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(54) **CONTAINER FOR SPHERICAL PRODUCTS, PARTICULARLY FRUIT**

(57) Container for spherical products, particularly fruit, that is designed for storing pieces of fruit with a near-spherical configuration, comprised of a rectangular laminar body made of cardboard, paper or paperboard defining a main central sector (1), as well as two lateral sectors (2) that are defined by respective longitudinal folding lines (3), with the main sector (1) comprising a closing tab (7) on one of the ends thereof in order to roll said sector on the pieces of fruit (4) contained therein

and to fix it to the opposite end thereof, with the lateral sectors (2) comprising arched folding lines (9) as well as adhesive areas (12) in order to fix the ends thereof to the central sector (1), with said arched folding lines (9) determining lateral retention walls for the fruits contained therein when the container is unfolded, with the particularity that the container comprises die cut and/or perforation lines for opening the closed container.

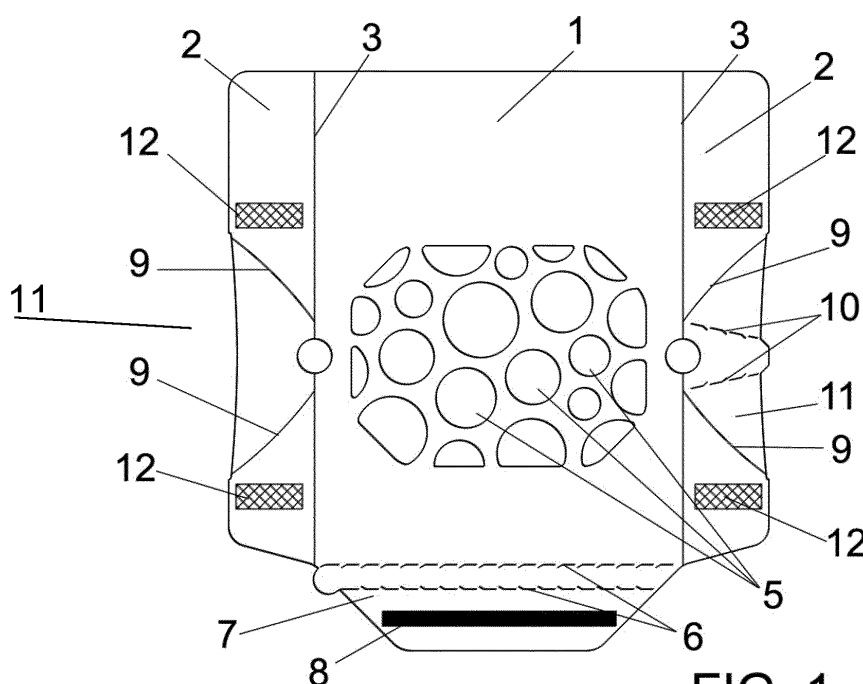


FIG. 1

Description

FIELD OF THE ART

[0001] The present invention refers to a container for spherical products, particularly fruit, and more specifically to a container for storing a group of a certain number of pieces with a near-spherical configuration, such as oranges, tangerines, apples, kiwis, balls, etc.

[0002] The object of the invention is to provide a container that can be easily used by anyone, including children, when they need to easily and comfortably carry a number of pieces of fruit, for example, which the user might eat later, all of which while occupying a minimum volume, and that makes it possible to obtain a "pocket" "adjustable" and portable container with a size relative to the diameter of the pieces of fruit to be stored therein, in order to obtain a closed container with the minimum dimensions possible at all times, and also obtaining a large printing surface, being able to customise 100% of the container.

BACKGROUND OF THE INVENTION

[0003] Numerous types of fruit containers are known, which are used to commercialise this type of products, so the volumetry of the container is not a determining factor when designing this type of containers.

[0004] However, the scope of the application of the invention is centred on the consumer that, after obtaining a certain volume of fruit, needs to transport a lower volume of fruit, for example, three pieces of fruit, in order to eat them later, thus requiring a container that takes up little space (preferably, a pocket container) and that is disposable and recyclable.

