



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication: **19.02.2014** **Bulletin 2014/08** (51) Int Cl.: **B65D 5/50 (2006.01)** **B65D 85/34 (2006.01)**

(21) Application number: **12380041.9**

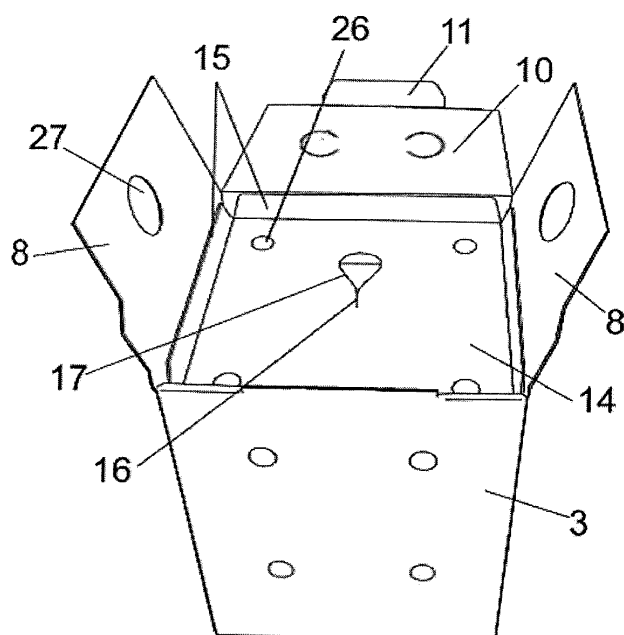
(22) Date of filing: **16.08.2012**

<p>(84) Designated Contracting States: <b>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</b> Designated Extension States: <b>BA ME</b></p> <p>(71) Applicant: <b>Sanlucar Fruit S.L.</b> <b>46530 Puzol Valencia (ES)</b></p>	<p>(72) Inventor: <b>Navarro Mecho, José Francisco</b> <b>46530 Puzol (Valencia) (ES)</b></p> <p>(74) Representative: <b>Gonzalez Palmero, Fé</b> <b>Calle Sagasta, 4</b> <b>28004 Madrid (ES)</b></p>
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(54) **Case for the marketing of peduncular fruits and the like**

(57) Fruit, vegetables and the like are usually sold in boxes or trays made of cardboard, where these products are sometimes exposed to scratches and pressure that facilitate their deterioration. The invention consists of a unitary case, i.e., designed to receive one piece of the product in question, for example a pear, a cluster of grapes, etc., which is kept hanging from its peduncle (18) from the upper base or lid of the case, without the product making contact with any of the case's walls. Precisely, it

has been provided that under the closing flap (10) which constitutes the external wall of the lid, an internal wall (14) is placed, with similar size, provided with a small cut (16) at its centre which is rounded off on one of its sides by a window (17) for said peduncle to go through, which is finally attached to the aforementioned cut (16) in a suspended position for the piece of fruit, with the latter being visible from the outside through several windows (21) existing on one or more of the side walls, and with the case featuring ventilation holes (24, 25, 26, 27).



**FIG. 2**

## Description

### OBJECT OF THE INVENTION

[0001] This invention refers to a case that has been specially conceived for the marketing of peduncular fruits, with a unified shape, such as a cluster of grapes, a pear, an apple, etc., although the case is equally applicable to similar products, such as vegetables, so long as the latter also feature a peduncle.

[0002] The object of the invention is to achieve that the fruit or product in question is kept hanging from its peduncle inside the case, without making contact with the case at any other point, being appropriately ventilated and consequently in optimal conservation conditions.

[0003] The invention is thus situated within the scope of the packaging industry, and more specifically in the industry producing boxes and containers preferably made of cardboard for the transportation and distribution of perishable products, such as fruits and vegetables.

### BACKGROUND OF THE INVENTION

[0004] As it is known, the aforementioned products are sold in boxes or plates made of cardboard, with different sizes and volumes that adapt to the nature of the products, so that the latter press both against the boxes' walls as well as against themselves, which may cause damage to them. This problem is exacerbated when the boxes have greater depth and the products in the lower layers must sustain the weight of the upper layers.

