

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
27.08.2014 Bulletin 2014/35

(51) Int Cl.:
B65D 5/64 (2006.01)

(21) Application number: **14156128.2**

(22) Date of filing: **21.02.2014**

(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
 Designated Extension States:
BA ME

(71) Applicant: **Ejido Cartón, S.L.**
04710 Santa María Del Aguila (Almería) (ES)

(72) Inventor: **Mateo Peralta, Gracian**
04710 Santa Maria del Aguila (Almeria) (ES)

(74) Representative: **Ungria López, Javier**
Avda. Ramón y Cajal, 78
28043 Madrid (ES)

(30) Priority: 22.02.2013 ES 201330212 U

(54) **Device for covering the opening of a box**

(57) The device (1) for covering the opening of a box (2) object of the invention comprises a laminar body (3), which in turn comprises: a central body (4), at least four extensions (5) of the central body (4), and at least four folding lines (6) in correspondence with the extensions (5), such that the extensions (5) are folded through the folding lines (6) with respect to the laminar body (3) and

are introduced into holes (7) made on the sides of the box (2), thereby affixing the device (1) for covering the opening of a box (2) to the box (2). The central body (4) has a rectangular shape, comprising two large sides and two small sides, and the extensions (5) are located on the large sides of the central body (4).

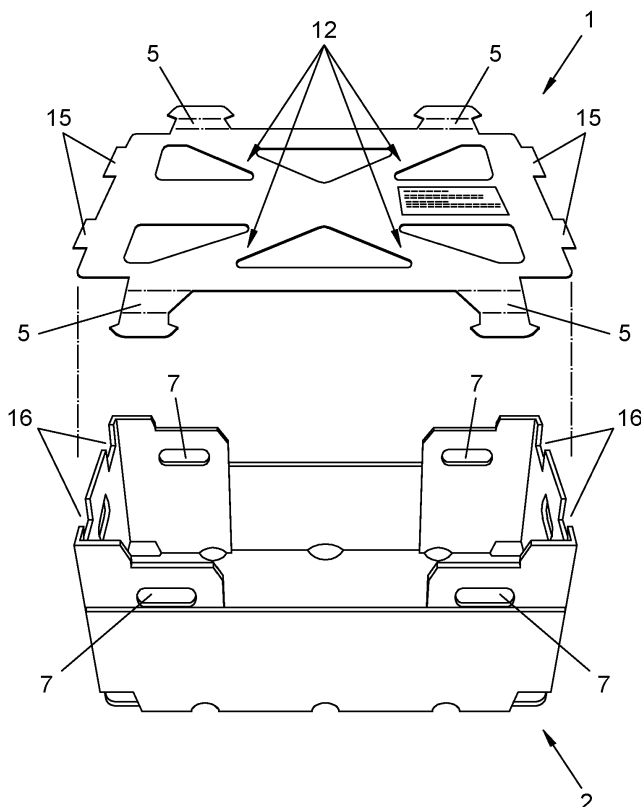


FIG. 3

Description

Object of the invention

[0001] The present invention relates to a device for covering the opening of a box. Based on this objective, the new device for covering the opening of a box is intended for covering the opening of a box, especially the opening of boxes made of cardboard.

Background of the invention

[0002] Currently, the boxes containing fruits and/or vegetables in the market have the openings open and offer no protection to the product they contain, or the opening is covered with an element protecting the contents of the box, such as plastic mesh, for a box made of plastic, or in the case of boxes made of wood, a removable wood piece.

[0003] These box-covering elements are not reusable, given that they form part of the box, and to open the opening of the box they either have to be broken, in the case of the plastic mesh, or the final user has to remove and discard the cover, which is taken to a recycling plant or landfill.

[0004] The applicant of the invention is the holder of utility model number U 201130954, which discloses a label to differentiate the contents of a box, this label being determined by a base sheet body.

[0005] The object of the invention emerges in the need to allow the use of a cover for fruit boxes for covering their contents and providing image to the container, such that the contents of the box are protected and it may be used as an attachment element of the box, given that it provides a safe and secure grip for the transportation thereof.

Description of the invention

[0006] In order to avoid the inconveniences indicated above and achieve the foregoing objectives, the invention discloses a device for covering the opening of a box comprising a flat laminar body, which in turn comprises a central body, at least four extensions of the central body and at least four folding lines in correspondence with the extensions.

[0007] In the device object of the invention, the extensions are folded through the folding lines with respect to the flat laminar body, and are introduced into holes made on the sides of the box, thereby affixing the device to the box.

[0008] The central body of the device object of the invention has a rectangular shape, comprising two large sides and two small sides, and the extensions are located on the large sides of the central body.

