



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
**12.01.2011 Bulletin 2011/02**

(51) Int Cl.:  
**B65D 85/68 (2006.01) B62J 99/00 (2009.01)**

(21) Application number: **09008992.1**

(22) Date of filing: **09.07.2009**

(84) Designated Contracting States:  
**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 SE SI SK SM TR**  
Designated Extension States:  
**AL BA RS**

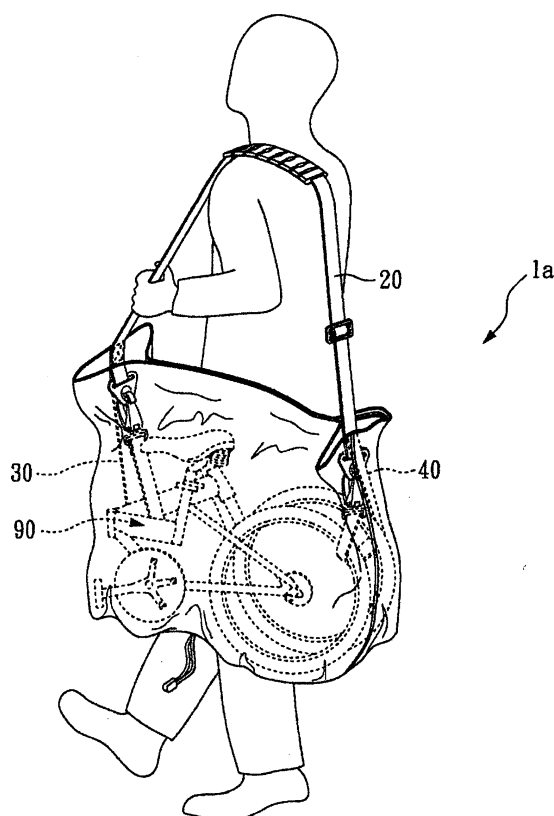
(72) Inventor: **Uimonen, Joakim**  
**Sanchong City**  
**Taipei County 241 (TW)**

(74) Representative: **Altenburg, Bernardus Stephanus Franciscus**  
**ALTENBURG PATENT**  
**Ravelijnstraat 125**  
**4102 AJ Culemborg (NL)**

(71) Applicant: **Dahon and Hon Industrial Labs., Ltd.**  
**Sanchong City, Taipei County 241 (TW)**

(54) **Bicycle bag**

(57) A bicycle bag (1a, 1b, 1c, 1d, 1e, 1f, 1g) which comprises a covering body (10), a main support strap (20, 20f, 20g), a first connection device (30, 30c, 30e, 30g) and a second connection device (40, 40c, 40e, 40g) is disclosed. The major characteristic of the present invention is that the main support strap (20, 20f, 20g), the first connection device (30, 30c, 30e, 30g), and the second connection device (40, 40c, 40e, 40g) are directly or indirectly connected with each other. By means of associating with connection members (15, 16, 31, 32, 41, 42), the first connection device (30, 30c, 30e, 30g) and the second connection device (40, 40c, 40e, 40g) can be fastened to a bicycle (90). Therefore, when the first connection device (30, 30c, 30e, 30g) and the second connection device (40, 40c, 40e, 40g) receive a force from the weight of the bicycle (90), the main support strap (20, 20f, 20g) is capable of bearing such a force.



**FIG. 3F**

## Description

[0001] The present invention relates to a shoulder bag or a handbag; more particularly, the present invention relates to a bag used for containing a bicycle.

[0002] Please refer to FIG. 1, which illustrates a schematic drawing of a known bicycle bag 80 according to a prior art. As shown in FIG. 1, support straps 82 are connected with a bag body 81. Because the bag body 81 has to bear the total weight of the contents of the bicycle bag 80, the fabric and structure of the bag body 81 have to be thick and sufficiently durable. Further, because the connection portions 83 between the support straps 82 and the bag body 81 are used for carrying the total weight of the bicycle placed within the bag 80, the connection portions 83 are always the most easily damaged parts of the bicycle bag 80.

[0003] According to another prior art, as shown in FIG. 2, a support straps 82b is attached to a bag body 81b with a surrounding manner, such that the bag body 81b does not have to carry the total weight of the bicycle bag 80b. However, the bag body 81b still needs to share a significant weight of the bicycle.

[0004] The bicycle bag is designed for containing a bicycle, especially a folding bicycle. Usually, the weight of the folding bicycle exceeds 10 kilograms; therefore, a conventional bicycle bag has to have a thicker and stronger bag body. Accordingly, the volume of the conventional bicycle bag is still quite large, even when the bag is empty.

[0005] In U.S. Patent No. 3,886,988 (Bicycle bag, hereinafter preferred to as "the '988 patent"), the bicycle bag has problems similar to those of the bicycle bag 80 shown in FIG. 1. That is, the connection portions between the support strap and the bag body are easily damaged, and the fabric of the bag body has to be very durable; otherwise, the bag body will be easily damaged.

[0006] In U.S. Patent No. 6,202,722 (Wheelchair carrier), the wheelchair carrier applies the same approach to connecting the support strap with the bag body as the '988 patent does, thereby resulting in the same problem.

[0007] Therefore, there is a need to provide a bicycle bag to mitigate and/or obviate the aforementioned problems.

## SUMMARY OF THE INVENTION

[0008] It is an object of the present invention to provide a bicycle bag capable of bearing the weight of a bicycle, wherein the bag body of the bicycle bag barely needs to or completely needs not to bear the weight of the bicycle. Therefore, the bag body can be made of a relatively thinner material. Further, the connection portions between a support strap and the bag body must be resistant to damage.

[0009] To achieve the aforementioned object, the present invention provides a bicycle bag, which comprises a covering body, a main support strap, a first connection device, and a second connection device.

tion device, and a second connection device.

[0010] The major characteristic of the present invention is that the main support strap, the first connection device, and the second connection device are directly or indirectly connected with each other. The first connection device and the second connection device are used to fasten a bicycle. Therefore, when the first connection device and the second connection device support the weight of the bicycle, the main support strap is capable of bearing such a force. As a result, the covering body of the present invention barely needs to or completely needs not to bear the weight of the bicycle, such that the covering body of the present invention can be a very thin sheet. Compared to a conventional bicycle bag, which has a relatively thicker bag body, the bicycle bag of the present invention is much lighter.

[0011] Further, because the covering body of the present invention barely needs to or completely needs not to bear the weight of the bicycle, connection portions between the main support strap and the covering body are not easily damaged, such that the bicycle bag of the present invention is more durable and has a longer life.

[0012] Other objects, advantages, and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0013]

FIG. 1 illustrates a schematic drawing of a known bicycle bag according to a prior art.

FIG. 2 illustrates a schematic drawing of another known bicycle bag according to a prior art.

FIG. 3 illustrates a perspective view of a bicycle bag according to a first embodiment of the present invention.

FIGs. 3A and 3B illustrate cross-sectional views showing two different approaches to connecting a main support strap and a first connection device with each other according to the present invention.

FIGs. 3C, 3D, 3E and 3F step by step showing how a bicycle is placed in the bicycle bag according to the first embodiment of the present invention.

FIG. 4 illustrates a perspective view of a bicycle bag according to a second embodiment of the present invention.

FIGs. 4A and 4B step by step showing how a bicycle is placed in the bicycle bag according to the second embodiment of the present invention.

FIG. 5 illustrates a perspective view of a bicycle bag according to a third embodiment of the present invention.

FIG. 5A illustrates how a bicycle is placed in the bicycle bag according to the third embodiment of the present invention.

FIG. 6 illustrates a perspective view of a bicycle bag

according to a fourth embodiment of the present invention.

FIG. 7 illustrates a perspective view of a bicycle bag according to a fifth embodiment of the present invention.

FIG. 8 illustrates a perspective view of a bicycle bag according to a sixth embodiment of the present invention.

FIG. 9 illustrates a schematic drawing of a bicycle bag as a backpack according to a seventh embodiment of the present invention.

FIG. 9A illustrates a perspective view of a bicycle bag according to a seventh embodiment of the present invention.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

**[0014]** Please refer to FIG. 3 and FIG 3C~3F regarding a first embodiment of the present invention.

**[0015]** A bicycle bag 1a of the present invention comprises a covering body 10, a main support strap 20, a first connection device 30, and a second connection device 40.

**[0016]** The covering body 10 mainly comprises a thin sheet 18. The thin sheet 18 is preferably made of soft materials, such as plastic cloth (like PVC, PU or nylon), synthetic leather, or the like. The thickness of the thin sheet 18 is preferably less than 0.2 mm. In this embodiment, the thin sheet 18 is rectangular in shape and can be rolled to form a tube, such that the covering body 10 has an upper opening 11 and a lower opening 12, and the inside of the tube formed by the thin sheet 18 thereby creates a storage space 13 for placing a bicycle 90 (as shown in FIG. 3).

**[0017]** The covering body 10 further comprises an upper connection member 15, such as a zipper 15a, a hook and loop (also known as Velcro), et cetera. The zipper 15a is attached to the thin sheet 18 and is located in the upper opening 11. Therefore, the zipper 15a can almost or completely seal the upper opening 11.

**[0018]** In the lower opening 12, the covering body 10 also comprises a lower connection member 16, which is attached to the thin sheet 18 as well. The lower connection member 16 can be, but is not limited to, a drawstring 16a, such that the lower connection member 16 can almost or completely seal the lower opening 12.

**[0019]** The main support strap 20 comprises a main first end 21 and a main second end 22. The main first end 21 of the main support strap 20 is connected with the first connection device 30, and the main second end 22 of the main support strap 20 is connected with the second connection device 40. In this embodiment, the main support strap 20 is made as a shoulder strap. But please note that the main support strap 20 can also be made as a handle.

**[0020]** The first connection device 30 comprises a first strap 33 and two first connection members 31, 32 (e.g.

one hook, one loop). The two first connection members 31, 32 are respectively connected with two ends of the first strap 33. Similarly, the second connection device 40 also comprises a second strap 43 and two second connection members 41, 42 (e.g. one hook, one loop). The two second connection members 41, 42 are respectively connected with two ends of the second strap 43.

**[0021]** Please refer to FIG. 3 and FIG. 3A regarding the connection relation among the main support strap 20 and the first connection device 30 (the second connection device 40 can have the same manner).

**[0022]** The first strap 33 is connected with the thin sheet 18. The main first end 21 of the main support strap 20 forms a small circle first to connect the first connection members 31 (such as a loop), and then connects with the first strap 33. Therefore, the main support strap 20 and the thin sheet 18 can be connected with each other as well. In this embodiment, the abovementioned main support strap 20, the first strap 33, and the thin sheet 18 are connected with each other by means of sewing.

**[0023]** Please note that the method of connecting the main support strap 20, the first strap 33, and the thin sheet 18 with each other can be varied. Please refer to FIG. 3B for another example. The main first end 21 of the main support strap 20 is connected with the thin sheet 18. The first strap 33 forms a small circle first to connect the first connection members 31. Then the first strap 33 is connected with the main first end 21, such that the first strap 33 and the thin sheet 18 can be connected with each other as well.

