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(54) A recloseable sealed container

(57) The aforementioned problems are solved by providing a reclosable sealed container comprising:
(a) a tamper proof dispenser comprising a first side, a second side, a dispenser opening through the first and second sides, a tongue, a pair of guides for guiding the tongue when in use and a tamper proof system visible to the consumer when in use, the tongue slidable between a first closed position when the dispenser opening is covered and a second position when the dispenser opening is uncovered, the tongue and pair of guides being in the same plane at least when in use, the tongue not including an opening, and wherein the dispenser is manufactured from a first unitary template; and
(b) a lidded tray comprising an open-topped tray, a lid and a lid opening through the lid, wherein the lidded tray is manufactured from a second unitary template; and

wherein the tamper proof dispenser is located on the open-topped tray whereby the first side opposes the open-topped tray and the second side faces away from the open-topped tray, and the lid is located on the tamper proof dispenser whereby the lid opening is in alignment with the dispenser opening thereby in use to open the reclosable container when the tongue is in the second position.

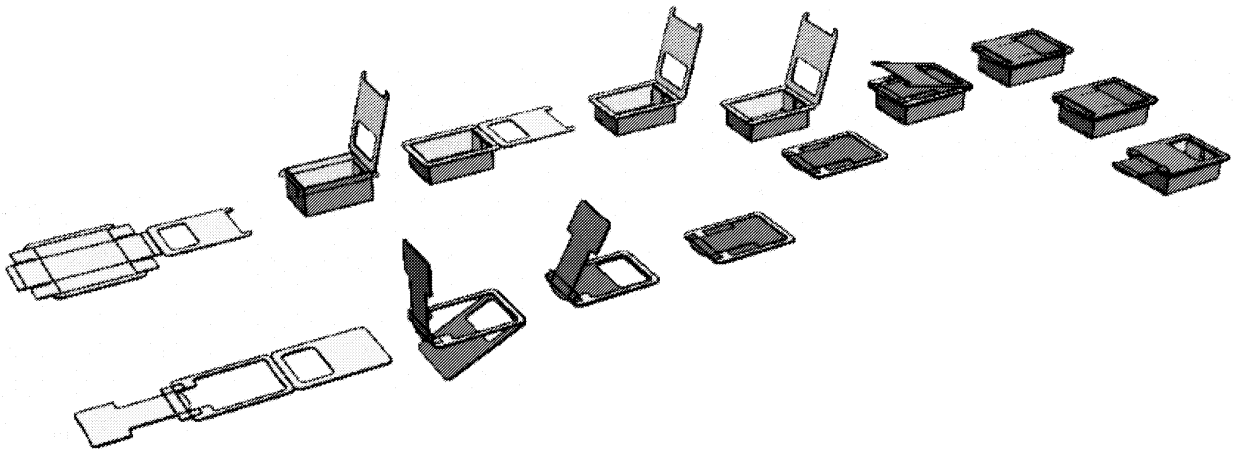

FIGURE 3

EP 1 921 011 A1

Description

[0001] This invention relates to a reclosable sealed container suitable for packaging and dispensing, in particular, a free-flowing solid product such as chopped frozen herbs.

[0002] Products such as frozen chopped herbs are generally sold in 30g non-recloseable cardboard packets. One problem with such packaging is that, once opened, the contents can easily inadvertently escape the packaging. Another problem is the need to ensure that any reclosable packaging has a tamper proof system so that the consumer can tell if the packaging has been previously opened before purchase.

[0003] In this specification, reference to a "tamper proof system" means a system which indicates to a user that the reclosable lid has been opened at least once.

