(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 4 570 117 A1**

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

(43) Date of publication:
18.06.2025 Bulletin 2025/25

(21) Application number: **23772910.8**

(22) Date of filing: **11.08.2023**

(51) International Patent Classification (IPC):
A45C 13/00 *(2006.01)* ***A45C 13/08*** *(2006.01)*

(52) Cooperative Patent Classification (CPC):
A45C 13/002; A45C 13/08

(86) International application number:
PCT/ES2023/070514

(87) International publication number:
WO 2024/033560 (15.02.2024 Gazette 2024/07)

(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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
KH MA MD TN

(30) Priority: **11.08.2022 ES 202231344 U**

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(54) **SUITCASE PROTECTION DEVICE WITH ADVERTISING SUPPORT**

(57) A protective device for suitcases (M) with advertising support which is configured as a development of a sheet of a die-cut cellulosic material defining a majority, horizontally elongated sector which, by means of vertical folding lines (P) determine two major faces, front (1) and rear (11), and two side faces, right (2) and left (21) comprising a top cover (3) and a bottom cover (4) which are configured, each of them, as a single folded flange; and wherein the top lid (3) and bottom lid (4) respectively emanate from the upper central portion of the front face (1) or the rear face (11) to fold over, and fit on, the top or bottom side of the suitcase (M) respectively.

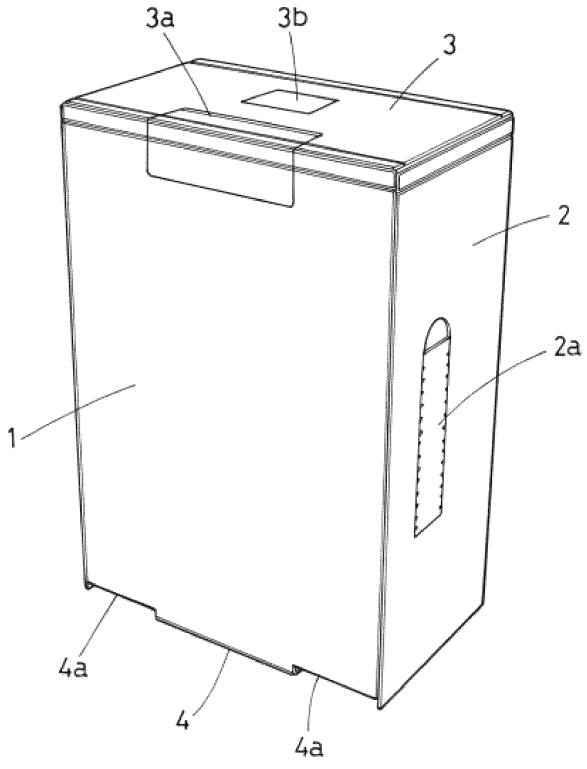

FIG.1

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Description

[0001] The present invention refers to a luggage protection device, especially conceived for use in airports, bus stations, train stations, hotels and other passenger transport and transit interchanges, which, in addition to its simplicity of use and manufacture, provides a very suitable advertising support for the use it is intended to provide.

[0002] It is well known that when traveling on airplanes, buses and even trains, if the suitcases exceed a certain volume, they must be stored in the cargo holds or in receptacles separate from the passenger, which allows the suitcases to be improperly handled, resulting in bumps or scratches, and even the theft of belongings contained in the suitcase itself.

[0003] To alleviate this problem, packing services are well known in which the suitcase is rolled up with a large number of wraps and a transparent plastic film. The removal of the film is therefore a significant waste of time that usually discourages any opportunists, as well as revealing any tampering maneuvers, e.g., for the introduction of illegal substances. However, the plastic used is a polluting element. In addition, unpacking the suitcase for its rightful owner is also a tedious task.

[0004] To avoid the use of plastics, the document EP2174564A1 describes a device for protecting a suitcase consisting of a highly elastic, waterproof, and abrasion-resistant cover having at least one opening for the introduction of the suitcase equipped with customizable tamper-proof seals. The cover is smaller than the dimensions of the suitcase to fit over it due to its elasticity. However, this cover is made of polyamide or polyurethane, which are not easily recyclable materials and can be harmful to the environment.