**[0024]** Please refer to FIGs. 3C, 3D, 3E and 3F regarding the convenience of using the present invention.

**[0025]** At first the user lets the upper opening 11 and the lower opening 12 open, and places the bicycle bag 1a above the bicycle 90 (such as a folding bicycle), as shown in FIG. 3C.

**[0026]** Please refer to FIG. 3D. The user lays down the bicycle bag 1a with the lower opening 12 toward the bicycle 90, so as the covering body 10 covers the bicycle 90. Then the user makes the first strap 33 and the second strap 43 pass through appropriate portions of the bicycle 90, and connects two first connection members 31, 32 and second connection members 41, 42, so as to fasten the bicycle 90. For example, the appropriate portions of the bicycle 90 can be folded portions and the front wheel or the back wheel. Because the main support strap 20 is connected with both the first connection device 30 and the second connection device 40, the weight of the bicycle 90 can be supported by the main support strap 20. As a result, the thin sheet 18 of the covering body 10 barely needs to or completely needs not to bear the weight of the bicycle 90, such that the thin sheet 18 of the covering body 10 of the present invention can be made as a very thin sheet rather than the thicker bag body of a conventional bicycle bag.

**[0027]** Finally, the user closes the upper opening 11 and the lower opening 12, as shown in FIG. 3E. Then the user lifts the bicycle 90, as shown in FIG. 3F. Please

note that, by using the present invention, the user does not need to lift the bicycle 90 (which is heavy) in order to place it in the bicycle bag 1a like the prior art. Furthermore, it is much easier to place the bicycle 90 into the covering body 10 from the lower opening 12 (it is hard to put a bicycle in a bag from the top of the bag).

**[0028]** Please refer to FIG. 4, which illustrates a perspective view of a bicycle bag 1b according to a second embodiment of the present invention. The major difference between FIG. 4 and FIG. 3 is the upper opening. The bicycle bag 1a in FIG. 3 comprises an upper opening 11, while the bicycle bag 1b in FIG. 4 does not comprise an upper opening. For the bicycle bag 1a, the advantage of the upper opening 11 is that when the user wants to place or take out the bicycle 90, s/he can easily fasten or unfasten the bicycle 90 from the upper opening 11. For the second embodiment, the user can pull up (or turn inside out) the thin sheet 18 to reveal the first and second connection device 30, 40 first, as shown in FIG. 4A, and fasten the bicycle 90. Then the user can pull down (or roll down) the thin sheet 18 to cover the bicycle 90, as shown in FIG. 4B. Therefore, for the second embodiment, the user still can fasten or unfasten the bicycle 90 from the lower opening 12. As a result, it is not necessary to provide the upper opening 11.

**[0029]** Please refer to FIG. 5 and FIG. 5A, which illustrates a bicycle bag 1c according to a third embodiment of the present invention. The first connection device 30c comprises a first strap 33E and one first connection member 32c (e.g. hook), instead of two in the first and second embodiment. The second connection device 40c comprises one second connection members 42c (e.g. loop). To fasten the bicycle 90, the user makes the first connection device 30c pass through appropriate portions of the bicycle 90 and connects the second connection device 40c.

**[0030]** Please refer to FIG. 6 which illustrates a bicycle bag 1d according to a fourth embodiment of the present invention. The major difference between FIG. 6 and FIG. 5 is, for the fourth embodiment, the main first end 21d and the main second end 22d are very close.

**[0031]** Please refer to FIG. 7, which illustrates a bicycle bag 1e according to a fifth embodiment of the present invention. The first connection device 30e comprises only one first connection member 32e (e.g. hook). Similarly, the second connection device 40e also comprises only one second connection member 42e (e.g. hook). The bicycle 90 has two connection members 91e (e.g. loops) on the appropriate location. Therefore, the first and second connection members 32e, 42e can connect two connection members 91e for fastening purpose. Please note that the first and second connection device 30e, 40e can also comprise an appropriate length of first and second strap (not shown).

**[0032]** Please refer to FIG. 8, which illustrates a bicycle bag 1f according to a sixth embodiment of the present invention. The major difference between FIG. 8 and FIG. 4 is, for the sixth embodiment, main support strap 20f is

a handle strap instead of a shoulder strap.

**[0033]** Please refer to FIG. 9 and FIG. 9A which illustrate a bicycle bag 1g according to a seventh embodiment of the present invention. The bicycle bag 1g is a backpack with two main support straps 20g (shoulder straps) and one waist strap 201g. Each main support strap 20g, on the main first and second end 21g, 22g, also connects with a first and second connection device 30g, 40g like the first embodiment respectively. Each of the first and second connection device 30g, 40g can fasten the bicycle 90. The bicycle bag 1g has a benefit to distribute the bicycle 90 weight between shoulders. In addition, the bicycle bag 1g also comprises an upper opening 11 and a lower opening 12, too.

**[0034]** Although the present invention has been explained in relation to its preferred embodiments, it is to be understood that many other possible modifications and variations can be made without departing from the spirit and scope of the invention as hereinafter claimed.

## Claims

1. A bicycle bag (1a, 1b, 1c, 1d, 1e, 1f, 1g), used for placing a bicycle (90), the bicycle bag (1a, 1b, 1c, 1d, 1e, 1f, 1g) comprising:

a covering body (10), comprising a thin sheet (18), at least one opening (11, 12) and a storage space (13), wherein the storage space (13) is capable of containing the bicycle (90);

a main support strap (20, 20f, 20g), comprising a main first end (21, 21d, 21g) and a main second end (22, 22d, 22g), wherein the main first end (21, 21d, 21g) and the main second end (22, 22d, 22g) are respectively connected with the thin sheet (18);

a first connection device (30, 30c, 30e, 30g) being connected with the main first end (21, 21d, 21g); and

a second connection device (40, 40c, 40e, 40g) being connected with the main second end (22, 22d, 22g);

whereby the first connection device (30, 30c, 30e, 30g) and the second connection device (40, 40c, 40e, 40g) can fasten the bicycle (90), and the weight of the bicycle (90) can be supported by the main support strap (20, 20f, 20g) because the main support strap (20, 20f, 20g) is connected with both the first connection device (30, 30c, 30e, 30g) and the second connection device (40, 40c, 40e, 40g).

2. The bicycle bag (1a, 1b, 1c, 1d, 1e, 1f, 1g) as claimed in claim 1, wherein the at least one opening (11, 12) has a lower opening (12).
3. The bicycle bag (1a, 1b, 1c, 1d, 1e, 1f, 1g) as claimed

in any of claims 1 and 2, wherein the covering body (10) further comprises a lower connection member (16), wherein the lower connection member (16) is attached to the thin sheet (18) and is located in the lower opening (12).

4. The bicycle bag (1a) as claimed in any of claims 1-3, wherein the at least one opening (12) further has an upper opening (11).

5. The bicycle bag (1a) as claimed in any of claims 1-4, wherein the covering body (10) further comprises an upper connection member (15), where the upper connection member (15) is attached to the thin sheet (18) and is located in the upper opening (11).

6. The bicycle bag (1a, 1b, 1f, 1g) as claimed in claim 1, wherein:

the first connection device (30, 30g) comprises a first strap (33) and two first connection members (31, 32), wherein the two first connection members (31, 32) are respectively connected with two ends of the first strap (33), and the second connection device (40, 40g) comprises a second strap (43) and two second connection members (41, 42), wherein the two second connection members (41, 42) are respectively connected with two ends of the second strap (43).

7. The bicycle bag (1a, 1b, 1g) as claimed in claim 6, wherein the at least one opening (11, 12) has a lower opening (12).

8. The bicycle bag (1a, 1b, 1g) as claimed in any of claims 6 and 7, wherein the covering body (10) further comprises a lower connection member (16), where the lower connection member (16) is attached to the thin sheet (18) and is located in the lower opening (12).

9. The bicycle bag (1a) as claimed in any of claims 6-8, wherein the at least one opening (12) further has an upper opening (11), and the covering body (10) further comprises an upper connection member (15), where the upper connection member (15) is attached to the thin sheet (18) and is located in the upper opening (11).

10. The bicycle bag (1c, 1d) as claimed in claim 1, wherein the first connection device (30c, 30d) comprises a first strap (33E, 33F), and a first connection member (32c, 32d) connected with one of the first strap (33E, 33F); whereby the one first connection members (32c, 32d) can pass through appropriate portions of the bicycle (90) to connect with the second connection

device (40) so as to fasten the bicycle (90).

11. The bicycle bag (1c, 1d) as claimed in claim 10, wherein the at least one opening (11, 12) has a lower opening (12).

12. The bicycle bag (1c, 1d) as claimed in any of claims 10-11, wherein the covering body (10) further comprises a lower connection member (16), where the lower connection member (16) is attached to the thin sheet (18) and is located in the lower opening (12).

13. The bicycle bag (1g) as claimed in claim 1, the bicycle bag (1g) is a backpack.

14. The bicycle bag (1g) as claimed in claim 13, the bicycle bag (1g) comprises two main support straps (20g), two first connection device (30g) and two second connection device (40g), wherein each main support strap (20g) connects with one first connection device (30g) and one second connection device (40g) respectively.

15. The bicycle bag (1g) as claimed in any of claims 13-14, wherein the at least one opening (11, 12) has a lower opening (12).

