any one of one end of the lower backpack and one side of the belt member is provided with a fixing hole, and the other one is provided with a retainer that is configured to be inserted into the fixing hole.

6. The separable backpack according to claim 1, wherein the belt member includes a belt and a buckle mounted to one end of the belt so as to couple one end and the other end of the belt to each other, and wherein the buckle includes a buckle main body having a through-bore for penetration of the other end of the belt, and a fixing piece, one end of which is connected to one end of the belt and the other end of which is provided with a fixing protrusion that is rotatably located in one side of the through-bore of the buckle main body to press and fix the belt penetrating the through-bore.

7. The separable backpack according to claim 6, wherein a support protrusion is formed at an inner surface of the through-bore at a position corresponding to the fixing protrusion so as to press one lateral surface of the belt along with the fixing protrusion that presses the other lateral surface of the belt.

8. The separable backpack according to claim 7, wherein the fixing protrusion and the support protrusion press the belt between the zipper parts within the through-bore.

9. The separable backpack according to any one of claims 1 to 8, wherein both ends of the shoulder strap are connected respectively to one side and the other side of the belt member such that the shoulder strap has a U-shaped form, and the upper backpack is coupled to one surface of the shoulder strap.

10. The separable backpack according to claim 9, wherein one end of the shoulder strap is separably connected to the buckle of the belt member.

11. The separable backpack according to claim 10, further comprising a second sliding device provided between the shoulder strap and the upper backpack, the second sliding device serving to couple the upper backpack and the shoulder strap to each other such that the upper backpack is moved along the shoulder strap in a sliding manner.

12. The separable backpack according to claim 11, wherein the second sliding device includes:

a second zipper unit that consists of zipper parts sequentially coupled to one another in a longitudinal direction of the shoulder strap; and
a second slider, one side of which is located at the upper backpack and the other side of which is coupled to the second zipper unit such that the second slider is moved along the second zipper unit in a sliding manner.

13. The separable backpack according to claim 11, wherein any one of one end of the upper backpack and one side of the shoulder strap is provided with a fixing hole, and the other one is provided with a retainer that is configured to be inserted into the fixing hole.