[0005] There are boxes known to try to eliminate this problem, or rather trays, with very little height, barely the essential to place one single layer of the product, so that these will not have to sustain the weight of the upper layers, with the products remaining independent on their side from one another through the addition of a laminar thermoformed body to the tray's interior, with air cells separated from each other and receptors of the respective unitary pieces. Given that the fruits are irregular both in shape and in size, the possibility for a perfectly dovetailed coupling between each fruit and the corresponding placement space does not exist.

[0006] The evident solution to keep the product in optimal conditions would be to achieve that, during normal commercial manipulation, the product does not make contact at any time either with other fruits, or with the box or tray containing it, hanging in a natural way as it would from its own plant or tree.

[0007] Up to this date, there is no known packaging that is capable of offering these features, not even in the case of extremely high quality fruits and vegetables where the cost of packaging is far from being determinant.

### DESCRIPTION OF THE INVENTION

[0008] The case for the marketing of peduncular fruit

and the like proposed by the invention solves in a fully satisfactory way the problems described above, allowing, as noted before, that each unit of fruit is kept totally isolated from the case's walls and also without the possibility of contact with other fruits, i.e., in a situation of complete isolation in which the fruit only touches the case through its peduncle, from which it hangs.

[0009] More precisely, to that end said case is made from a laminated, single-piece body made of cardboard provided with fold and cut lines that allow the formation of a prism-shaped body, enclosed both throughout its perimeter as well as its base, with the particularity that its upper base is double and includes a centrally placed cut in its lower or interior wall which expands into a small window in one of its edges allowing the peduncle of the fruit in question to go through it, and as the peduncle goes through the aforementioned cut, it remains sturdily connected to the case's structure with which the fruit remains hanging in the interior of said case without further contact with its walls. Obviously, the section of the peduncle that protrudes with respect to the cut of the upper lid's lower wall is hidden by the upper wall thereof.

[0010] These two walls constituting the case's upper base are noticeably separated from one another defining a chamber in which the fruit's protruding sector of the peduncle is housed without the slightest problem, and through which air circulates as a result of the existence of ventilation holes on both walls.

[0011] The lid or exterior wall of the case's upper base features two semi-circular shaped sectors by way of a tab that are introduced towards its interior keeping connected to the aforementioned lid through a small area that is not die-cut, so when they are introduced, they go through the holes of other interior tabs becoming an unbreakable enclosure thereof.

[0012] Other ventilation holes are created in at least one of the side walls of the case's body, and even on its lower base, whose holes coincide on the side with another adjacent equivalent case to allow the air to flow inside both vertically and horizontally.

[0013] The inner wall of the upper lid is moved downward with respect to the upper one, connecting with the case's back wall through a strip defined by two folding lines so that this strip firmly holds said wall through one of its edges. To complete this attachment, it has been provided that in both vertical front edges of the case and at an appropriate height level, die-cut holes are created which form supports capable of being deformed towards the interior of the case, defining retention stops for the corners of the lower wall of the lid opposite to the aforementioned supports.

[0014] Finally, it is worth highlighting that, in order to also allow a direct visualization of the product contained within the case, at least one of the side walls, preferably its frontal wall and two of its side walls, should be provided with their respective windows of considerable size, sealed with a transparent plastic sheet, properly attached to the cardboard piece constituting the case with, for ex-

ample, an adhesive.

**[0015]** It is necessary to further highlight that the aforementioned windows are not entirely closed by the transparent plastic sheet, but they leave small openings for the flow of air, which obviously collaborate in the ventilation of the product placed inside the case. In addition, the sheet itself may have perforated holes to improve said ventilation.

### **DESCRIPTION OF THE DRAWINGS**

**[0016]** To complement the description being made and in order to help better understand the features of the invention, according to a preferred practical embodiment thereof, a set of drawings is attached as an integral part of said description, wherein the following is shown as way of illustration but not limited to:

- Figure 1. Shows the development in plant of the case for the marketing of peduncular fruits and the like, embodied according to the object of the present invention.
- Figure 2. Shows a rear perspective view of the case in the previous figure, properly assembled, in a partially closed position for its opening or upper base.
- Figure 3. Shows a detail in perspective of one of the front and upper corners of the case, in the stage of formation of the stops for the retention of the lid.
- Figure 4. Shows an upper-lateral perspective of the case, with its upper base or lid completely open, receiving a cluster of grapes.
- Figure 5. Shows, finally, another perspective of the case, now in a closed position, and with the cluster of grapes inside of it.