Summary of the Invention

[0004] The aforementioned problems are solved, in a first aspect of the invention, by providing a reclosable sealed container comprising:

(a) a tamper proof dispenser comprising a first side, a second side, a dispenser opening through the first and second sides, a tongue, a pair of guides for guiding the tongue when in use and a tamper proof system visible to the consumer when in use, the tongue slidable between a first closed position when the dispenser opening is covered and a second position when the dispenser opening is uncovered, the tongue and pair of guides being in the same plane at least when in use, the tongue not including an opening, and wherein the dispenser is manufactured from a first unitary template; and

(b) a lidded tray comprising an open-topped tray, a lid and a lid opening through the lid, wherein the lidded tray is manufactured from a second unitary template; and

wherein the tamper proof dispenser is located on the open-topped tray whereby the first side opposes the open-topped tray and the second side faces away from the open-topped tray, and the lid is located on the tamper proof dispenser whereby the lid opening is in alignment with the dispenser opening thereby in use to open the reclosable container when the tongue is in the second position.

[0005] One advantage of using a two-part construction is that it minimises material wastage. Furthermore such a construction provides manufacturing flexibility in that the lidded tray may be undergo a distinct processing cycle to the tamper proof dispenser. For example, as the lidded tray comprises the lid of the recloseable sealed container, it must be printed with information relating to the individual product, for example parsley or some other herb, with which is will be filled. However the tamper proof dispenser may be printed with a generic print, for example the logo of the brand, and be married up with any of the preprinted and filled lidded trays.

[0006] It has been observed that by ensuring that the sliding tongue and pair of guides are in the same plane at least when in use, the tongue cannot lift with the consequent risk of any free-flowing solid product finding its way under the tongue and becoming frozen and jammed with the guides. With the present arrangement of tongue and guides, the tongue may slide more freely.

[0007] The first and second unitary templates may be coated on one side only with a water-impermeable coating thereby to ensure that the side of the tamper proof dispenser and lidded tray in contact with the contents of the recloseable sealed container is entirely coated with the water-impermeable coating. This reduces the risk of the recloseable sealed container losing any mechanical strength through absorption of moisture from the contents whilst ensuring that the costs of manufacture are minimised through only needing to coat one side of the first and second templates and not both. Alternatively the unitary template may be laminated on one side only with a water-impermeable laminate. In a further embodiment, both sides of the unitary template may be thus coated or laminated or one side coated and the other laminated.

[0008] In one embodiment, the tamper proof system may comprises a plurality of perforations which must be broken in order to operate the tongue for the first time. In another embodiment either separately or in combination with the first embodiment, the tamper proof system comprises an adhesive seal between the tongue and the lidded tray. With either embodiment, it is clearly visible to the consumer whether the recloseable sealed container has been opened for the first time or not.

[0009] The tongue may comprise a leading edge which slides across the dispenser opening, the leading edge having a concave shape. It has been observed that the concave shape of the leading edge facilitates closure of the recloseable sealed container.

[0010] The reclosable sealed container may further comprise at least one stop thereby to ensure that the tongue only slides between the first position and the second position. Preferably the reclosable sealed container comprises two stops. The at least one stop may comprise a pair of abutting shoulders, one shoulder located on the tongue and the other on a part of the tamper proof dispenser other than the tongue.

Summary of the Drawings

[0011] The invention will now be exemplified with reference to the drawings which show in:

Figure 1: a template for a tamper proof dispenser according to the invention;

Figure 2: a template for a lidded tray according to the invention; and

Figure 3: assembly of a recloseable sealed container

according to the invention from the template for a tamper proof dispenser and the template for a lidded tray illustrated in figures 1 and 2.

Detailed Description

[0012] Figure 1 shows a template for a tamper proof dispenser comprising an approximately rectangular central flap (101) in hinged connection along one side to an approximately rectangular side flap (102) and in hinged connection along an opposing side to a tongue flap (103). The central flap (101) includes a tongue opening (104). The side flap (102) includes a dispenser opening (105). When the central flap (101) and the side flap (102) are folded together, the tongue opening (104) and the dispenser opening (105) lie one on top of the other.

[0013] The tongue opening (104) is defined by an opposing pair of guide flaps (106a and 106b) which guides the tongue flap (103) from a first closed position to a second open position when the recloseable sealed container is in use. Each guide flap terminates in a guide flap shoulder (107a and 107b) which prevents the tongue flap (103) form being completely removed from the remainder of the recloseable sealed container when in use.

