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(54) **SUITCASE**

(57) It comprises a hollow body (3), a lid (4) configured to close the hollow body (3) and an auxiliary compartment (2) comprising a front lid (8) which is connected to the lid (4) of the suitcase (1) by means of a hinged connection (7). The auxiliary compartment (2) comprises a lamellar structure (9) which is attached to at least the front lid (8) and the lid (4) of the suitcase (1); wherein the auxiliary compartment (2) in a fully unfolded position generates a stable interior space for storing various objects such as a bag, a rucksack, clothes etc.

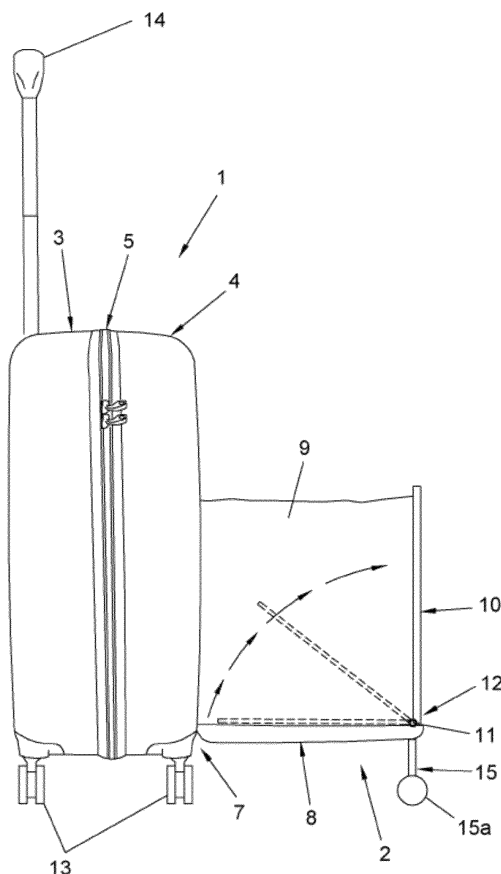


FIG. 4

Description

Object of the invention

[0001] The present invention relates to a suitcase including an auxiliary compartment which can adopt an unfolded position allowing different objects to be deposited, such as for example clothing, a bag, a rucksack, etc.; all this in order to ensure that these deposited objects do not fall or fall out of the wide interior location of the auxiliary compartment in its unfolded position when said objects are transported by means of the suitcase which is dragged by a user with support on the ground by means of main wheels which are normally included in the suitcase itself. Therefore, the auxiliary compartment allows to place and store in its interior different objects and travel accessories to facilitate waiting at stations and airports.

Technical problem to be solved and background of the invention

[0002] Nowadays, suitcases are well known, among which it is worth mentioning those that include wheels to make their transport easier.

[0003] Other suitcases are also known which comprise a main body and at least one outer compartment which allows the capacity of the suitcase to be increased in order to store more additional items in the suitcase as a whole, although in this case the outer compartment comprises a narrow inner space with a substantial limitation in the sense that it can only store thin items, so that access to said auxiliary compartment is through an opening which is released by means of a closing device, such as a zipper, for example. Said inner space of the outer compartment is delimited between a part of the main body and a flat body associated to said main body by means of a hinged or non-hinged joint and by means of the zipper.

[0004] In line with what has been said in the previous paragraph, although in some cases the opening of the outer compartment allows the flat body to be placed in a folded and unfolded position to facilitate a wider and more comfortable access to the inner space of the outer compartment, on the other hand it is not foreseen that the outer compartment in its unfolded position allows the transport of the additional elements in the unfolded position of the outer compartment; and even less when the additional elements are of a large size.

[0005] On the other hand, during a trip of a user with luggage that includes a suitcase and other accessory elements such as a handbag, a backpack and/or an item of clothing, the problem arises, or at least the inconvenience of having to carry these accessory elements scattered by hand or hanging from the shoulder, with the possibility of losing the accessory element when it is the item of clothing hanging from the shoulder of said user. In addition, there is a problem, not only of discomfort, but

also of security due to a greater ease of theft.

Description of the invention

[0006] In order to achieve the objectives and avoid the drawbacks mentioned in the preceding paragraphs, the invention proposes a suitcase comprising a hollow body and a lid configured to close the hollow body.

[0007] The suitcase includes at least one collapsible auxiliary compartment comprising:

- A front lid that is attached to the suitcase lid by means of a hinged connection.
- A lamellar structure that is attached to at least the front cover and the lid of the suitcase.

