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(54) **FOOD DISPENSER**

(57) As such, the present disclosure relates to a dispenser (1) comprising a dispenser body (2) having a dispenser body upper edge (3) and a cover (4) extending over a dispenser body opening (2a) providing a dispenser sealed configuration. The dispenser (1) comprises an inner compartment (5) and a supply roll (6) arranged in the inner compartment (5). The supply roll (6) comprises a rolled up carrier sheet (7) having a longitudinal direction (L) and slices of food (8), such as cheese, fruit leather,

meat products or the like, applied on the carrier sheet (7) in the longitudinal direction (L). The cover (4) comprises an opening arrangement (9) for creating a dispensing opening (10) upon partial removal of the cover (4) thereby providing a dispenser opened configuration and allowing the carrier sheet (7) together with the slices of food (8) to be dispensed from the dispenser (1) in the longitudinal direction (L).

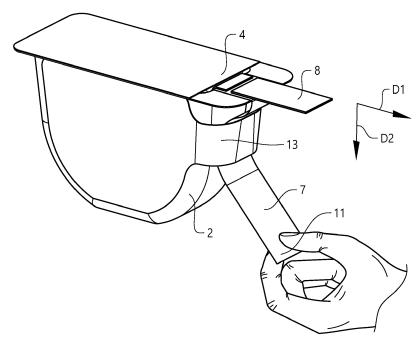


FIG. 4c

Description

TECHNICAL FIELD

[0001] The present disclosure pertains to a dispenser comprising a supply roll, the supply roll comprising a rolled up carrier sheet and slices of food, such as fruit leather, cheese, meat products or the like, applied to the carrier sheet.

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BACKGROUND OF THE INVENTION

[0002] Food products, such as cheese, meet, snacking or the like may be packaged pre-sliced for sale to customers. Pre-sliced food products are often packaged in an ordered stack wherein only the first or top slice is viewed from the package exterior.

[0003] For sliced food products some consumers such as for example elderly people and children, may experience considerable difficulty in trying to separate the individual slices without tearing them. If, for example, the cheese is packaged without being pre-sliced, the problems may instead be the need for extra food slicing equipment and the handling of such slicing equipment, both for consumer with reduced fine motor skill or when being at locations outside the kitchen environment, such as at a picnic.

[0004] Furthermore, once a package of that type has been opened and one or more slices has been removed therefrom, the package opening is rather large in size and it is difficult to properly rewrap the remaining slices so as to protect them from the atmosphere which will cause the slices to dry out, harden and acquire an unattractive appearance.

[0005] Such dispensers may also be unhygienic, since the food is exposed to contamination by dust, insect matter and other airborne particles. Such contamination may occur even if the packaging is closed or a cover is provided, since each consumer must remove the cover prior to helping himself to the slices of food. Furthermore, the slices of food may inadvertently be touched by the consumer during the removal of the individual slices. Additionally, tearing and breaking of the food slices which are intended to remain in the package frequently occur during removal of food slices, giving the remaining slices an unattractive appearance.

[0006] There is also a desire to increase the alternatives for healthier snacks. Fruit leather and cheese are such alternatives which have become increasingly popular on-the go snacks for children instead of cookies and chips. For these snacks there is a need for an attractive, easy, hygienic and fun packaging.

[0007] In view of the above, there is a need to provide an improved food container, with an improved dispensing and improved food environment protection.

SUMMARY OF THE INVENTION

[0008] The above and other objects may be provided by a dispenser according to claim 1. Further embodiments are set out in the dependent claims, in the following description and in the drawings.

[0009] As such, the present disclosure relates to a dispenser comprising a dispenser body having a dispenser body upper edge and a cover extending over a dispenser body opening providing a dispenser sealed configuration. The dispenser comprises an inner compartment and a supply roll arranged in the inner compartment. The supply roll comprises a rolled up carrier sheet having a longitudinal direction and slices of food, such as cheese, fruit leather, meat products or the like, applied on the carrier sheet in the longitudinal direction. The cover comprises an opening arrangement for creating a dispensing opening upon partial removal of the cover thereby providing a dispenser opened configuration and allowing the carrier sheet together with the slices of food to be dispensed from the dispenser in the longitudinal direction. [0010] The dispenser according to the present disclosure, comprising a rolled up carrier sheet and slices of food, such as cheese, fruit leather, meat products or the like, applied on the carrier sheet, provides an improved dispenser solution, allowing simple, fun and convenient withdrawal of slices of food/snacks. Furthermore, there is no need for extra food slicing equipment while providing a protected food environment with a prolonged expiry date. The fact that the slices of food are housed in an inner compartment only provided with a small opening for allowing the carrier sheet together with the sliced food to be dispensed via the opening slot gives the sliced up food a protected environment also after opening of the dispenser. An additional protection is provided to the slices of food by means of the outer carrier sheet being winded onto the slices of food in the supply roll, except for the slices located on the front side of the supply roll. The slices arranged between the winded carrier sheet are located in a tight environment practically protected from the environment and from drying out by means of the carrier sheet roll itself.