[0005] The containers currently known are not designed to optimise space in relation to the near-spherical configuration of certain types of fruit, such as tangerines, oranges, apples, kiwis, so that they have an excessive volumetry that makes them difficult to carry in a pocket, or in a similar place, and they also have a structure that is not recyclable as a whole.

[0006] In addition, this type of containers has a fixed volumetry that prevents them from adapting optimally to the dimensions of the corresponding pieces of fruit in each case, therefore occupying an excessive volumetry, without having any systems that allow users to easily open the container.

EXPLANATION OF THE INVENTION

[0007] The container for spherical products, particularly fruit, that is described, completely solves the drawback mentioned above with a simple but effective solution.

[0008] In order to do so, the container of the invention is obtained from a rectangular sheet made of cardboard, paper or paperboard that comprises two longitudinal folding lines that define three sectors, a main central sector

and two lateral sectors, so that these lateral sectors each comprise on one side two arched folding lines and, additionally, an adhesive is applied to the areas on the outside of said lines in order to fix them to the inner face of the main central sector, with the aim of commercialising the container adopting a laminar, folded configuration, and making it possible to unfold the container when it is about to be filled with the corresponding pieces of fruit.

[0009] One of the ends of the main central sector is extended by means of a trapezoidal tab, which is used to close the container after it has been unfolded and the fruit has been stored therein, so that the lateral sectors act as lateral retention walls for the pieces of fruit when the container is unfolded, with said walls being arranged transversally on the main central sector, so that said main central sector is designed to be rolled up forming a type of cylinder that surrounds the fruit, which is secured by means of the aforementioned tab that is equipped with an adhesive sheet with a corresponding protective tape, or alternatively, in a simpler version, said tab could be fixed by means of adhesive tape or any other known means of adhesion, such as a label with information about the product, for example.

[0010] In this way, the container is perfectly adapted to the different diameters that the pieces of fruit contained therein may have, since the end closing tab does not have a fixed closing position and instead can be fixed at different distances from the opposite end of said central sector in a fast, comfortable and simple way.

[0011] The main sector will comprise die cuts in the middle section thereof, which determine ventilation windows that allow the pieces of fruit to be kept in optimal edible conditions for as long as possible.

[0012] Additionally, two potential solutions have been designed for opening the closed container:

On the one hand, a double perforation line can be included, which corresponds with the area where the closing tab joins the main sector, so that breaking said tab will cause the container to automatically disassemble, opening completely in the way of a tray and providing access to each and every one of the pieces of fruit contained therein.

[0013] The second option, which can be combined with the first option or provided independently, is including a pair of divergent perforation lines that correspond with the middle section of one of the lateral sectors and that extend to the folding area thereof, so that eliminating said die cut trapezoidal sector would cause the corresponding end of the cylinder formed by the container to open, making it possible to extract the pieces contained therein one at a time through said end.

[0014] Finally, it should be highlighted that although the container has been designed so that the user manually carries out the packaging process when needed, it is also contemplated that said process may be carried out at an industrial scale in an automated/mechanised way.

[0015] In this way, a container is obtained that is very

cheap, totally recyclable, easily disposable, easy to use, with a minimum volume, and that can be easily adjusted to the diameter of the pieces of fruit, for example, to be contained therein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] To complete the invention described below and in order to give a better understanding of the characteristics of the invention, according to a preferred embodiment thereof, this description is accompanied by a set of drawings in which the figures described below have been represented, for purely illustrative purposes and should not be construed as limiting:

Figure 1.- Shows a plan view of a container for spherical products, particularly fruit, designed according to the object of the present invention.

Figure 2.- Shows a perspective view of the container of the invention exactly as it is supplied, that is, as a stackable laminar element.

Figure 3.- Shows a perspective view of the container at an initial stage of unfolding the container and inserting the pieces of fruit inside it.

Figures 4 and 5.- Show respective perspective views of the container at the moment when it is being rolled up in order to close it.

Figure 6.- Shows a perspective view of the container when it is being opened by means of one of the two means provided for opening the container.