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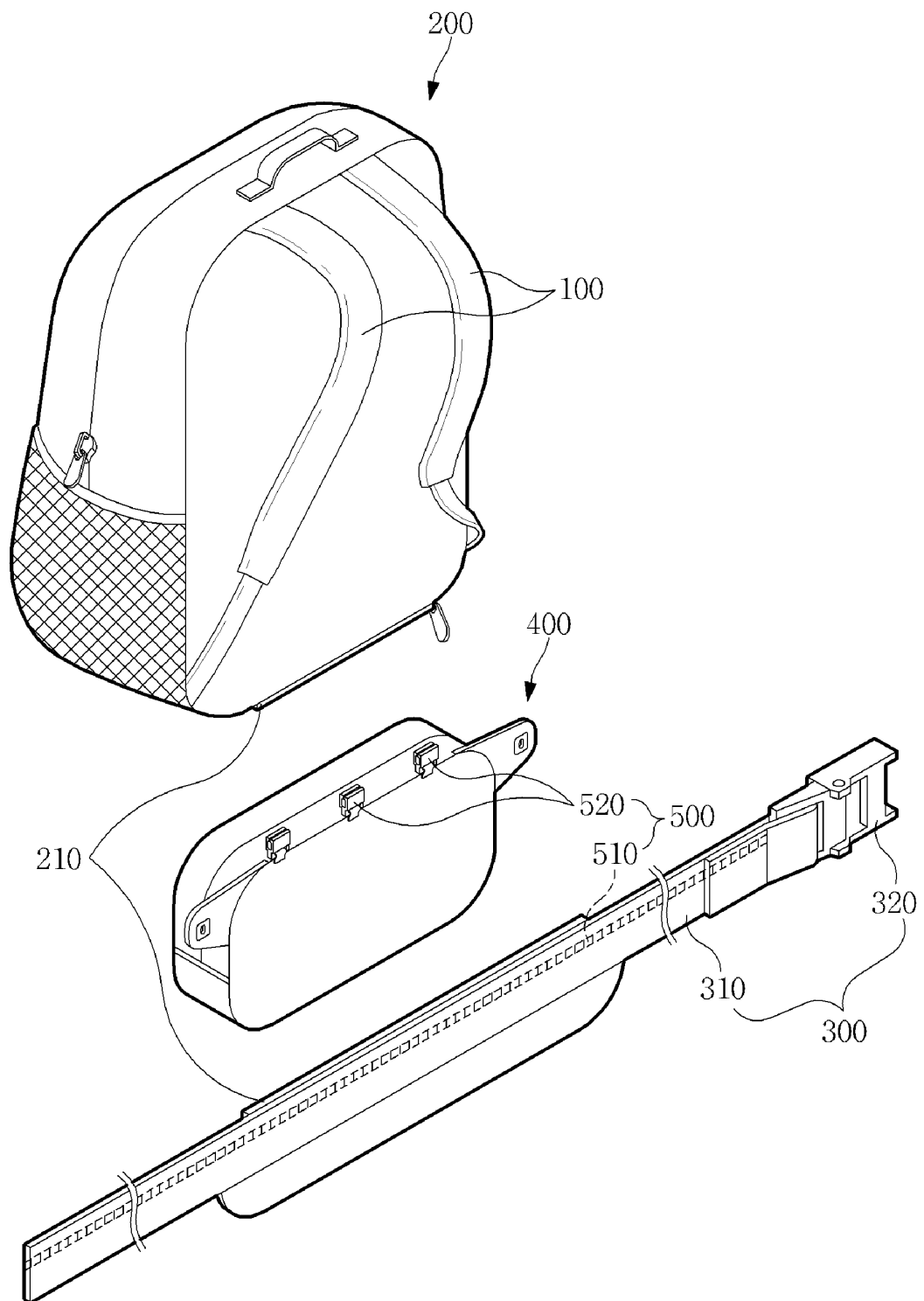
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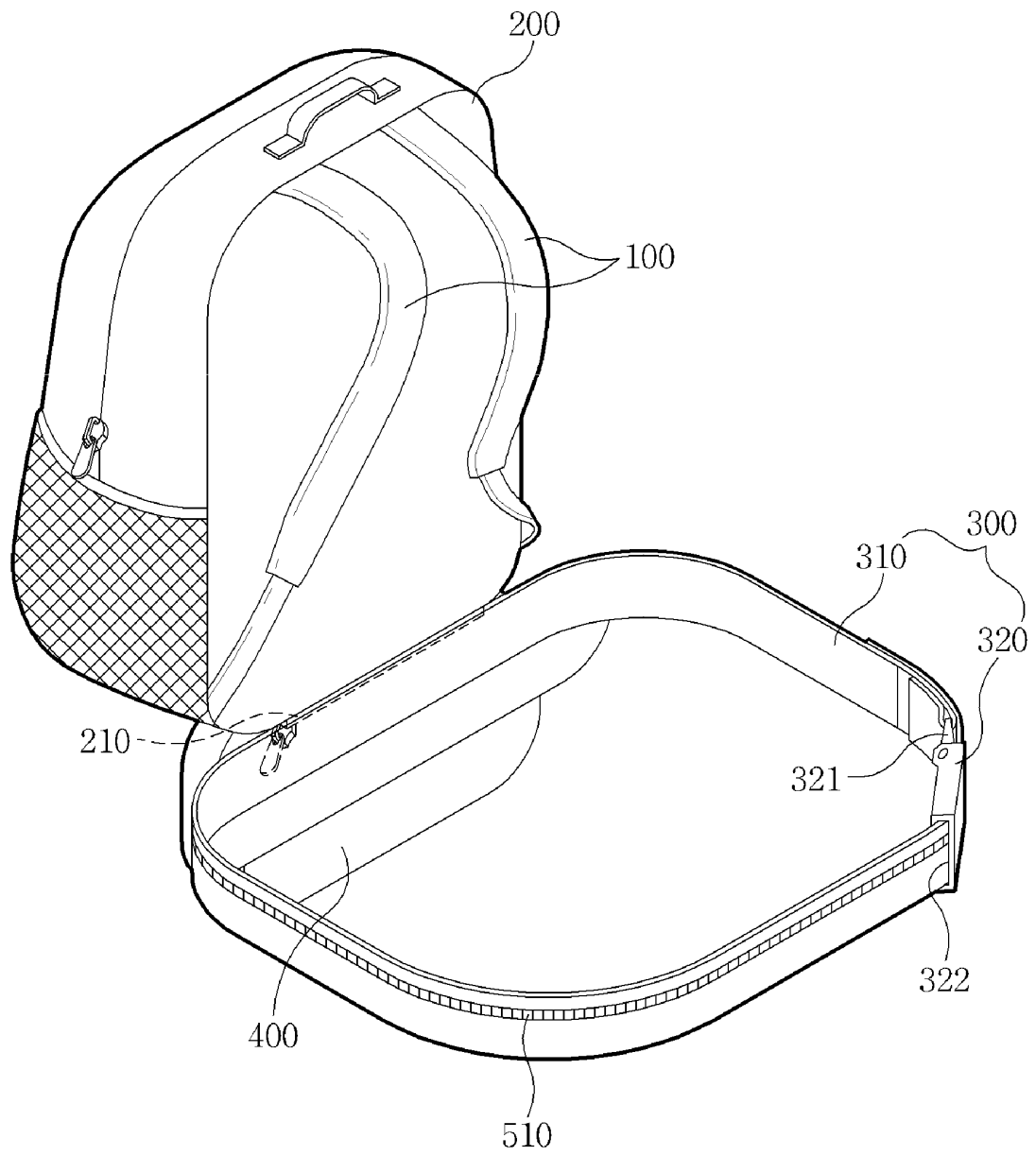
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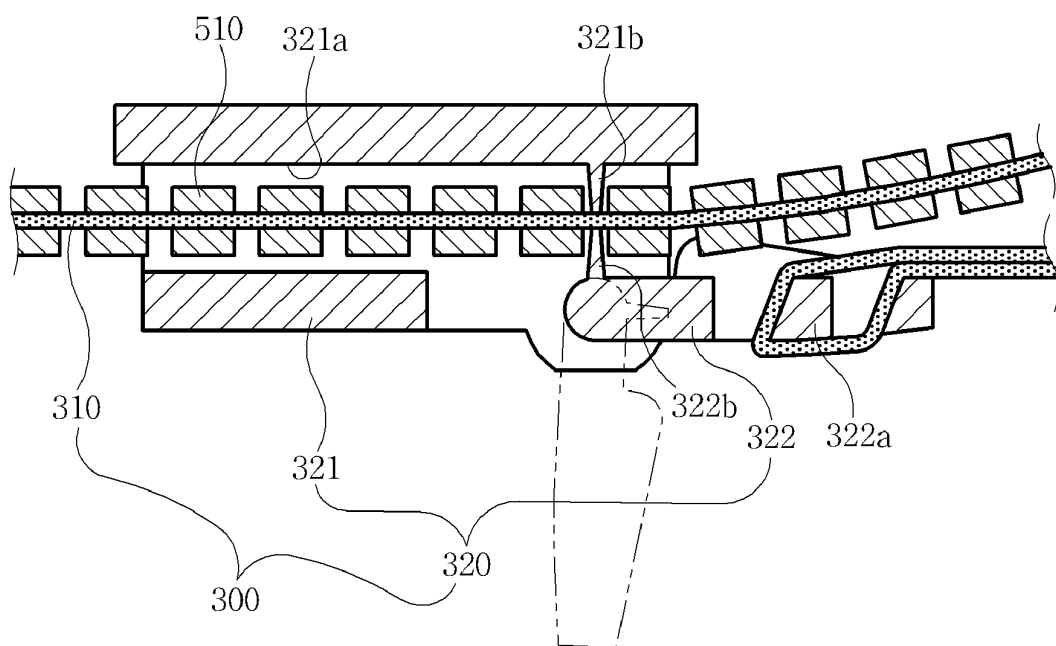
[Fig. 1]