[0005] It is also known the luggage protector described in the document WO2022074279A1 which describes a protective packaging for suitcases comprising a cardboard packaging characterized in that it is constituted from the development of a die-cut cardboard sheet, in which is defined a major sector, rectangular, horizontally elongated, which by means of vertical folding lines determine the two major and minor faces of a rectangular prismatic package, a prism formed by fixing a tongue associated laterally to one of the major faces and which is fixed by adhesive to the free minor face, forming a folding rectangular prism.

[0006] It is an object of the present invention to solve the problems indicated in the present state of the art. More specifically, the present invention provides a protective device which is materialized with a cellulosic material, preferably any cardboard or paper of a sufficient grammage for its handling, which in addition to protecting the suitcase against bumps or scratches, allows to evidence any undue manipulation of the suitcase and can be used as an advertising support. In other words, the invention is intended to provide a protective element which, at the same time as being an advertising support, once placed around the suitcase, can be used in a conventional manner, leaving the telescopic handle and its wheels operative, with an ecological and environmentally friendly structure. These objects are achieved with the packaging of claim 1. Particular embodiments of the present invention are indicated in the dependent claims.

[0007] Throughout the description and the claims, the word "comprises" and variants thereof are not intended to exclude other technical features, additives, components or steps. To those skilled in the art, other objects, advantages and features of the invention will be apparent in part from the invention and in part from the practice of the invention. The following examples and drawings are provided by way of illustration and are not intended to restrict the present invention. Furthermore, the invention covers all possible combinations of particular and preferred embodiments indicated herein.

[0008] The following is a very brief description of a series of drawings which help to better understand the invention, and which relate expressly to an embodiment of said invention, which is illustrated as a non-limiting example thereof.

[0009] **FIG.1** shows the suitcase protector device and advertising support object of the present invention, in a first practical realization. **FIG.2** shows the development of the device according to the second embodiment of the invention. **FIG.3** shows different views (A-B) of the second practical realization of the suitcase protector device according to the present invention.

[0010] In both practical embodiments of the invention, the device is configured as a rectangular device which, in a vertical position, comprises a front face (1) and a rear face (1a) with a larger surface area than the left (2) and right (21) side faces. That is to say, the device of the invention is constituted from a die-cut sheet of a cellulosic material, preferably cardboard, defining a majority and rectangular sector, elongated horizontally which, by means of vertical folding lines, determine the larger faces, i.e., the front (1) and rear (11) faces, as well as the two smaller faces, i.e. the left (21) and right (2) side faces. In the present description, the indications "front", "rear", "left" and "right" refer to the part of the suitcase (M) where said face would be located in position of use. That is, the front face (1) of the protector would be located at the front of the case (M) and so on.

[0011] In both practical embodiments, the assembly is made of a cellulosic material. The preferred material is cardboard, although any paper with a grammage that allows configuring the protective device as described above can be used. The fundamental advantage of using cellulosic material, in addition to being environmentally friendly and allowing easy recycling, is that it is an easily printable material, so that the protective device, in itself, is a personalized advertising medium. On the other hand, the front (1) and back (11), as well as the left (21) and right (2) sides, provide a suitable surface for, for example, stickers with personalized motifs or safety instructions to ensure that the device has not been tampered with.

[0012] **In FIG.1,** the protective device is shown in position of use in a first practical embodiment, i.e., with a suitcase inserted inside it, and which may incorporate, inside the device, protective elements, such as wrapping paper, bubble wrap, or other elements capable of fixing and protecting the suitcase inside.

[0013] This arrangement, in the form of a rectangular box or prism, is closed at the top (3) and bottom (4) by lids which, in the case of the bottom lid (4), include weakened areas (4a) so that, if the case has wheels (R), they can be easily opened manually by the user or operator. Four weakened zones are provided, but logically, if the case had only two, it would only be necessary to open those two zones and not all four. One of the obvious advantages of this structure is precisely its versatility.

[0014] On the other hand, the upper lid (3) also includes a weakened area (3a) that can be opened by the user or operator to extract the retractable handle of the suitcase. In the event that the case does not have such a handle, a second upper weakened area (3b) is provided for the extraction of the upper fixed handle of the case. It only remains to point out, finally, that the sides (2,21) are susceptible of incorporating weakened zones (2a) in their middle zone, which would allow a window for the passage of the corresponding side handle of manual grip that some suitcases incorporate. With this structure, an ecological, sustainable and very simple to manufacture and operate protective device is achieved.