[0014] The tongue flap (103) comprises a head part (108), which is shaped to lie between and be guided by the pair of guide flaps (106a and 106b) and overlap the dispenser opening (105) when the recloseable sealed container is assembled, connected to a neck part (109), which can pass, when the recloseable sealed container is in use, through the pair of guide flap shoulder (1 07a and 107b), which in turn is connected at the end distal from the head part (108) to a pair of tongue flap shoulders (110a and 110b) which connect the tongue flap (103) to the central flap (101). The neck part (109) may optionally include a neck part extension (not shown) which projects past the tongue flap shoulders (110a and 110b) and the guide flap shoulders (107a and 107b) into the tongue opening (104). Furthermore the head part edge (111) distal from the neck part (109) adopts a concave form. The nexus of the head part (108) and the neck part (109) together define a pair of opposing tongue flap shoulders (112a and 112b).

[0015] Two perforated lines (112a and 112b) connect the neck part (109) to the tongue flap shoulders (110a and 110b) which when broken allows separation of the remainder of the tongue flap from the central flap (101).

[0016] In this embodiment, only one side of the tamper proof dispenser template is coated or laminated with a water impermeable coating or laminate. However this does not preclude both sides of the template being coated or laminated or one side being coated and the other laminated.

[0017] Figure 2 shows a template for a lidded tray comprising a rectangular base (201), a pair of opposing first side walls (202a and 202b) hingedly attached to the base (201) and a pair of opposing second side walls (202c and 202d) hingedly attached to the base (201) orthogonal to the pair of opposing first side walls (202a and 202b). A lip (203a, 203b, 203c and 203d) is hingedly attached to each side wall in opposition to the base (201). In addition, an opposing pair of first side walls flaps (204a, 204b, 204c and 204d) is hingedly attached to each second side wall (202c and 202d). A lid (205) is hingedly attached to one of the first side walls flaps (204c) in opposition to the base (201). The lid (205) includes a lid dispensing aperture (206). The edge of the lid distal from the base includes a cut out (207).

[0018] In this embodiment, only one side of the lidded tray template is coated or laminated with a water impermeable coating or laminate. However this does not preclude both sides of the template being coated or laminated or one side being coated and the other laminated.

[0019] In figure 3, the tamper proof dispenser is assembled by folding the coated side of the tongue flap (103) onto the coated or laminated side of the central flap (101). The tongue flap shoulders (110a and 110b) are secured, for example, by using adhesive, to the central flap (101). Then the uncoated or unlaminated side of the side flap (102) is folded onto the uncoated or unlaminated side of the central flap (101). In order to secure the side flap (102) to the central flap (101), glue or some other suitable means may be used.

[0020] In figure 3, the lidded tray is assembled by folding the first side walls flaps (204a, 204b, 204c and 204d) towards the coated or laminated side of the first side walls (202a and 202b) so that they are orthogonal to the first side walls (202a and 202b). Then the first side walls (202a and 202b) and second side walls (202c and 202d) are folded towards the coated or laminated side of the base (201) so that they are orthogonal to the base (201). The first side walls flaps (204a, 204b, 204c and 204d) may then be attached to the second side walls (202c and 202d) by, for example, adhesive, thereby to produce an open topped tray.

[0021] The lips (203a, 203b, 203c and 203d) may then be folded orthogonal to the first side walls (202a and 202b) and second side walls (202c and 202d) thereby to provide a circumferential lip projecting outwardly from the first side walls (202a and 202b) and second side walls (202c and 202d).

[0022] The assembled tamper proof dispenser is then placed on and secured, for example by adhesive, to the circumferential lip of the assembled lidded tray with the coated or laminated side facing towards the lidded tray. For this purpose, the perimeter of the central flap (101) and the side flap (102) will generally adopt that of the rim of the circumferential lip. The lid (205) may then be folded down onto the assembled tamper proof dispenser and secured, for example by adhesive. The assembled tamper proof dispenser and assembled lidded tray are married together in such a way that the dispenser opening (105) and the lid dispensing aperture (206) are superimposed thereby to produce an opening in the top of the recloseable sealed container when the tongue is in

the second open position. Furthermore the cut out (207) exposes the tongue flap shoulders (110a and 110b) and the base of the neck part distal from the head part (108). If the optional neck part extension (not shown) is present, then it can be folded down and secured, for example with adhesive, to the exterior surface of one of the second side walls.