### **PREFERRED EMBODIMENT OF THE INVENTION**

**[0017]** In view of the cited figures, it may be observed how the case that is being recommended is constituted from a laminated body that takes a prism-shaped configuration and in which a front side (1), two lateral sides (2, 2') and a rear side (3) are defined, which are connected to one another through folding lines (4) and which close over with the help of a tab (5) which, emerging from the free edge of one of the side walls (2), is fixed through adhesive to the free edge of the rear wall (3). Each of the walls (1, 2, 2', 3) is extended on its lower edge and through a folding line (6), in flaps (7) which allow for the closing of the case's lower base through self assembly, but which could be stabilized by any other means, for example with adhesive.

**[0018]** The case's opening is close by two flaps (8, 8') connected through a folding line (9) to the body's side walls (2, 2') and through a third flap (10) that is an extension of the front wall (1), with sizes that coincide with those of the case's opening and provided, in front of the

folding line (9), of a closing tab (11), all of this in a conventional way.

**[0019]** According to the invention, the rear wall (3) of the case is extended upwards and through the same folding line (9) in a narrow strip (12) defined by a folding line (12) and parallel to the previous one, further from which a flap is created (14) with foldable tabs (15) corresponding with its three free edges and with sizes that come close to those of the flap (10), i.e., to those of the case's opening, in a way that this flap (14) is designed to constitute some sort of a tray adjacent to the flap or closing lid (10), as may be particularly observed on Figure 2.

**[0020]** The flap (14), i.e. the bottom of the aforementioned tray, has a small cut (16) on its centre that is rounded off on its edges in a window (17), appropriately sized to allow the peduncle (18) of the fruit placed in the case to go through it, as shown in Figure 4, fruit which in this case is materialized as a cluster of grapes. After the peduncle (18) has crossed through the window (17), said peduncle is moved towards the cut (16), causing a semi-elastic deformation of the cardboard and with the peduncle remaining fixed, able to sustain the aforementioned cluster without the slightest problem.

**[0021]** In order to properly stabilize the flap (14) inside the body of the case from the weight of the grape cluster, a strip (12) has been provided, which connects the rear edge of the tray with the rear wall (3) of the case's body, with the help of two stops (19) such as the one shown in Figure 3, obtained from a couple of die-cuts (20) located over the vertical edges of the front side (1) of the body, created from three folding lines that emerge from a lower point and two cut lines that converge over the upper point of said edge, precisely at the level demanded by the flap (14), in a way that this die-cut (20) is bendable towards the interior of the case, such as it is shown in the aforementioned Figure 3, to configure the corresponding stop.

**[0022]** The lid or exterior wall (10) of the case's upper base features two sections with a semi-circular shape (28) by way of a tab that are introduced towards the interior of the case remaining connected to the aforementioned lid (10) through a small section that is not die-cut, so that when they are introduced they go through the holes (27) of the other interior flaps (8, 8') with these flaps (28) being retained thus becoming an unbreakable enclosure of the case.

**[0023]** As a complement of the structure described herein, the case incorporates corresponding windows (21) on its lateral sides (2, 2') and its front side (1), which allow the visualization of the fruit housed in the case, with these windows being mainly sealed with a transparent plastic sheet (22), properly fixed with, for example, adhesive, to the cardboard plate constituting the case, as especially shown in Figure 1.

**[0024]** As mentioned before, these windows (21) are partially sealed by the transparent sheet (22), so that in correspondence to each of them there are small open holes (23) for ventilation of the interior of the case, ventilation that is complemented with holes (24) placed on

the bottom of the case, holes (25) placed on its rear wall (3), holes (26) placed on the bottom of the tray (14) and holes (27) placed on the closing flaps (8, 8' and 10), with which a perfect ventilation of the case is ensured.