[0011] The dispenser may be a disposable dispenser, designed for being thrown away after being emptied.

[0012] The dispenser may for example be formed by thermoforming or by injection moulding.

[0013] The slices of food are being dispensed from the dispenser by means of pulling the carrier sheet together with the sliced food via the opening arrangement. The opening arrangement may be a smaller slot provided in the dispenser upon partial removal of the cover thereby providing a dispenser opened configuration and allowing the carrier sheet together with the slices of food to be dispensed from the dispenser in the longitudinal direction. The carrier sheet may be pulled in a first straight direction directly upon exiting the opening and then downwards in a second direction over an opening edge of the dispenser providing a sharp bend on the carrier

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sheet. By pulling the carrier sheet over the opening edge the slices of food will be forced to follow the first straight direction of the carrier sheet and at the sharp bend of the opening edge the food slices will separate from the carrier sheet when the carrier sheet is caused to bend sharply away from the adhering inner side of the slices. The consecutive released slices may then be taken by hand and used for the intended purpose.

[0014] The carrier sheet may be provided with weakening means, such as for example perforations, repeatedly between the slices of food such that the carrier material remaining after removal of the slice of food may be removed from the rolled up carrier sheet. The carrier sheet may for example be provided with perforations between each slice of food.

[0015] The dispenser may be a thermoformed or an injection moulded dispenser. Typically, the dispenser is formed of a polymeric material. By "formed" is meant a component that is formed into a three-dimensional shape. The formed section may be formed by thermoforming a thermoformable material or by injection moulding. [0016] The opening arrangement may be a tear strip, a weakening line, such as a partial cut through the cover material, i.e. score line, or a perforation line. By tearing the tear strip or removing a part of the cover by tearing the cover along the weakening line a small opening such as a slot opening may be formed in the cover or at the dispenser body opening by removing a part in the cover. The score line may be a laser score line, the laser score line may be a cut partly through the thickness of the cover layer such that the cover breaks at a pre-defined location upon for example tearing. If the cover is a laminate material layer, the laser score line may for example be a cut through the uppermost layer of the laminate. The slot opening may for example have an opening width in the range of from 5 to 15 mm. This may provide increased freshness over time of the food contained in the dispenser and prevent drying out of the slices of food, especially those arranged on the front side of the supply roll.

[0017] The opening arrangement may comprise an additional peel-away sheet material, such as a polymer and/or laminate sheet material, which upon removal creates the dispensing opening providing the dispenser opened configuration. The additional may for example be provided in an overlapping manner with the cover and thus only partly over the dispenser body opening, upon removal of the additional peel-away sheet material.

[0018] The carrier sheet may comprise a leading free grip end enabling the carrier sheet to be drawn out from the dispenser via the dispensing opening. The grip end may be formed by leaving a part of the carrier sheet free from the food slices. The carrier sheet may additionally have a slightly pointed shape to facilitate gripping of the first leading end through the opening after opening the dispenser by means of the opening arrangement. For facilitating gripping upon opening, the leading free grip end may be arranged between the cover and the upper edge for direct access upon partial removal of the cover.

[0019] The cover may be heat sealed to the dispenser body at the dispenser body upper edge. Heat sealing provides a tight seal and a protected inner compartment. Hence, the dispenser content remains well protected in the dispenser with only the small opening in the cover for allowing withdrawal of the slices of food with the carrier material.

[0020] By "heat sealing" is meant inputting energy to cause an area of the cover and the dispenser body upper edge to increase in temperature allowing the seal to form. The energy may be inputted by any means, for instance by pressing heated elements against the area (i.e. heat press sealing), via ultrasonic energy sources (i.e. ultrasonic bonding), via radiation (i.e. via a radiofrequency (RF) heat sealer), or induction heating (i.e. using induction to heat a metal component in the cover and the dispenser body upper edge.

[0021] The dispenser body upper edge may comprise a dispensing edge portion, the opening arrangement being arranged at the dispensing edge portion.

[0022] If the cover is to be removed from the dispensing edge portion upon partial removal of the cover to provide the dispenser opened configuration, the seal between the part of the cover which is to be detached from the dispensing edge portion may be peelable.

[0023] By "peelable" is meant capable of being pulled apart, such that the cover can be peeled off the dispensing edge portion.