[0023] In use, the perforated lines (112a and 112b) are broken thereby to form an independent section consisting of the remainder of the tongue flap, the independent section being, in effect, a tongue. The tongue may then be slid to the second open position thereby uncovering the dispenser opening (105) and the lid dispensing aperture (206) providing access to the interior of the recloseable secured container. Impingement of the tongue flap shoulders (112a and 112b) against the guide flap shoulder (107a and 107b) ensures that the tongue only slides between the first closed position and the second open position. The recloseable secured container is closed by simply sliding the tongue back to the first closed position.

[0024] If the optional neck part extension (not shown), also considered part of the tongue, is present, then the neck part extension must first be separated from the exterior surface of one of the second side walls before the perforated lines (112a and 112b) are broken.

[0025] The first and second templates may be constructed from any type of foldable board such as recycled, mechanical or chemical wood pulp with a density of 250-500 gm^2 or a suitable plastics material such as polypropylene, polyethylene, polystyrene, or poly(lactic acid) or mixtures thereof. The coating may be based on polyethylene, polypropylene, poly(lactic acid), polyhydroxyalkanoates or mixtures thereof. The laminate may be based on polyethylene, polypropylene, polylactic acid, polystyrene, polyethylene terephthalate, polyhydroxyalkanoates or mixtures thereof and have a laminate thickness of 300-500 microns. The process of coating or laminating the foldable board is accomplished using techniques known to the person skilled in the art.

Claims

1. A reclosable sealed container comprising:

(a) a tamper proof dispenser comprising a first side, a second side, a dispenser opening through the first and second sides, a tongue, a pair of guides for guiding the tongue when in use and a tamper proof system visible to the consumer when in use, the tongue slidable between a first closed position when the dispenser opening is covered and a second position when the dispenser opening is uncovered, the tongue and pair of guides being in the same plane at least when in use, the tongue not including an opening, and wherein the dispenser is manufactured from a first unitary template; and

(b) a lidded tray comprising an open-topped tray, a lid and a lid opening through the lid, wherein the lidded tray is manufactured from a second unitary template; and

wherein the tamper proof dispenser is located on the open-topped tray whereby the first side opposes the open-topped tray and the second side faces away from the open-topped tray, and the lid is located on the tamper proof dispenser whereby the lid opening is in alignment with the dispenser opening thereby in use to open the reclosable container when the tongue is in the second position.

2. A reclosable sealed container according to claim 1 wherein the first unitary template is coated on one side only with a water-impermeable coating thereby to ensure that the first side of the tamper proof dispenser is entirely coated with the water-impermeable coating.

3. A reclosable sealed container according to claim 1 wherein the first unitary template is laminated on one side only with a water-impermeable laminate thereby to ensure that the first side of the tamper proof dispenser is entirely laminated with the water-impermeable coating.

4. A reclosable sealed container according to any one of the preceding claims wherein the tamper proof system comprises a plurality of perforations which must be broken in order to operate the tongue for the first time.

5. A reclosable sealed container according to any one of the preceding claims wherein the tamper proof system comprises an adhesive seal between the tongue and the open-topped container which must be broken in order to operate the tongue for the first time.

6. A reclosable sealed container according to any one of the preceding claims wherein the tongue comprises a leading edge which slides across the dispenser opening, the leading edge having a concave shape.

7. A reclosable sealed container according to any one of the preceding claims further comprising at least one stop thereby to ensure that the tongue only slides between the first position and the second position.

8. A reclosable sealed container according to claim 7 wherein the at least one stop comprises a pair of abutting shoulders, one shoulder located on the tongue and the other on a part of the tamper proof dispenser other than the tongue.