[0015] Thanks to the protective device of the invention, an ecological, recyclable and environmentally friendly product is obtained, which completely eliminates the use of plastics. In addition, it is easier and less time-consuming to handle than plastic packaging or elastic sleeves.

[0016] An additional advantage is that it improves the stability of the luggage in the cargo hold, since it homogenizes the volumetry of the load. For example, in an ideal situation with all suitcases protected by the device of the invention, the cargo would be distributed in a completely standardized manner by size, such as large suitcases (over 80 cm high), medium suitcases (between 69 and 75 cm high) and small suitcases (generally 55 cm high).

[0017] Logically, the device of the invention would have, in addition, the advantage that any oversized device could be used in a suitcase of a smaller size, simply by filling the inside of the protective device with, for example, paper, further improving the protection of the interior and making it difficult to tamper with it without permission.

[0018] The level of protection against shocks and scratches is higher than in devices known in the state of the art. On the other hand, it offers a means of inviolability that would immediately reveal any tampering. Finally, it offers a surface configured as an advertising support.

[0019] However, the first practical realization shown in **FIG.1** involves a higher consumption of material (cardboard) since the weakened areas, in general, must be discarded. However, in order to reduce the consumption of material, in the second practical realization of the invention shown in **FIG.2** the upper lid (3) and the lower lid (4) are modified with respect to the first realization, the weakened areas disappearing, but with a surface area notably smaller than the surface area of the larger faces (1,11) from which they emanate.

[0020] Thus, the top cover (3) is configured as a folded flange, of a width less than that of the larger faces (1,11) and emanating from the upper central part of the front face (1) to fold over, and fit on, the upper side of the suitcase (M) thanks to a plurality of folding lines (31) transverse to the top cover (3). Once folded, the top lid (3) is attached to the inner side of the rear face (11).

[0021] It is also necessary to indicate that the top cover (3) is dimensionally enabled for passage under an upper handle of the suitcase (M) and for passage between the bars of the retractable handle of the suitcase (M).

[0022] Similarly, the bottom cover (4) is configured as a folded flange, of a width less than that of the larger faces (1,11) and emanating from the lower central part of the rear face (11) to fold over, and fit on, the bottom side of the suitcase (M) thanks to a plurality of folding lines (41) transverse to the bottom cover (4). Once folded, the bottom cover (4) is attached to the inner side of the front face (1) enabling two spaces dimensionally suitable for the passage and use of the wheels (R) of the suitcase (M).

[0023] Moreover, in this practical realization, the prism formed by the larger (1,11) and lateral faces (2,21) is not a pure rectangular prism, as in the first realization or in other documents of the state of the art, but thanks to a plurality of vertical folding lines (P) allows a perfect fit on the suitcase (M) adopting the prism essentially the same external shape as the suitcase (M), which reduces the cardboard necessary for its manufacture.

[0024] The prism is completed through the attachment of a flange or tab (5) laterally associated to one of the larger faces, in this embodiment, to the front face (1) and which is adhered to the left lateral face (21). Next to this locking tab (5) is located a vertical tear line (6) which is configured to disengage the locking tab (5) from the side face on which it is adhered, so that, in order to remove the suitcase (M), said tear line must be broken, evidencing its manipulation.

[0025] The level of protection against knocks and scratches is the same as in known prior art devices, particularly the one described in WO2022/074279(A1), but with a significantly lower material consumption (cardboard). On the other hand, it offers means of inviolability that would immediately evidence tampering. Finally, it offers a surface configured as an advertising support.

Claims

1. A protective device for suitcases (M) with advertising support which is configured as a development of a

sheet of a die-cut cellulosic material defining a majority sector, horizontally elongated which, by means of vertical folding lines (P) determine two major faces, front (1) and rear (11), and two side faces, right (2) and left (21) **characterized in that** it comprises a top cover (3) and a bottom cover (4) which are configured, each of them, as a single folded flange; and wherein the top lid (3) and bottom lid (4) respectively emanate from the upper central portion of the front face (1) or the rear face (11) to fold over, and fit on, the top or bottom side of the suitcase (M) respectively.

2. The device according to claim 1 wherein the lower lid (4) comprises some weakened areas (4a) capable of providing a window for the passage of two or more wheels of a suitcase contained therein; and wherein the upper lid (3) also comprises a first weakened area (3a) capable of a window configured to extract a retractable handle of the suitcase contained therein, and a second upper weakened area (3b), to be able to extract a fixed upper handle of the suitcase contained inside the device.

