

(12) **UK Patent Application** (19) **GB** (11) **2581347** (13) **A**

(43) Date of A Publication

19.08.2020

(21) Application No: **1901936.3**

(22) Date of Filing: **12.02.2019**

(71) Applicant(s):
Oakthrift Corporation Ltd
Unit 9C, Chester Road, BOREHAMWOOD,
Hertfordshire, WD6 1LT, United Kingdom

(72) Inventor(s):
James John Thorn

(74) Agent and/or Address for Service:
London IP Ltd
100 High Street, Milford on Sea, LYMINGTON,
Hampshire, SO41 0QE, United Kingdom

(51) INT CL:
A45C 7/00 (2006.01) **A45C 13/22** (2006.01)
A45C 13/26 (2006.01)

(56) Documents Cited:
CN 002566676 Y **US 20160121916 A1**
US 20140151172 A1 **US 20070228096 A1**

(58) Field of Search:
INT CL **A45C**
Other: **WPI, EPODOC**

(54) Title of the Invention: **Improvements in bags**
Abstract Title: **Compactable wheeled bag**

(57) A wheeled bag, such as a suitcase, comprises a main body having a lower end with at least one wheel and an opposing upper end. An 'in-use' length is defined between the upper and lower ends. The bag has an extendable handle having at least one stem and a distal end grip 9. The handle is changeable between an extended configuration wherein the handle grip is used to pull the bag and a retracted configuration in which the grip is located between the upper and lower ends such that the bag may be compacted, such as by folding the upper end towards the lower end, for storage. The grip may be retracted by 20%-50% of the in-use length. The bag may be secured in the compacted state by a strap 11. In the extended state the grip may be spaced from the upper end of the main body by at least 5cm, preferably at least 15cm. The handle may be retracted though an aperture into the inside compartment of the bag. Alternatively, the handle may be retracted to a position adjacent the bag exterior, and a loop through which the handle stem extends may be provided adjacent the upper end.

