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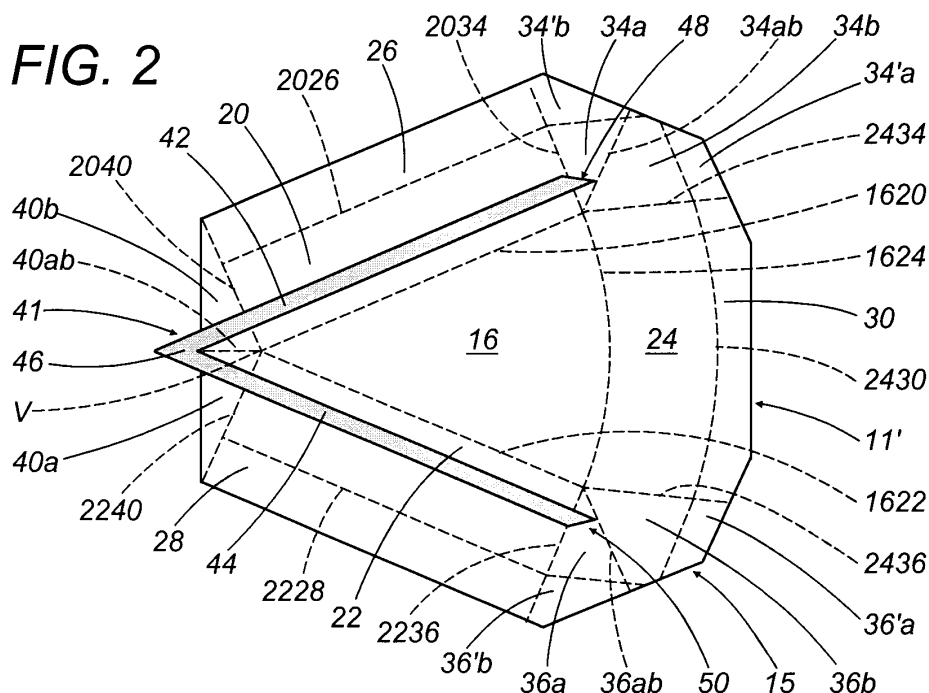
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(54) **Single cheese portion package and its manufacturing method**

(57) A packaging element and a packaging method for a creamy food product (P), in particular a creamy product such as processed cheese or a similar food, comprises a wrapper which contains a portion of product. The wrapper is obtained from a flat blank sheet (11) with a suitable profile (15), which is folded in such a way as to define a base (16), preferably in the shape of a triangle or the sector of a circle, from which the sides

(20, 22, 24) of the packaging element extend perpendicularly. Linear wrapper tearing means are envisaged, attached to the inner surface of the wrapper and consisting of a single linear element (41) with a first and a second branch (42, 44) attached to the wrapper in such a way as to create a V-shaped configuration. The linear element (41) has a portion (46) which extends outside the wrapper and is designed to be gripped and pulled in order to tear and open the wrapper.

FIG. 2



Description

[0001] The present invention relates to a packaging element and a packaging method for a creamy food product, such as processed cheese or a similar product.

[0002] The packaging element is of the type comprising a wrapper which contains the creamy product and is obtained from a blank sheet (preferably aluminium foil or plastic film) with a suitable shape. The blank sheet is suitably folded to define at least a base, from whose edges the corresponding sides extend.

[0003] Linear means, in particular in the form of a tape, are attached to the inner surface of the wrapper, in order to allow the wrapper to be torn and opened. The linear means have a portion to be gripped and pulled, extending outside the wrapper, which is used to tear and open the wrapper.

[0004] European patent EP-B-0 242 268 reveals a packaging element of the type with full opening for creamy food products, such as triangular processed cheese portions, which comprises a blank sheet with suitable shape which, when folded, creates a wrapper with a triangular base, from which two converging sides and a rear surface extend, the rear surface separating the two sides and being designed to form the back of the packaging element. In the folded state, the packaging element also comprises a tearing part, consisting of two separate tear tapes, each extending along the base of the wrapper, lying along the respective sides of the base and parallel with them. The tapes define a portion to be pulled, extending beyond the sheet which forms the wrapper, overlapping one another close to the point of the triangular base to form a single portion to be pulled. The two tapes forming the tearing part are also sealed at the point of the base of the packaging element, so as to define an element with a general "Y" shape. Said seal should allow the user to fully open the packaging element, with a single, short pull. However, in practice, the seal holding the two tapes together is not always appropriate, so that when the portion of the tapes projecting from the wrapper is pulled, only one of the tapes may be pulled, resulting in failure to fully open the wrapper. Therefore, the wrapper may remain partially closed and the consumer may have to touch the product in order to completely detach it from the wrapper.