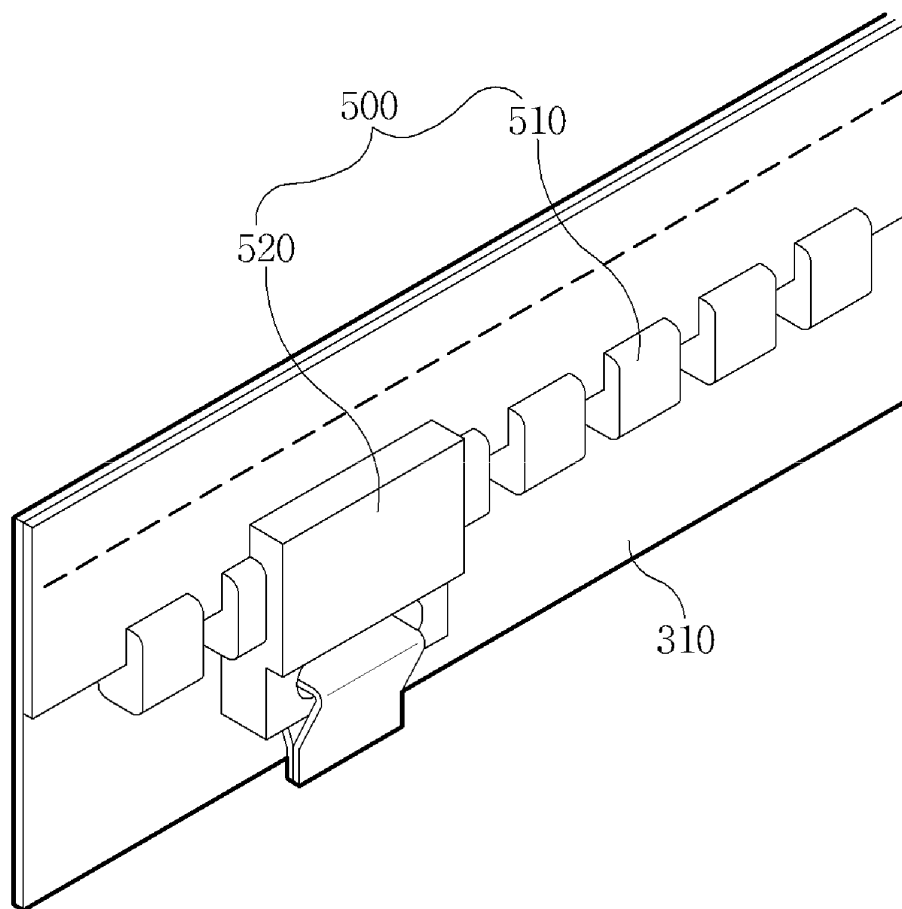
[Fig. 2]