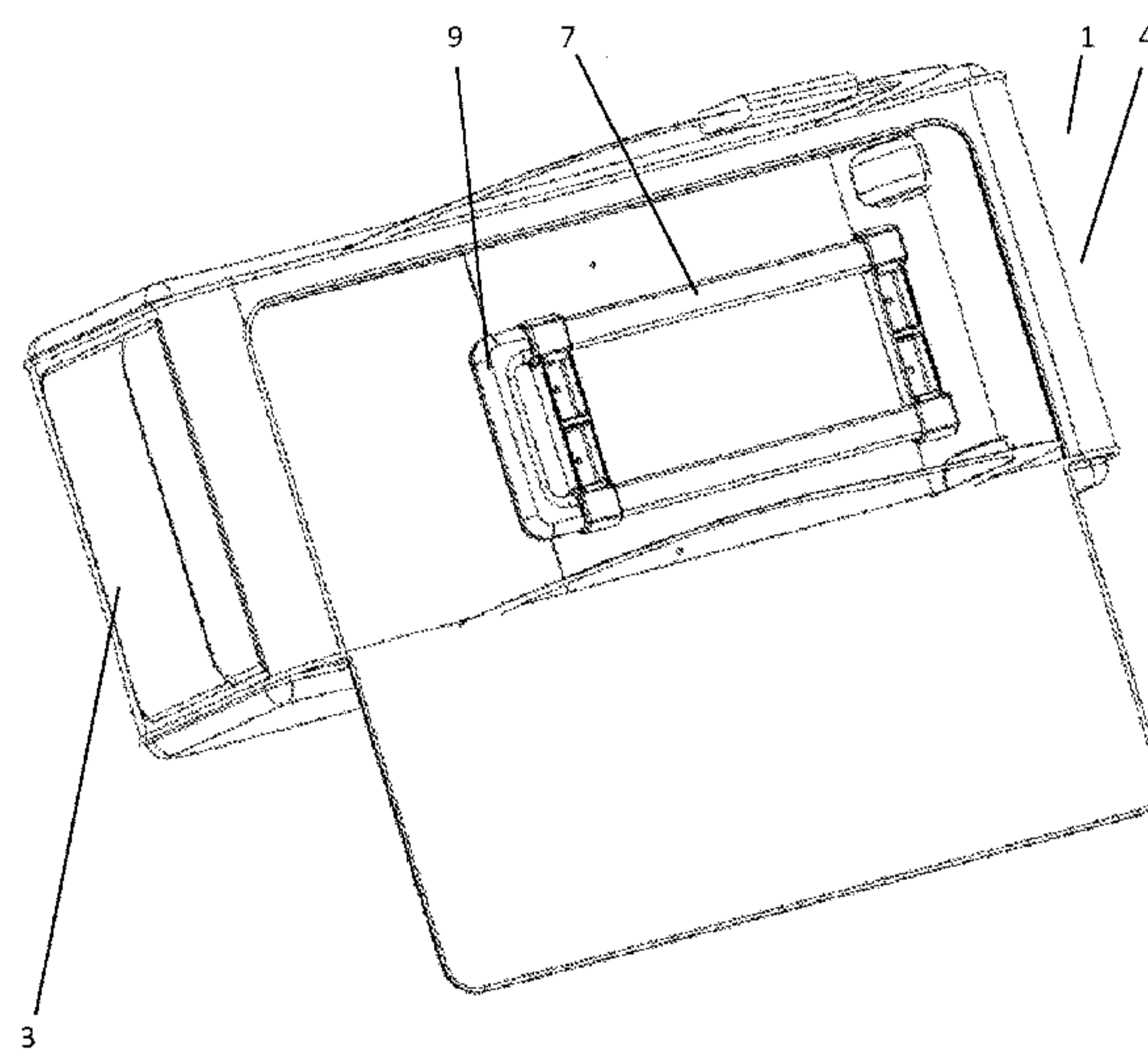


Figure 3

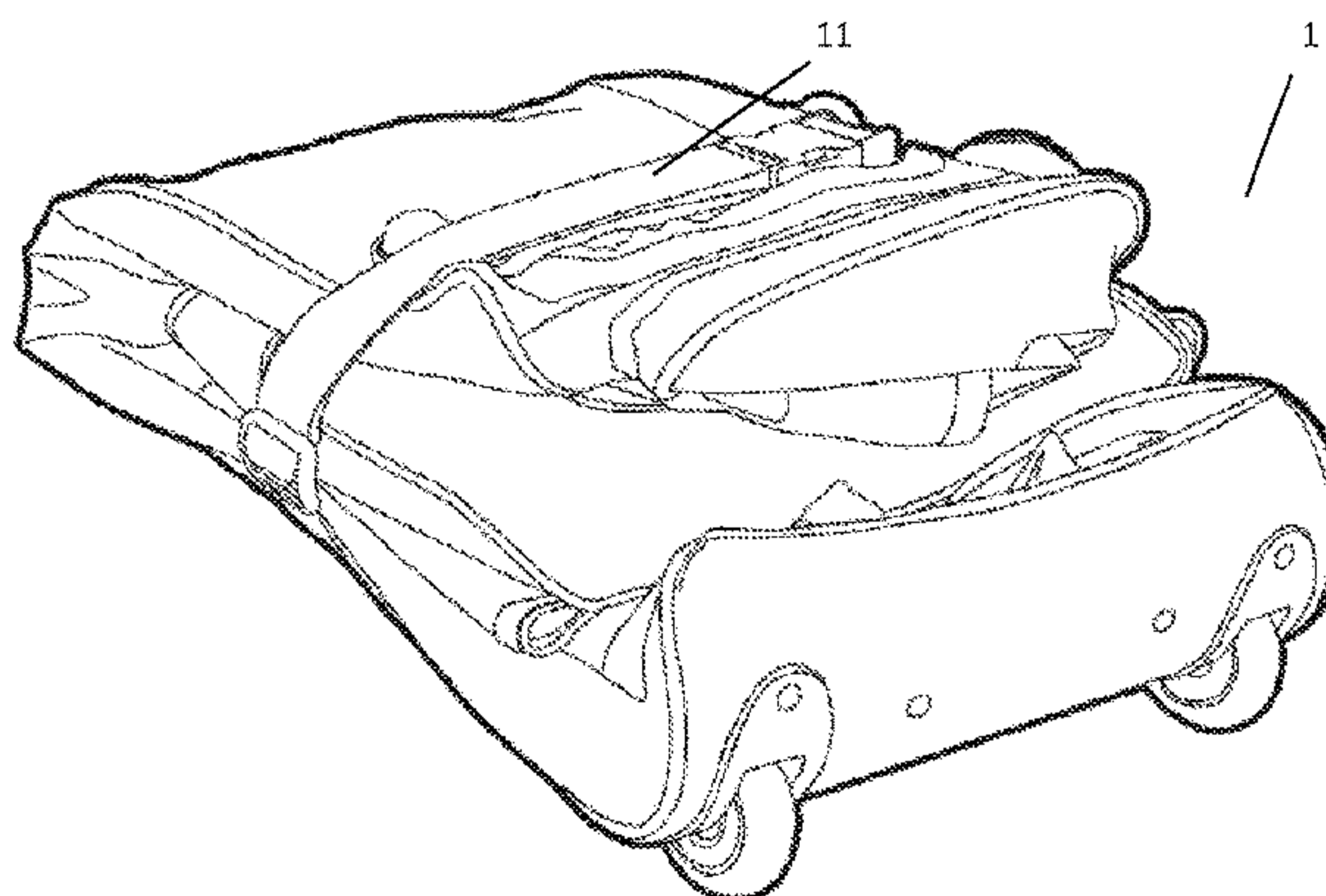


Figure 4

GB 2581347 A

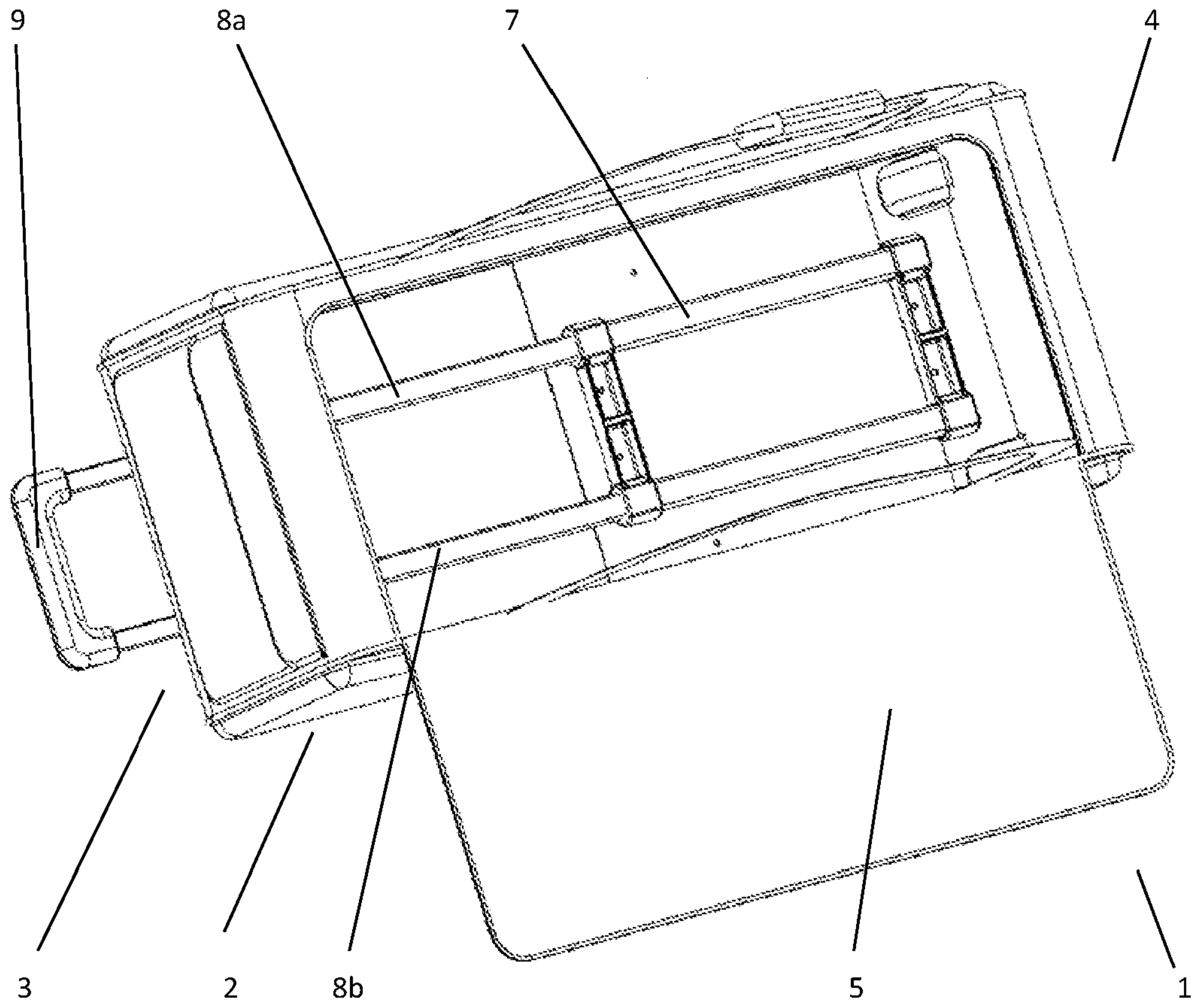


Figure 1

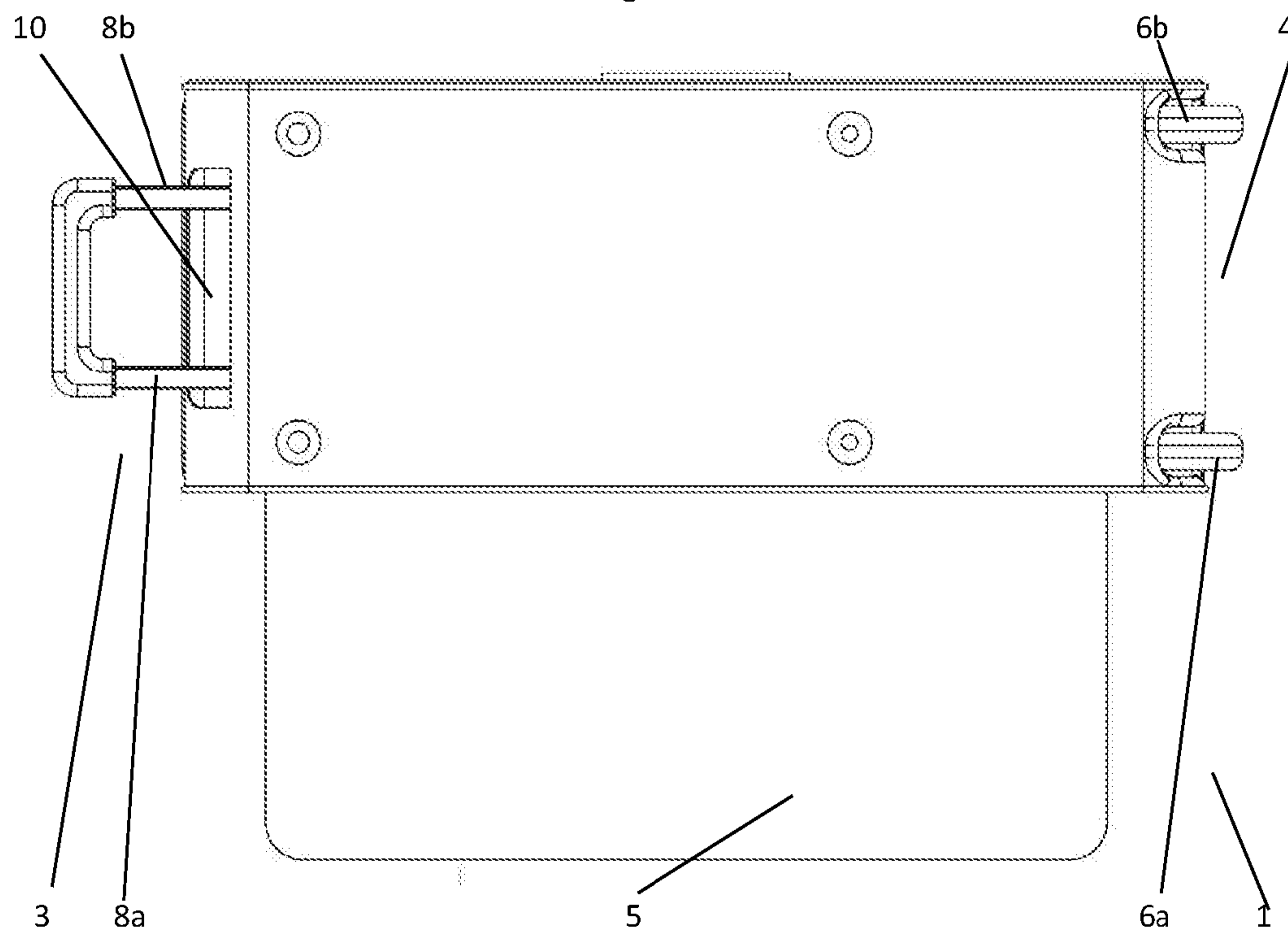


Figure 2

2/2

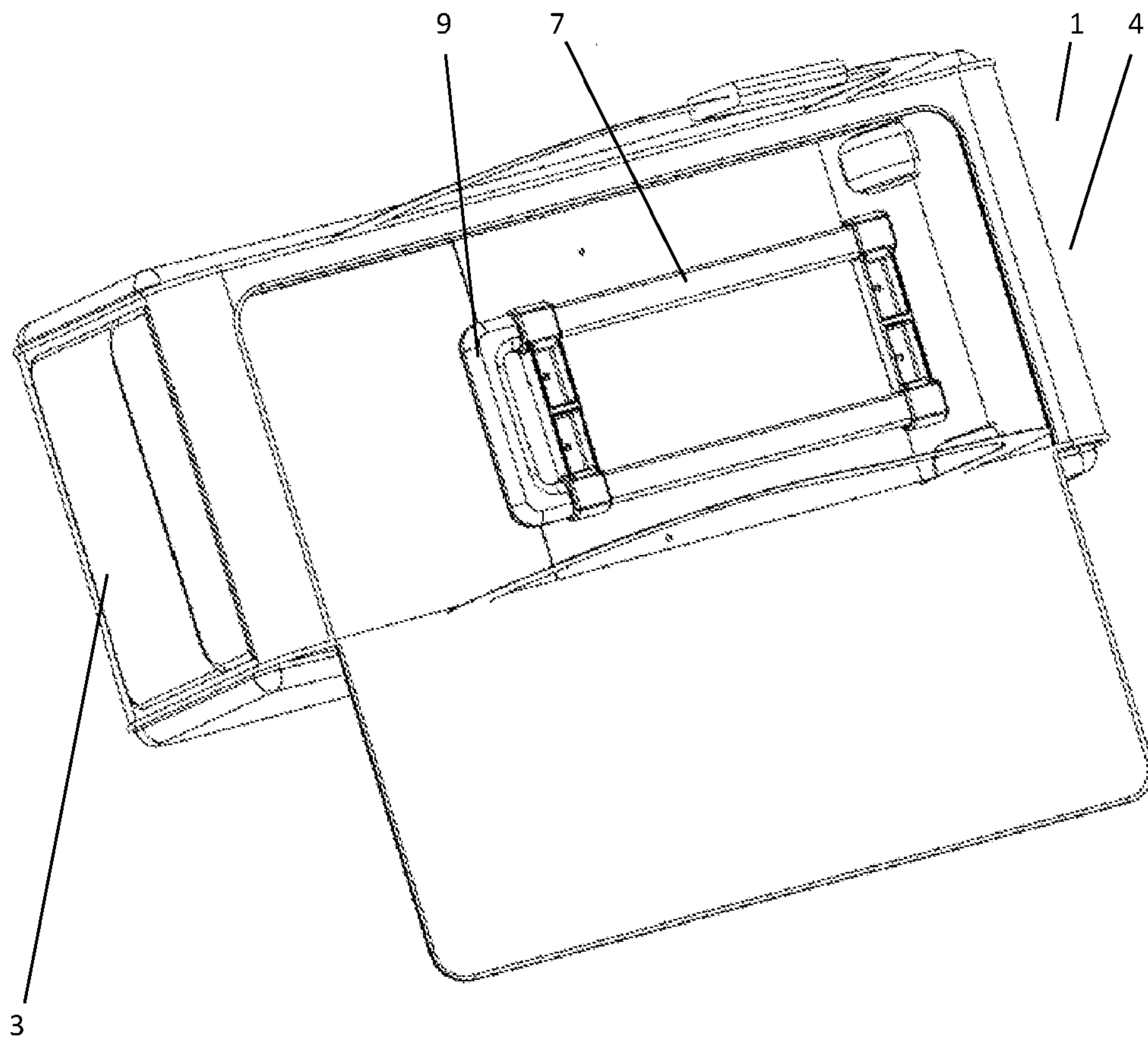


Figure 3

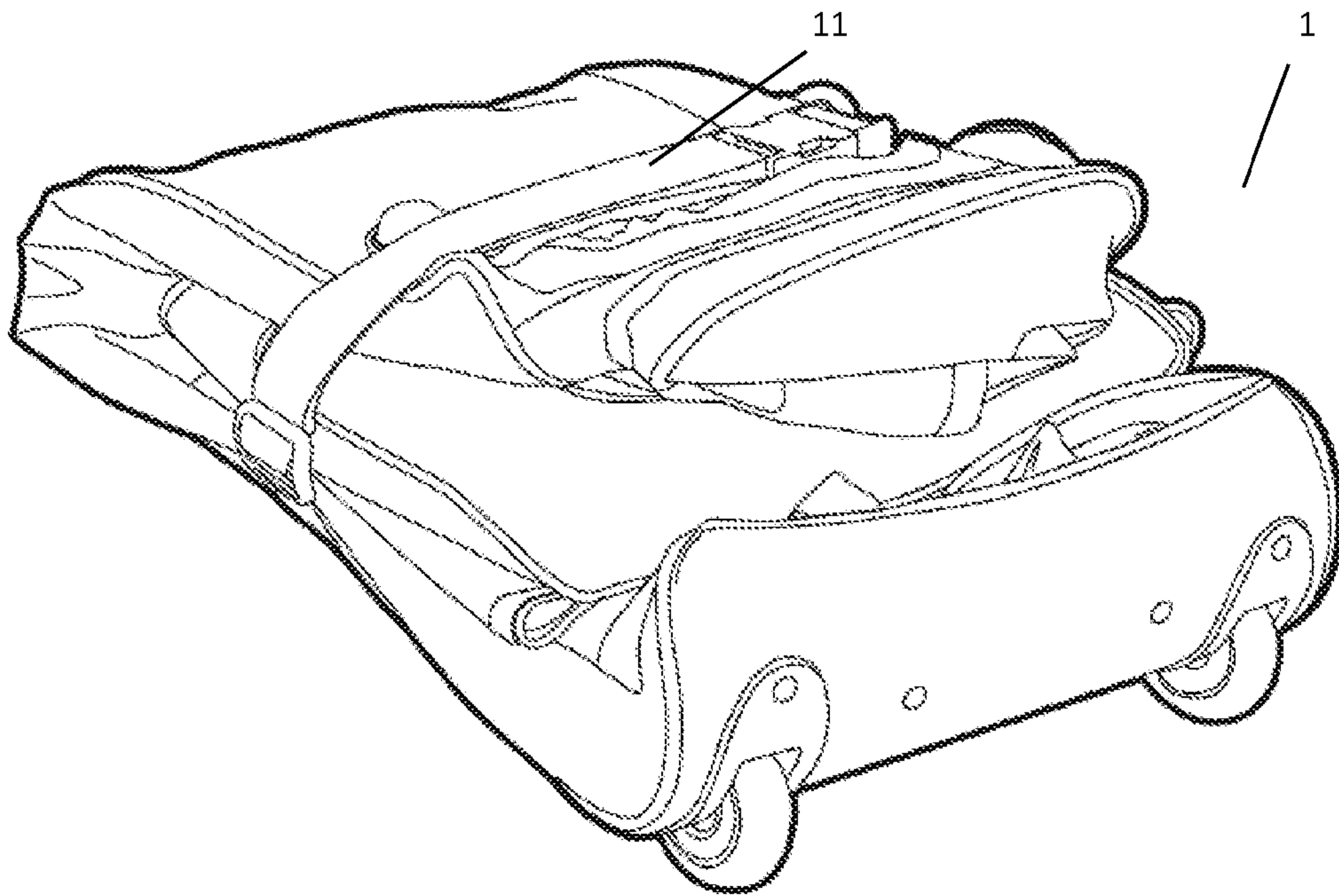


Figure 4

Improvements in bags

The present invention relates to improvements in bags. More specifically the present invention relates to improvements in wheeled bags, such as suitcases, having an extendable
5 handle.

Wheeled suitcases are commonly used for transportation of personal items. Typically a wheeled suitcase has an extendable handle that is changeable from a retracted configuration wherein a grip of the handle is adjacent an upper edge/side of a suitcase and