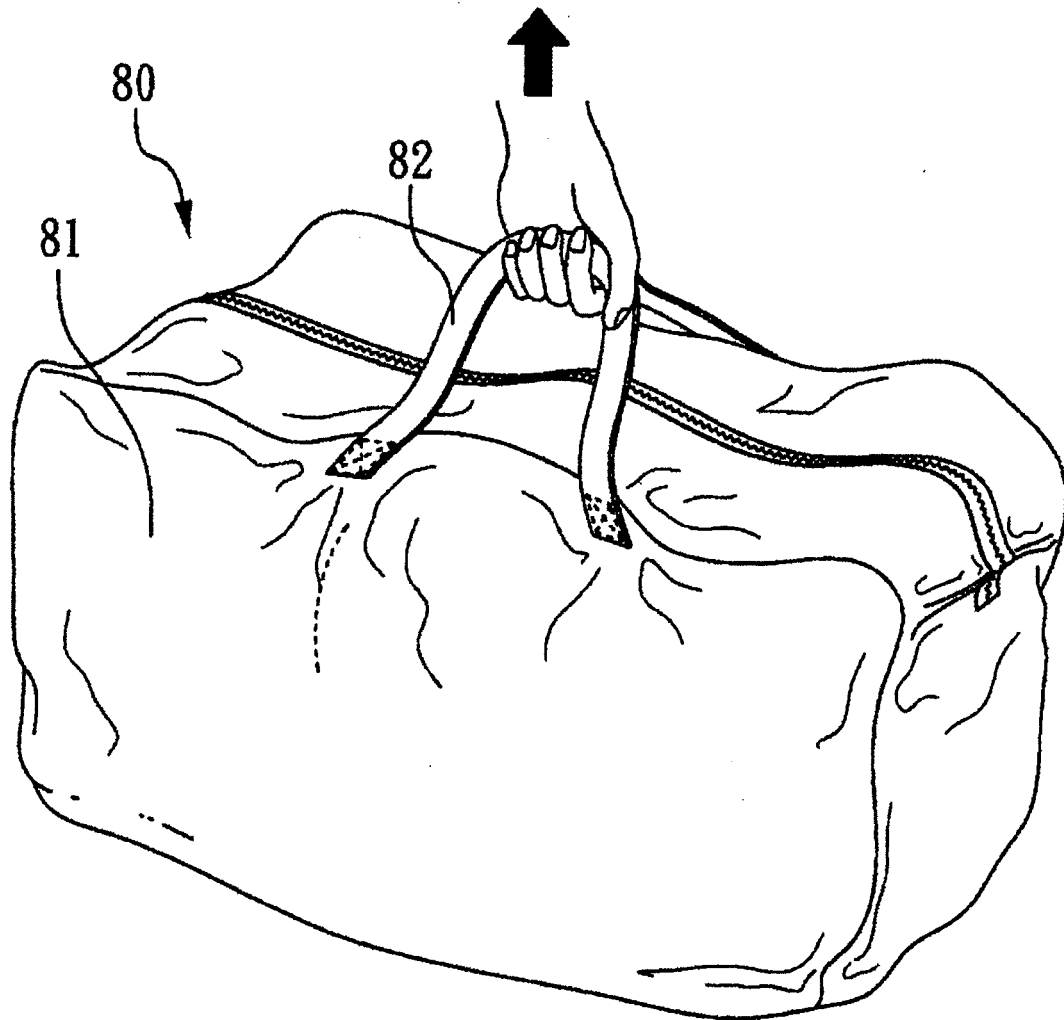


FIG. 1

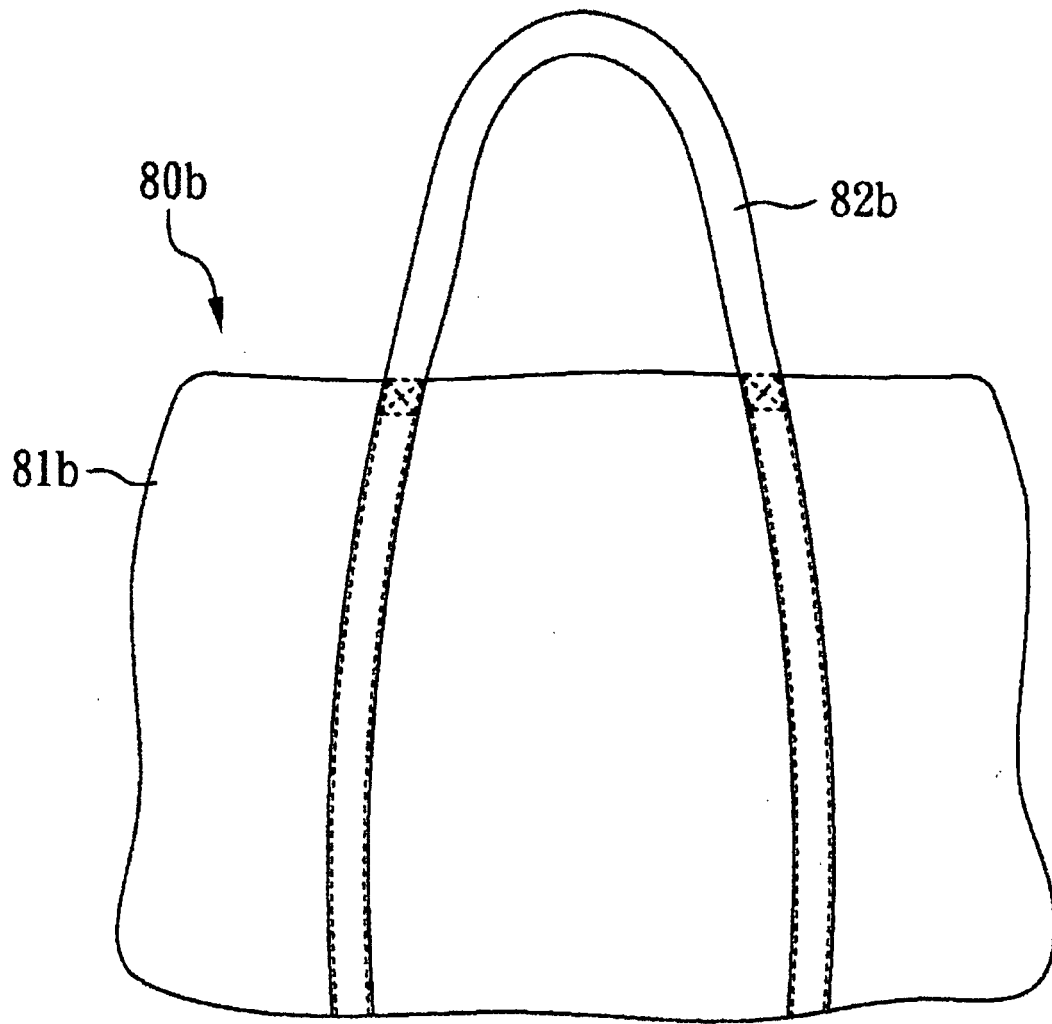


FIG. 2

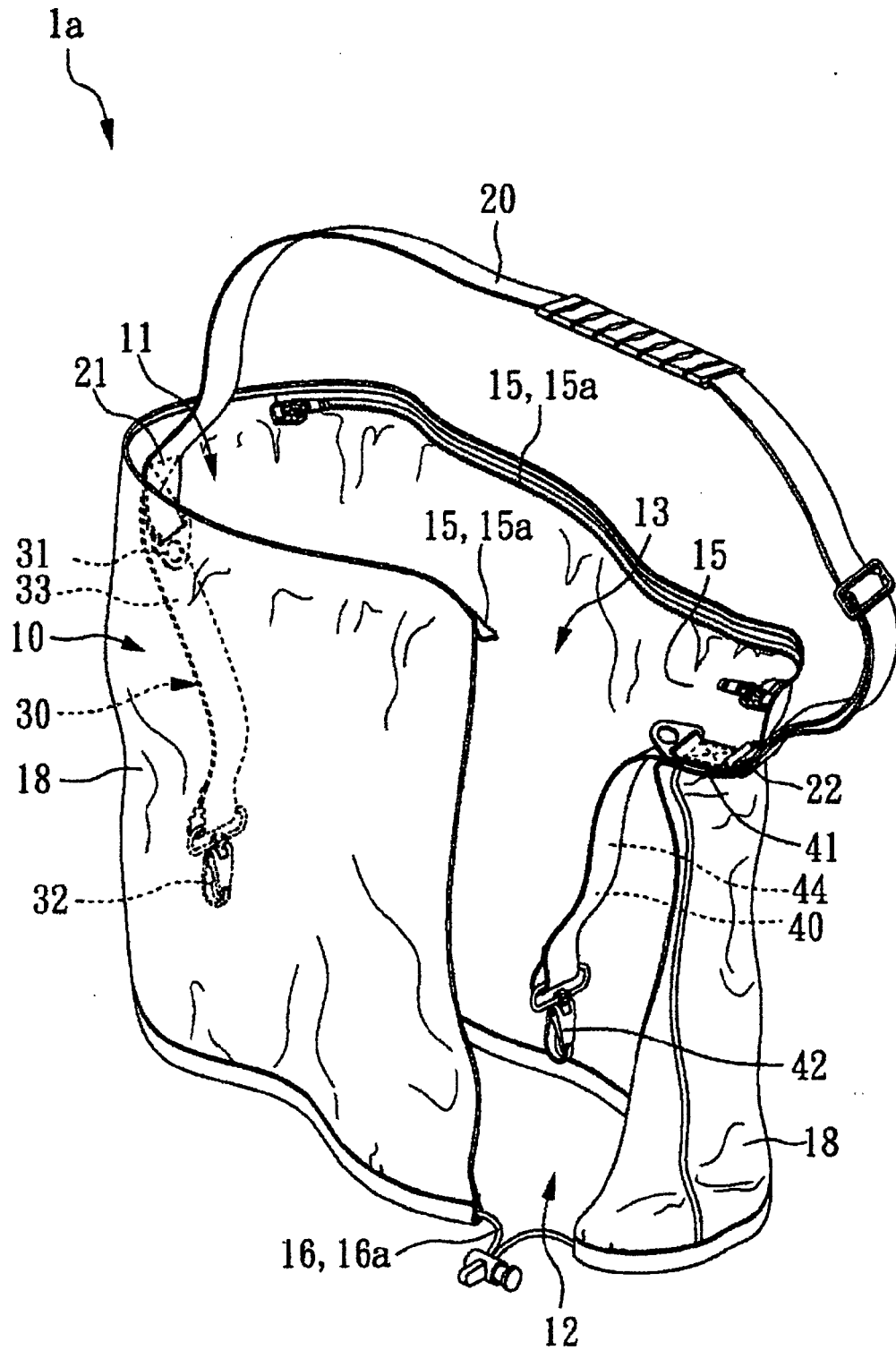


FIG. 3

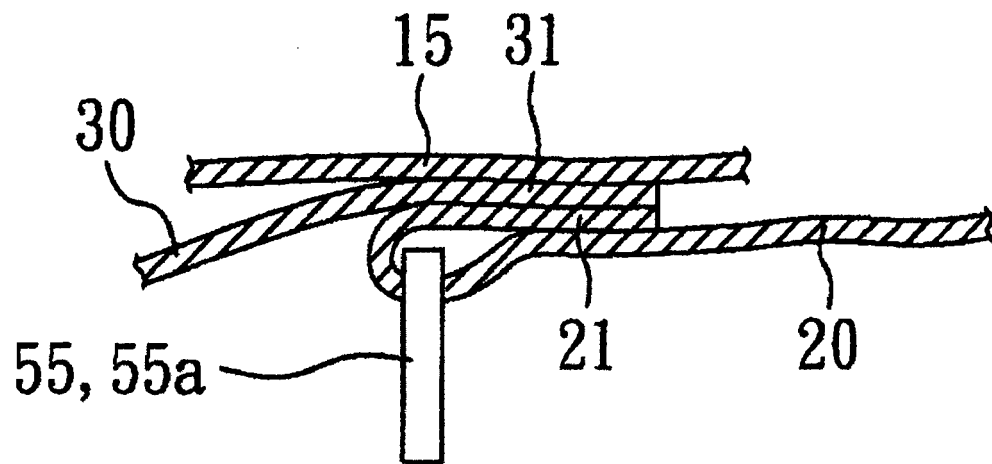


FIG. 3A

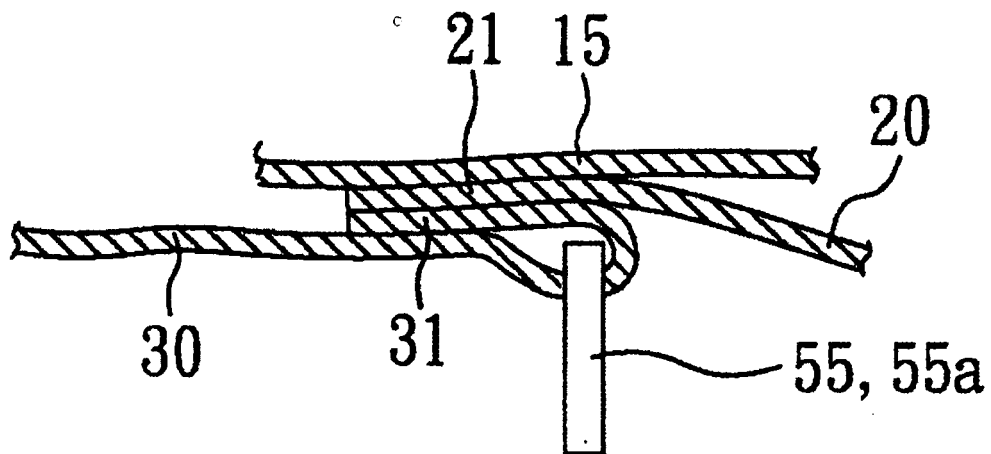


FIG. 3B

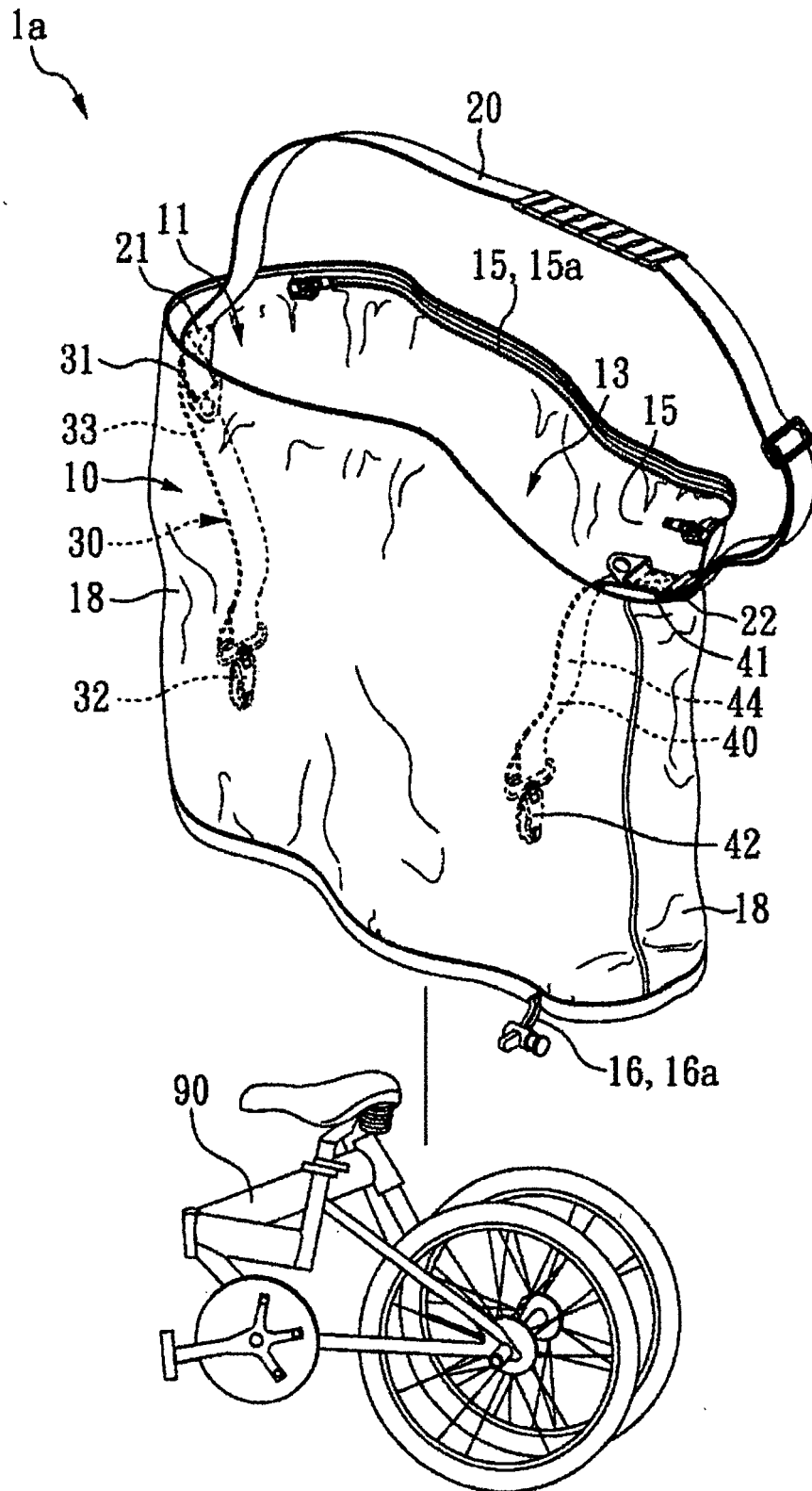


FIG. 3C

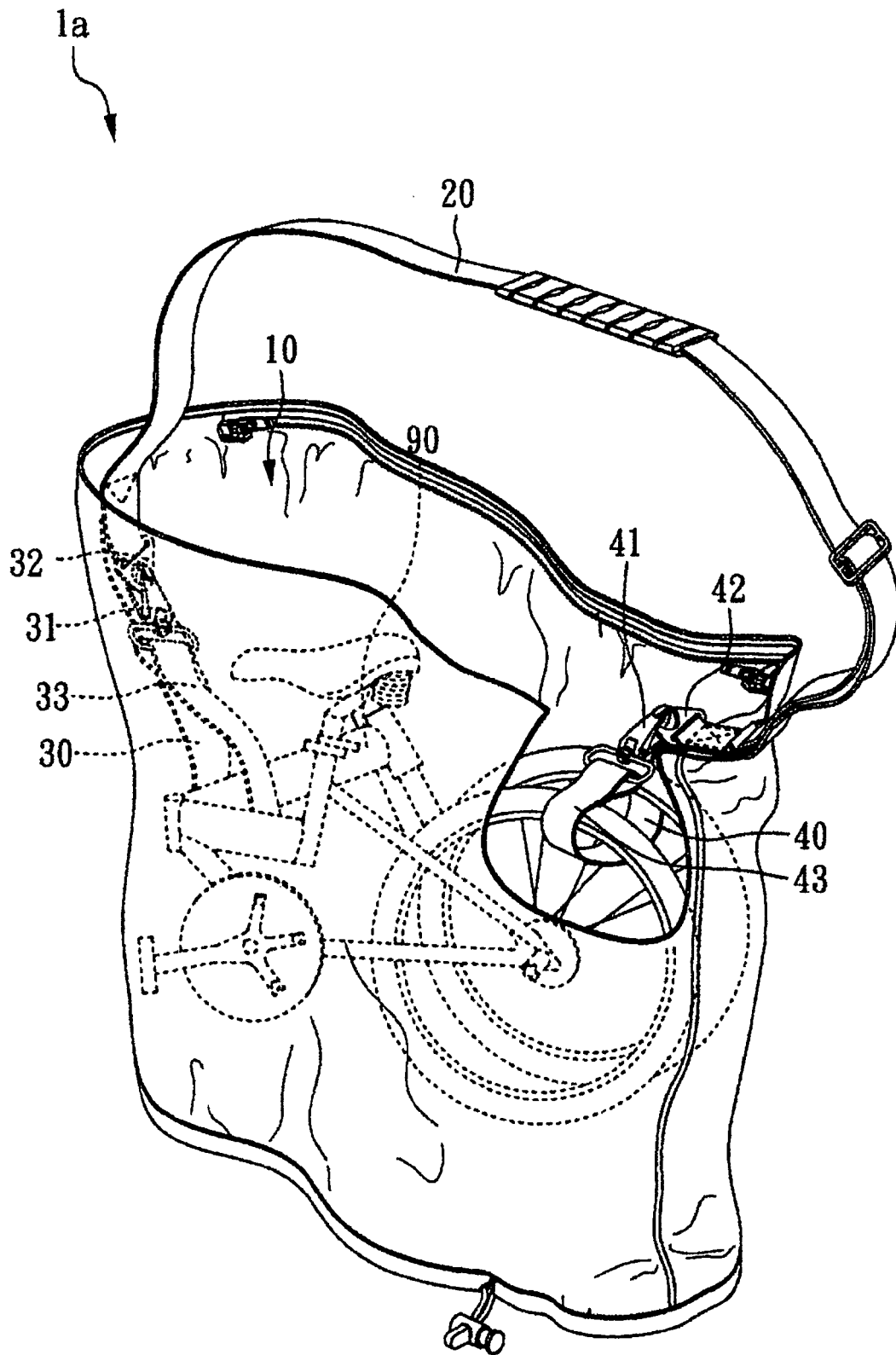


FIG. 3D

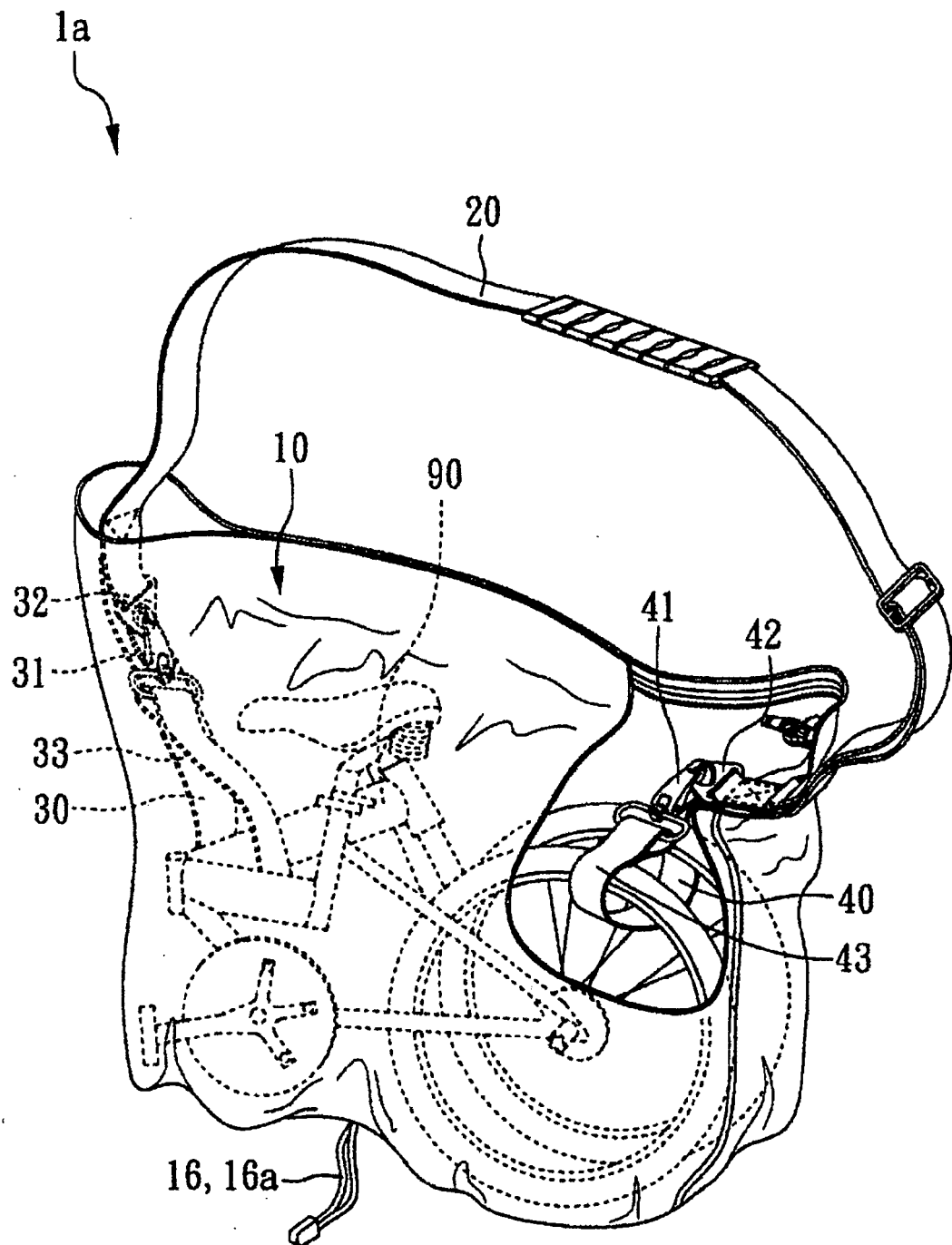