[0024] The peel strength of a seal may be measured using ASTM F88, typically with a test speed of 100 mm/min, and usually with Technique A (unsupported).

[0025] Typical values for a peelable seal are below 30 N/15 mm, desirably below 20 N/15 mm, for example from 2 to 30 N/15 mm, or from 2 to 20 N/15 mm.

[0026] Peel strength values of from 2 to 6 N/15 mm are generally regarded as 'easy opening'. To ensure the container is not opened unintentionally (e.g. during transport), it is desirable that the peel strength is above these lower levels, e.g. above 5 N/15 mm, desirably above 6 N/15 mm or above 7 N/15 mm.

[0027] More desirable peel strength values are therefore from 5 to 20 N/15 mm, or from 6 to 15 N/15 mm or from 7 to 12 N/15 mm.

[0028] By way of example, peel strength values for a typical 'tray' application (e.g. microwaveable food products) are from 6 to 15 N/15 mm, more typically from 7 to 12 N/15 mm.

[0029] Typically, the inner compartment is water tight. Optionally, the inner compartment is water tight and air tight.

[0030] By "water tight" is meant that liquids such as water cannot escape from the compartment, i.e. the compartment is sealed with no holes or openings which allow liquids to leak out.

[0031] By "air tight" is meant that the inner compartment is sealed to be gas impermeable.

[0032] A gas impermeable material (or e.g. compartment) typically has an oxygen transmission rate as meas-

ured according to ASTM F1927 (in ml/m²/24 hrs measured at 23°C, 50% relative humidity) of below 100, more typically below 50, desirably below 20, more desirably below 10, even more desirably below 1.

[0033] Typical requirements for the oxygen transmission rate of packaging materials are below around 10 for fresh food.

[0034] A water tight material (or compartment) may further be characterised by its water vapour transmission rate (WVTR), for example as measured by ASTM F1249. A water tight material typically has a WVTR as measured according to ASTM F1249 (in ml/m²/24 hrs measured at 25°C, 75% relative humidity) of below 10, more typically below 5, more typically below 2, desirably below 1.

[0035] The dispensing edge portion may be a flat dispensing edge portion having a width of 10 mm or more, such as from allowing the carrier sheet to be drawn over the dispensing edge portion in a first direction and passing over an outer edge of the dispensing edge portion, and to be drawn in a second direction, being different to the first direction causing the slices of food to be successively released from the carrier sheet when passing over the outer edge while the carrier sheet is drawn in the second direction. The first direction may be a first straight direction, i.e. in the same plane as the dispensing edge portion, and the second direction may be a direction substantially perpendicular to the first direction.

[0036] The dispenser may comprise a dispenser outer side surface and a sheet material outer holder arranged to allow the carrier sheet to be held towards the dispenser outer side surface while the carrier sheet is pulled in the second direction.

[0037] The cover may comprise a fixed portion extending over and substantially covering the dispenser body opening and an openable and resealable portion, the cover may be heat sealed or ultrasonically sealed to the dispenser body at the dispenser body upper edge. The cover may be a laminate, such as a laminate comprising one layer providing mechanical stability. The laminate may optionally comprise a water vapour barrier and/or oxygen barrier layer and/or optionally a sealing layer including a peel- or reseal function, such layer may be a polyethylene based layer. The fixed portion of the cover may be sealed to the dispenser body using a higher pressure or higher temperature to prevent peeling of the fixed cover portion.

[0038] The dispenser may be a thermoplastic dispenser, the dispenser body and the cover being formed by thermoplastic material(s). This is one suitable material for a disposable dispenser, i.e. designed for being thrown away after being used up.

[0039] The dispenser body may be transparent or comprise a transparent inspection window. This allows the user both to see the food being dispensed and also to see how much of the food slices remaining in the dispenser.

[0040] The cover may be provided with a cover gripping tab. A gripping tab will facilitate opening of the dis-

penser for creating the dispensing opening, a gripping tab may for example be combined with a weakening line, such as for example a score line or a perforation line, for providing an easy opening arrangement and to prevent removal of the entire cover.

[0041] The cover and/or the dispenser body may be provided with an adhesive tab to enable resealability of the cover after creation of the dispensing opening. For further improving the durability of the food slices contained in the dispenser, the dispenser may be provided with an adhesive tab configured for allowing resealing of the dispenser opening after partial removal of the cover. [0042] The supply roll may comprise a bobbin, such as a spindle or cylinder, with or without flanges, on which the carrier sheet is wound.

[0043] The dispenser may be a food dispenser.