3. The device according to claim 1 wherein the top cover (3) and the bottom cover (4) are of a width less than that of the major faces (1-11) and comprise a plurality of transverse fold lines (31,41).

4. The device according to any one of the preceding claims which is made entirely of cardboard.

5. The device according to claim 4 wherein the cardboard is decorated.

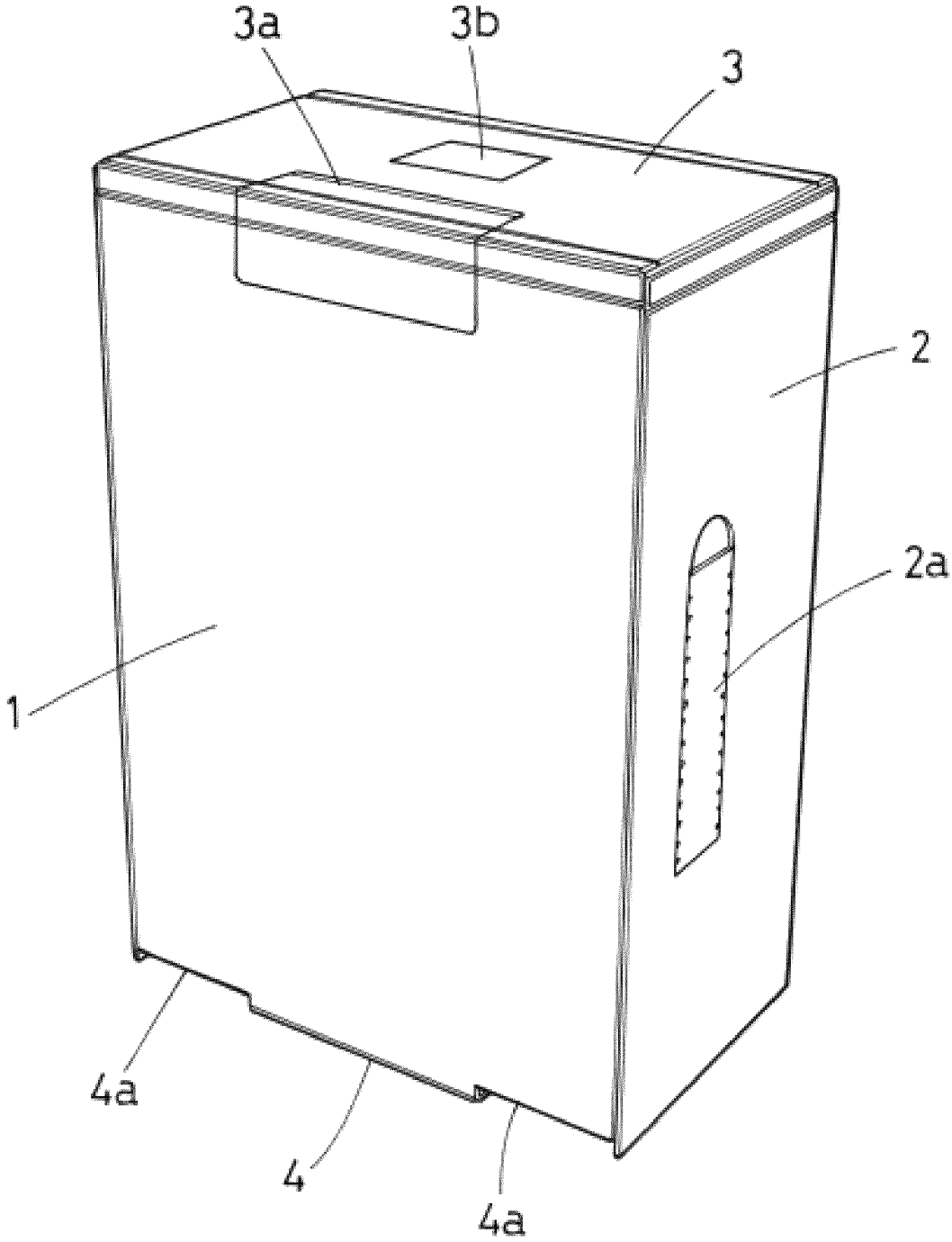

FIG.1

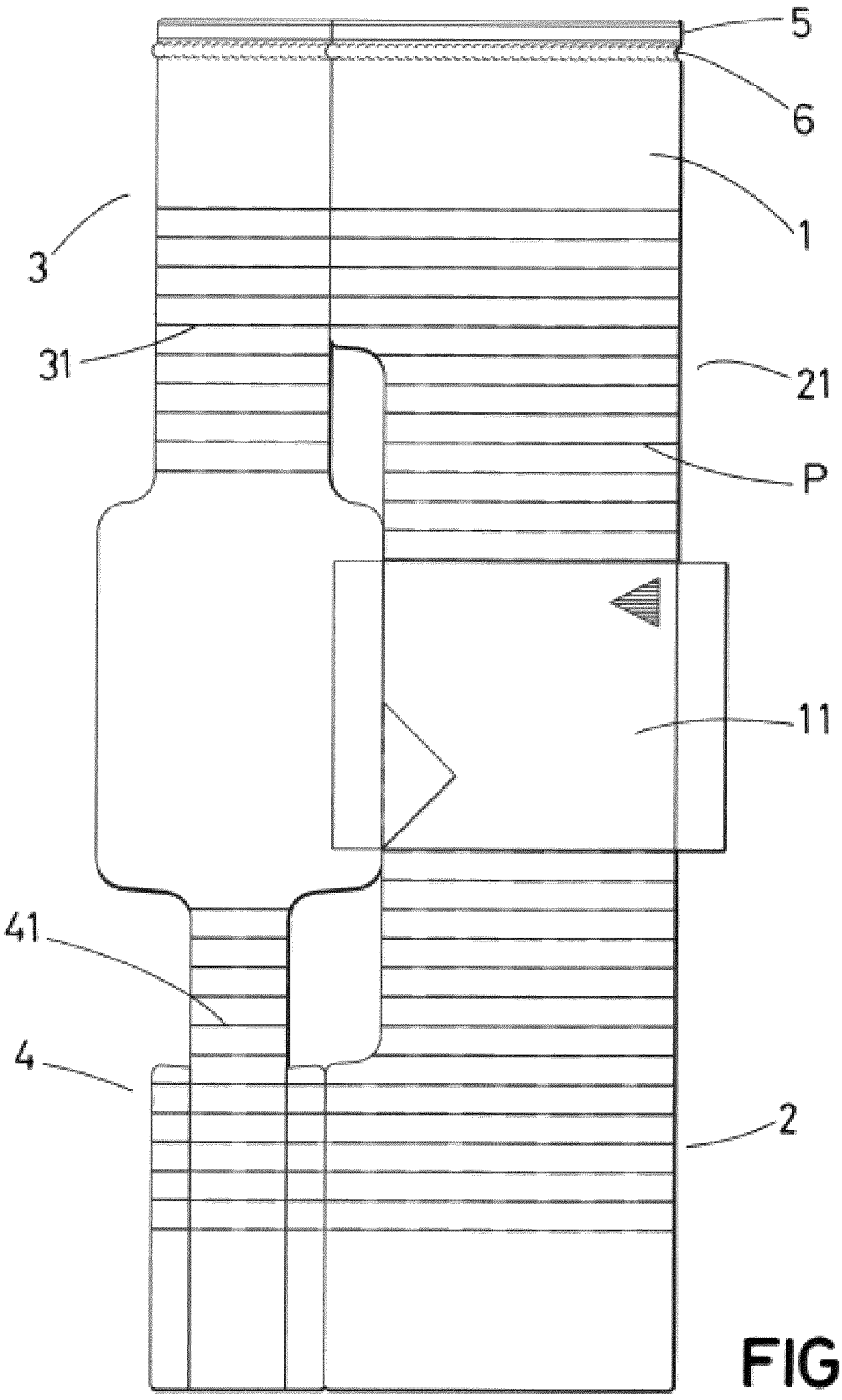

FIG. 2