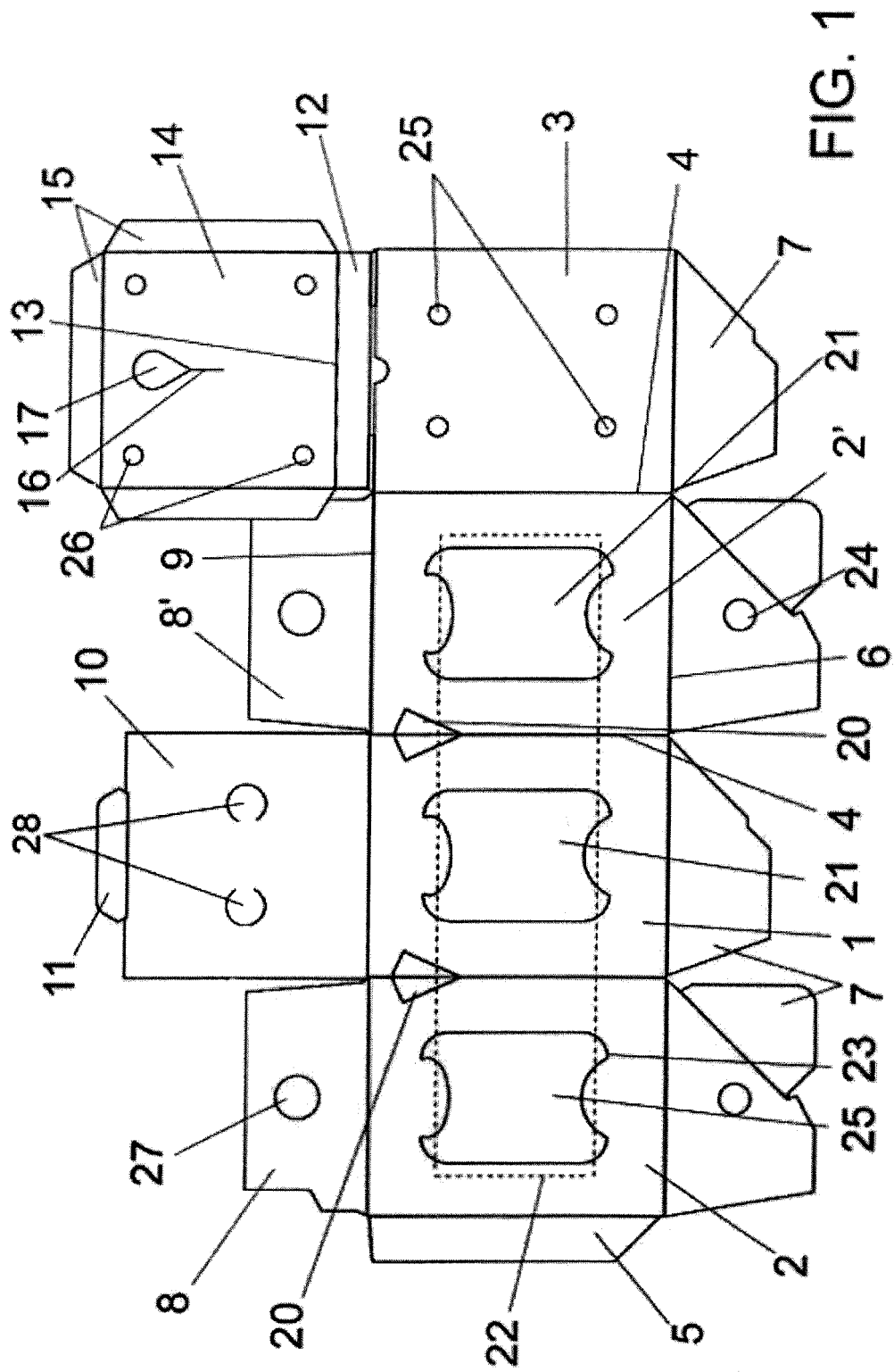
[0025] This way, according to the object of the invention, it is achieved that the fruit in question, for example a cluster of grapes, is kept hanging from the upper base of the case, without making contact with any of the side walls or with its lower base, i.e., perfectly isolated and protected from possible side impacts against the case and in optimal conditions of ventilation, with the case's contents resulting perfectly visible from the outside.