[0044] Typically, the cover and the dispenser, or at least the dispenser body upper edge, will be formed from a heat sealable material. Typical heat sealable materials are polymers with a relatively low melting point (e.g. 80-150°C, typically 100-130°C), such that when exposed to heat sealing conditions (temperatures of typically 120-160°C and pressure) the polymers melt and form a bond.

[0045] Suitable heat sealable materials include APET (amorphous polyethylene terephthalate), polyethylene and polypropylene, desirably polyethylene and polypropylene with polyethylene being particularly suitable. An exemplary material that may be used is CA7230 of Borealis, which is a low density polyethylene that can be formed into films.

[0046] An example of a sealing film containing different sealing layers comprises APET as one bonding layer (e. g. the first bonding layer), with polyethylene as the other bonding layer (e.g. the second bonding layer).

[0047] The dispenser body may include a mechanical barrier layer, typical materials for a mechanical barrier layer include polymers such as polyesters or polyolefins; metal foils such as aluminium foil; paper, or metalized polymers.

[0048] Exemplary materials for the mechanical barrier layer include polyesters such as polyethylene terephthalate (PET, such as Ramapet N180 from UAB Indoramer Polymers), polyolefins such as polypropylene, and polyvinyl alcohols (such as Eval F104B from Eval Europe). Typically, the structural layer is oriented to improve its strength. For example, the structural layer may be formed from oriented polyethylene terephthalate (O-PET, such as Mylar 800 from DuPont Teijin Films) or oriented polypropylene (O-PP).

[0049] The dispenser may further, as the cover, include a water vapour or oxygen barrier layer, one typical example of such layer is ethylene-vinyl alcohol copolymer (EVOH).

[0050] The dispenser body may, as the cover, include a sealing layer including a peel- or reseal function; such layer may typically be a polyethylene based layer.

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BRIEF DESCRIPTION OF THE DRAWINGS

[0051] The present invention will be further explained hereinafter by means of non-limiting examples and with reference to the appended drawings wherein:

- Fig. 1 illustrates a dispenser according to the present disclosure, prior to inserting the supply roll and sealing of the cover;
- Fig. 2a illustrates the dispenser according to the present disclosure in a dispenser sealed configuration;
- Fig. 2b illustrates the dispenser according to the present disclosure, with a grip-tab slightly raised;
- Fig. 3 illustrates a dispenser according to the present disclosure; and
- Figs. 4a-d illustrates dispensing steps of the dispenser according to the present disclosure;
- Fig. 5 illustrates an alternative dispenser according to the present disclosure.

DETAILED DESCRIPTION

[0052] It is to be understood that the drawings are schematic and that individual components, such as layers of materials are not necessarily drawn to scale. The cover and the opening arrangements shown in the figures are provided as examples only and should not be considered limiting to the invention. Accordingly, the scope of invention is determined solely by the scope of the appended claims.

[0053] Figs. 1 illustrates a dispenser 1 comprising a thermoformed dispenser body 2, the dispenser body 2 having a dispenser body upper edge 3 including a flat dispensing upper edge portion 3a having a width w in the range of from 10 to 25 mm. The dispensing edge portion 3a has an outer edge 16. The dispensing edge portion 3a is the part of the dispenser body upper edge 3 arranged at the intended dispenser opening 10 (see Fig. 3a), and here the edge portion extending along the side edge of the dispenser body 2. The dispenser 1 comprises an inner compartment 5 and has a dispenser body opening 2a. A supply roll 6, comprising a rolled up carrier sheet 7 having a longitudinal direction L, is intended to be arranged in the inner compartment 5. The carrier sheet comprises a leading free grip end 11 enabling the carrier sheet 7 to be drawn out from the dispenser. The supply roll 6 comprises a bobbin 15 onto which the carrier sheet 7 is wound.

[0054] The dispenser furthermore comprises a cover 4 extending over the dispenser body opening 2a. The cover 4 may for example be a polymer sheet material, such as a sheet material made of OPET/PE-peel, OPET/APET reseal. The cover comprises a fixed portion 4a extending over and substantially covering the dispenser body opening 2a when the cover 4 is sealed over the dispenser body opening 2a and a openable portion

4b which may, as disclosed in this figure be openable and removable, or alternatively be an openable and resealable portion. The openable cover portion 4b is openable by means of an opening arrangement 9, here including a perforation line. The cover 4 is sealed to the dispenser body upper edge 3 to provide a sealed inner compartment 5, the cover 4 may be continuously heat sealed to the dispenser body upper edge 3 except at an unsealed area adjacent the outer edge 16, forming a griptab 14 in the openable part 4b of the cover 4 facilitating gripping and detaching of the openable portion 4b from the dispenser body upper edge 3. Alternatively, the weakening means may be a score line, such as a laser score line.