FIG. 3E

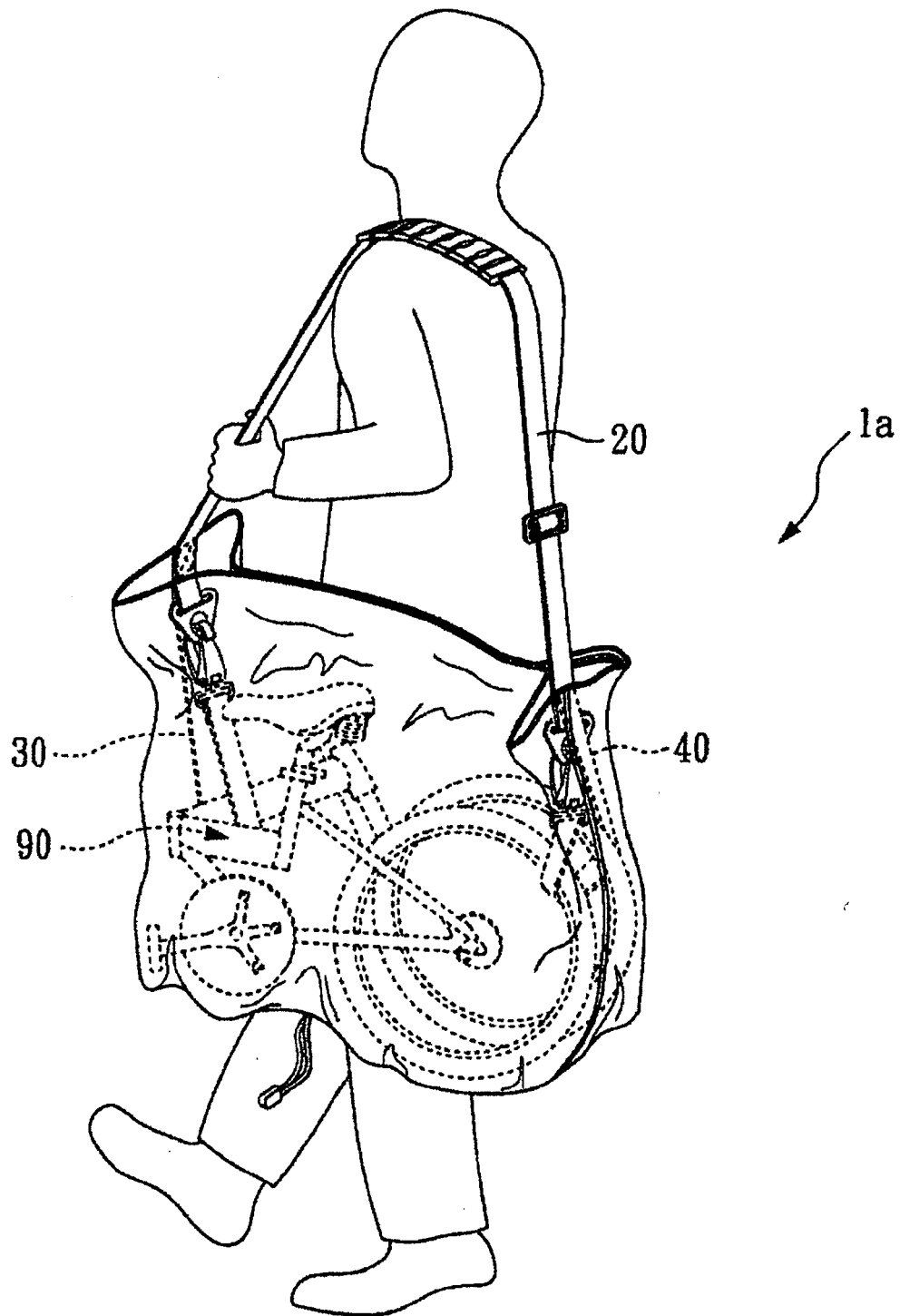


FIG. 3F

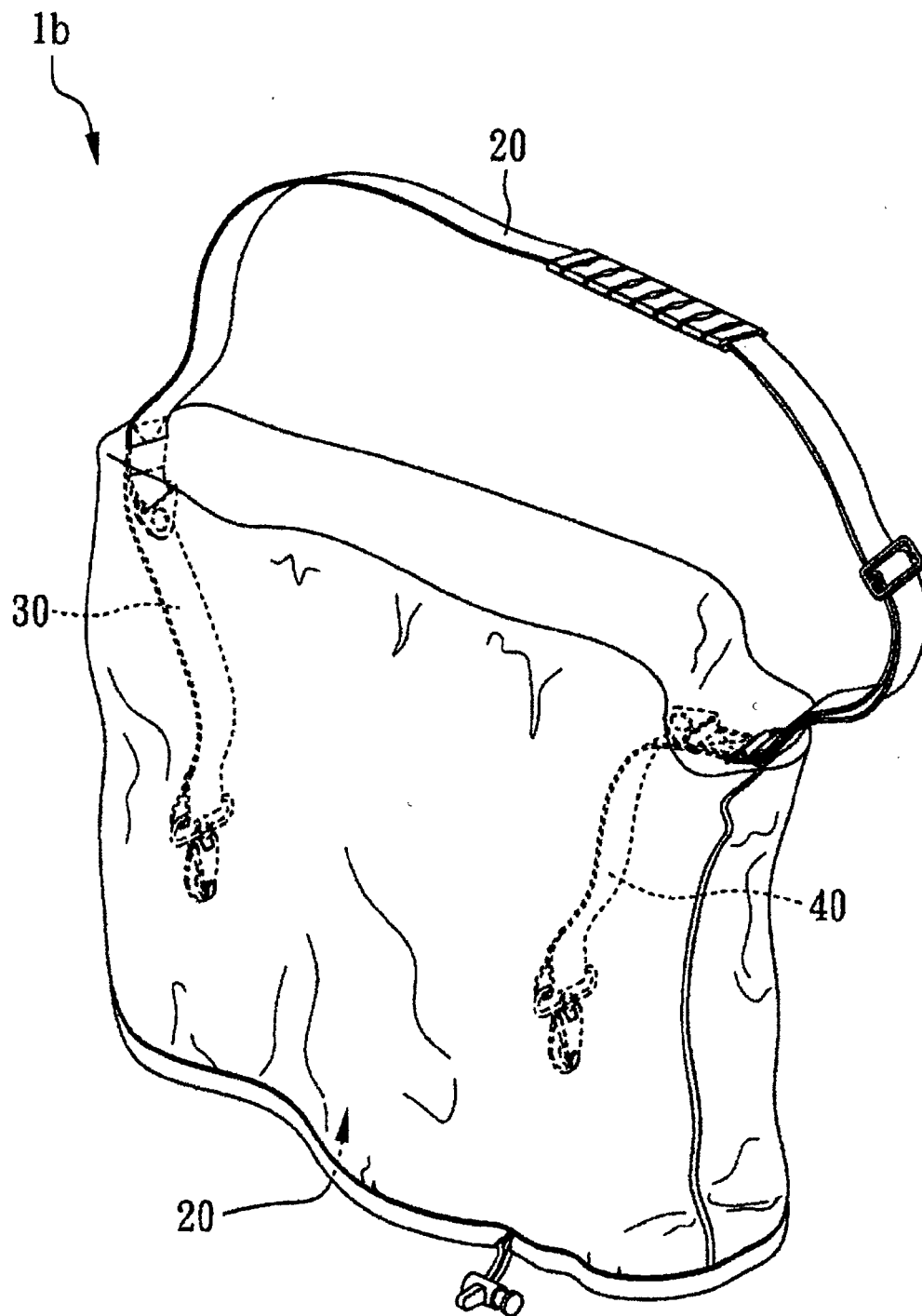


FIG. 4

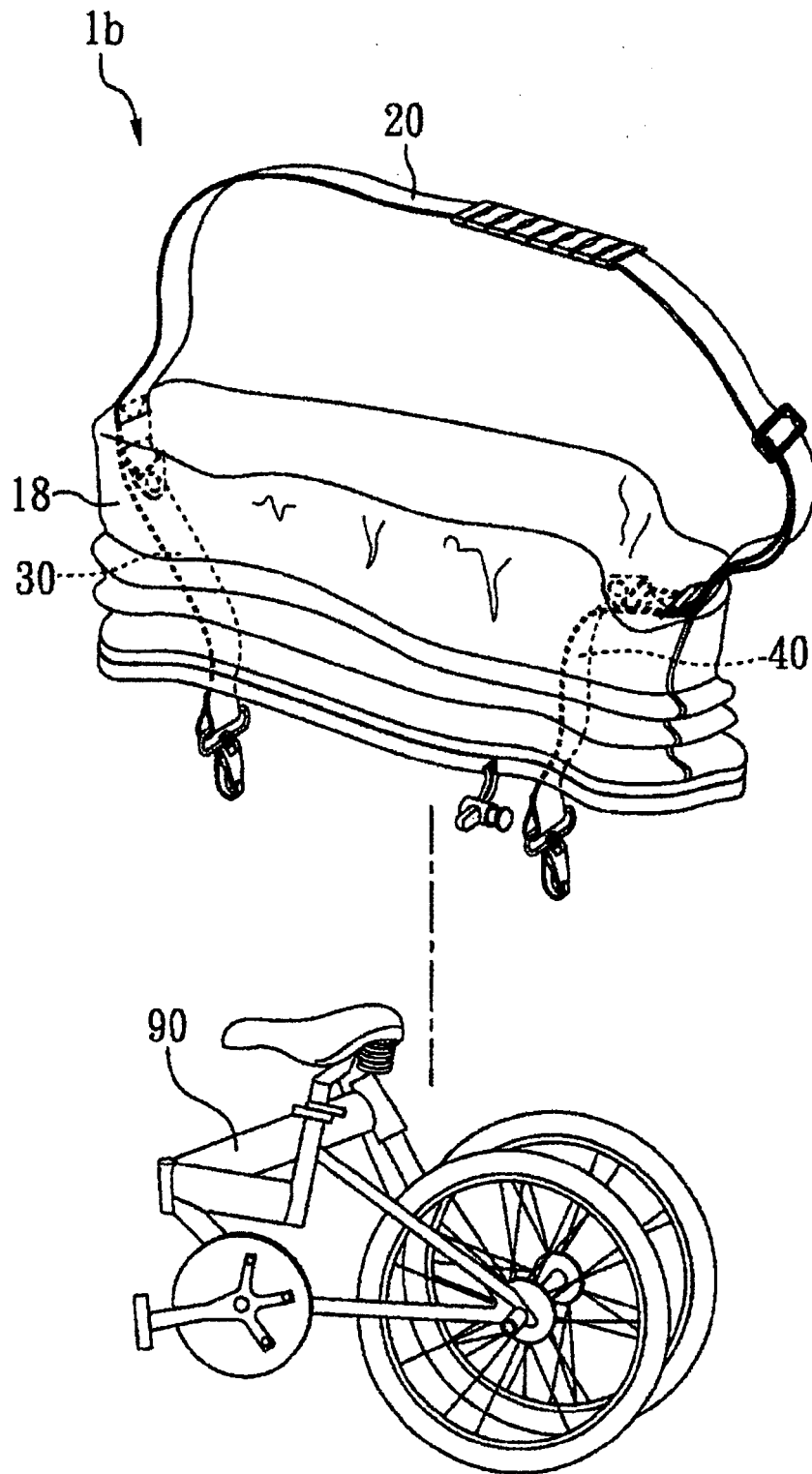


FIG. 4A

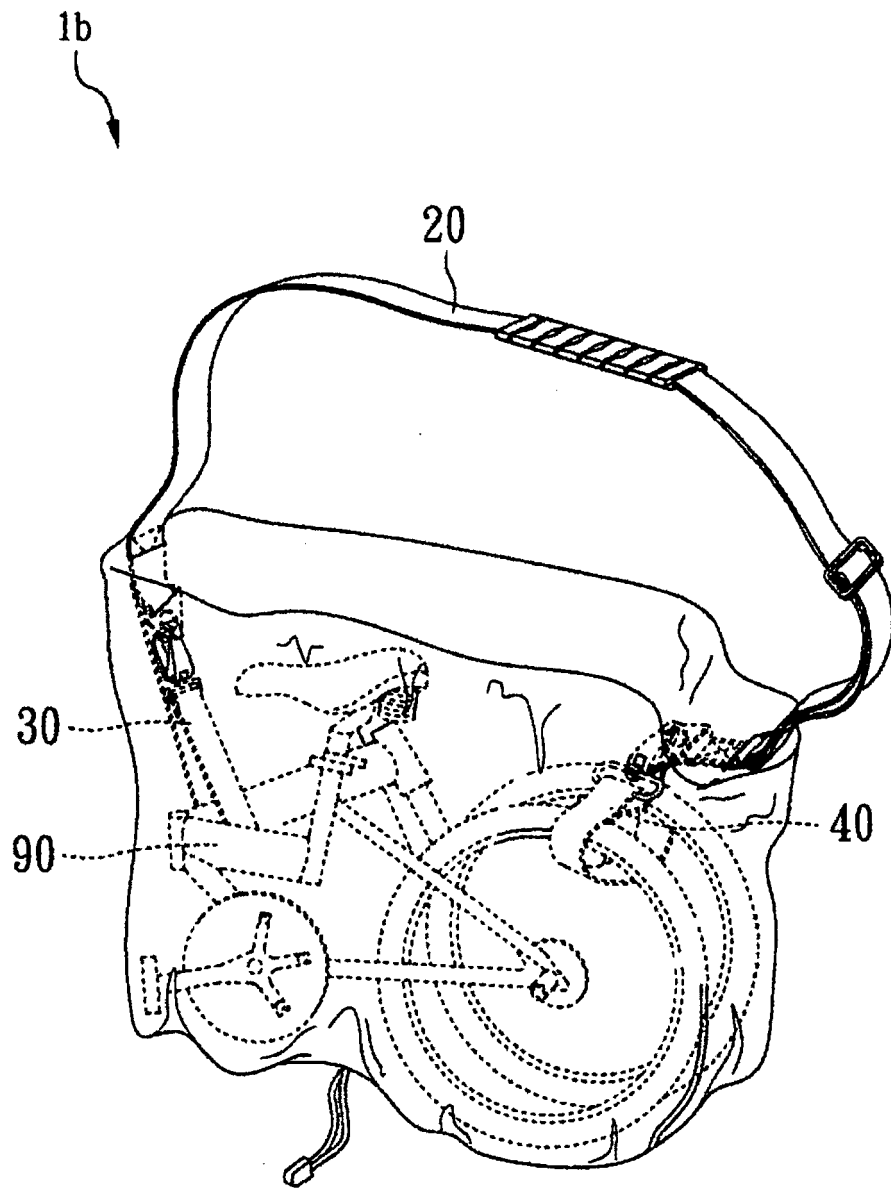


FIG. 4B

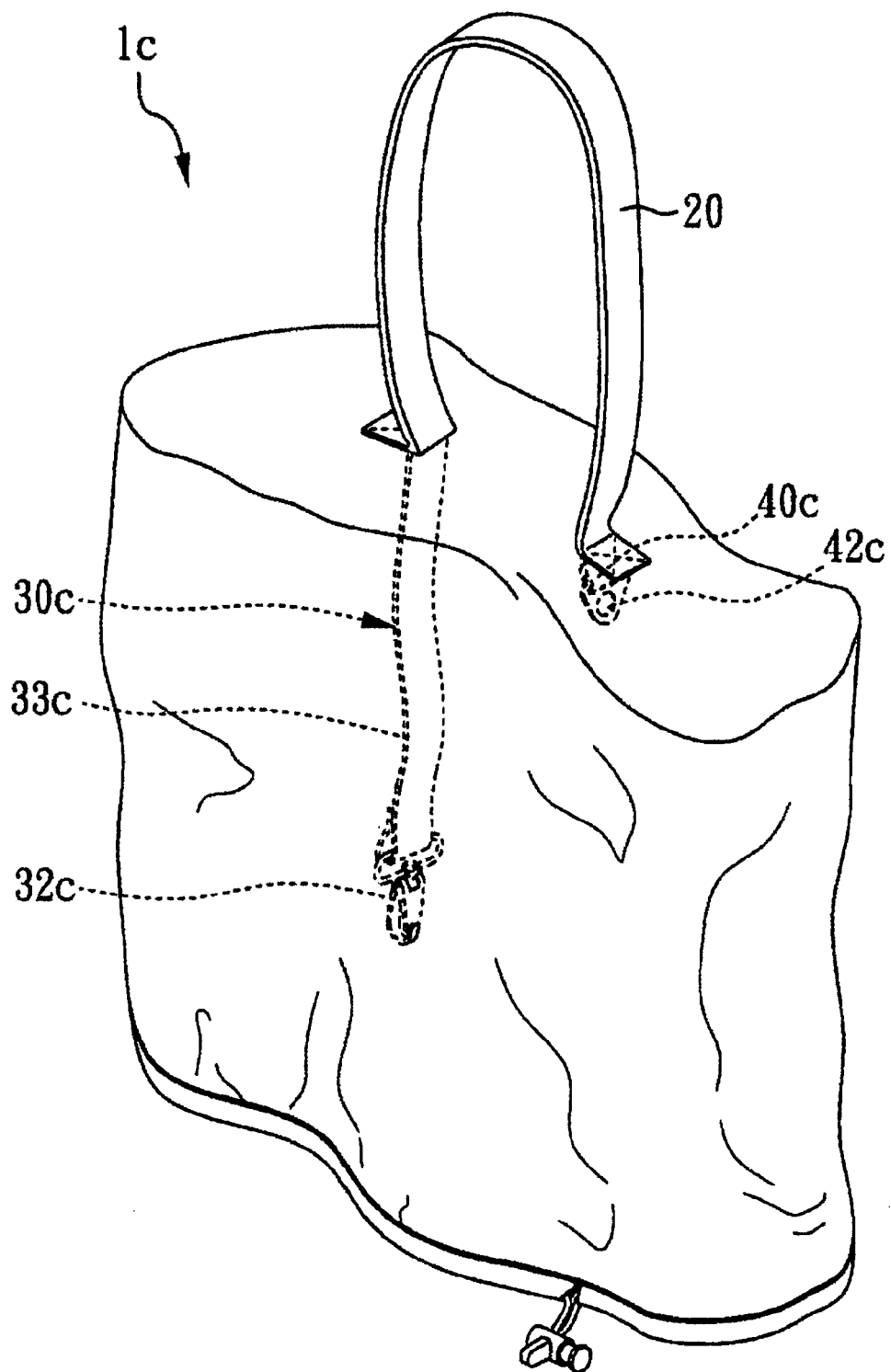


FIG. 5

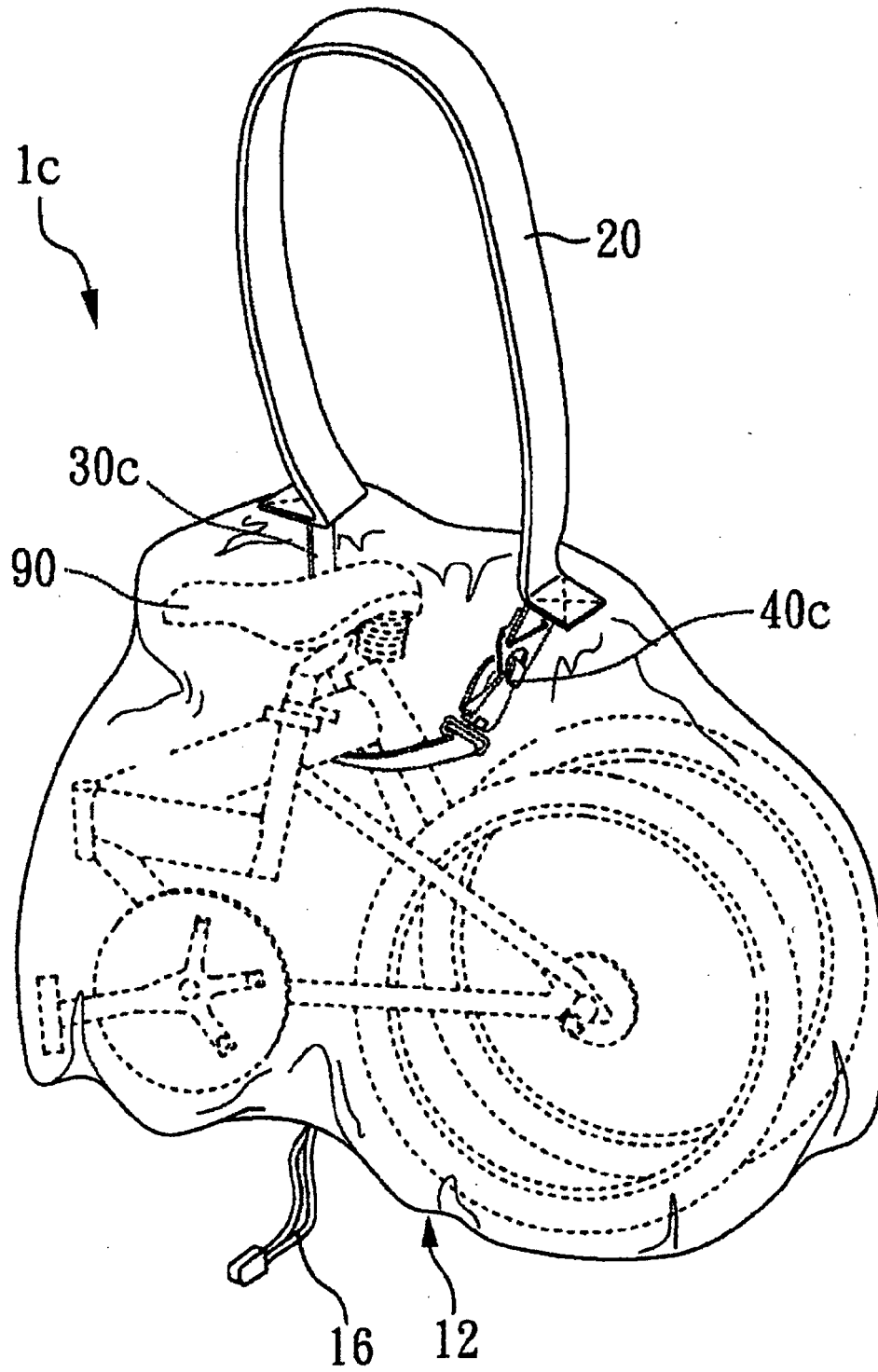


FIG. 5A

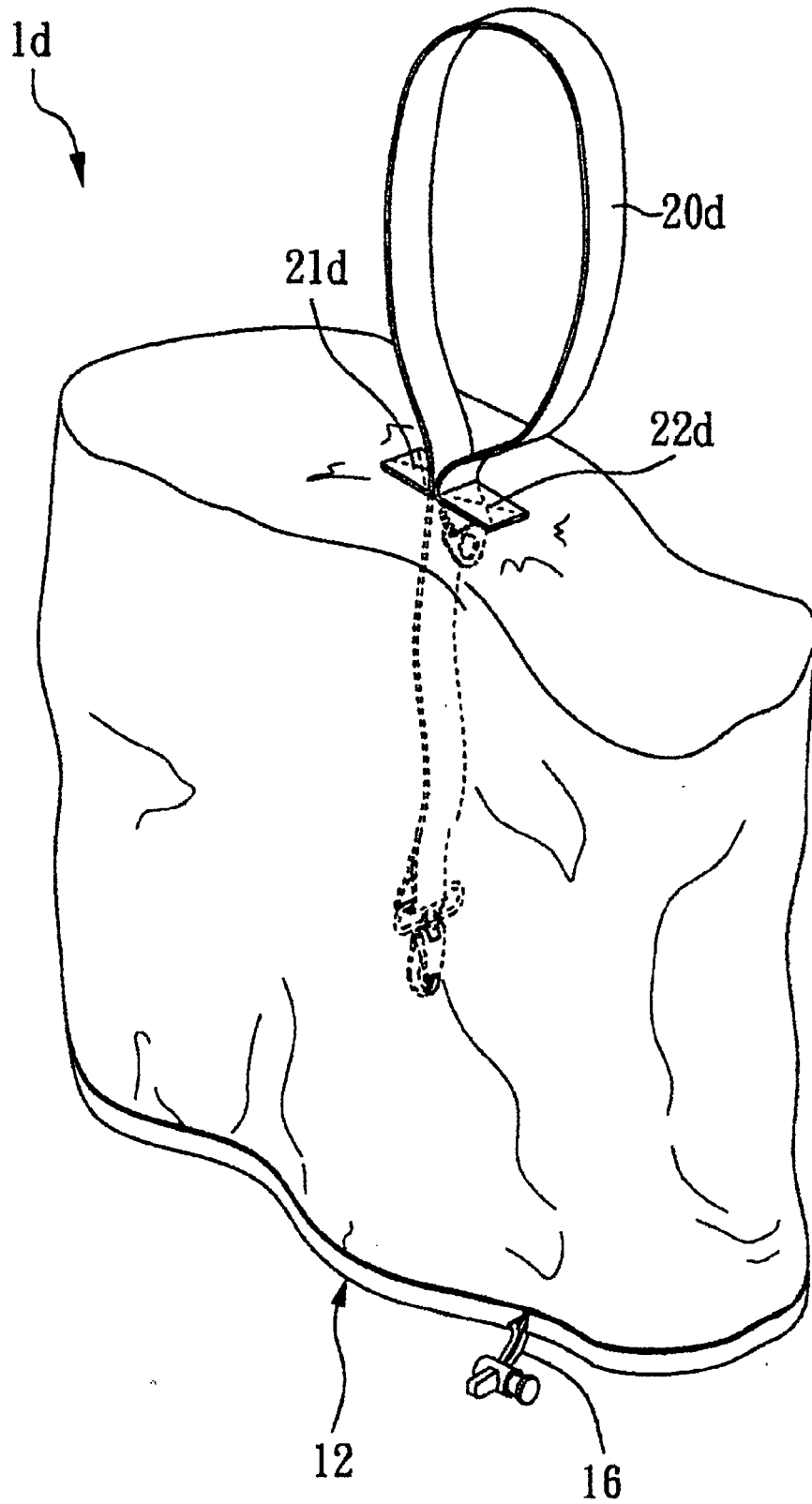


FIG. 6