[0008] When the auxiliary compartment is in a fully deployed position, it creates a stable interior space for storing various items, such as a backpack, clothes, etc.

[0009] In one embodiment of the invention, the auxiliary compartment comprises a hinged armature which is coupled to the front cover by means of a hinged connection located in an area opposite the hinged connection.

[0010] The auxiliary compartment described in the preceding paragraph further comprises an anchoring mechanism linked to the hinged armature; wherein said anchoring mechanism is configured to stabilize an unfolded position of the laminar structure assembly and the hinged armature itself.

[0011] When the auxiliary compartment assembly is located in the fully deployed position, the front cover is located in a substantially horizontal position acting as a bottom or support base, while the hinged armature is located in a substantially vertical position parallel to the lid of the suitcase resting on the floor. In this case and the front lid being fully deployed in proximity to the floor, the auxiliary compartment includes supports which are attached to the front lid in areas opposite the hinged connection; wherein said supports are configured to provide a stable support on the floor to the front lid in a fully deployed position of the auxiliary compartment.

[0012] In one embodiment of the invention, the supports include at their ends secondary wheels configured to rest on the floor in the fully unfolded position of the auxiliary compartment, so that by means of said secondary wheels and other main wheels of the suitcase which also rest on the floor, the movement of the suitcase as a whole is facilitated.

[0013] The suitcase of the invention further comprises a latching device configured to maintain a folded position of the auxiliary compartment; wherein said latching device links the front lid and the lid of the suitcase. In one embodiment of the invention, the latching device comprises a second zipper.

[0014] In one embodiment of the invention the auxiliary compartment in a fully deployed position generates a stable interior space bounded by the front cover, the laminar structure and at least a part of the cover.

[0015] In another embodiment of the invention the auxiliary compartment in a fully deployed position generates a stable interior space bounded by the front cover and by the lamellar structure. In this case the lamellar structure comprises a bag-shaped configuration.

[0016] In order to facilitate a better understanding of this descriptive report and forming an integral part of the same, a series of illustrative and non-limiting figures showing the object of the invention is provided below.

Brief description of the figures

[0017]

Figure 1.- Shows a perspective view of the suitcase, object of the invention. The suitcase includes a foldable auxiliary compartment.

Figure 2.- Shows a profile view of the suitcase of the invention.

Figure 3.- Shows another profile view of the suitcase with the auxiliary compartment being unfolded.

Figure 4.- Shows a profile view of the suitcase with the auxiliary compartment in a fully deployed position.

Figure 5.- Shows a perspective view of a part of the suitcase of the invention, where the configuration of the auxiliary compartment in the unfolded position is highlighted.

Description of an example of an embodiment of the invention

[0018] Considering the numbering adopted in the figures, the suitcase 1 comprises a hollow body 3 and a lid 4 linked to the hollow body 3 by means of a first zipper 5. The suitcase 1 includes an auxiliary compartment 2, wherein a part of said auxiliary compartment 2 is coupled to the lid 4; and wherein said auxiliary compartment 2 is foldable.

[0019] The hollow body 3 comprises a bottom 3a and a side wall 3b of closed contour including a first perimeter edge delimiting an embouchure of the hollow body 3, while the lid 4 includes a second perimeter edge, so that the lid 4 is joined to the hollow body 3 by a centred hinged connection 6 linking a first section of the first perimeter edge of the hollow body 3 with a second section of the second perimeter edge of the lid 4.

[0020] The first zipper 5 comprises a first element and a second element which are attached to a part of the first perimeter edge of the hollow body 3 and to a part of the second perimeter edge of the lid 4.

[0021] The auxiliary compartment 2 comprises a front lid 8 and a foldable lamellar structure 9; wherein the front lid 8 is attached to the lid 4 of the suitcase 1 by means

of a hinged connection 7; and wherein the lamellar structure 9 is attached to the front lid 8 and is also attached to the lid 4 itself, such that the lamellar structure 9 in an unfolded position of the auxiliary compartment 2, the front lid 8 constitutes a support base, while the lamellar structure 9 constitutes an enclosing side wall.

[0022] In an embodiment of the invention different from that described in the preceding paragraph, the auxiliary compartment 2 comprises the lamellar structure 9 and a hinged armature 10 which is coupled to the front lid 8 by means of a hinged connection 11 located in an area opposite to the hinged connection 7. In this case, the lamellar structure 9 is also connected to the hinged armature 10.