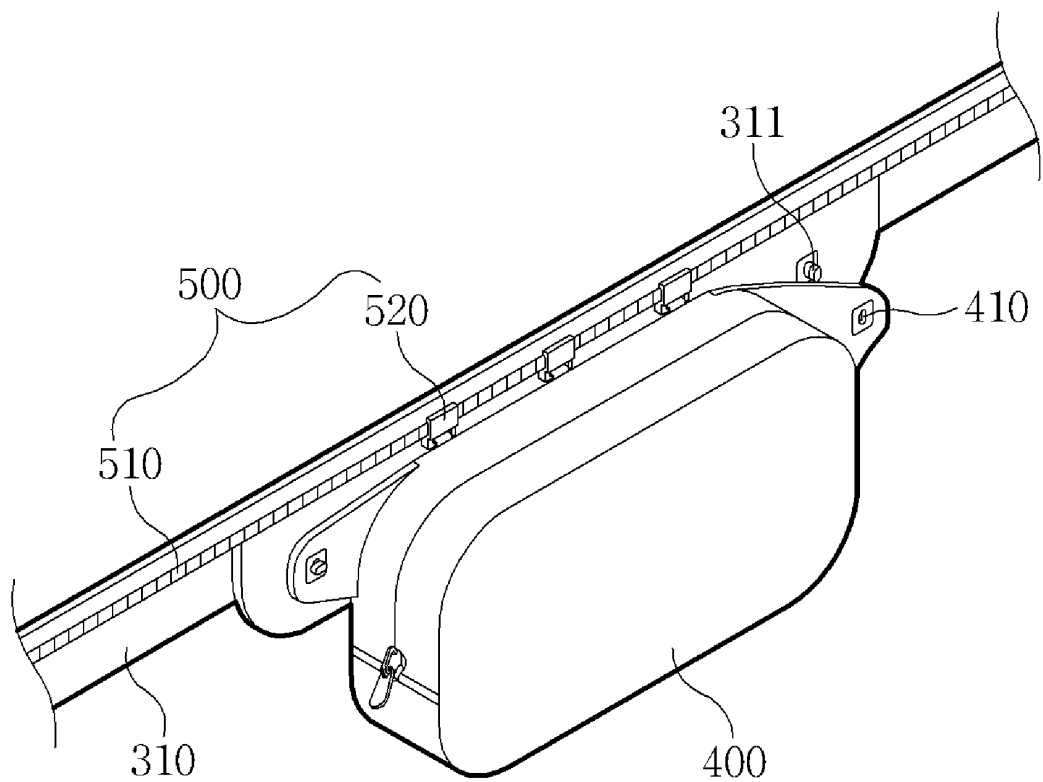
[Fig. 3]



