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#### (54) **DISPOSABLE PACKAGING**

(57) The invention relates to a disposable packaging formed by a punched sheet with folding lines, consisting of: a hollow frusto-pyramidal body comprising at least one support (5) for cigarettes, that is folded towards the inside of the hollow frusto-pyramidal body and located close to the mouth of the same, said mouth corresponding to the main base of said hollow frusto-pyramidal body; and at least one detachable flat end body (1) that is joined by means of a perforated line (2), said flat end body (1) forming part of the punched sheet.

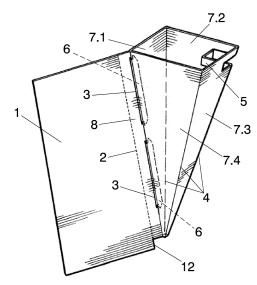


FIG. 4

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## Object of the invention

**[0001]** The present invention refers to a disposable packaging with a built in advertising flyer, the entire assembly being printable and suitable for production using coated paper or cardboard.

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**[0002]** The disposable packaging basically comprises two parts, clearly divided by a perforated line to enable the user to separate them. One part corresponds to the advertising flyer and the other part corresponds to the packaging itself.

#### Background of the invention

**[0003]** It is possible to find many different versions of disposable packaging when focussing on the type of product material currently in question, ranging from configurable packaging, the structures of which may be constructed and deconstructed but which are either non-disposable or non-recyclable as a result of their composition.

**[0004]** Models made of plastic materials also exist, which, since they may be used on various occasions, store smells and are dirty, therefore making the use thereof slightly uncomfortable, owing to the fact that these are models that the user should carry with them on a permanent basis, it not being possible to dispose of them.

**[0005]** Cigarette box models which have compartments for collecting ash and cigarette ends in places where it is not possible to dispose of the same can also be found within the background material. But this also means that it is not a disposable means until the contents of the box is used up or until a place to empty it is found. In any case, it is another very different version to the packaging with which we are now concerned.

**[0006]** Many different means that aim to serve as a disposable packaging have been thought up, created and registered. Nevertheless, there is still no model aimed at generating business with companies dedicated to advertising, given that, as mentioned in the previous section, the entire surface of the packaging object of the present invention is used for advertising and is divided into two parts, namely the packaging itself and the advertising flyer.

#### **Description of the invention**

[0007] The main idea behind the invention is that using a simple punched sheet made of cardboard or coated paper or any other basic printing material, specifically developed in such a way that it has been punched, an advertising flyer is developed which is separated from a packaging unit itself by means of a perforated line, which when folded, is no thicker than said sheet folded over itself, its dimensions being the minimum suitable for achieving two ends: that the recipient may keep one por-

tion which serves as a detachable advertising flyer and meanwhile, the other portion may be used as disposable packaging, which will also of course bear printed advertising motives on each one of the four trapezoidal walls from which it is composed.

[0008] It is formed by a simple cardboard or coated paper sheet, which weighs no less than 250 g/m², comprising two clearly defined sectors, separated by a perforated line in order to facilitate the separation thereof. The first sector is the advertising flyer formed by a flat end body printed with propaganda, which may take on an infinite number of forms according to the punch. In one embodiment, a basic rectangular shape is shown by way of example.

**[0009]** The second sector is formed by the flat elements needed to form the hollow frusto-pyramidal body, in such a way that in joining these trapezoidal walls, a number of folding lines which are bent or inclined towards the inside in order to be folded are formed, thereby favouring the construction of the packaging and resulting in a hollow frusto-pyramidal body with an open base being obtained. This base may take on different geometric forms, for example it may be rectangular, square, circular or hexagonal, amongst others.

**[0010]** In one embodiment, the two end trapezoidal walls of the hollow frusto-pyramidal body are joined by means of two folded and stuck side pieces, thereby constructing the packaging. In another embodiment, it is possible to elect not to stick the side pieces, in which case the end user of the packaging would be responsible for assembling it, by inserting said side pieces into grooves made for such an end in one of the end trapezoidal walls. The latter embodiment is the preferred embodiment of the invention.

**[0011]** In this way, if we fold the packaging preform in half and join the two trapezoidal walls of the hollow frustopyramidal body to the other two trapezoidal walls which partner the assembly (said walls being understood to be opposite one another upon folding them in half) it would be the option of deciding whether to join them by means of sticking the side pieces and thus delivering it to the end user, i.e. it would be delivered already mounted or it might be decided to deliver it to the user folded, in such a way that it would be mounted by inserting said side pieces into their corresponding groove.