Figure 7.- Shows a perspective view of the configuration of the open container after being opened using the means for opening shown in Figure 6.

Figure 8.- Shows a perspective view of the second opening means provided for the container, when they are being used.

Figure 9.- Shows, finally, a perspective view of the manner in which the pieces of fruit are removed when the container is opened using the means shown in Figure 8.

PREFERRED EMBODIMENT OF THE INVENTION

[0017] In light of the drawings described above, it can be observed that the container for spherical products, particularly fruit, is comprised of a rectangular laminar body made of cardboard, paper or paperboard defining a main central sector (1), as well as two lateral sectors (2) that are defined by respective longitudinal folding lines (3).

[0018] The main sector (1) defines a cylindrical hollow

body for holding the pieces of fruit (4) therein, which comprises ventilation windows (5).

[0019] Said central sector (1) comprises a trapezoidal closing tab (7) on one of the ends thereof, which comprises a pair of perforation lines (6) in correspondence with the section converging with said central sector (1) in order to open the closed container longitudinally, with said tab (7) being provided with an adhesive surface (8) with the corresponding protective layer thereof that is removed when the container is used, which is designed to be fixed on the opposite border of the central sector (1) after forming the cylindrical body and adjusting it to the diameter of the pieces of fruit (4) contained therein.

[0020] In addition, the lateral sectors (2) comprise arched folding lines (9) on the middle section thereof, with said lateral sectors being fixed to the central sector (1) on the lateral ends thereof by means of adhesive areas (12), so that the middle section of the lateral sectors (2) defines lateral retention walls (11) for the pieces of fruit (4), comprising a pair of divergent die cut lines (10) that make it possible to open the container on one of the bases or sides thereof. Therefore, as shown in Figures 3 to 5, the container is unfolded so that the lateral sectors (2) define the aforementioned lateral retention walls (11) for the pieces of fruit (4), with the central sector (1) being able to be rolled up on the pieces of fruit and adapted to the diameter thereof, perfectly stabilising the folded tab (7) on the opposite end of said central sector (1).

[0021] When the container needs to be opened, said container can be opened using the double perforation line (6), leaving the fruit accessible as shown in Figure 7, or alternatively using the pair of divergent die cut lines (10), as shown in Figure 8, with the fruit being removed laterally one at a time, as shown in Figure 9.

[0022] The perforations in the way of windows (5) could be blocked by means of a sheet of transparent material, depending on the needs of the product to be packaged.

[0023] As mentioned above, the container (1) can also be used to package any spherical product, such as, for example, tennis balls, etc.

Claims

1. Container for spherical products, particularly fruit, that is designed for storing pieces with a near-spherical configuration, **characterised in that** it is comprised of a rectangular laminar body made of cardboard, paper or paperboard defining a main central sector (1), as well as two lateral sectors (2) that are defined by respective longitudinal folding lines (3), with the main sector (1) comprising a closing tab (7) on one of the ends thereof in order to roll said sector on the pieces of fruit (4) contained therein and to fix it to the opposite end thereof, with the lateral sectors (2) comprising arched folding lines (9) as well as adhesive areas (12) in order to fix the ends thereof to the central sector (1), with said arched folding lines

(9) determining lateral retention walls for the fruits contained therein when the container is unfolded, with the particularity that the container comprises die cut and/or perforation lines for opening the closed container.

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2. Container for spherical products, particularly fruit, according to claim 1, **characterised in that** the tab (7) includes a pair of perforation lines (6) on the section thereof converging with the central sector (1) in order to open the closed container longitudinally. 10
3. Container for spherical products, particularly fruit, according to claim 1, **characterised in that** a pair of divergent die cut lines (10) is defined in the middle section of the lateral sectors (2), which define lateral opening means for the closed container. 15
4. Container for spherical products, particularly fruit, according to claim 1, **characterised in that** the closing tab (7) comprises an adhesive surface (8) with a corresponding protective sheet that is removed when the container is used. 20
5. Container for spherical products, particularly fruit, according to claim 1, **characterised in that** the central sector (1) includes ventilation windows (5). 25