[0055] The cover 4 comprises an opening arrangement 9 for creating a dispensing opening (see Figs. 4a-d) upon partial removal of the cover 4 thereby providing a dispenser opened configuration. In Fig. 1 the dispensing opening is formed by separating the openable cover portion 4b from the fixed portion 14 at the separation line 9.

[0056] A sheet material outer holder 13 is arranged at a dispenser outer side surface 12 for holding the carrier sheet 6 once dispensed by the dispenser 1.

[0057] Fig. 2a illustrates the dispenser 1 in the sealed configuration with the supply roll 6 housed in the inner compartment 5. In Fig. 2b the grip-tab 14, being formed by an unattached part of the cover 4, is lifted from the dispensing edge portion 3a to initiate partial removal of the cover 4.

[0058] Fig. 3 illustrate an alternative opening arrangement 9 in the form of a tear strip allowing partial removal of the cover 4 and creating a dispensing opening in the form of a slot in the cover 4.

[0059] In Figs. 4a and 4b the openable cover portion 4b in the dispenser from Fig. 2a-2b has been removed creating a dispensing opening 10 thereby providing a dispenser opened configuration. The rolled up carrier sheet 7 has a longitudinal direction L and has slices of food, such as cheese, meat products or the like, applied thereon in the longitudinal direction L. The rolled up carrier sheet 7 with the slices of food 8 may be dispensed through the narrow and slot-like dispensing opening 10 by pulling in the leading gripping end 11 of the carrier sheet 7, which is free from slices of food 8. The leading gripping end 11 may for example have a tapering configuration and/or be reinforced to become stiffened to make it easier to bring the leading gripping end 11 out via the opening 10. The dispensing opening may for example have a width of between 10 and 3 mm. When pulling in the free leading gripping end 11, the carrier sheet 7 is drawn over the flat dispensing edge portion 3a in a first direction d1. However, when the carrier sheet 7 passes over the sharp bend of the outer edge 16 of the dispensing edge portion 3a the direction of the carrier sheet 7 is changed and it is drawn in a second direction d2, being different to the first direction d1. This causes, as illustrated in Figs. 4c and 4d, the slices of food 8 to

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be successively released from the carrier sheet 7 when passing over the outer edge 16 while the carrier sheet 7 is drawn in the second direction d2.

[0060] The sheet material outer holder 13 includes a material strip extending over a side edge of the dispenser and being arranged to allow the carrier sheet 7 to be held towards a dispenser outer side surface 12 while the carrier sheet 7 is pulled in the second direction d2.

[0061] Fig. 5 illustrates the dispenser 1 according to the present disclosure. The dispenser 1 is provided with a cover 4. The cover comprises an alternative opening arrangement 9 comprising a folding line and a cover griptab 14. The grip-tab 14 facilitates gripping and opening of the openable portion 4b. The fixed portion 4a extending over and substantially covering the dispenser body opening is intended to remain closed and the openable portion may be kept open by means of an adhesive tab 16 provided on the fixed portion 4a.

Claims

- 1. A dispenser (1) comprising a dispenser body (2) having a dispenser body upper edge (3) and a cover (4) extending over a dispenser body opening (2a) providing a dispenser sealed configuration, characterized in that the dispenser (1) comprises an inner compartment (5) and a supply roll (6) arranged in said inner compartment (5), said supply roll (6) comprising a rolled up carrier sheet (7) having a longitudinal direction (L) and slices of food (8), such as cheese, fruit leather, meat products or the like, applied on said carrier sheet (7) in said longitudinal direction (L) said cover (4) comprising an opening arrangement (9) for creating a dispensing opening (10) upon partial removal of said cover (4) thereby providing a dispenser opened configuration and allowing said carrier sheet (7) together with said slices of food (8) to be dispensed from said dispenser (1) in said longitudinal direction (L).
- 2. The dispenser (1) according to claim 1, wherein said dispenser (1) is a disposable dispenser (1).
- 3. The dispenser (1) according to claim 1 or 2, wherein said dispenser body (1) is thermoformed or injection moulded.
- **4.** The dispenser (1) according to any one of claims 1-3, wherein said opening arrangement (9) is a tear strip or a weakening line, such as a score line or a perforation line.
- 5. The dispenser (1) according to any one of the preceding claims, wherein said opening arrangement (9) comprises an additional peel-away sheet material, such as a polymer sheet material, which upon removal creates said dispensing opening (10) pro-

viding said dispenser opened configuration.