## Claims

1. Case for the marketing of peduncular fruits and the like, formed by a laminated body, made of cardboard, appropriately die-cut to form a prism shaped receptacle provided with an upper opening that is sealable through folding flaps (8, 8', 10), that affect three of its opening's edges, **characterized in that** the aforementioned closing lid is double, made from one lower flap (14), provided with a small central cut (16), finished off on one of its edges by a window (17) of an appropriate size to allow the free passage of the fruit's peduncle towards the aforementioned cut (16), where said peduncle and, consequently the fruit is kept hanging from the case's upper base, with no other point of contact with the latter.
2. Case for the marketing of peduncular fruits and the like, according to claim 1, **characterized in that** the flap (14) from the lower wall of the double lid is connected to the side wall (3) of the case's body freed by the closing flaps (8, 8', 10), through a narrow strip (12) defined by folding lines (9, 13), with said strip (12) defining the distancing between the flaps (10, 14) of the double lid, with said flap (14) also featuring folding tabs (15) located in correspondence with its three free edges, and with the vertical edges (4) of the wall opposite the strip (12) incorporating, near its upper extremity, die-cuts (20) that are bendable towards the interior of the case to form support stops (19) for the lower flap (14) of the double lid in a normal operating condition thereof.
3. Case for the marketing of peduncular fruits and the like, according to claim one, **characterized in that** the lid of or exterior wall (10) of the case's upper base features two section with a semi-circular shape (28) by way of a tab that are introduced towards the interior of the case remaining connected to the aforementioned lid (10) through a small section that is not die-cut, so that when they are introduced they go through the holes (27) of the interior flaps (8, 8') with said flaps (28) being retained thus becoming an unbreakable enclosure of the case.

4. Case for the marketing of peduncular fruits and the like, according to any of the previous claims, **characterized in that** at least one of the case's sides a large window (21) is created for visualization of the interior of the case, mainly sealed by a transparent plastic sheet (22), properly fixed to the body of the case.

5. Case for the marketing of peduncular fruits and the like, according to any of the previous claims, **characterized in that** between each window (21) and the transparent plastic sheet (22) there are small ventilation holes (23), in addition to ventilation holes on the case's lower base, on the side wall or walls (3) that are not affected by windows (21), on its upper closing lid (8, 9, 10) and on the flap (14) constituting the lower wall of the closing lid.