[0023] The lamellar structure 9 may comprise a bag-shaped structure or also a structure formed by several lamellar bodies.

[0024] In the embodiment comprising the hinged armature 10, the auxiliary compartment 2 comprises an anchoring mechanism 12 to be able to lock the hinged armature 10 in a deployed position and to stabilize a deployed position of the lamellar structure 9 and in general of the deployed position of the whole of the auxiliary compartment 2.

[0025] Thus, when the auxiliary compartment assembly 2 is located in the fully deployed position, the front lid 8 is located in a substantially horizontal position acting as a bottom or support base, while the hinged armature 10 is located in a substantially vertical position parallel to the lid 4 of the suitcase 1 which is supported on the ground by main wheels 13, as shown more clearly in figure 4. The front lid includes some supports 15 in the form of legs resting on the ground to stabilize said auxiliary compartment 2 in its fully unfolded position and in general to stabilize the suitcase 1 as a whole.

[0026] In one embodiment of the invention, the supports 15 include at their ends secondary wheels 15a configured to rest on the ground when the auxiliary compartment 2 is located in the fully unfolded position, thus facilitating the displacement of the suitcase assembly which will rest on the main wheels 13 and on the secondary wheels 15a.

[0027] In the unfolded position of the auxiliary compartment 2, the various parts of the lamellar structure 9 adopt a wraparound sidewall-like configuration and are arranged in substantially vertical planes; wherein said parts of the lamellar structure 9 are attached to the front lid 8, to the lid 4 of the suitcase 1 above the lower hinge connection 7 and are also attached to the hinged armature 10.

[0028] In the unfolded position of the auxiliary compartment 2 a large interior space is generated, delimited by the enveloping structure of the lamellar structure 9 and by the front lid 8 situated in the substantially horizontal plane, so that in this situation various objects such as a rucksack, clothing, and even objects of greater volume can be introduced inside said interior space; all this in order to be able to transport said objects comfortably by

dragging the suitcase 1 holding it by a handle 14 which incorporates said suitcase 1.

[0029] When the auxiliary compartment 2 is retracted in a folded position parallel to the lid 4 of the suitcase 1 as shown in Figures 1 and 2, said folded position is secured by means of a latching device, such as a second zipper 16, wherein said second zipper 16 comprises a first element attached to the front lid 8 and a second element attached to the lid of the suitcase 1.

[0030] It should be noted that in the folded position of the auxiliary compartment 2, the lamellar structure 9 and the hinged armature 10 are concealed in an enclosed interior space delimited between the front lid 8 and the lid 4 of the suitcase.

[0031] In one embodiment of the invention, when the auxiliary compartment 2 is located in a fully deployed position, the front lid 8 may be located in an inclined plane as shown in figure 3.

Claims

1. Suitcase, comprising a hollow body (3) and a lid (4) configured to close the hollow body (3); **characterised in that** it includes at least one foldable auxiliary compartment (2) comprising:

- a front lid (8) which is connected to the lid (4) of the suitcase (1) by means of a hinged connection (7);
- a lamellar structure (9) which is attached to at least the front lid (8) and the lid (4) of the suitcase (1);

wherein the auxiliary compartment (2) in an unfolded position generates a stable interior space.

2. Suitcase, according to claim 1, **characterized in that** the auxiliary compartment (2) comprises a hinged armature (10) which is coupled to the front lid (8) by means of a hinged connection (11) located in an area opposite to the hinged connection (7).

3. Suitcase, according to claim 2, **characterised in that** the auxiliary compartment (2) comprises an anchoring mechanism (12) linked to the hinged armature (10); wherein said anchoring mechanism (12) is configured to stabilise an unfolded position of the whole of the lamellar structure (9) and the hinged armature (10) itself.

4. Suitcase, according to any one of the preceding claims 2 or 3, **characterised in that** the auxiliary compartment (2) includes supports (15) which are attached to the front lid (8) in areas opposite to the hinged connection (7); wherein said supports (15) are configured to provide stable support on the floor to the front lid (8) in a fully unfolded position of the

auxiliary compartment (2).

5. Suitcase, according to claim 4, **characterised in that** the supports (15) include at their ends secondary wheels (15a) configured to rest on the floor in the fully unfolded position of the auxiliary compartment (2).