**[0012]** Between two intermediate trapezoidal walls, in an area near to the main base of the hollow frusto-pyramidal body, punching is made, which is delimited by two punched lines, each one of which comprises two parallel portions at the sides of the main base of said intermediate trapezoidal walls.

**[0013]** Between the inner trapezoidal wall and the flat end body, there is a rectangular tab, which joins the inner trapezoidal wall and the flat end body.

**[0014]** In the area in which the folding lines of the hollow frusto-pyramidal body meet, there is a cut, which extends in an angular portion that delimits an end of the rectangular tab.

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**[0015]** A branch of the angular portion of the cut is a continuation of one of the ends of the perforated line, which delimits the flat end body.

[0016] In one embodiment, a lid is added to the disposable packaging, which pulls out from the free longitudinal edge of one of the external trapezoidal walls of the hollow frusto-pyramidal body, in such a way that it facilitates the sealing of said hollow frusto-pyramidal body once it has been constructed. With the aim of facilitating the closure of the lid, at least one wing is added to said lid, which pulls out from a free longitudinal edge of the lid.

[0017] In one embodiment of the invention, the packaging units are grouped together in an assembly consisting of various disposable packaging units, it being possible to use a perforated line to separate them or even to do so without this line. The detachable flat end body is therefore the joining surface (either by means of adhesive between said surfaces of each body or by using other joining means such as sticking the sides using perforation, stapling or ring binding, etc.) common to an assembly of hollow frusto-pyramidal bodies. Said assembly of hollow frusto-pyramidal bodies is formed by an assembly of punched sheets, each sheet having folding lines and being a suitable disposable packaging, in such a way that each sheet is constructed for successive use. In another embodiment, the perforated line which makes it possible to separate, with each use, the sheet from the corresponding hollow body of the flat end body, is substituted with adhesive.

**[0018]** This assembly of disposable packaging units may be grouped into configurations of between 2 or more packages, using the perforated line to separate each one of them, or simply puling from a sheet in order to overcome the resistance of the adhesive.

**[0019]** In a further embodiment of the invention, various disposable packaging units are fitted inside a generic box in order for said generic box to later adhere to or not to adhere to an external element. Therefore, at least one assembly of hollow frusto-pyramidal bodies, with its respective sheets, is arranged inside a generic box in such a way that a number of external folding lines of the sheets of the assembly of bodies are opposite to one of the faces of the box. In order to join said generic box to an external container element, an adhesive is used, which is applied to an external face of said generic box.

[0020] In an additional further embodiment of the invention, various disposable packaging units are stuck to an external element (more or less complex since it is possible to fulfil box or packaging functions for said bodies, at the same time as other functions) via the surface created by joining said bodies. This adhesion may be simultaneous to joining the bodies together in the case of sticking or adhesive of the perforated variety or occur after joining said punched sheets that form constructed disposable packaging units.

#### Description of the drawings

**[0021]** In order to facilitate easy understanding of the present description, the invention is accompanied by a set of drawings, wherein a non-limiting example thereof is presented:

- Figure 1 represents the development of a punched sheet from which the disposable packaging, object of the invention, is obtained.
- Figure 2 demonstrates the development of the packaging after having folded it along a folding line which joins two intermediate trapezoidal lines together, also representing the sticking of a number of side pieces to the inside of the packaging in order for it to be distributed, in a first embodiment.
- Figure 3 demonstrates the development of the packaging after having folded it along a folding line which joins the intermediate trapezoidal walls and with the side pieces without having introduced them into a number of grooves, in order to be distributed, in a second embodiment.
- Figure 4 is a perspective view of the disposable packaging in a constructed position, in order to make use of the packaging according to the first embodiment.
   It is the continuation of Figure 2.
- Figure 5 is a perspective view of the disposable packaging in a constructed position, in order to make use of the packaging according to the second embodiment (the preferred embodiment). It is the continuation of Figure 3.
- Figure 6 demonstrates the development of a punched sheet, to which, in one embodiment, a lid has been added.
- Figure 7 is a perspective view of a group of various disposable packaging units, in which each packaging unit may be separated by a punched line.
  - Figure 8 is a perspective view of a group of various packaging units, wherein the packaging units are joined together by means of adhesive.
  - Figure 9 is a perspective view of a group of various disposable packaging units, which are introduced into a generic box.
  - Figure 10 is a perspective view of one embodiment, wherein the disposable packaging units are stuck to an end "container" element, which is more or less complex and can fulfil other functions other than containing the packaging units.