- 6. The dispenser (1) according to any of the preceding claims, wherein said carrier sheet (7) comprises a leading free grip end (11) enabling said carrier sheet (7) to be drawn out from the dispenser (1) via said dispensing opening (10).
- 7. The dispenser (1) according to any one of the preceding claims, wherein said cover (4) is heat sealed to said dispenser body (2) at said dispenser body upper edge (3).
- 8. The dispenser (1) according to any one of the preceding claims, wherein said dispenser body upper edge (3) comprises a dispensing edge portion (3a), said opening arrangement (9) being arranged at said dispensing edge portion (3a).
- The dispenser (1) according to claim 8, wherein said dispensing edge portion (3a) is a flat dispensing edge portion (3a) having a width (w) of 10 mm or more, allowing the carrier sheet (7) to be drawn over said dispensing edge portion (3a) in a first direction (d1) and passing over an outer edge (16) of said dispensing edge portion (3a), and to be drawn in a second direction (d2), being different to said first direction (d1) causing the slices of food (8) to be successively released from said carrier sheet (7) when passing over said outer edge (16) while the carrier sheet (7) is drawn in said second direction (d2).
 - 10. The dispenser (1) according to claim 9, wherein said dispenser (1) comprises a dispenser outer side surface (12) and a sheet material outer holder (13) arranged to allow said carrier sheet (7) to be held towards said dispenser outer side surface (12) while said carrier sheet (7) is pulled in said second direction (d2).
 - 11. The dispenser (1) according to any one of the preceding claims, wherein said dispenser (1) is a thermoplastic dispenser (1), said dispenser body (2) and said cover (4) being formed of thermoplastic material(s).
 - **12.** The dispenser (1) according to any one of the preceding claims, wherein said dispenser body (2) is transparent or comprises a transparent inspection window.
 - **13.** The dispenser (1) according to any one of the preceding claims, wherein said cover (4) is provided with a cover grip-tab (14).
 - **14.** The dispenser (1) according to any one of the preceding claims, wherein said cover (4) and/or said dispenser body (2) is provided with an adhesive tab

for resealability of said cover (4) after creation of said dispensing opening (10).

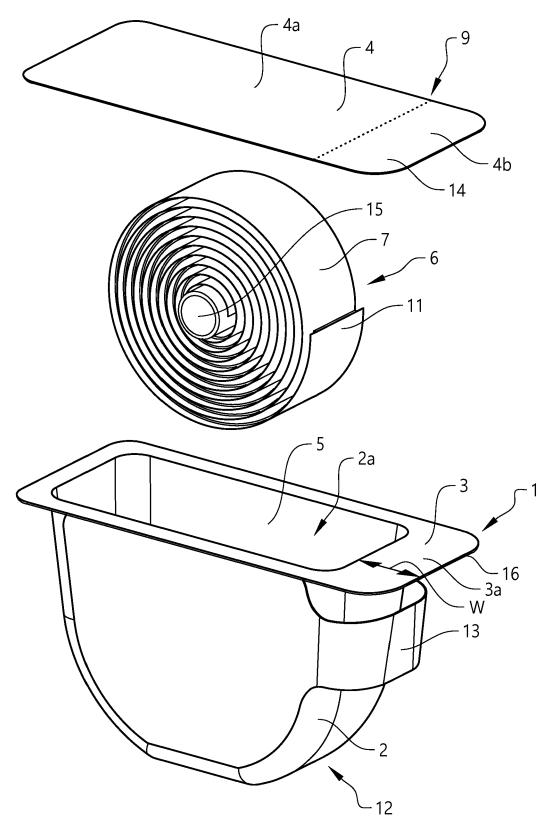
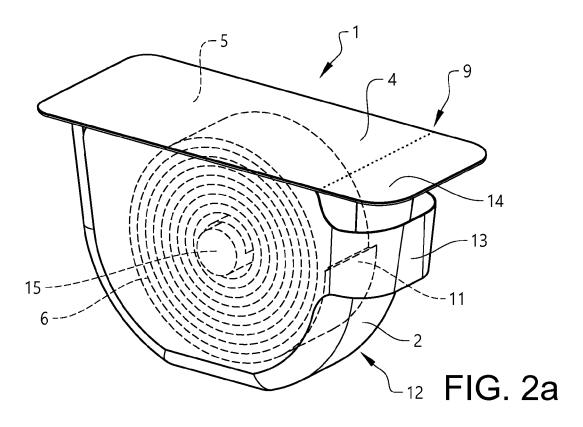
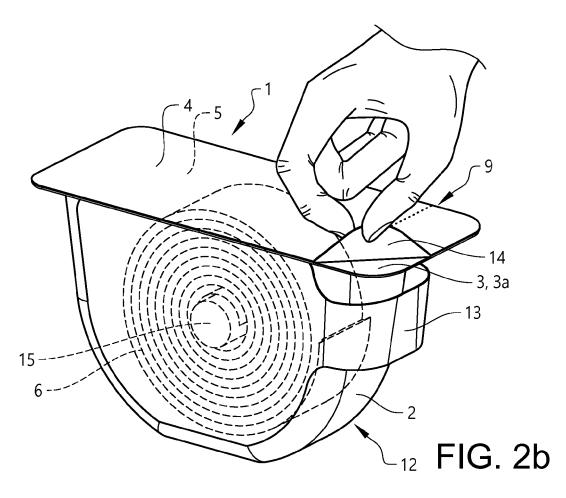