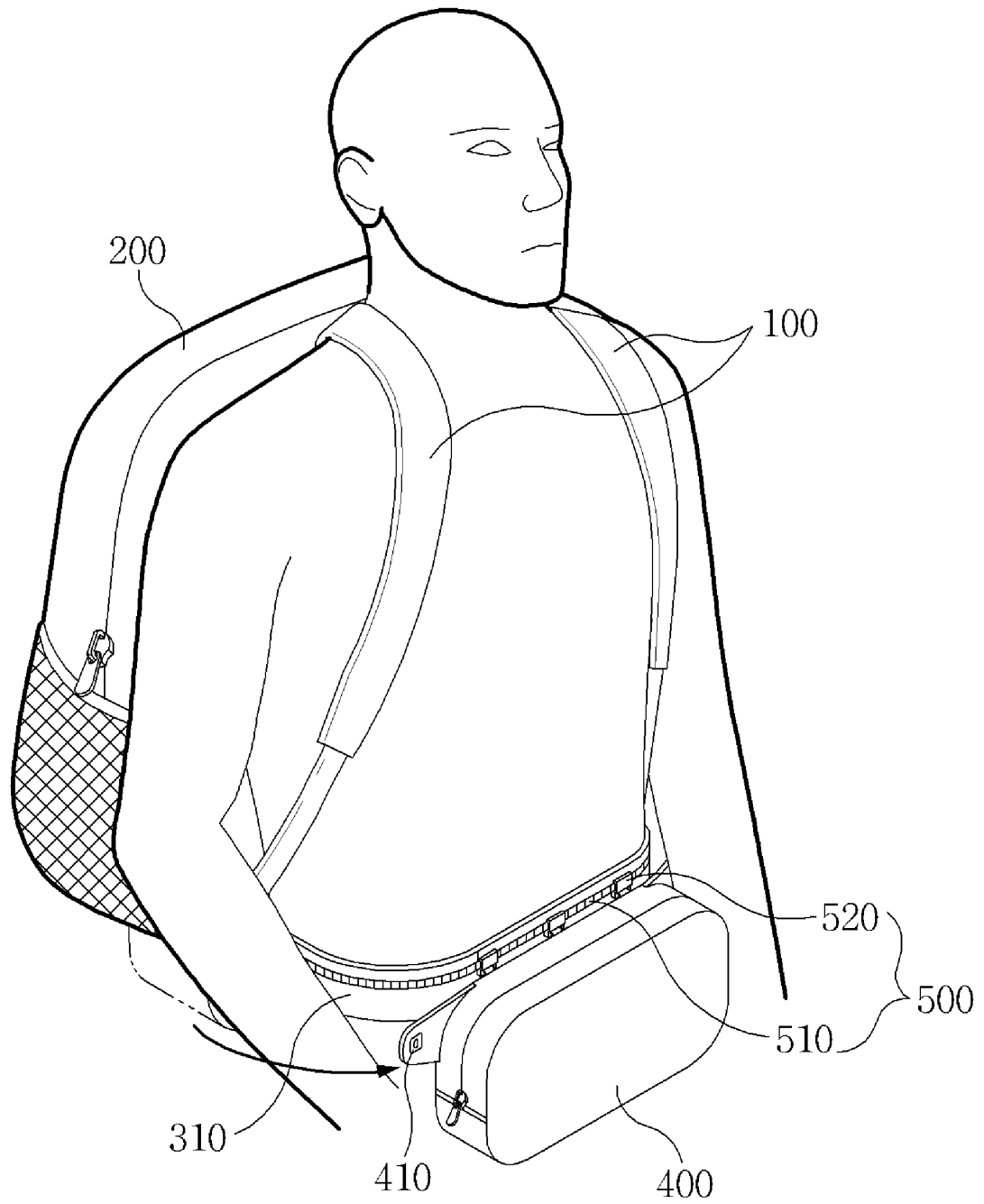
[Fig. 4]