[0009] The central body of the device object of the invention has a rectangular shape, comprising two large sides and two small sides, and the extensions are located

on the small sides of the central body.

[0010] The central body of the device object of the invention comprises a solid perimeter, a solid central zone and two hollow lateral zones, which comprise at least one solid strap joining the folding line to the geometric center of the central body.

[0011] The central body of the device object of the invention comprises flanges located on the perimeter, which are placed on recesses made on the box.

[0012] In the device for covering the opening of a box, the extensions comprise two lateral tabs on one extremity, which prevent the removal of the device from the box when the extensions are introduced into the holes of the box.

[0013] The device for covering the opening of a box comprises at least one identifier in the central zone of the central body.

[0014] The device for covering the opening of a box is made of cardboard.

Description of the figures

[0015] In order to complete the description and with the purpose of aiding a better comprehension of the characteristics of the invention, a set of drawings is attached to this specification as an integral part thereof representing the following in an illustrative rather than limitative manner:

Figure 1 shows a plant view of the device for covering the opening of a box object of the invention.

Figure 2 shows a perspective view of the device for covering the opening of a box object of the invention, placed on a box.

Figure 3 shows an exploded view of the device for covering the opening of a box of figure 2.

[0016] The numerical references reflected in the figures correspond to the following elements:

- 1.- device,
- 2.- box,
- 3.- laminar body,
- 4.- central body,
- 5.- extension,
- 6.- folding lines,
- 7.- holes,
- 8.- lateral tab,
- 9.- perimeter,
- 10.- central zone,
- 11.- lateral zones,
- 12.- strap,
- 13.- identifier,
- 14.-die cut,
- 15.-flange,
- 16.- recess.

Description of a preferred embodiment

[0017] The device (1) object of the invention is intended for covering the opening of a box (2) of the kind commonly used for the transportation and storage of fruits.

[0018] In the preferred embodiment of the invention, the device (1) is made of cardboard and comprises a laminar body (3), which is located on the box (2) in correspondence with the opening of the box (2).

[0019] In the preferred embodiment of the invention, the laminar body (3) comprises a rectangular central body (4), given that it adapts to a box (2) with said rectangular shape, with two large sides and two small sides. The laminar body (3) also comprises extensions (5), which are perpendicular to the two large sides of the rectangular central body (4).

[0020] The extensions (5) are connected to the rectangular central body (4) by means of folding lines (6), which allow locating the extensions (5), by folding them 90° around the folding lines (6), with respect to the rectangular central body (4).

[0021] In order to connect the device (1) object of the invention to the box (2), firstly the laminar body (3) is placed on the opening of the box (2), then the extensions (5) are folded and placed through the exterior of the box (2), introducing said extensions (5) into holes (7) made on the box (2).

[0022] The central body (4) of the device (1) object of the invention comprises:

- a solid perimeter (9),
- a central zone (10), which is also solid
- lateral zones (11) located on the sides of the central zone (10), which comprise die cuts (14) that result in at least one solid strap (12), which joins the folding line (6) to the geometric center of the central body (4).

[0023] The central body (4) also comprises flanges (15) located on the perimeter (9), located on the sides that do not comprise the extensions (5), such that, by placing the device on the opening of the box (2), the flanges (15) are placed into recesses (16) of the box (2) and they collaborate with the placement of the device (1) on the opening of the box (2).

[0024] The extensions (5) comprise, in the end that is introduced into the holes (7) of the box (2), two lateral tabs (8) which, when introduced into the holes (7) of the box (2), prevent the removal of the device (1) from the box (2).

[0025] The straps (12) transmit the stresses generated when the box (2) is lifted, pulling from the device (1) object of the invention. These stresses are generated at the extensions (5) introduced into the holes (7) and is transmitted to the solid central zone (10) of the central body (4).

[0026] Likewise, in an alternative embodiment, the device (1) comprises at least one identifier (13) in the central zone (10), such as a bar code, magnetic identification or conventional label.

[0027] The invention should not be limited to the particular embodiments described in this document. Experts in the art may develop other embodiments based on the description made herein. Therefore, the scope of the invention is defined by the following claims.