**[0022]** Below is a list of the various elements represented in the figures, which are built into the invention:

- 1 = Flat end body
- 2 = Perforated line
- 3 = Grooves
- 4 = Folding lines
- 5 = Support
- 6 = Side pieces

7 = Trapezoidal walls

7.1 = Internal trapezoidal wall

7.2 = Intermediate trapezoidal wall

7.3 = Intermediate trapezoidal wall

7.4 = External trapezoidal wall

8 = Rectangular tab

9 = Cut

10 = Support punch lines

11 = Support folding lines

12 = Branch

13 = Lid

14 = Wings

15 = Assembly of hollow frusto-pyramidal bodies

16 = Generic box

17 = External container element

#### Detailed description of the invention

**[0023]** As shown in Figure 1, the disposable packaging has a built in advertising flyer, this packaging being formed from a punched sheet of coated paper, which is at least 250 g/m<sup>2</sup> or from cardboard of a similar density, with a surface which is suitable for printing or which can support printed advertising.

**[0024]** The advertising flyer consists of a flat end body (1), which may be detached using the perforated line (2) built in to it, this being the second most important element in the model.

[0025] The foldable and disposable packaging furthermore has 4 trapezoidal walls (7), which, by means of folding along the folding lines (4), form a mounted hollow frusto-pyramidal body, as can be seen in Figures 4 and 5. [0026] Between the trapezoidal walls, two punched lines (10) and another two folding lines (11) form a support (5), upon which a cigarette is supported, in the final assembling and after having folded the hollow frusto-pyramidal body (5) inwards.

**[0027]** The packaging object of the present invention is constructed according to two embodiments.

[0028] Embodiment number 1: In Figure 2, it is possible to observe how we begin with a central fold, which corresponds to the folding line (4) between two intermediate trapezoidal walls (7.2 and 7.3). After folding the centre, a number of side pieces (6) are folded, which pull out from the free longitudinal edge of an external trapezoidal wall (7.4) and the side pieces (6) are stuck to the opposite side, i.e. to a side area of an internal trapezoidal wall (7.1). [0029] In Figure 4, it is possible to observe the final form taken on by the invention by means of sticking the side pieces (6) in the side area of the internal trapezoidal wall (7.1), wherein the fold, mentioned above, may be detached towards the inside of the hollow frusto-pyramidal body in order to form the support (5) for supporting a cigarette.

[0030] Embodiment number 2 (preferred embodiment): In Figure 3, it is possible to observe how, just like in embodiment number 1, it is begun with a central fold, corresponding to the folding line (4) between the inter-

mediate trapezoidal walls (7.2, 7.3), in order for the user to finish mounting by introducing the side pieces (6) on the eternal trapezoidal wall (7.4) into a number of grooves (3), which correspond with a longitudinal edge of the internal trapezoidal wall (7.1).

**[0031]** In Figure 5, it is possible to observe the final form taken on by the invention when it is the user who finishes the mounting by introducing the side pieces (6) pertaining to the external trapezoidal wall (7.4) into a number of grooves (3), wherein the fold, mentioned above, stands out in the formation of the support (5) which serves to support a cigarette.

**[0032]** Between the internal trapezoidal wall (7.1) and the flat end body (1), there is a rectangular tab (8), which joins the internal trapezoidal wall (7.1) and the flat end body (1).

**[0033]** In the area in which the folding lines (4) of the hollow frusto-pyramidal body meet, there is a cut (9), which extends in an angular portion that delimits an end of the rectangular tab (8).

**[0034]** A branch (12) of the angular portion of the cut (9) is the continuation of one of the ends of the perforated line (2), which delimits the flat end body (1).

[0035] In Figure 6, a new embodiment can be seen, wherein it is possible to observe that a lid (13) pulls out from the free longitudinal edge of the external trapezoidal wall (7.3) of the hollow frusto-pyramidal body. In turn, a number of wings (14) pull out from the edges of said lid (13), in such a way that using them, the hollow frusto-pyramidal body can be sealed once constructed.

[0036] In Figure 7 and Figure 8, it is possible to observe a group of various disposable packaging units according to two options. In Figure 7, it is possible to observe an assembly of hollow frusto-pyramidal bodies (15) joined to the flat end body (1), all of which forms a common body. Each punched sheet forms a disposable packaging unit ready for use. In Figure 7, it is possible to observe a perforated line (2), which makes it possible to separate, in each use, the sheet from the corresponding hollow body (15) of the flat end body (1).