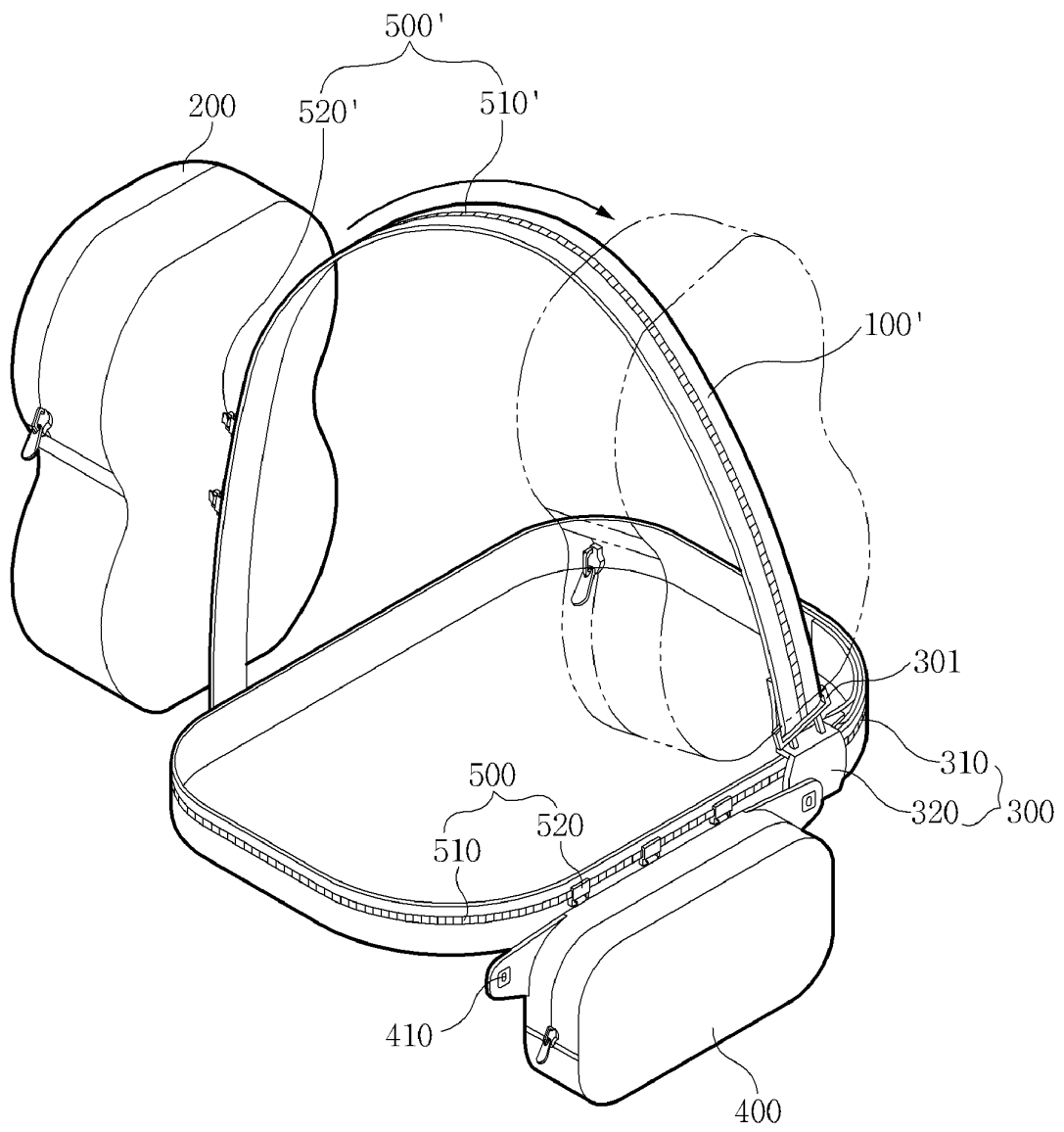
[Fig. 5]



[Fig. 6]



[Fig. 7]



[Fig. 8]