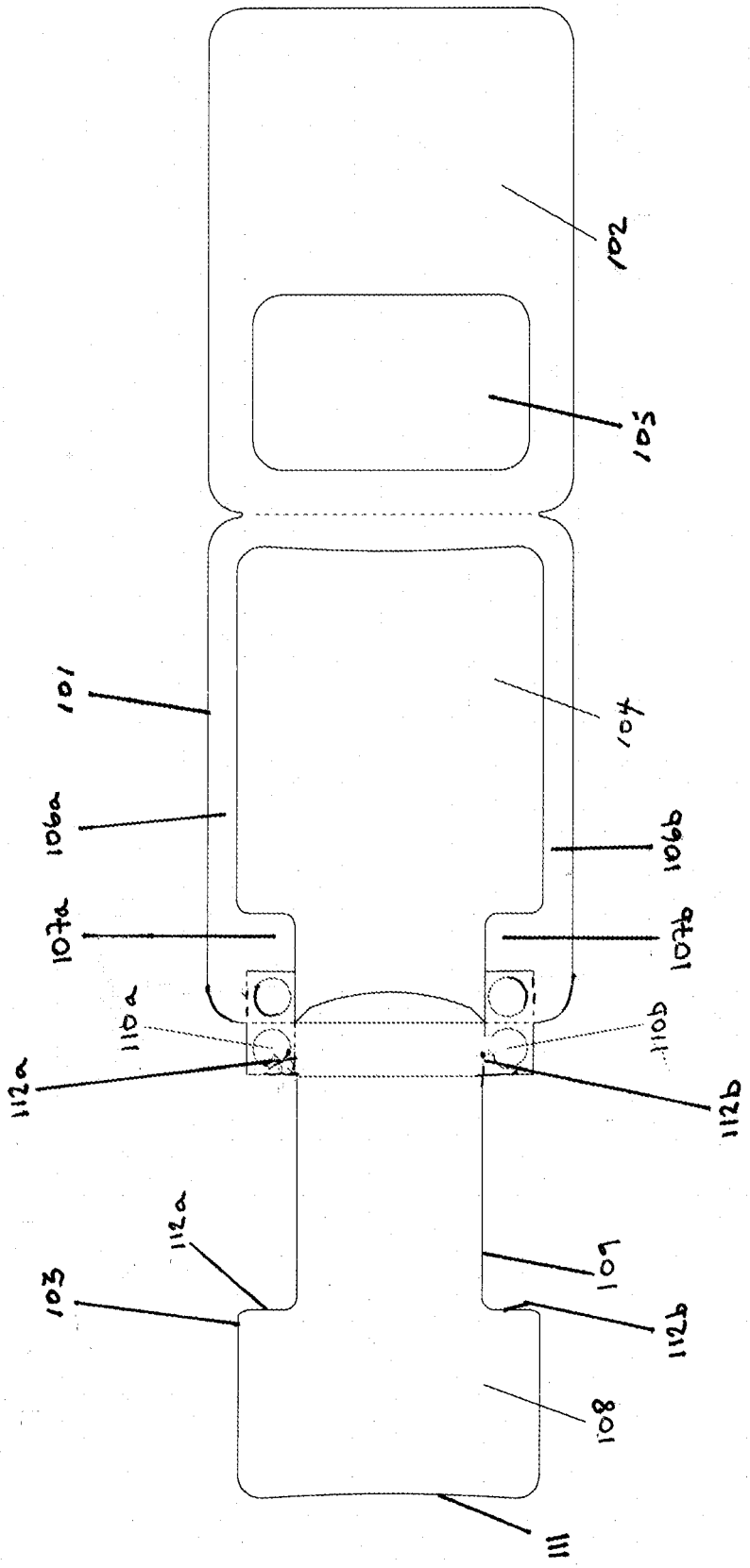
102
105
101
104
106a
106b
107a
107b
110a
110b
112a
112b
103
112a
107
112b
108
111