**[0037]** In Figure 8, there is no perforated line (2) and each disposable packaging unit is separated from the assembly (15) by pulling the respective punched sheet and overcoming the resistance of the adhesive.

[0038] In Figures 9 and 10, a further embodiment of the invention may be observed, wherein an assembly of hollow frusto-pyramidal bodies (15) are introduced inside a generic box, which may or may not be stuck to other bodies (16) or stuck directly to an external container element (17). In Figure 9, it is possible to observe that the sheets forming the assembly of bodies (15) are arranged inside the generic box (16), independently of whether or not they have a perforated line (2). The external folding lines (4) of the sheets forming the assembly of bodies (15) face one of the faces of the generic box (16) and are stuck to said face of the generic box (16) by means of adhesive

[0039] In Figure 10, it is possible to observe how a

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generic box (16) is fitted, which houses at least one assembly of frusto-pyramidal bodies (15) inside it. This generic box (16) may in turn form part of a more or less complex body intended to perform other functions or may be stuck to an end container element (17) by means of an adhesive applied to one of the external surfaces of said generic box (16).

**[0040]** After having described the nature of the invention, it must be appropriately that the same are not limited to the exact details of this presentation but rather, to the contrary, amendments considered opportune may be introduced, provided that they do not alter the fundamental characteristics of the same.

#### Claims

- Disposable packaging formed from a punched sheet with folding lines, characterised in that it comprises:
  - a hollow frusto-pyramidal body with at least one support (5) for cigarettes, folded towards the inside of the hollow frusto-pyramidal body and located near to the mouth of the same, the mouth corresponding to the main base of said hollow frusto-pyramidal body,
  - at least one detachable flat end body (1), joined by means of a perforated line (2), said flat end body (1) forming part of the punched sheet.
- Disposable packaging according to claim 1, characterised in that the support (5) for cigarettes is delimited by two folding lines (11) and two punch lines (10) which interrupt one of the folding lines (4) that separate two consecutive trapezoidal walls from the hollow frusto-pyramidal body.
- 3. Disposable packaging according to claim 1, **characterised in that** it comprises at least one side piece (6), which pulls out from the free longitudinal edge of the external trapezoidal wall (7.4) of the hollow frusto-pyramidal body, the side piece (6) being used to construct the hollow frusto-pyramidal body.
- 4. Disposable packaging, according to any one of claims 1 to 3, characterised in that the punched sheet is made from a basic printing material, selected from coated pater of between 250 g/m² and 450 g/m² and cardboard of between 250 g/m² and 450 g/m².
- 5. Disposable packaging, according to any one of claims 1 to 4, characterised in that the side piece (6) which constructs the hollow frusto-pyramidal body is adjusted to a groove (3), the groove (3) being located in such a way that corresponds to a longitudinal edge which delimits an internal trapezoidal wall (7.1) of the hollow frusto-pyramidal body.

- 6. Disposable packaging according to any one of claims 1 to 4, characterised in that the side piece (6) which constructs the hollow frusto-pyramidal body is attached against a longitudinal area of the internal face of the internal trapezoidal wall (7.1), which forms part of the hollow frusto-pyramidal wall by means of a conventional adhesive material.
- 7. Disposable packaging according to any one of claims 1 to 6, **characterised in that** there is a rectangular tab (8) between the internal trapezoidal wall (7.1) and the flat end body (1), which joins the internal trapezoidal wall (7.1) and the flat end wall (1) together.
- 8. Disposable packaging according to claim 7, characterised in that there is a cut (9) in the confluence area of the folding lines (4) of the hollow frusto-pyramidal body, which extends in an angular portion which delimits an end of the rectangular tab (8).
- 9. Disposable packaging according to claim 8, characterised in that a branch (12) of the angular portion of the cut (9) is the continuation of one of the ends of the perforated line (2), which delimits the flat end body (1) in order to facilitate tearing.
- 10. Disposable packaging according to any one of claims 1 to 9, characterised in that the disposable packaging comprises a lid (13), which pulls out from the free longitudinal edge of the external trapezoidal wall (7.3) of the hollow frusto-pyramidal body, so as to make possible to seal said hollow frusto-pyramidal body once the hollow frusto-pyramidal body has been constructed.
- 11. Disposable packaging according to claim 10, characterised in that the disposable packaging comprises at least one wing (14) which pulls out from a free longitudinal edge of the lid (13), so as to facilitate the sealing of the hollow frusto-pyramidal body once the hollow frusto-pyramidal body has been constructed.
- **12.** Disposable packaging according to any one of claims 1 to 11, **characterised in that:** 
  - the detachable flat end boy (1) is a body common to an assembly of hollow frusto-pyramidal bodies (15),
  - the assembly of hollow frusto-pyramidal bodies (15) comprises an assembly of punched sheets, each sheet having folding lines (4) and being suitable to serve as a detachable packaging unit, in such a way that each sheet is constructed for its successive use,

where the bodies (1) and (15) form a common element with a perforated line (2) making possible to

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separate, in each use, the sheet from the corresponding hollow body (15) of the flat end body (1).