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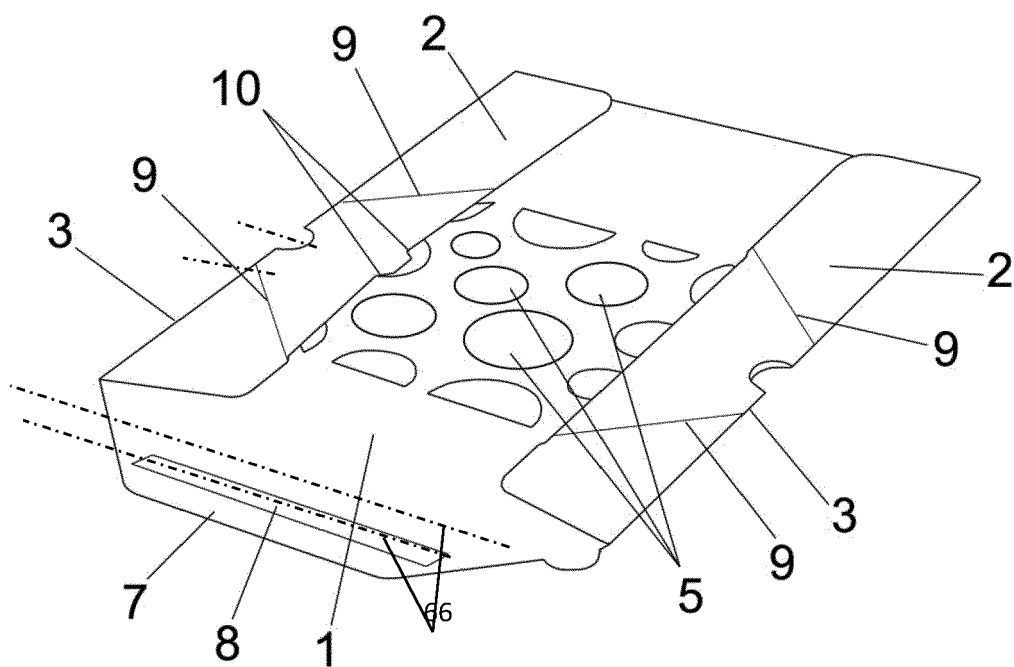
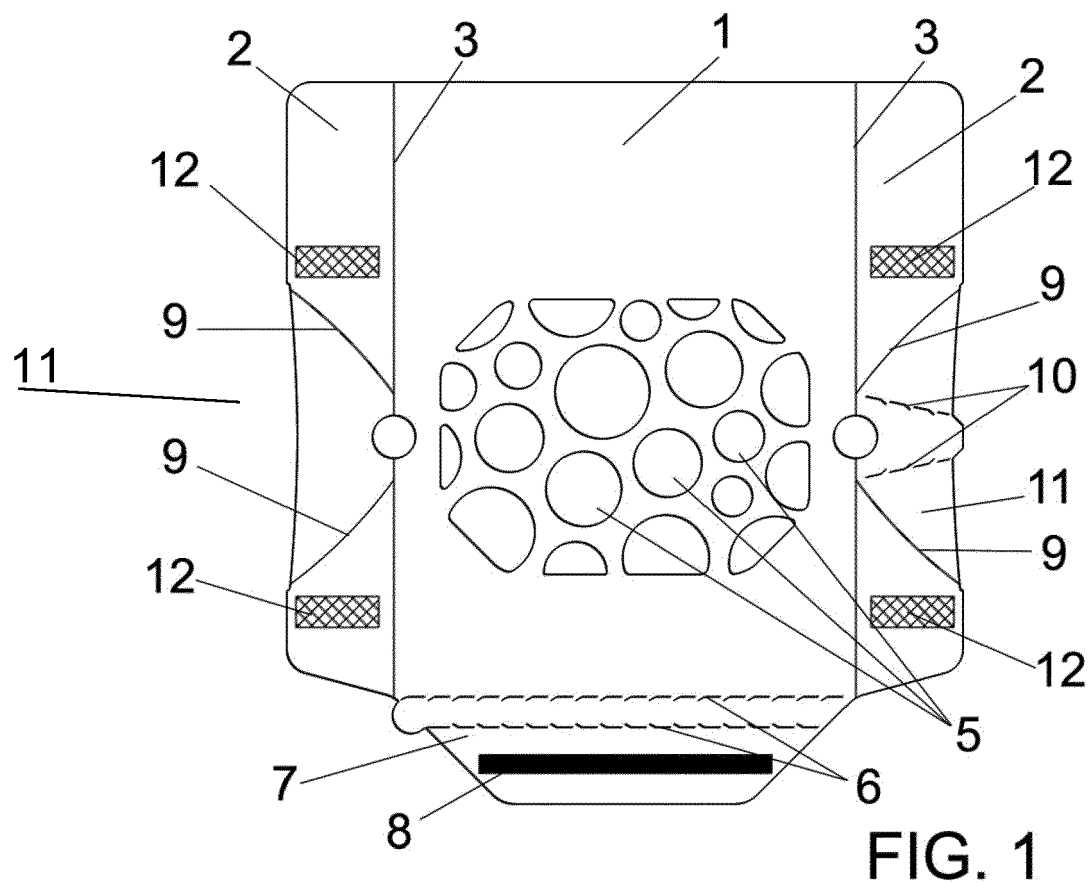