6. Suitcase, according to any one of the preceding claims, **characterised in that** it comprises a coupling device configured to maintain a folded position of the auxiliary compartment (2); wherein said coupling device links the front lid (8) and the lid (4) of the suitcase (1).

7. Suitcase, according to any of the previous claims, **characterised in that** the auxiliary compartment (2) in a fully unfolded position generates a stable interior space delimited by the front lid (8), the lamellar structure (9) and at least a part of the lid (4).

8. Suitcase, according to any of the previous claims 1 to 6, **characterised in that** the auxiliary compartment (2) in a fully unfolded position generates a stable interior space delimited by the front lid (8) and the lamellar structure (9).

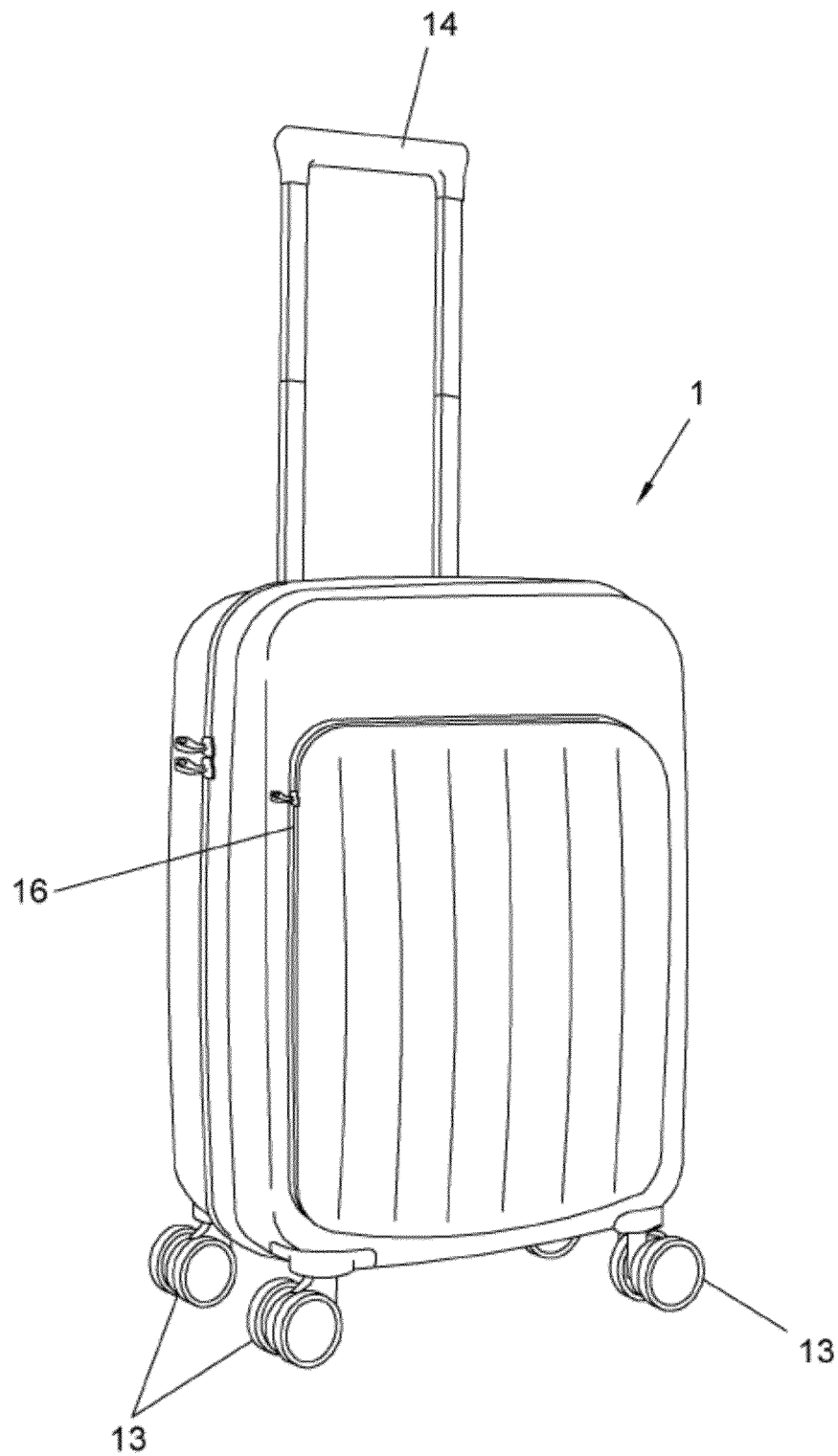


FIG. 1

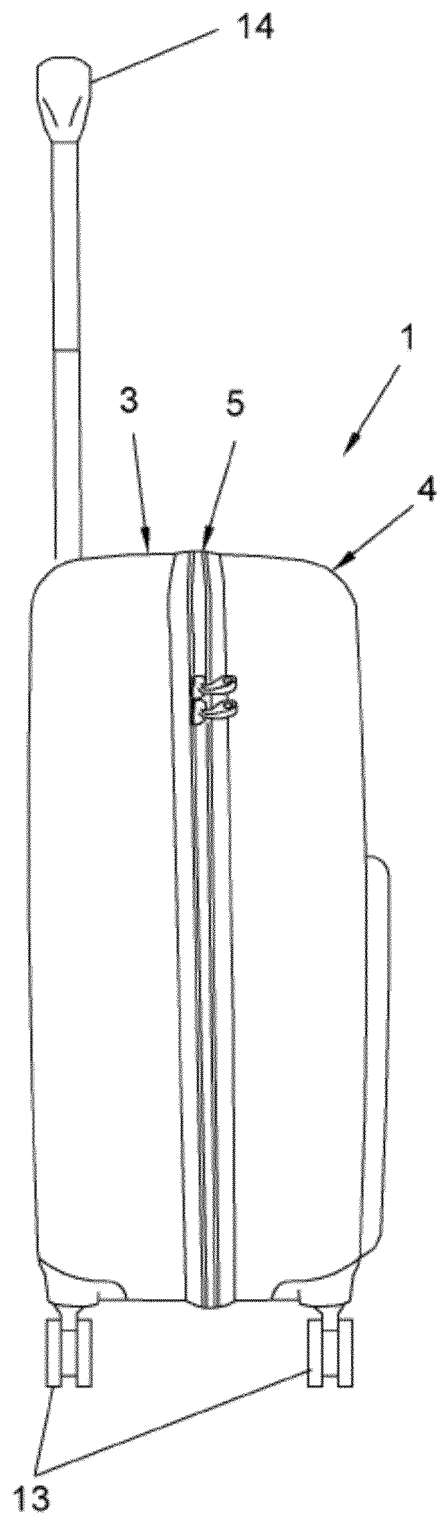


FIG. 2

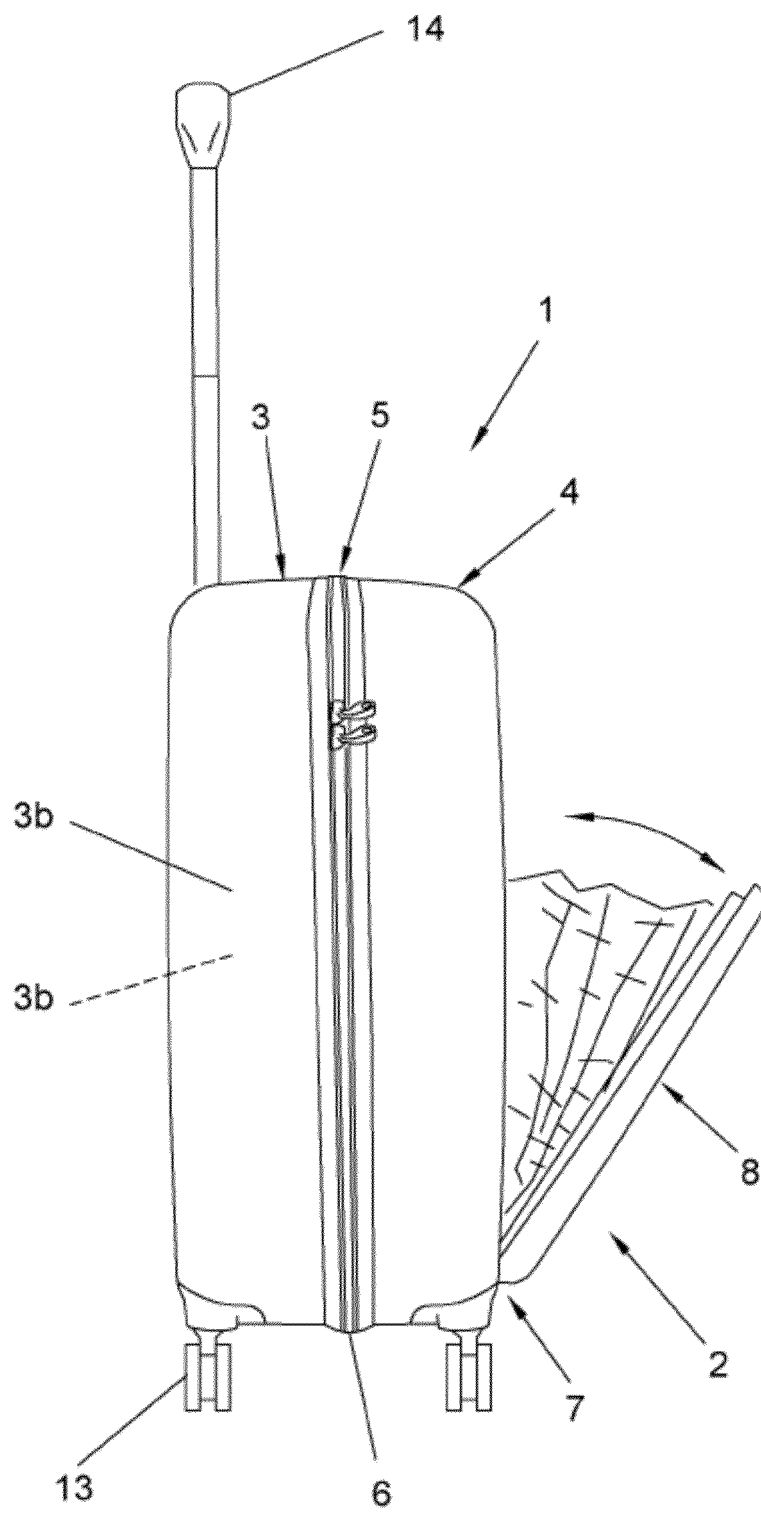


FIG. 3

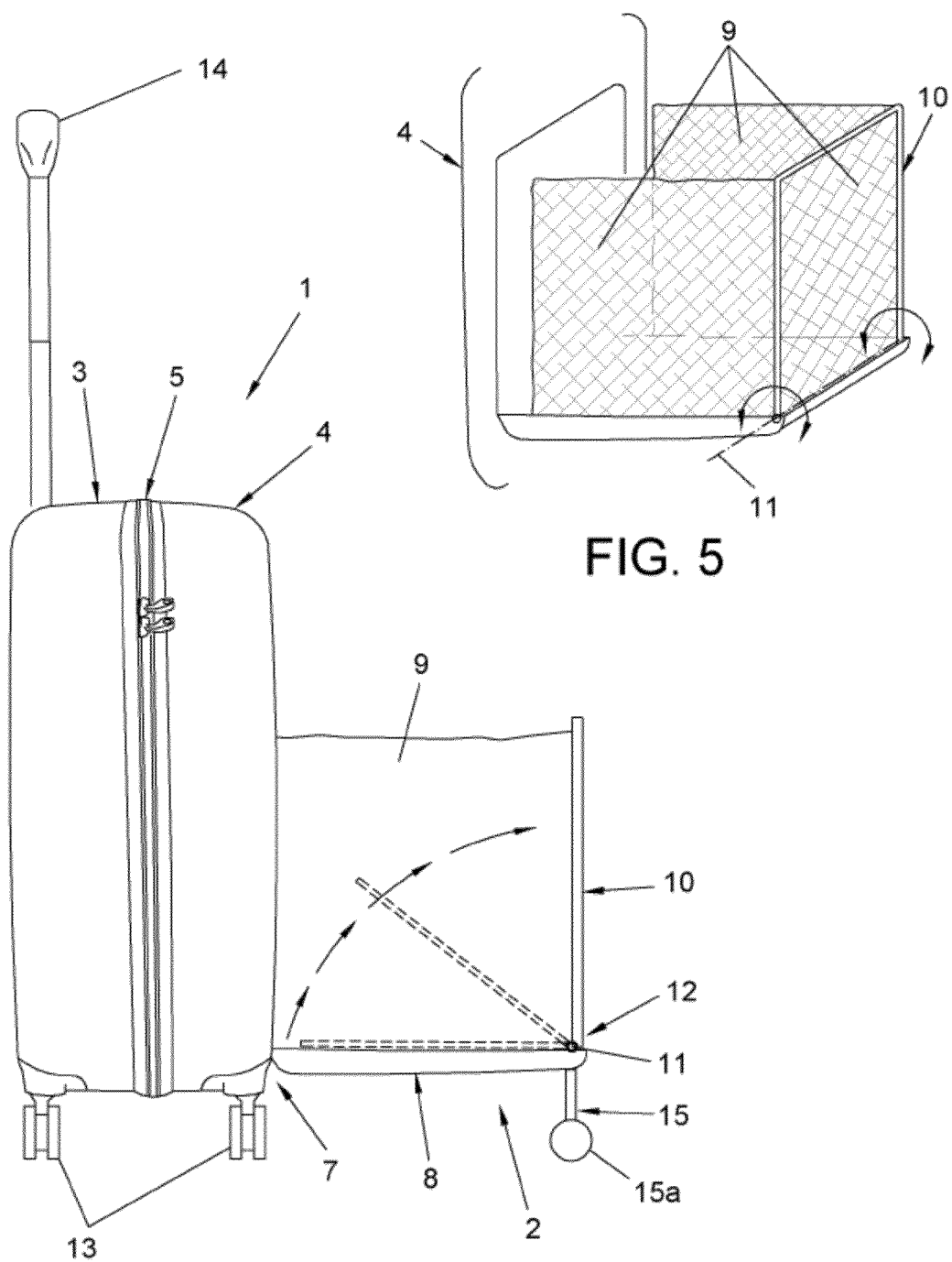


FIG. 5

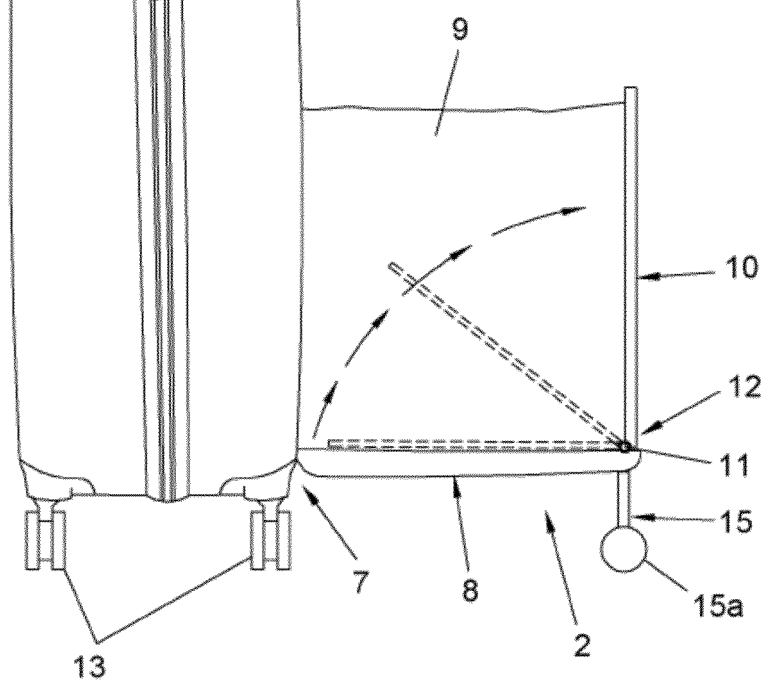


FIG. 4

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES2020/070067

A. CLASSIFICATION OF SUBJECT MATTER

See extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A45C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES, WPI, INTERNET.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2016073752 A1 (DALY STEPHEN) 17/03/2016, figures 1, 5, 6	1, 6-8
A	US 2018090951 A1 (WATSON VALENCIA) 29/03/2018, paragraph [0007]; figure 2.	1-8
A	ES 1205411 U (BITETTI ROSA) 15/02/2018, Page 3, lines 12-16, page 5, lines 1-5, 12-15; figures 4 and 5.	1-8
A	US 2001042665 A1 (SIWAK TODD) 22/11/2001, Paragraph [0009]; figures 1, 2 and abstract.	1-8
A	US 2011186396 A1 (SHEIKH HAROON) 04/08/2011, paragraph [0028], figure 2.	1-8

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"E" earlier document but published on or after the international filing date	
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"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

Date of the actual completion of the international search
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES2020/070067

Information on patent family members

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
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INTERNATIONAL SEARCH REPORT

International application No.

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CLASSIFICATION OF SUBJECT MATTER

A45C5/03 (2006.01)

A45C15/00 (2006.01)

A45C13/00 (2006.01)