- **13.** Disposable packaging according to claim 12, **characterised in that** the perforated line is substituted for an adhesive between the sheets of the assembly of hollow frusto-pyramidal bodies (15).
- 14. Disposable packaging according to claim 12, characterised in that the disposable packaging is presented as a configuration of between 2 or more disposable packaging units.
- **15.** Disposable packaging according to claim 13, **characterised in that** the disposable packaging is presented as a configuration of between 2 or more disposable packaging units joined together by means of adhesive.
- **16.** Disposable packaging according to any one of claims 14 or 15, **characterised in that:** 
  - at least one assembly of hollow frusto-pyramidal bodies (15), with the respective sheets of the at least one assembly of hollow frusto-pyramidal bodies (15), is arranged inside a generic box (16),

in such a way that a number of folding lines (4) external of the sheets of the assembly of bodies (15) are opposite one of the faces of the generic box (16) and stuck to said face of the generic box (16) by means of adhesive.

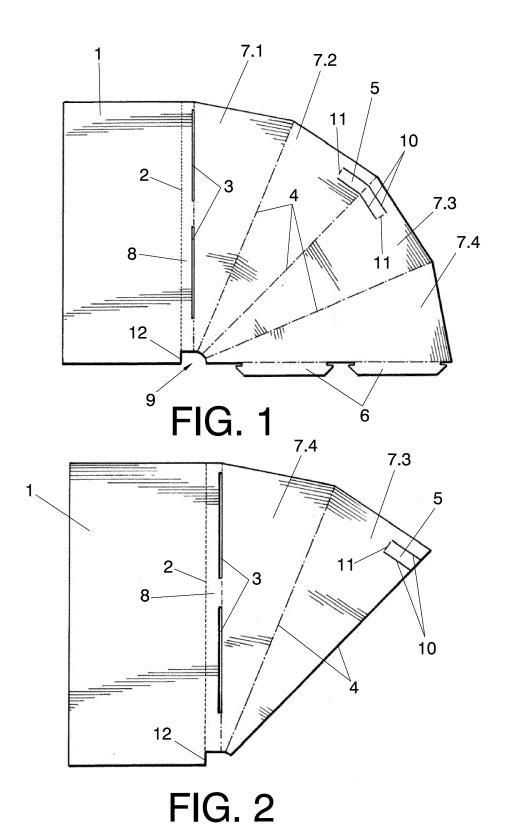
17. Disposable packaging according to claim 16, characterised in that the generic box (16), which houses at least one assembly of frusto-pyramidal bodies (15) inside, is stuck to an external container element (17) by means of an adhesive, which is applied to an external face of said generic box (16).