10 an extended 'in-use' configuration wherein the grip of the handle is distanced from the edge/side of a suitcase and a user may pull the suitcase holding the grip.

Extendable handles are particularly beneficial as by retracting the handle the suitcase may more readily be stored when the suitcase is not in use as the suitcase is able to fit into a
15 smaller space.

The present invention seeks to improve upon the prior art.

According to the present invention there is provided a wheeled bag comprising:

20 a main body having a lower end comprising at least one wheel and an opposing upper end, wherein an 'in-use' length of the bag is defined between the upper and lower ends;

an extendable handle having at least one stem and a handle grip at a distal end thereof;

25 wherein the extendable handle is changeable between:

an extended configuration wherein the handle grip is operable by a user to pull the bag; and

a retracted configuration; characterized in that:

30 in its retracted configuration the handle grip is located between the upper and lower ends of the main body such that the bag may be compacted for storage.

In some embodiments the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 20% of the 'in-use' distance.

In some embodiments the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 30% of the 'in-use' distance.

5 In some embodiments the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 40% of the 'in-use' distance.

In some embodiments the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by around 50% of the 'in-use' distance.

10 In some embodiments when the handle is in its retracted configuration the bag may be compacted for storage by folding the upper end of the bag towards the lower end of the bag.

15 In some embodiments the bag comprises at least one fastening to secure the bag in a folded configuration.

In some embodiments the at least one fastening comprises a strap.

20 In some embodiments when the handle is in its retracted configuration the bag may be compacted for storage by compressing the upper end of the bag towards the lower end of the bag.

In some embodiments the bag comprises at least one fastening to secure the bag in a compressed configuration.

25

In some embodiments in its extended configuration the handle grip is adjacent the upper end of the main body.

30 In some embodiments in its extended configuration the handle grip is spaced from the upper end of the main body.

In some embodiments in its extended configuration the handle grip is spaced from the upper end of the main body by at least 5cm.

In some embodiments in its extended configuration the handle grip is spaced from the upper end of the main body by at least 10cm.

5 In some embodiments in its extended configuration the handle grip is spaced from the upper end of the main body by at least 15cm.

In some embodiments an aperture is provided at the upper end of the bag such that the handle may be retracted into a location inside a compartment of the bag.

10 By extending handle stems through an aperture at an upper end of the bag the main body of the bag is retained in position relative to the handle stems.

In some embodiments the handle grip may be retracted to a position adjacent an exterior surface of the bag.