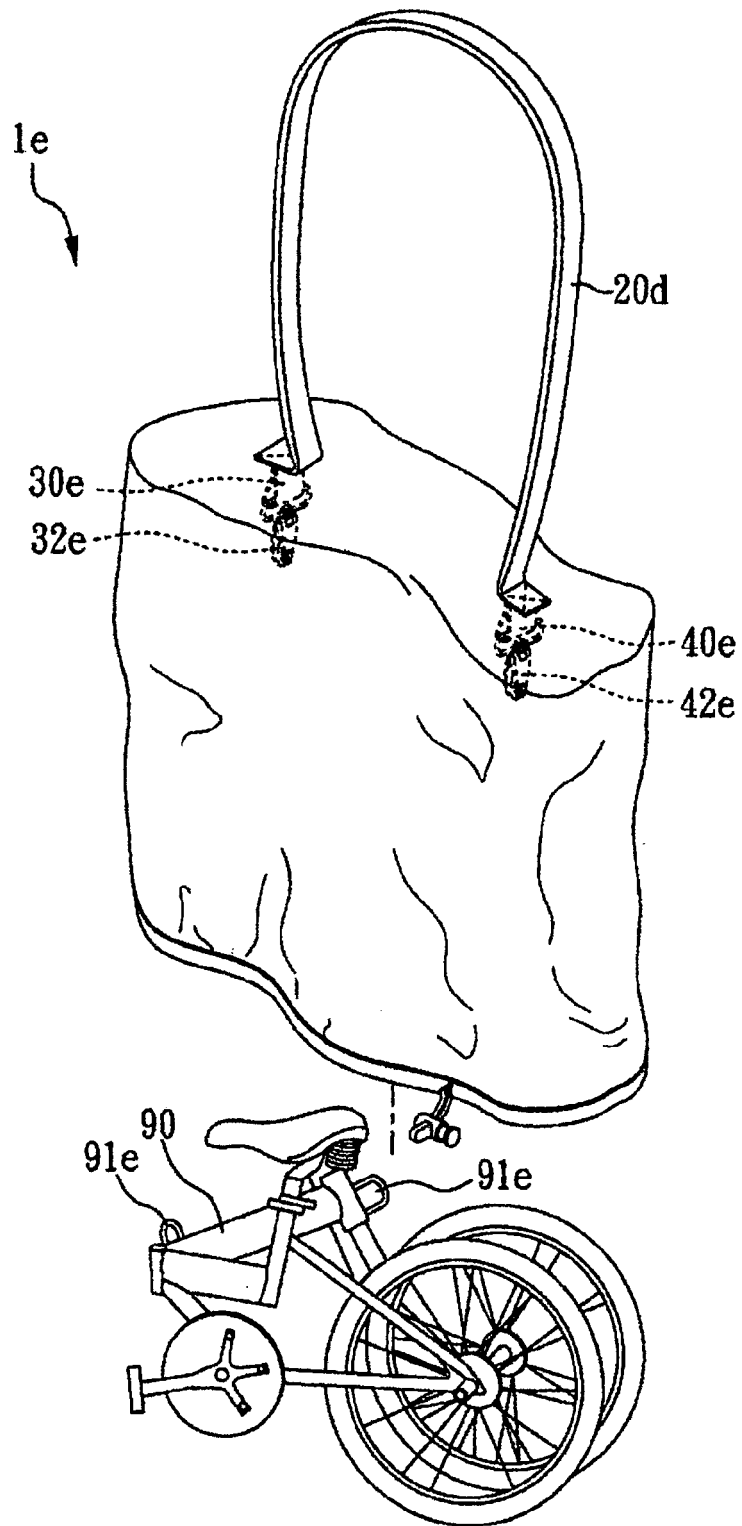


FIG. 7

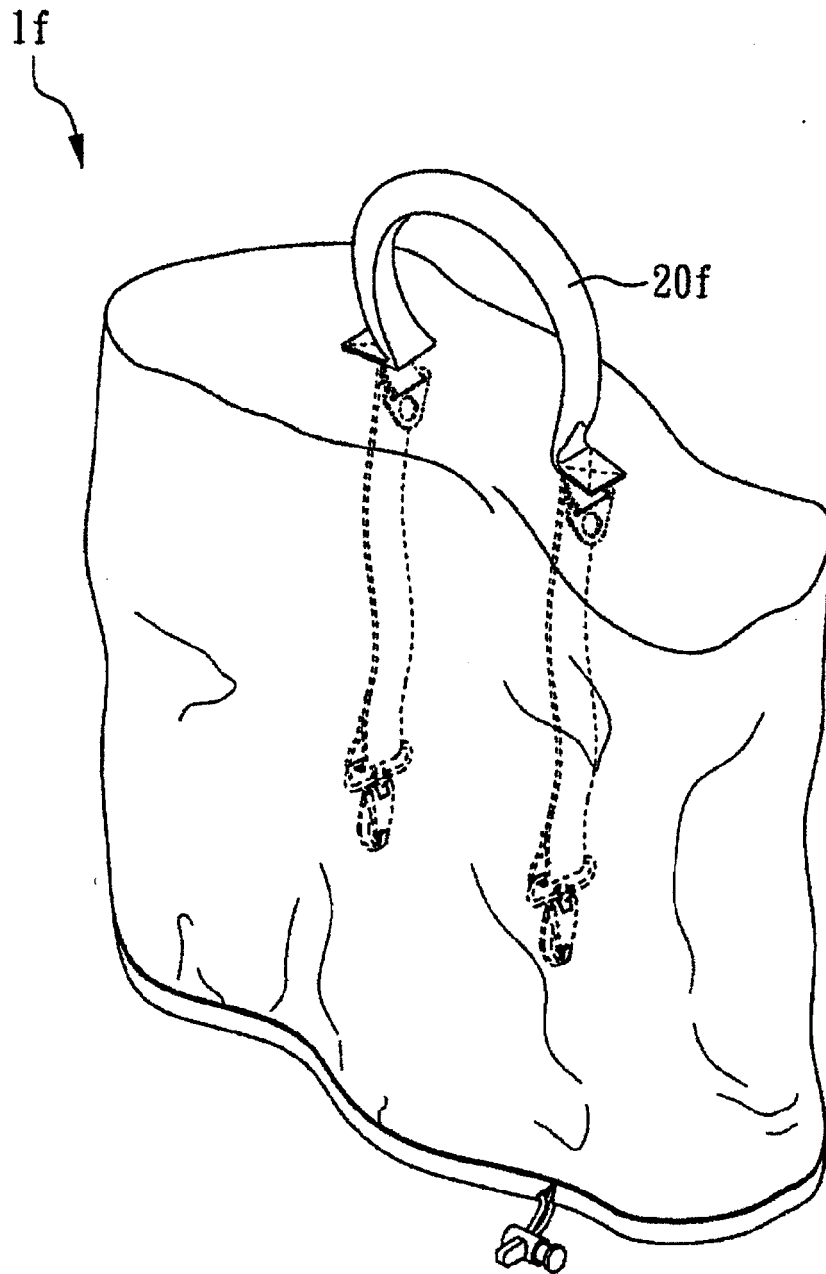


FIG. 8

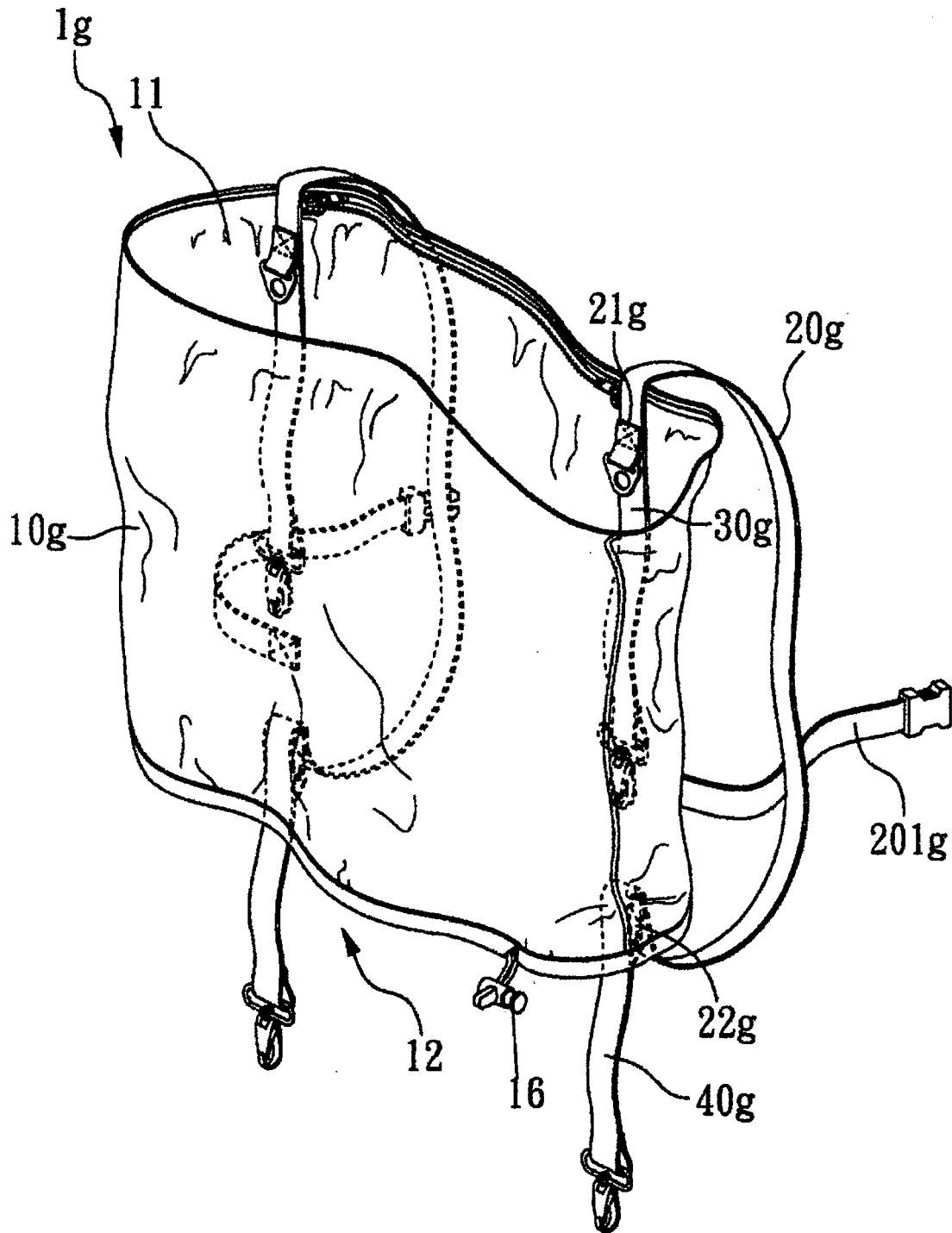


FIG. 9

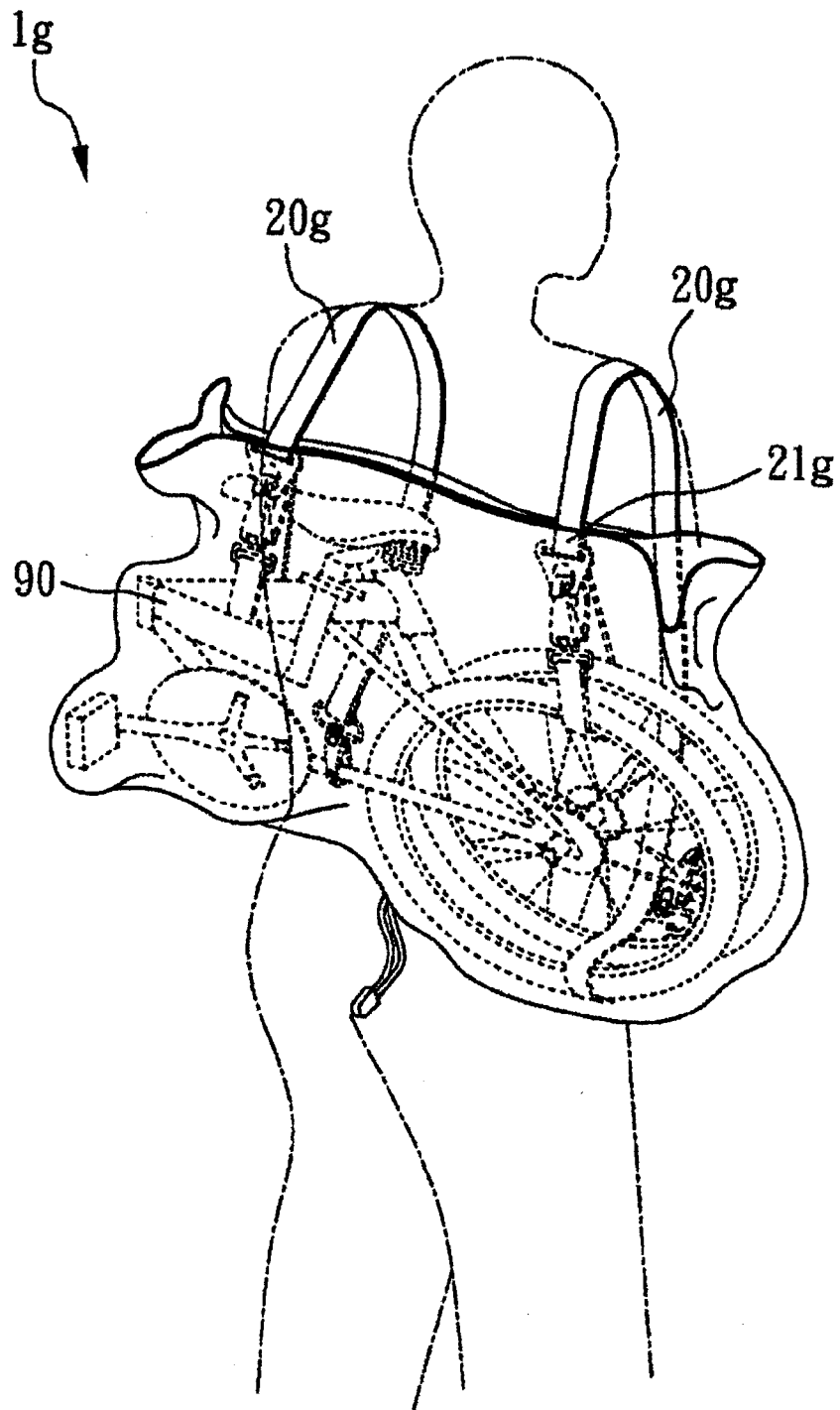


FIG. 9A



## EUROPEAN SEARCH REPORT

Application Number  
EP 09 00 8992

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	FR 471 696 A (BECOURT CHARLES AUGUSTE) 6 November 1914 (1914-11-06) * the whole document *	1-15	INV. B65D85/68 B62J99/00
A	DE 296 08 656 U1 (ROSENHAMMER VIKTOR [DE]) 18 July 1996 (1996-07-18) * page 8, line 11 - page 10, line 24; figure 2 *	1-15	
A	FR 941 714 A (FERRIER FRANÇOIS) 19 January 1949 (1949-01-19) * page 1, line 29 - page 1, line 42; figure 1 *	1-15	
A	US 4 356 831 A (ADAMS LAURA A) 2 November 1982 (1982-11-02) * column 2, line 17 - column 3, line 6; figure 2 *	1-3,7,8, 11,12	
			TECHNICAL FIELDS SEARCHED (IPC)
			B62J B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 10 August 2009	Examiner Feber, Laurent
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

1

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 00 8992

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

10-08-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 471696	A	NONE	
DE 29608656	U1	18-07-1996	DE 29602266 U1 09-05-1996
FR 941714	A	19-01-1949	NONE
US 4356831	A	02-11-1982	NONE

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**REFERENCES CITED IN THE DESCRIPTION**

*This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.*

**Patent documents cited in the description**

- US 3886988 A [0005]
- US 6202722 B [0006]