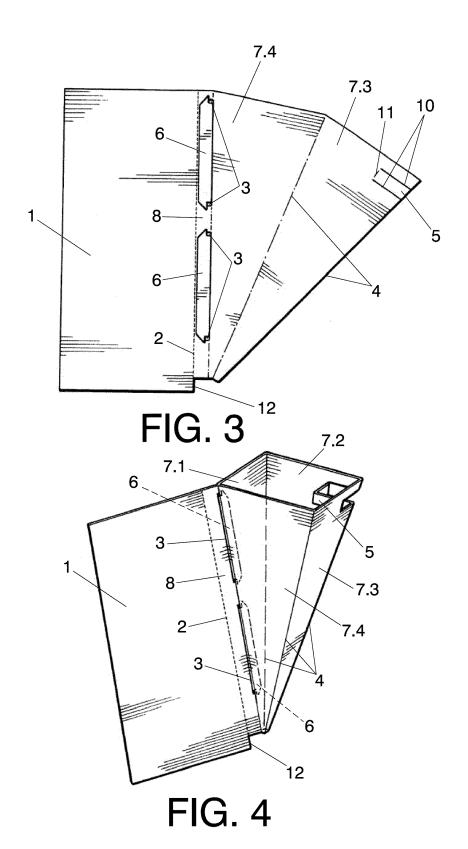
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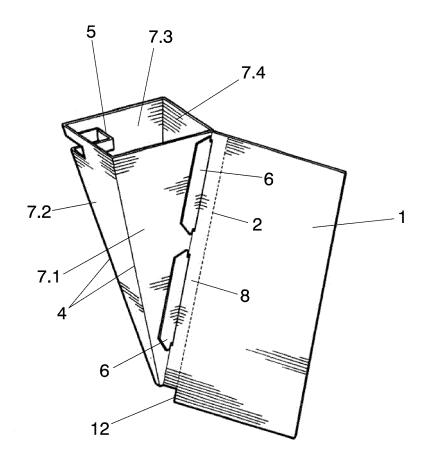
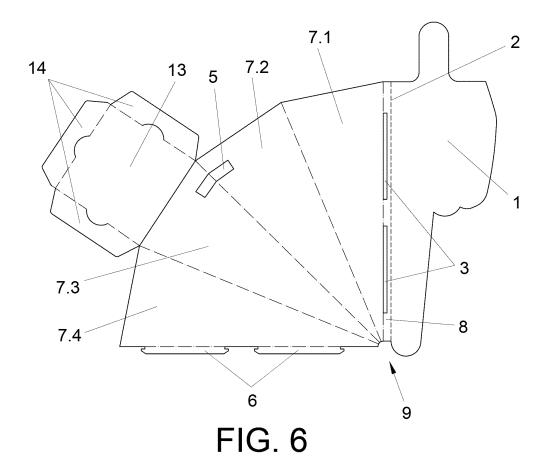
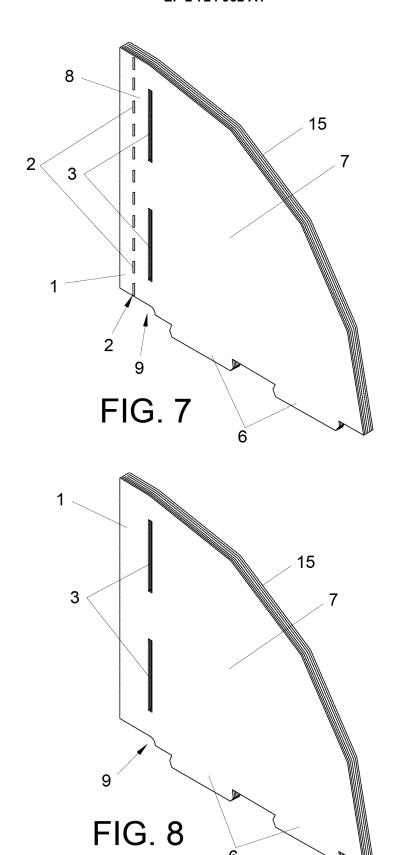


FIG. 5





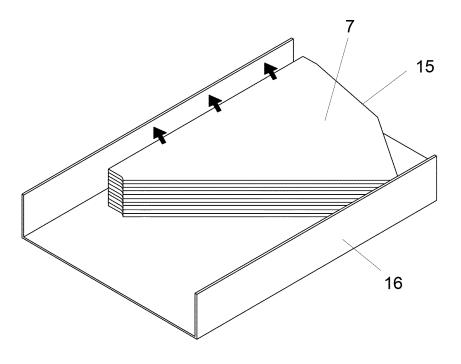


FIG. 9

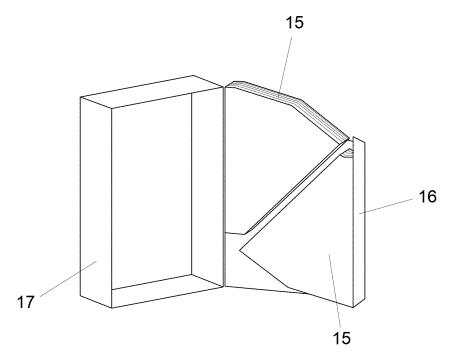


FIG. 10

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## INTERNATIONAL SEARCH REPORT

International application No. PCT/ES2012/070467

| A. CLASSIF   | ICATION OF SUBJECT MATTER  |   |  |  |
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|  | cumentation searched (classification system followed by classification system)   | assification symbols)   |  |  |
| Documentation  | on searched other than minimum documentation to the exte   | nt that such documen  | ts are included in the fields searched   |  |
| B65D5/000  | C  |   |  |  |
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| ☐ Further do   | ocuments are listed in the continuation of Box C.  | See patent family   | annex.   |  |
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