Claims

1. Device (1) for covering the opening of a box (2), **characterized in that** it comprises a laminar body (3), which comprises:
 - a central body (4),
 - at least four extensions (5) of the central body (4), and
 - at least four folding lines (6) in correspondence with the extensions (5),
 such that the extensions (5) are folded around the folding lines (6) with respect to the laminar body (3) and are introduced into holes (7) made on the sides of the box (2), thereby affixing the device (1) for covering the opening of a box (2) to a box (2).
2. Device (1) for covering the opening of a box (2) according to claim 1, **characterized in that** the central body (4) has a rectangular shape, comprising two large sides and two small sides, and the extensions (5) are located on the large sides of the central body (4).
3. Device (1) for covering the opening of a box (2) according to claim 1, **characterized in that** the central body (4) has a rectangular shape, comprising two large sides and two small sides, and the extensions (5) are located on the small sides of the central body (4).
4. Device (1) for covering the opening of a box (2) according to any one of the previous claims, **characterized in that** the central body (4) comprises:
 - a solid perimeter (9),
 - a solid central zone (10), and
 - two hollow lateral zones (11), which comprise at least one solid strap (12) joining the folding line (6) to the geometric center of the central body (4).
5. Device (1) for covering the opening of a box (2) according to claim 4, **characterized in that** the central body (4) comprises flanges (15) located on the perimeter (9), which are placed on recesses (16) made on the box (2).
6. Device (1) for covering the opening of a box (2) according to any one of the previous claims, **characterized in that**

terized in that the extensions (5) comprise two lateral tabs (8) on one end, which prevent the removal of the device (1) from the box (2) when the extensions (5) are introduced into the holes (7) of the box (2).

5

7. Device (1) for covering the opening of a box (2) according to any one of the previous claims, **characterized in that** it comprises at least one identifier (14) in the central zone (10) of the central body (4).

10

8. Device (1) for covering the opening of a box (2) according to any one of the previous claims, **characterized in that** it is made of cardboard.