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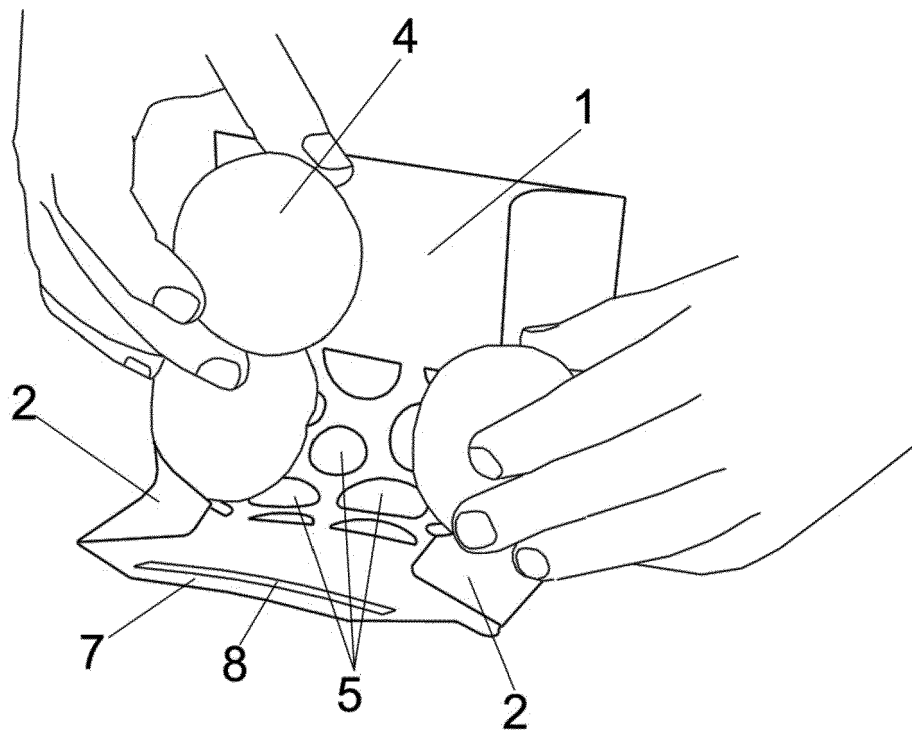