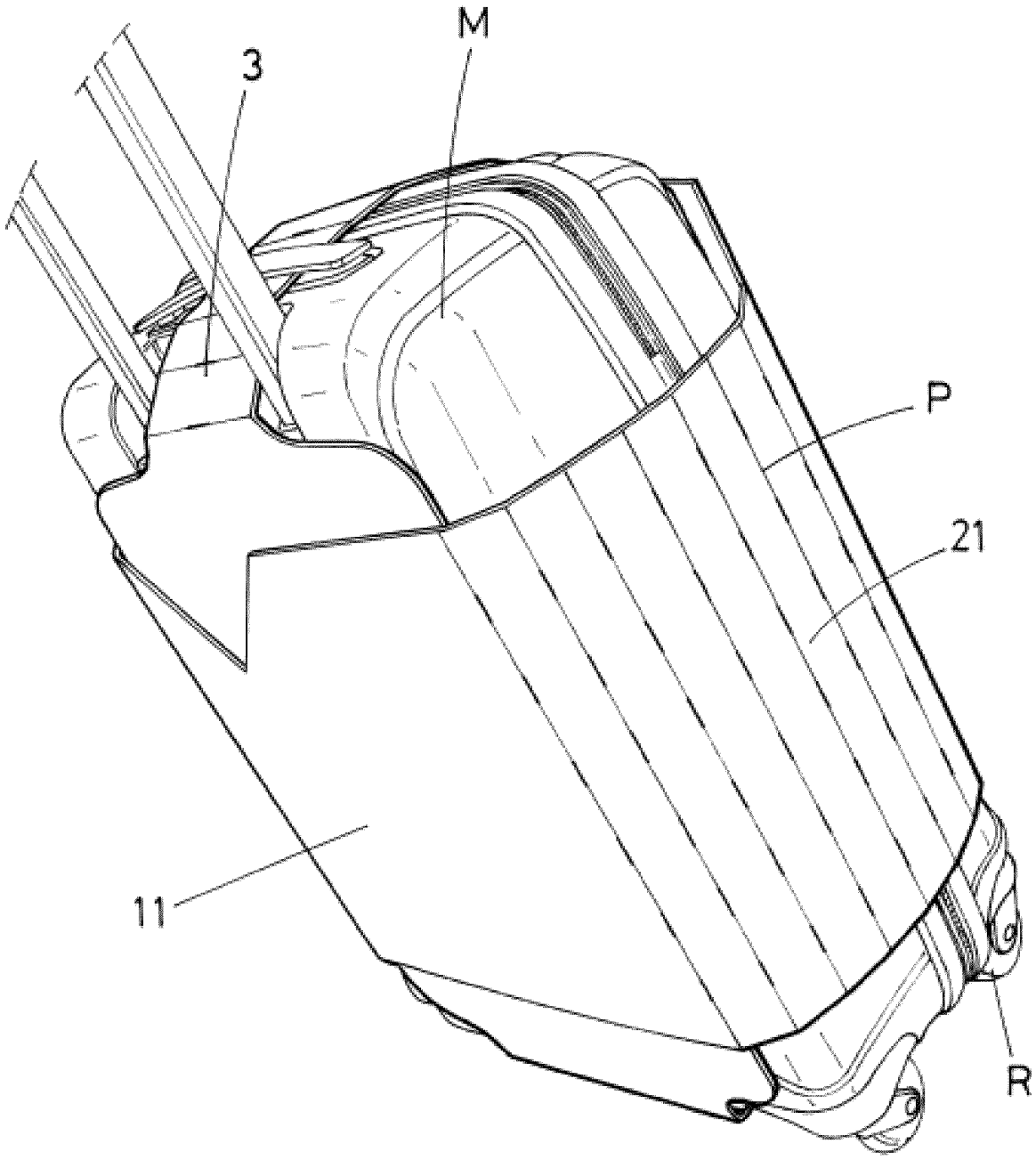

FIG.3A

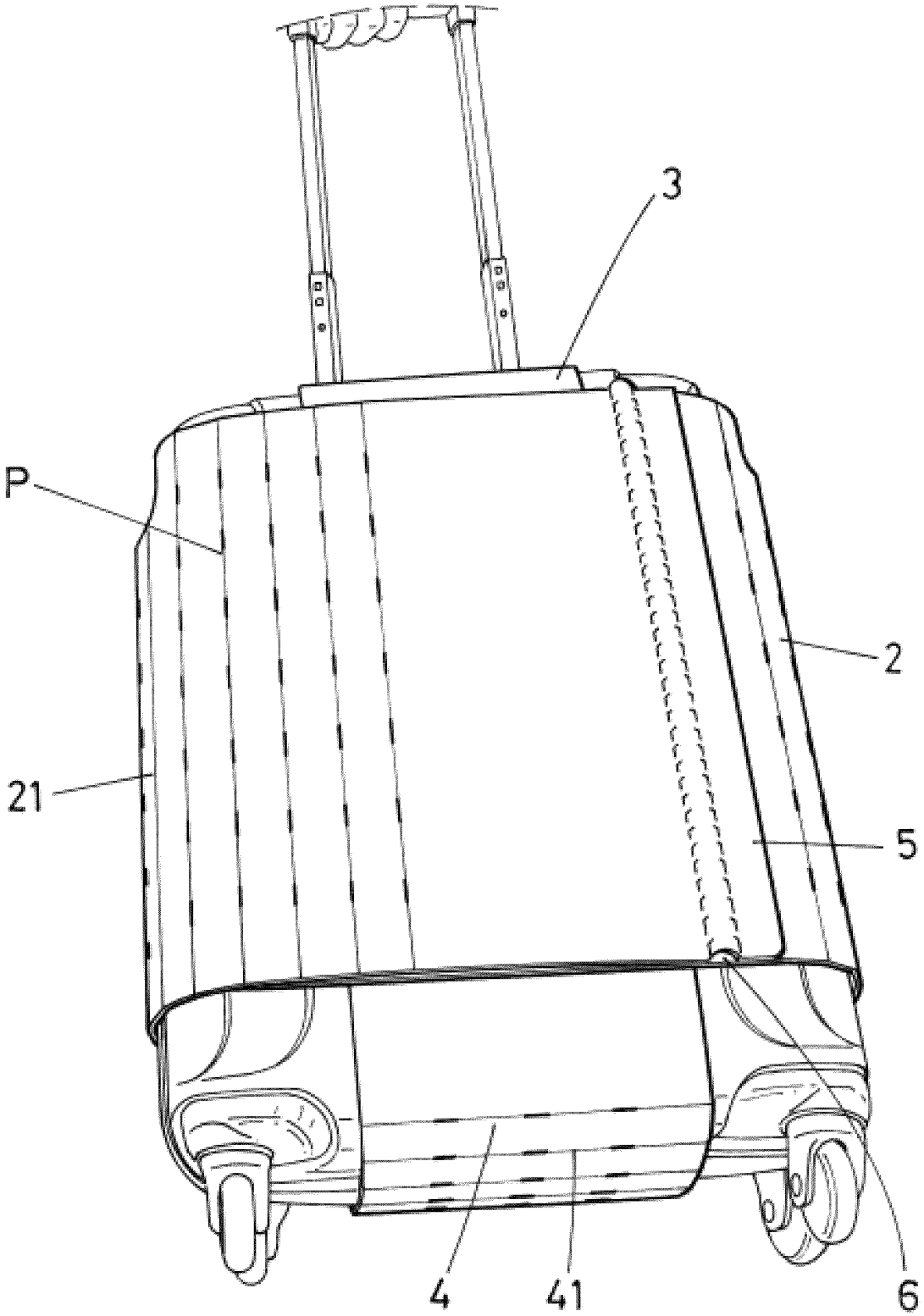

FIG.3B

INTERNATIONAL SEARCH REPORT

International application No
PCT/ES2023/070514

A. CLASSIFICATION OF SUBJECT MATTER
INV. A45C13/00 A45C13/08
ADD.

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2022/074279 A1 (VINGBOX IBERICA S L [ES]) 14 April 2022 (2022-04-14) cited in the application	1,4
Y	the whole document	5
A		2,3

Y	US 2016/066669 A1 (LIEN RICHARD [US]) 10 March 2016 (2016-03-10) the whole document	5

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"X" document of particular relevance;; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance;; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 October 2023	16/10/2023

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Nicolás, Carlos

Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/ES2023/070514

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2022074279 A1	14-04-2022	AU 2021356184 A1	01-06-2023
		CA 3195188 A1	14-04-2022
		CN 116568178 A	08-08-2023
		CO 2023004362 A2	17-04-2023
		EP 4088613 A1	16-11-2022
		ES 1261252 U	26-02-2021
		IL 301996 A	01-06-2023
		KR 20230086716 A	15-06-2023
		PL 4088613 T3	02-10-2023
		WO 2022074279 A1	14-04-2022
US 2016066669 A1	10-03-2016	NONE	

Form PCT/ISA/210 (patent family annex) (April 2005)

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- EP 2174564 A1 **[0004]**
- WO 2022074279 A1 **[0005]**
- WO 2022074279 A **[0025]**