15

20

25

30

35

40

45

50

55

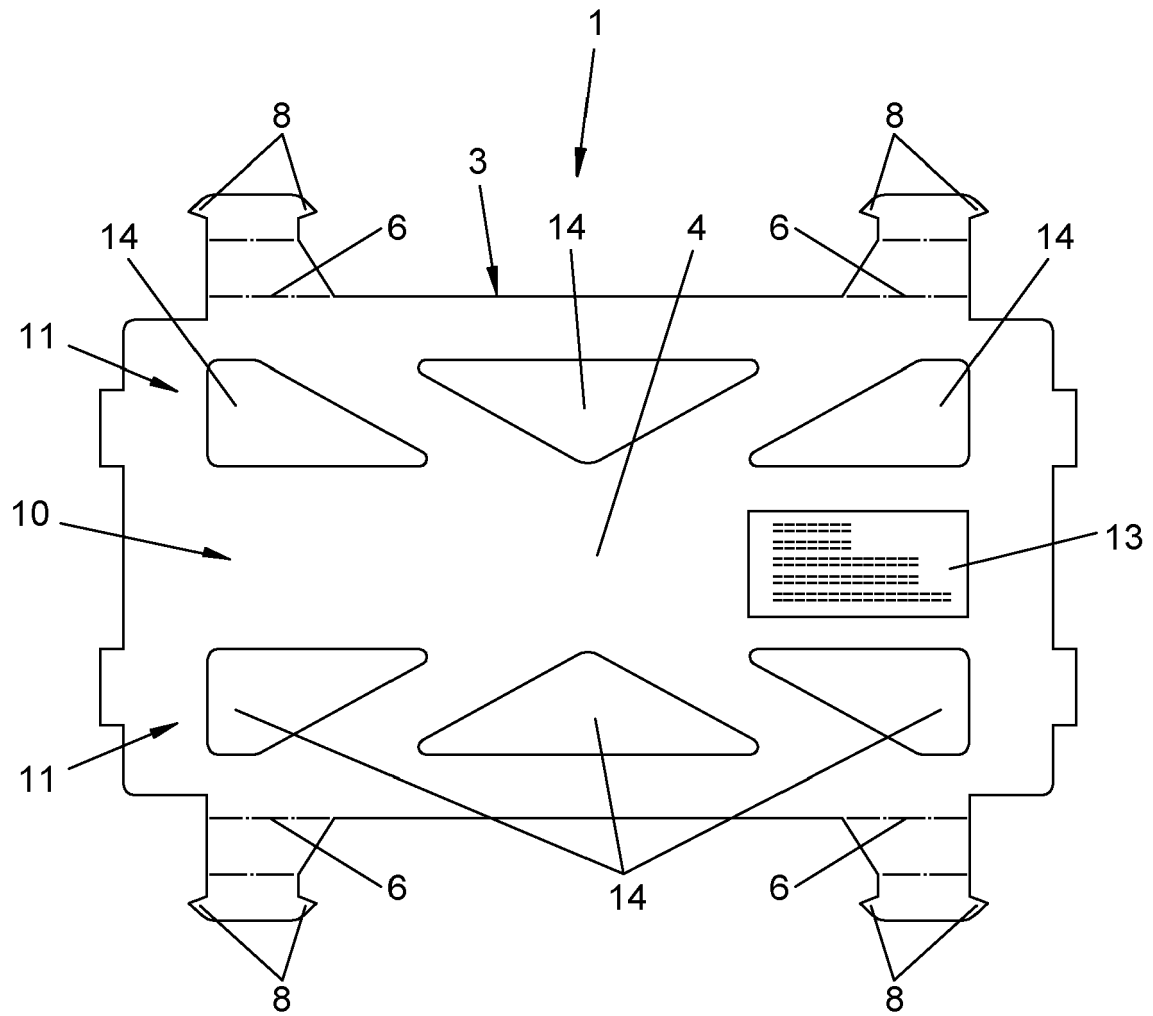


FIG. 1

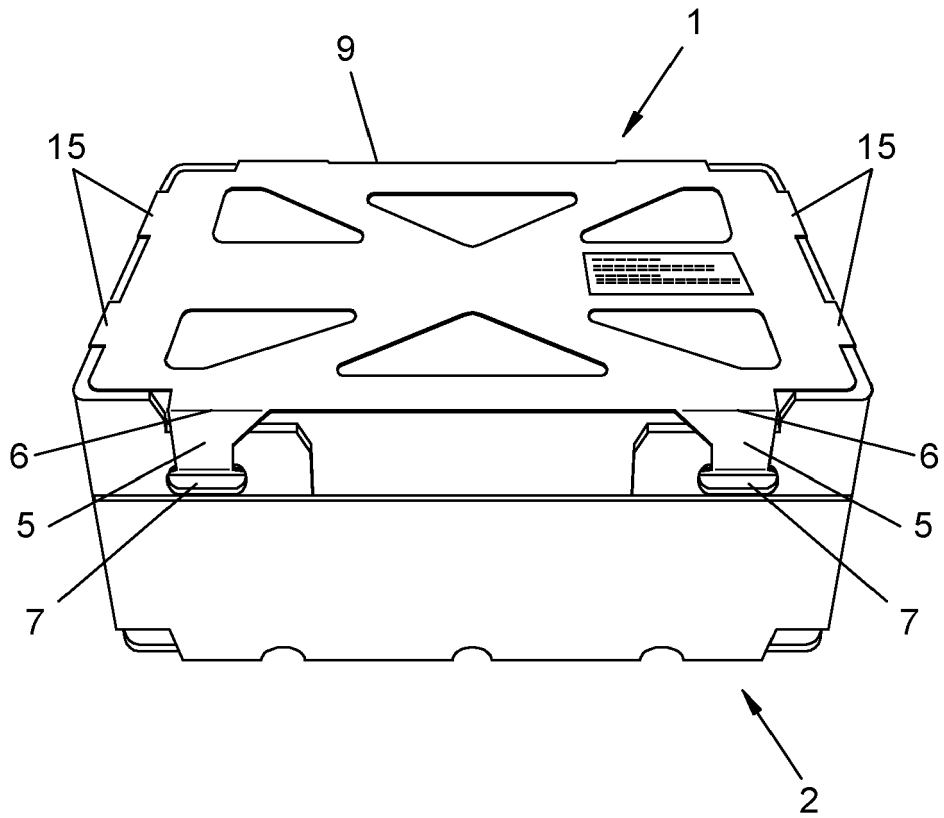


FIG. 2

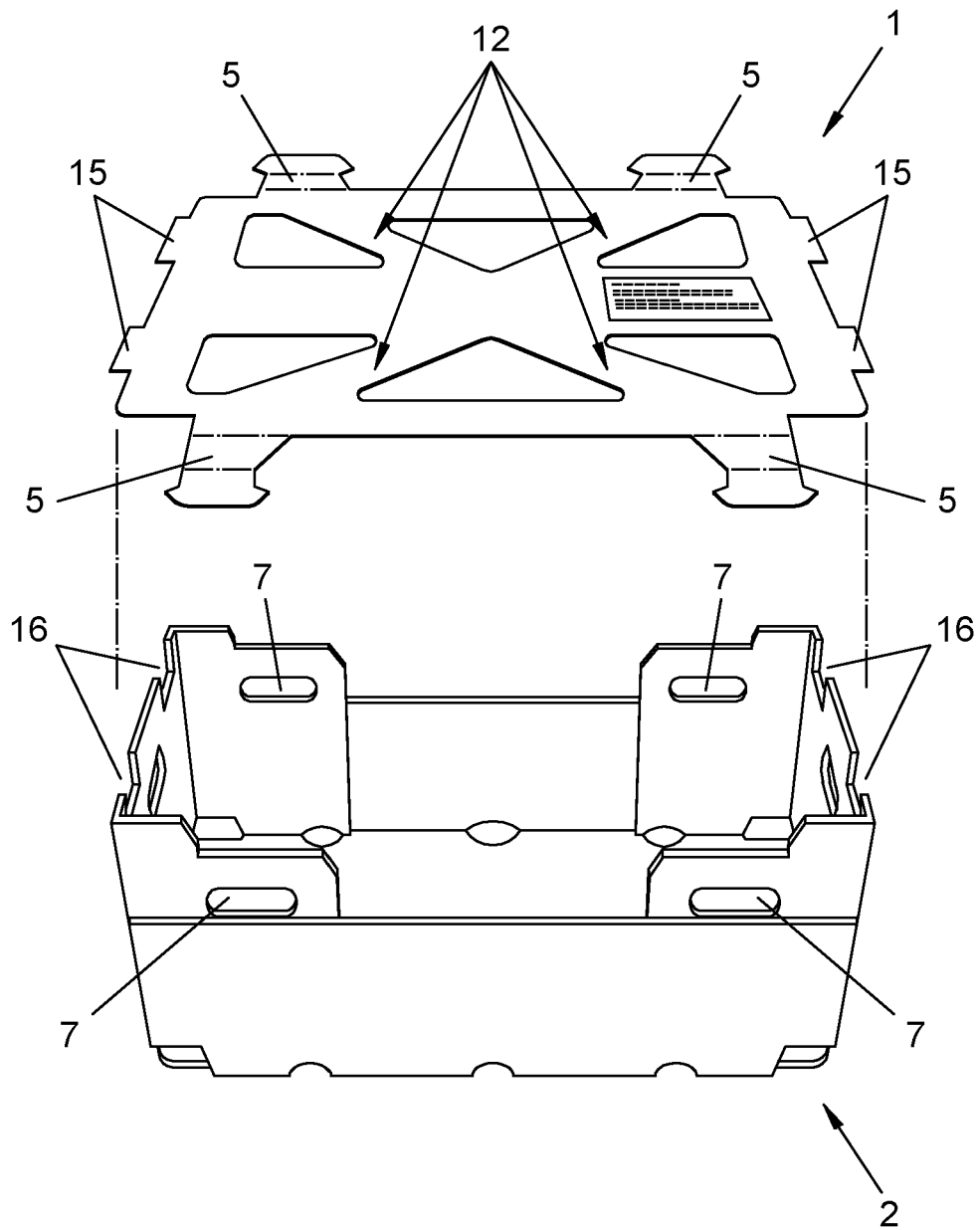


FIG. 3



EUROPEAN SEARCH REPORT

Application Number
EP 14 15 6128

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	US 1 341 429 A (LEWIS CHARLES W) 25 May 1920 (1920-05-25)	1-3,6-8	INV. B65D5/64
Y	* page 2, lines 38-43; figure 9 *	5	
Y	US 4 923 113 A (GUIJARRO FRANCISCO I [ES]) 8 May 1990 (1990-05-08)	5	
A	* column 4, lines 1-40; figures 1-3 *	1	
X	US 2 314 631 A (DON RAY) 23 March 1943 (1943-03-23)	1,6-8	
X	US 2 789 748 A (BARBOUR ROSWELL P) 23 April 1957 (1957-04-23)	1,2,4,7,8	
X	US 2 578 060 A (GRANT JESSE R) 11 December 1951 (1951-12-11)	1,3,6-8	TECHNICAL FIELDS SEARCHED (IPC) B65D
A	US 4 340 168 A (WEBINGER GEORGE) 20 July 1982 (1982-07-20)	4	
	* column 6, lines 25-58; figures 10-12 *		
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 May 2014	Examiner Grondin, David
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			

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

EP 14 15 6128

5

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.

23-05-2014

10

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 1341429	A	25-05-1920	NONE

US 4923113	A	08-05-1990	AU 2092688 A 27-07-1989
			ES 1004169 U 16-08-1988
			MX 173737 B 25-03-1994
			NZ 225385 A 27-11-1990
			US 4923113 A 08-05-1990

US 2314631	A	23-03-1943	NONE

US 2789748	A	23-04-1957	NONE

US 2578060	A	11-12-1951	NONE

US 4340168	A	20-07-1982	NONE

20

25

30

35

40

45

50

55

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

- WO 201130954 A [0004]