FIGURE 1

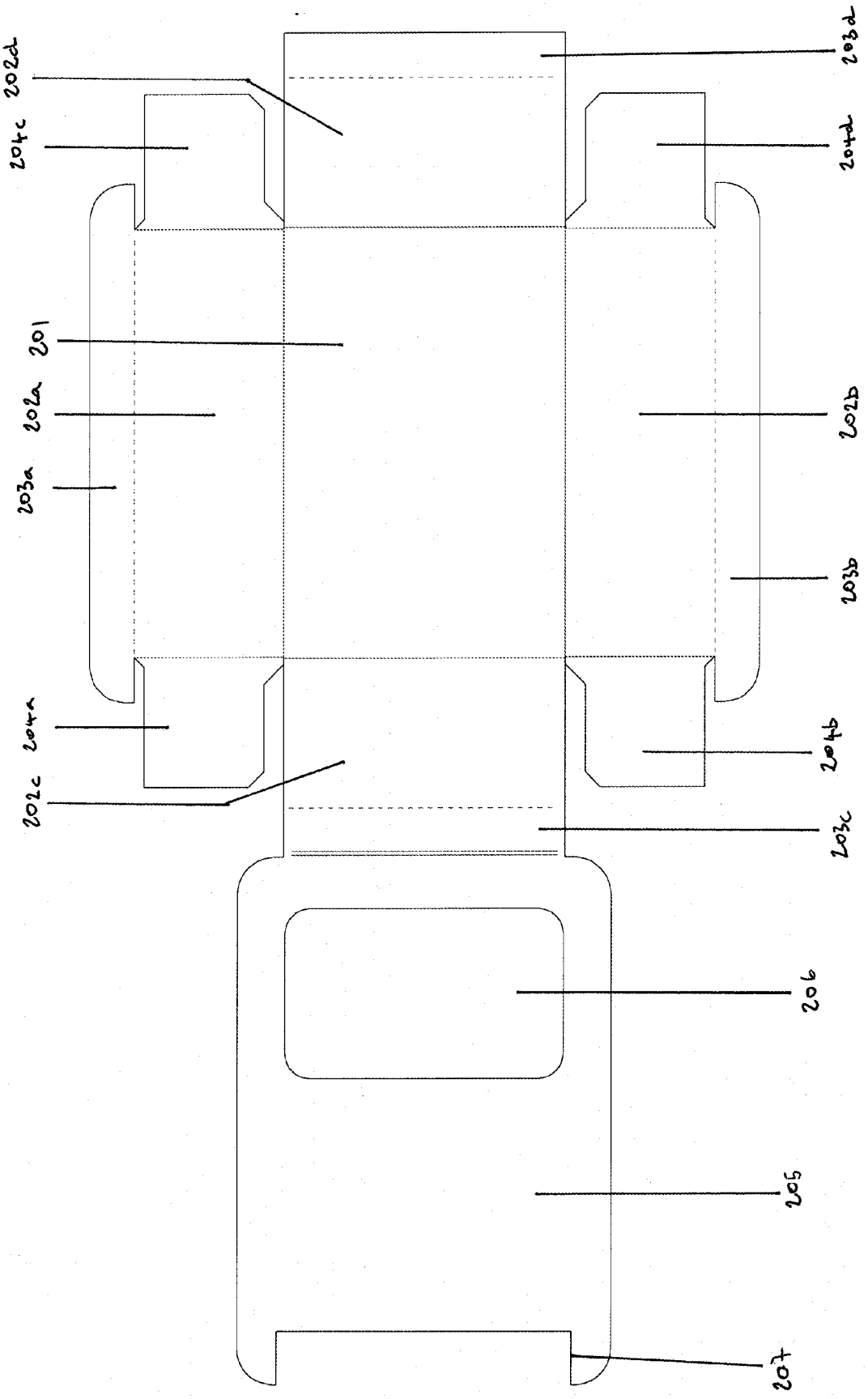
202d
203d
204c
204d
201
202a
202b
203a
203b
202c
204a
204b
203c
206
205
207