15

In some embodiments at least one loop is provided at or adjacent the upper end of the bag such that the handle stems extend therethrough when the handle is in its extended configuration.

20 In order that the present invention may be more fully understood a specific embodiment will now be described by way of example with reference to the accompanying drawings, of which:

Figure 1 is a perspective view of an inside of a bag made in accordance with the present invention with its handle in an extended configuration;

25

Figure 2 is a view of the underside of the bag of Figure 1;

Figure 3 is a perspective view of the bag of Figure 1 with its handle in a retracted configuration;

Figure 4 is a perspective view of the bag of Figure 3 having been folded.

30

Referring to the drawings a bag 1 comprises a main body 2 having an upper end 3 and a lower end 4.

When bag 1 is in an 'in-use' configuration as illustrated in Figures 1 and 2 main body 2 is substantially cuboid in shape, being defined by six substantially quadrilateral faces.

5 Main body 2 comprises a storage compartment that is openable and closable by a user by means of lid 5, which is comprises a zip fastener around three sides.

Located at lower end 4 of main body 2 is a pair of wheels 6a, 6b, upon which bag 1 may be rested and wheeled when in use.

10 Located within the storage compartment of main body 2 is mounting 7, which is attached to the base of the storage compartment.

A handle assembly comprises handle stems 8a, 8b and handle grip 9.

15 Handle stems 8a, 8b are telescopically retained by mounting 7, the proximal ends of handle stems 8a, 8b being retained by mounting 7 at all times of normal operation of bag 1.

At the distal ends of handle stems 8a, 8 is attached handle grip 9.

20 Handle stems 8a, 8b are telescopically retained within mounting 7 such that handle grip 9 is movable between an extended 'in-use' configuration as illustrated in Figures 1 and 2 and a fully retracted configuration as illustrated in Figure 3 and 4.

25 In its extended configuration handle grip 9 is located outside of the storage compartment of main body 2 of bag 1. In this configuration handle grip 9 is spaced from the upper end of main body 2 by approximately 15cm.

That is to say that when handle grip 9 is fully extended a gap of approximately 15cm exists between the top of bag 1 and handle grip 9 in order that a user may readily hold handle 1.

30 In this position handle stems 8a, 8b extend out of the storage compartment of main body 2 through an aperture 10 that is positioned at upper end 3 of main body 2. Aperture 10, mounting 7 and wheels 6a, 6b are all located in substantially the same plane.

When handle grip 9 is in its extended configuration a user may rest bag 1 upon wheels 6a, 6b and wheel bag 1 in the manner that is conventional for wheeled suitcases.

5 In this configuration with main body 2 erected in a substantially cuboid shape the length between upper end 3 and lower end 4 may be considered to be the 'in-use' length of the main body 2 of bag 1.

10 When the user then wishes to store bag 1 the user may fully retract handle grip 9 back through aperture 10 such that handle grip 9 is located approximately in the middle of the storage compartment of the main body 2 of bag 1.

In the present embodiment handle grip 9 retracts to a point that is spaced from upper end 3 by around 40% to 50% of the 'in-use' length of main body 2.

15 Once handle has been fully retracted a user may then fold bag 1 roughly in half as illustrated in Figure 4. This is possible as the faces defining main body 2 are predominantly formed of a flexible material (other than those parts that are rigid or semi-rigid for structural purposes).

20 Bag 1 may be releasably retained in its folded configuration by means of a strap 11.

In other embodiments handle stems may not be mounted within a compartment of a bag but may be mounted on the external face of an underside of a bag. In such embodiments an upper end of a bag need not comprise an aperture in an upper face of its main body, but may comprise, for example, a loop for handle stems to extend through so as to keep a main
25 body in position in relation to the handle stems.

Many variations are possible without departing from the scope of the present invention as defined in the appended claims.

30

Claims:

1. A wheeled bag comprising:
 - 5 a main body having a lower end comprising at least one wheel and an opposing upper end, wherein an 'in-use' length of the bag is defined between the upper and lower ends;
 - an extendable handle having at least one stem and a handle grip at a distal end thereof;
 - wherein the extendable handle is changeable between:
 - 10 an extended configuration wherein the handle grip is operable by a user to pull the bag; and
 - a retracted configuration; characterized in that:
 - in its retracted configuration the handle grip is located between the upper and lower ends of the main body such that the bag may be compacted for storage.
- 15 2. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 20% of the 'in-use' distance.
- 20 3. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 30% of the 'in-use' distance.
- 25 4. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 40% of the 'in-use' distance.
- 30 5. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by around 50% of the 'in-use' distance.
6. The bag of any of claims 1 to 5 wherein when the handle is in its retracted configuration the bag may be compacted for storage by folding the upper end of the bag towards the lower end of the bag.