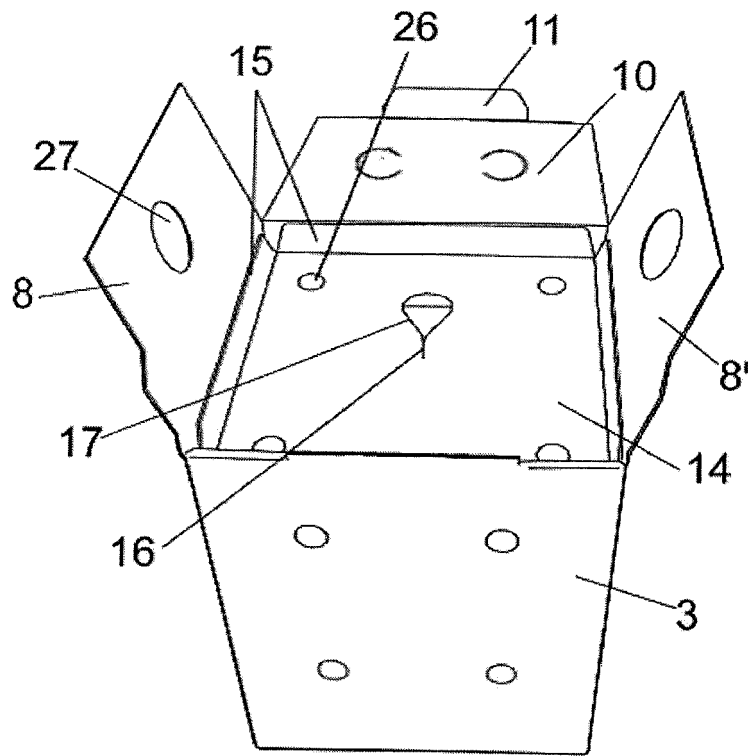


FIG. 2

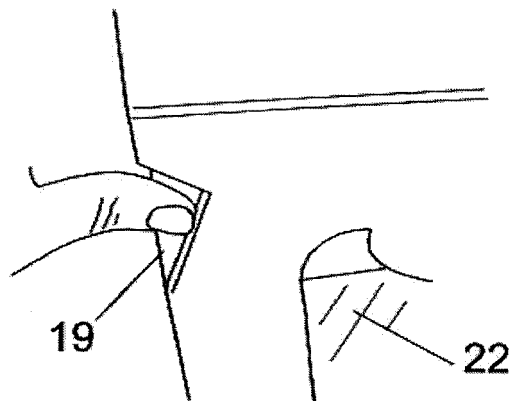


FIG. 3

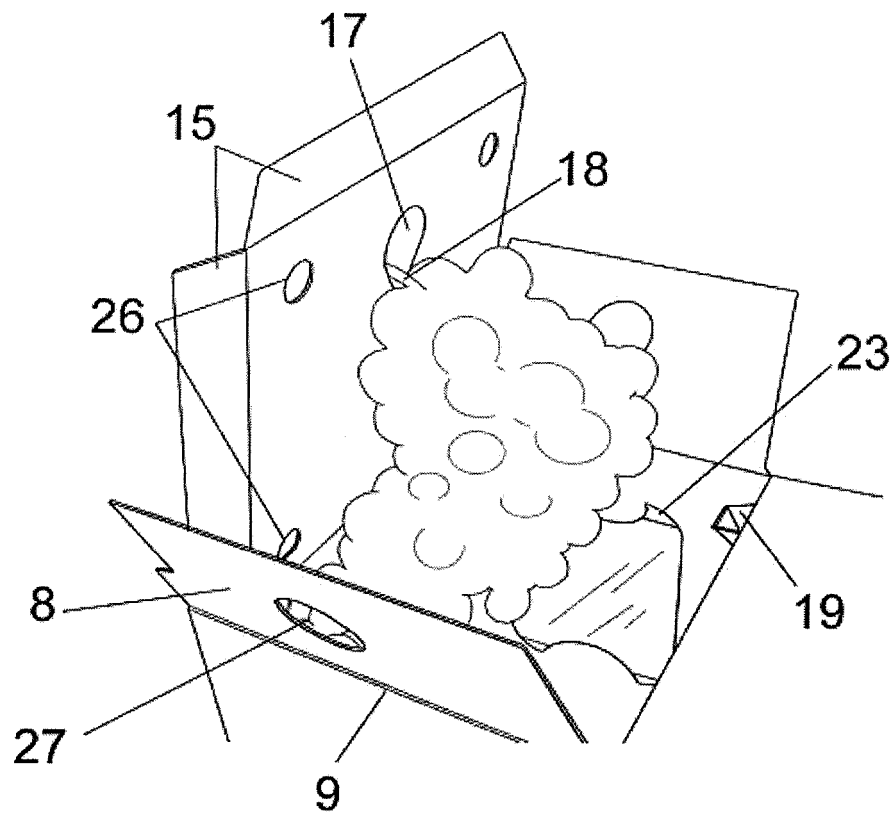


FIG. 4

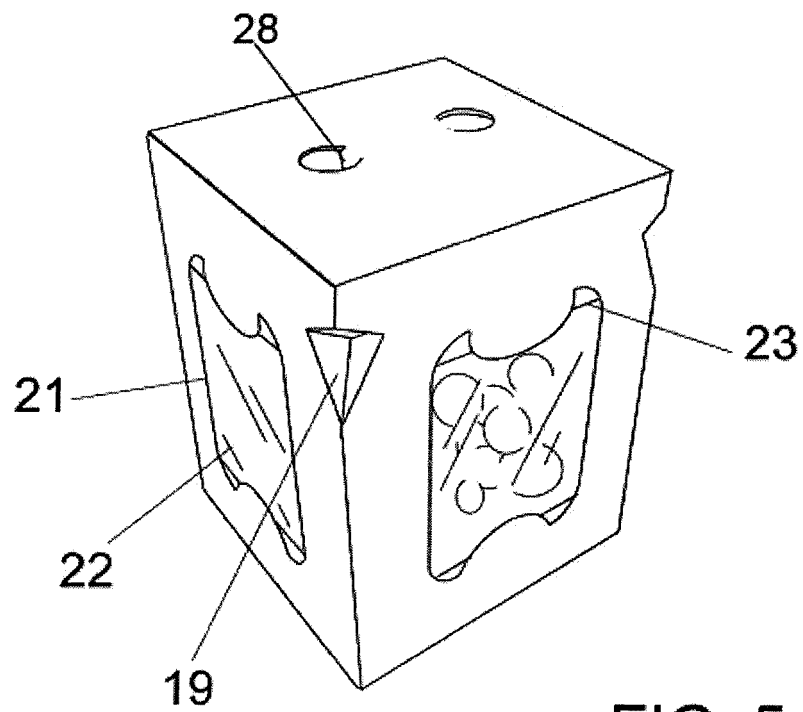


FIG. 5



## EUROPEAN SEARCH REPORT

Application Number  
EP 12 38 0041

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 19 December 2012	Examiner Balz, Oliver
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EPO FORM 1503 03-02 (P04001)



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

EP 12 38 0041

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  
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19-12-2012

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