FIGURE 2

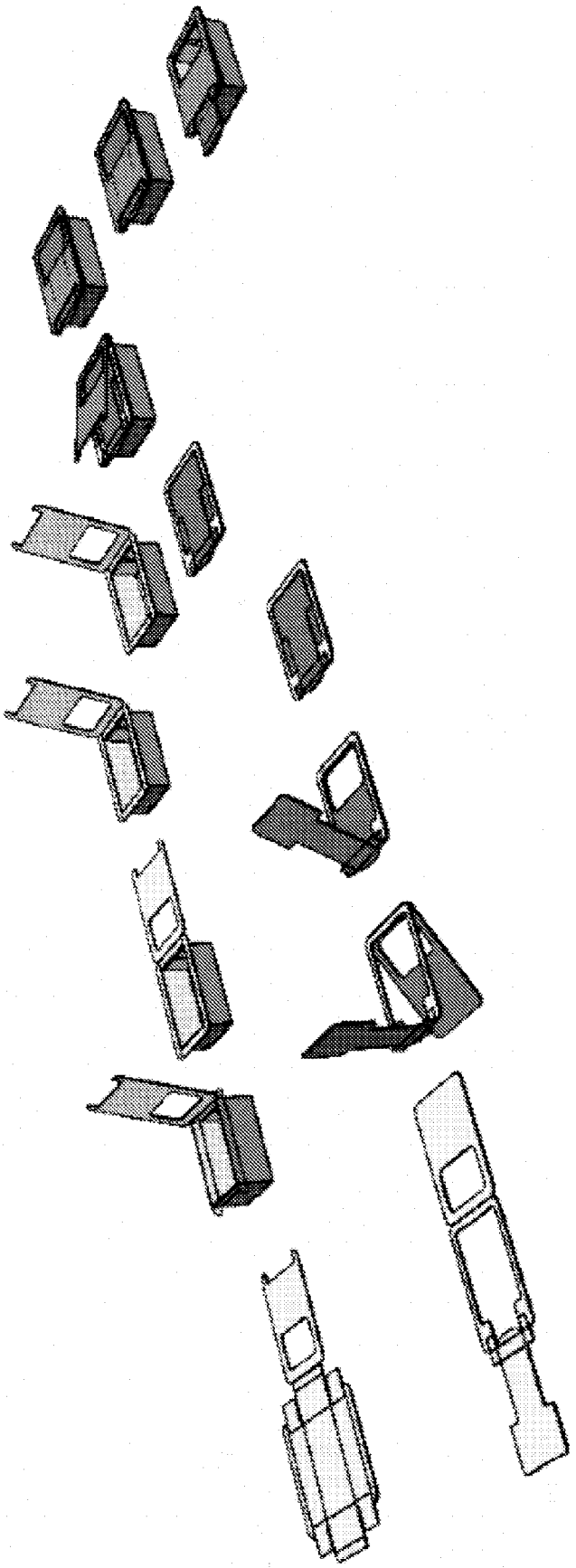

FIGURE 3

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 06 12 2713

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	WO 2004/089766 A (TECNOFUSTELLE S A S [IT]; MINELLI ALESSANDRA [IT]; CAPPONI MASSIMO [IT) 21 October 2004 (2004-10-21) * page 4, line 23 - page 5, line 15; figures 1-7 *	1-8	INV. B65D5/72
Y	US 2 525 888 A1 (MARJORIE FREEMAN) 17 October 1950 (1950-10-17) * the whole document *	1-8	
A	FR 2 698 077 A1 (BEGHIN SAY ERIDANIA [FR]) 20 May 1994 (1994-05-20) * page 6, line 10 - line 27; figures 2,3A,3B *	1-8	
A	CH 412 695 A (LANDERER FA A [DE]) 30 April 1966 (1966-04-30) * page 2, line 37 - line 66; figures 1-4 *		
A	WO 2005/051790 A (TODJAR-HENGAMI DAVID [US]) 9 June 2005 (2005-06-09) * figures 2-6 *	1	TECHNICAL FIELDS SEARCHED (IPC) B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	8 March 2007	Appelt, Lothar

CATEGORY OF CITED DOCUMENTS

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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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08-03-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004089766 A	21-10-2004	EP 1611019 A1	04-01-2006
US 2525888 A1		NONE	
FR 2698077 A1	20-05-1994	NONE	
CH 412695 A	30-04-1966	NONE	
WO 2005051790 A	09-06-2005	AU 2003284367 A1	17-06-2005
		MX PA06004753 A	05-07-2006

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82