FIG. 1





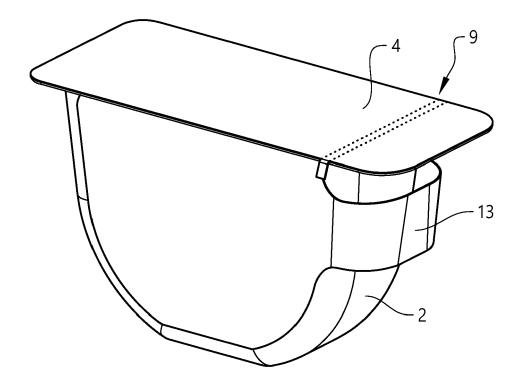


FIG. 3

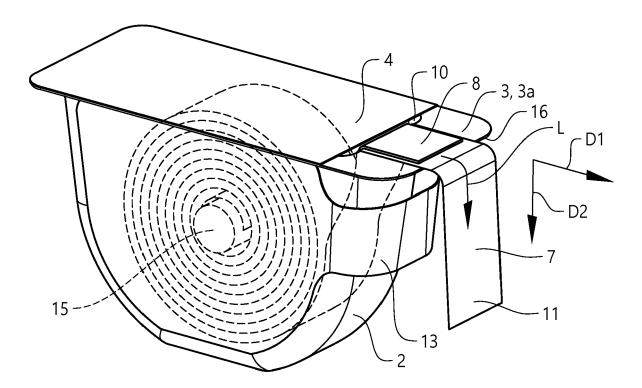
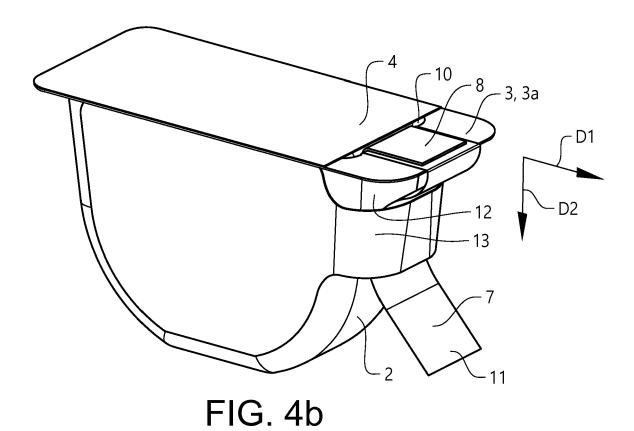