FIG. 3

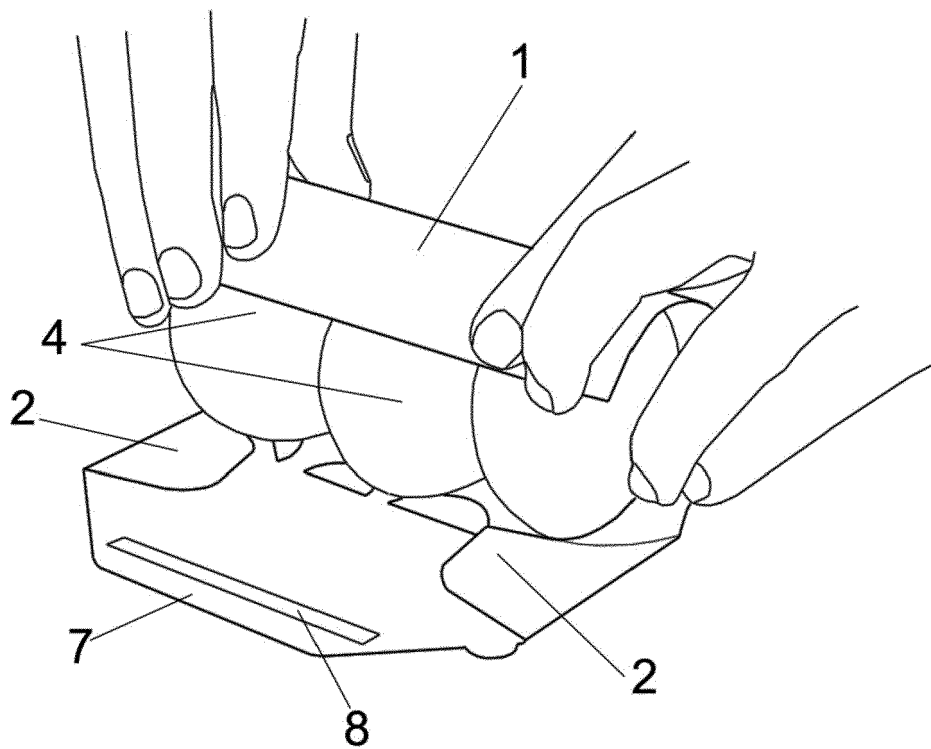


FIG. 4

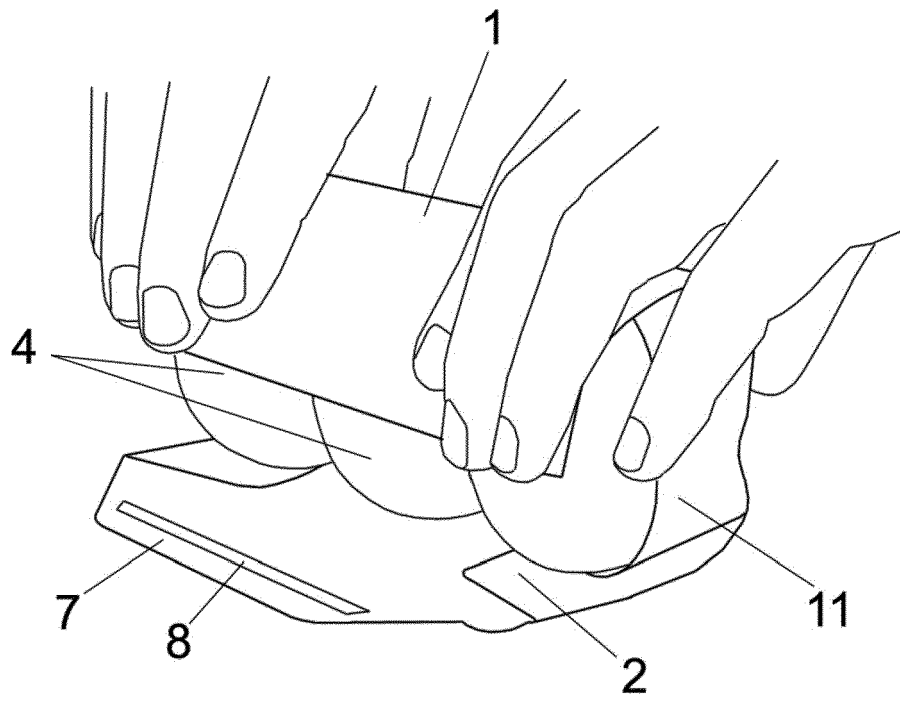


FIG. 5

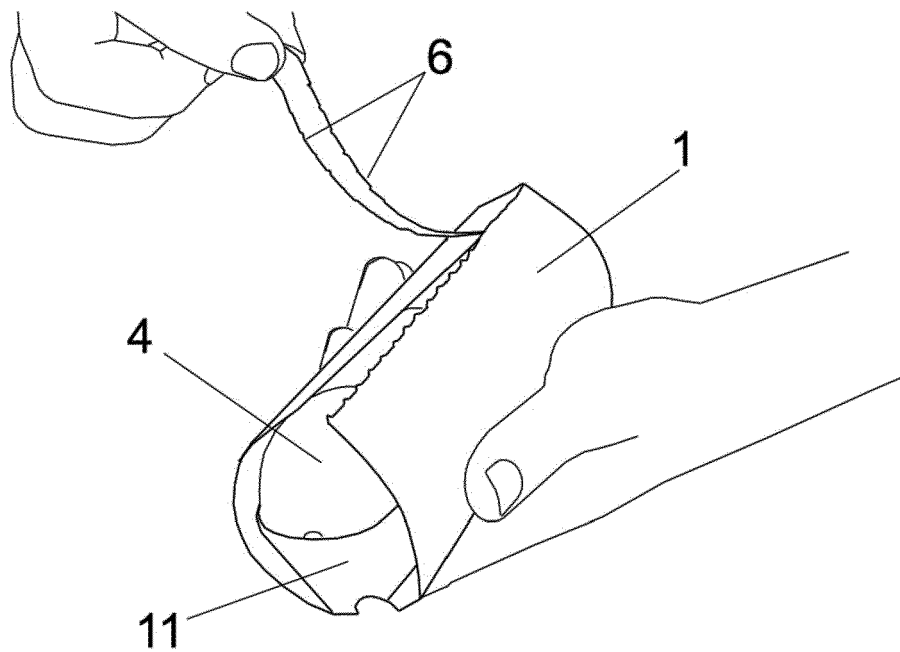


FIG. 6

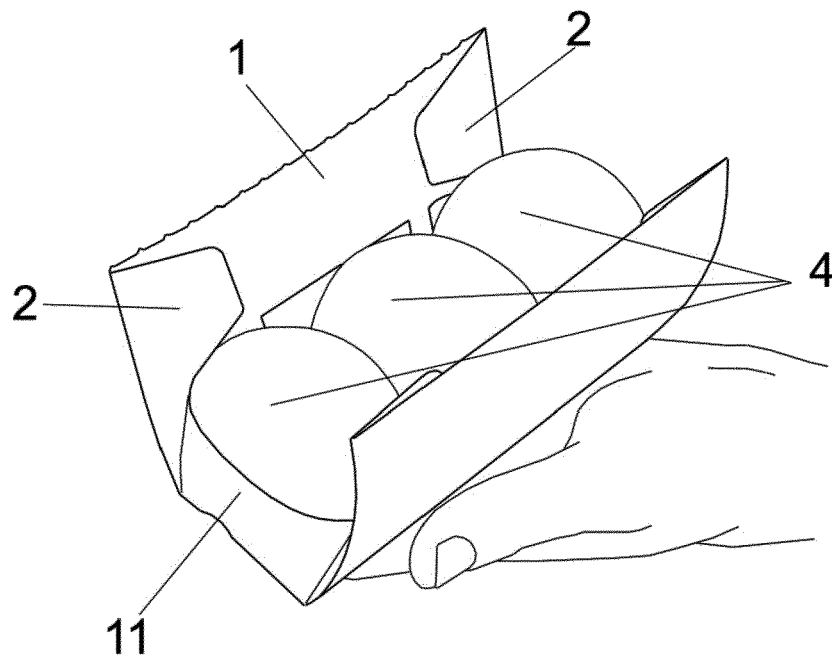


FIG. 7

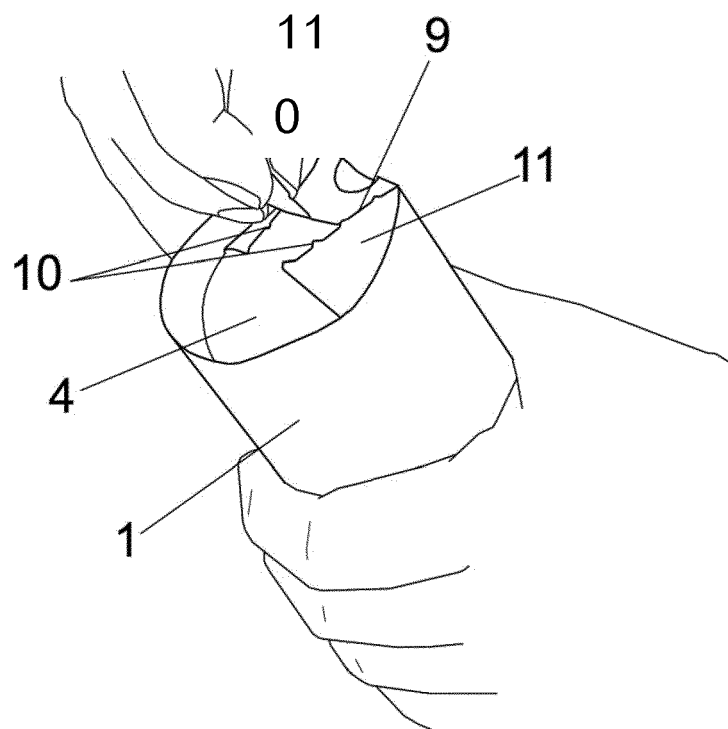


FIG. 8

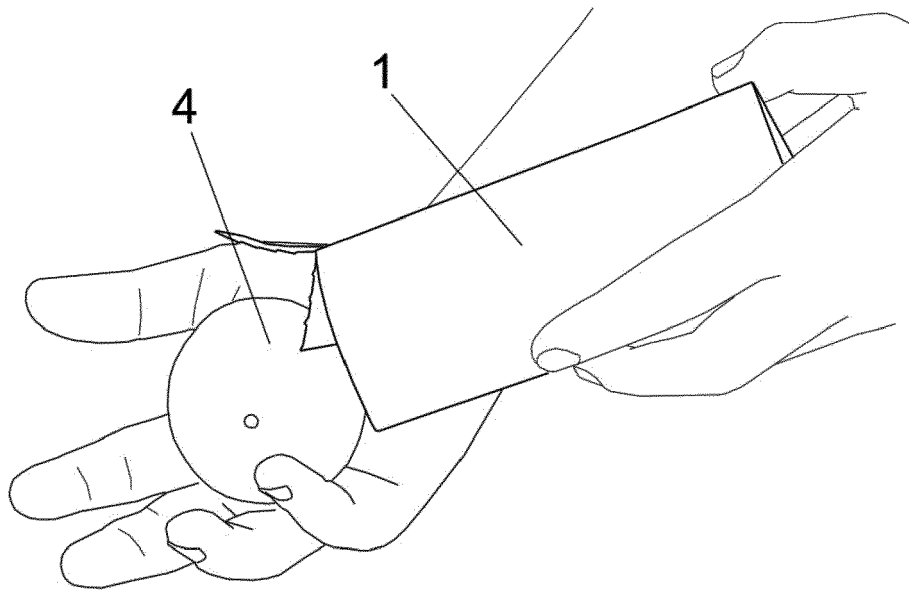


FIG. 9



EUROPEAN SEARCH REPORT

 Application Number
 EP 20 21 1121

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EPO FORM 1503 03.82 (P04C01)

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A	DE 20 2004 007626 U1 (PACPROJECT GMBH [DE]) 26 August 2004 (2004-08-26) * paragraphs [0016] - [0017]; figures 1-3 *	1	INV. B65D3/20 B65D3/26 B65D85/34 B65D3/04 B65D65/06
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
Place of search		Date of completion of the search	Examiner
Munich		22 April 2021	Grondin, David
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