7. The bag of claim 7 wherein the bag comprises at least one fastening to secure the bag in a folded configuration.
- 5 8. The bag of claim 8 wherein the at least one fastening comprises a strap.
9. The bag of any of claims 1 to 5 wherein when the handle is in its retracted configuration the bag may be compacted for storage by compressing the upper end of the bag towards the lower end of the bag.
- 10 10. The bag of claim 9 wherein the bag comprises at least one fastening to secure the bag in a compressed configuration.
11. The bag of any preceding claim wherein in its extended configuration the handle grip is adjacent the upper end of the main body.
- 15 12. The bag of any of claims 1 to 10 wherein in its extended configuration the handle grip is spaced from the upper end of the main body.
- 20 13. The bag of claim 12 wherein in its extended configuration the handle grip is spaced from the upper end of the main body by at least 5cm.
14. The bag of claim 12 wherein in its extended configuration the handle grip is spaced from the upper end of the main body by at least 10cm.
- 25 15. The bag of claim 12 wherein in its extended configuration the handle grip is spaced from the upper end of the main body by at least 15cm.
16. The bag of any preceding claim wherein an aperture is provided at the upper end of the bag such that the handle may be retracted into a location inside a compartment of the bag.
- 30 17. The bag of any of claims 1 to 15 wherein the handle grip may be retracted to a position adjacent an exterior surface of the bag.

18. The bag of claim 17 wherein at least one loop is provided at or adjacent the upper end of the bag such that the handle stems extend therethrough when the handle is in its extended configuration.

5

10

15

20

25

30

Amendments to the claims have been filed as follows

Claims:

1. A wheeled bag comprising:

5 a main body having a lower end comprising at least one wheel and an opposing upper end, wherein an 'in-use' length of the bag is defined between the upper and lower ends;

an extendable handle having at least one stem and a handle grip at a distal end thereof;

wherein the extendable handle is changeable between:

10 an extended configuration wherein the handle grip is operable by a user to pull the bag; and

a retracted configuration; characterized in that:

in its retracted configuration the handle grip is located between the upper and lower ends of the main body;

15 when the handle is in its retracted configuration the bag may be compacted for storage by folding the upper end of the bag towards the lower end of the bag;

the bag comprises at least one fastening to secure the bag in a folded configuration.

20 2. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 20% of the 'in-use' distance.

25 3. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 30% of the 'in-use' distance.

30 4. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by at least 40% of the 'in-use' distance.

5. The bag of claim 1 wherein the handle grip retracts to a point that is distanced from the upper end of the bag towards the lower end of the bag by around 50% of the 'in-use' distance.

10 02 20

6. The bag of any preceding claim wherein the at least one fastening comprises a strap.
7. The bag of any preceding claim wherein in its extended configuration the handle grip is adjacent the upper end of the main body.
- 5
8. The bag of any of claims 1 to 6 wherein in its extended configuration the handle grip is spaced from the upper end of the main body.
9. The bag of claim 8 wherein in its extended configuration the handle grip is spaced from
- 10 the upper end of the main body by at least 5cm.
10. The bag of claim 8 wherein in its extended configuration the handle grip is spaced from the upper end of the main body by at least 10cm.
- 15 11. The bag of claim 8 wherein in its extended configuration the handle grip is spaced from the upper end of the main body by at least 15cm.
12. The bag of any preceding claim wherein an aperture is provided at the upper end of the bag such that the handle may be retracted into a location inside a compartment of the
- 20 bag.
13. The bag of any of claims 1 to 11 wherein the handle grip may be retracted to a position adjacent an exterior surface of the bag.
- 25 14. The bag of claim 13 wherein at least one loop is provided at or adjacent the upper end of the bag such that the handle stems extend therethrough when the handle is in its extended configuration.



Application No: GB1901936.3

Examiner: Tim James

Claims searched: 1-18

Date of search: 26 July 2019

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1-15 and 17	US2016/121916 A1 (KASSAB) see figures 16A and 16B
X	1-16	US2014/151172 A1 (DIAZ) see the figures, particularly figures 5-11, and paragraphs 0045-0049
X	1-15, 17 and 18	US2007/228096 A1 (LIN) see particularly figures 34, 35 and paragraph 0076
X	1-16	CN2566676 Y (CHEN) see particularly figures 3A and 3B

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X :

Worldwide search of patent documents classified in the following areas of the IPC

A45C

The following online and other databases have been used in the preparation of this search report

WPI, EPODOC

International Classification:

Subclass	Subgroup	Valid From
A45C	0007/00	01/01/2006
A45C	0013/22	01/01/2006
A45C	0013/26	01/01/2006