FIG. 4a



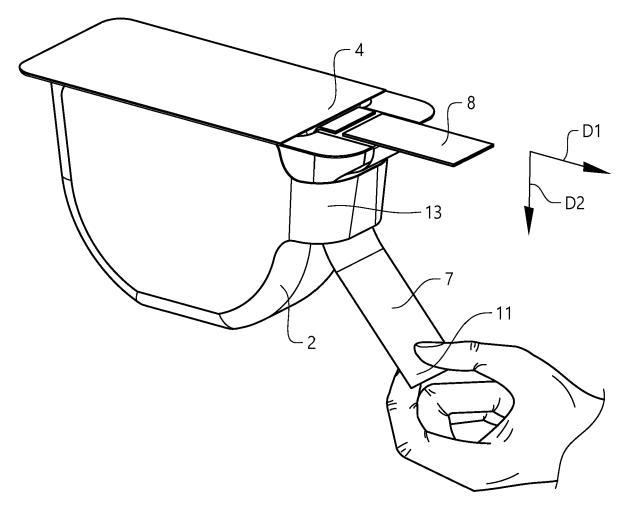


FIG. 4c

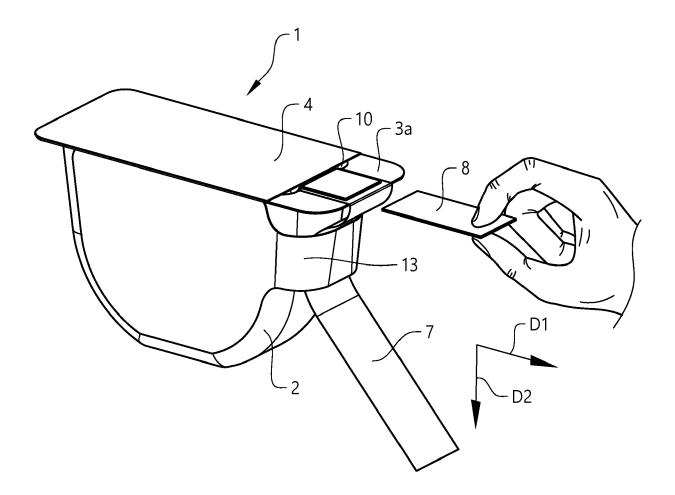


FIG. 4d

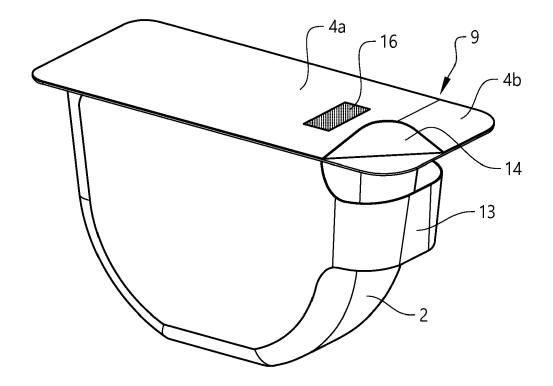


FIG. 5



EUROPEAN SEARCH REPORT

Application Number EP 19 17 1351

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| | | DOCUMENTS CONSID |] | | | | |
| | Category | Citation of document with in of relevant passa | dication, where appropriate, | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) | | |
| 10 | A | US 2006/051457 A1 (ET AL) 9 March 2006 * paragraph [0047] * figure 16 * | | 1-14 | INV. B65D83/08 B65D85/672 B65D85/76 | | |
| 15 | A | WO 2011/119564 A1 ([US]; POURIAN NEEMA 29 September 2011 (* paragraph [0043] * figures 1-30 * | [US] ET AL.) | 1-14 | B65D77/20 | | |
| 20 | A | [US]) 14 August 201 | AFT FOODS R & D INC 3 (2013-08-14) - paragraph [0096] * | 1-14 | | | |
| 25 | A | 18 August 1998 (199 | CELLI V LORENZO [US]) 8-08-18) - column 8, line 9 * | 1-14 | TECHNICAL FIELDS | | |
| 30 | | | | | SEARCHED (IPC) B65D | | |
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| 50 (1004) | Munich | | 30 August 2019 | Roc | Rodriguez Gombau, F | | |
| 2 (Po | CATEGORY OF CITED DOCUMENTS | | T : theory or principl | | | | |
| 55 (100000) EPO FORM 1503 03.82 (P04001) | X : particularly relevant if taken alone Y : particularly relevant if combined with anot document of the same category A : technological background | | E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons | | | | |
| 55 55 OH OH | O : non-written disclosure P : intermediate document & : member of the same patent fa | | | | | | |

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30-08-2019

| 10 | Patent document cited in search report | | Publication date | Patent family member(s) | | Publication date | |
|----------|--|-------|---------------------|----------------------------------|--|-------------------------------|--|
| | US 2006051457 | A1 | 09-03-2006 | US WO | 2006051457 / 2006029049 / | | 09-03-2006 16-03-2006 |
| 15 | WO 2011119564 | A1 | 29-09-2011 | AP AU BR CA CN EP | 3461 / 2011232680 / 112012023637 / 2793531 / 102883972 / 2550211 / | 41 42 41 4 | 30-11-2015 11-10-2012 08-05-2018 29-09-2011 16-01-2013 30-01-2013 |
| 25 | | | | EP JP JP RU SG US | 2662311 / 5998414 2013522138 / 2015129024 / 2012144752 / 184178 / 2013126548 / | 42 82 4 4 4 41 | 13-11-2013 28-09-2016 13-06-2013 16-07-2015 27-04-2014 30-10-2012 23-05-2013 |
| | | | | US WO | 2017096286 / 2011119564 / | | 06-04-2017 29-09-2011 |
| 30 35 | EP 2626310 | A1 | 14-08-2013 | AU EP ES NZ PH WO | 2013218175 / 2626310 / 2541751 - 627370 / 12014501650 / 2013117530 / | 41 T3 4 41 | 31-07-2014 14-08-2013 24-07-2015 25-09-2015 13-10-2014 15-08-2013 |
| | US 5794774 | A | 18-08-1998 | NON | E | | |
| 40 | | | | | | | |
| 45 | | | | | | | |
| 50 | o o | | | | | | |
| 55 | PORM Pod 18 | | | | | | |

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