[0005] In another known type of triangular-based packaging element for processed cheese, the wrapper comprises tear tape means consisting of a first and a second tape, positioned in such a way that they form a cross, defining a sort of asymmetrical "X". These tapes are sealed or joined together at the point where they overlap, so that the shorter branches of the tearing means have free ends which, when the wrapper is folded, extend from the wrapper defining portions to be gripped and pulled, which are used to tear and open the packaging element. This type of known packaging element also has the above-mentioned disadvantage relative to the fact that the seal between the two tapes is not

always appropriate. When the portions of the tear tapes extending from the wrapper are pulled, it is possible that only one tape is actually pulled, resulting in wrapper opening which is not optimum.

[0006] In another embodiment of the packaging element a tear tape is folded into a "V" shape and attached to the wrapper together with a second, shorter tear tape which is sealed to the first tear tape at the tip of the "V" shape and extends beyond the edge of the wrapper to define a portion to be gripped and pulled, used to begin tearing open the wrapper. Again, in this known embodiment, a poor seal between the V-shaped tear tape and the portion to be pulled may lead to removal of only the portion to be pulled, without opening the wrapper.

[0007] All machines used to make such types of packaging elements, therefore, have a plurality of devices for feeding the individual portions of tape used to make the tear tape opening means for each packaging element.

[0008] Claim 1 describes an innovative packaging element for a creamy food product, in particular a creamy product such as processed cheese or similar. The packaging element comprises a wrapper for a portion of product, the wrapper being obtained from a flat blank sheet with a suitable shape, folded in such a way as to define a base, from which the sides of the packaging element extend perpendicularly. Upper covering means are envisaged, with tabs extending from the sides and folded parallel with the base. The tabs comprise linear means for tearing the wrapper, attached to the wrapper itself. The packaging element is characterised in that the wrapper tearing means consist of a single linear element comprising a first and a second branch which are attached to the blank sheet in such a way as to define a V-shaped linear element configuration. The linear element has a portion which extends outside the wrapper and is designed to be gripped and pulled in order to tear open the wrapper.

[0009] With tearing means which consist of a single linear element, an optimum tear is guaranteed, in accordance with the above-mentioned methods, without the risk of disassembling the linear element during the tearing operations.

[0010] The "V" shape of the linear tearing element, attached to the wrapper in a suitable position, is particularly preferred, since it allows the attachment operations to be carried out in a simple, rapid manner.

[0011] Machines may also be used which, for each portion of the product, use a single reel to feed the linear tearing element, thus simplifying the structure and operations of machines which make such packaging elements. Moreover, the amount of material used to make the linear tearing elements is reduced.

[0012] Claim 16 describes an advantageous method for packaging a creamy food product.

[0013] Other advantageous aspects of the packaging element disclosed are indicated in the secondary claims.

[0014] The technical features of the present invention

and the advantages are more clearly described in the detailed description below, with reference to the accompanying drawings, which illustrate preferred embodiments of the invention, without limiting the scope of its application, and in which:

- Figure 1 is a perspective view of the first preferred embodiment of the packaging element made in accordance with the present invention, in the closed condition;
- Figure 2 is a top plan view of the flat blank sheet used to make the wrapper for the first preferred embodiment of the packaging element in accordance with the present invention;
- Figure 3 illustrates an intermediate stage of the method for production of the first preferred embodiment of the packaging element in accordance with the present invention;
- Figures 4 and 5 are perspective views of the stage of tearing and opening the wrapper of the first embodiment of the packaging element made in accordance with the present invention;
- Figure 6 is a perspective view of the second preferred embodiment of the packaging element made in accordance with the present invention, in the closed condition;
- Figure 7 is a top plan view of the flat blank sheet used to make the wrapper for the second preferred embodiment of the packaging element in accordance with the present invention;
- Figure 8 illustrates an intermediate stage of the method for production of the second preferred embodiment of the packaging element in accordance with the present invention;
- Figures 9, 10, 11 are perspective views of the stage of tearing and opening the wrapper of the second embodiment of the packaging element in accordance with the present invention.

[0015] Figure 1 illustrates a first preferred embodiment 10 of a packaging element made in accordance with the present invention, for packaging a processed cheese. The packaging element comprises a wrapper designed to cover a portion of processed cheese, the wrapper 11 being made by successive folds starting with a flat blank sheet 11' (illustrated in Figure 2) made of a suitable material, for example aluminium foil or plastic film, suitably heat-sealable on at least one surface. The blank sheet normally has a five-sided profile 15.

[0016] Figure 3 illustrates how, in the substantially known manner, the flat blank 11' is folded in such a way as to define a base 16, whose shape is the sector of a circle but which could also be triangular, from which the sides 20, 22, 24 of the packaging element extend perpendicularly.

[0017] In particular, the blank 11' can be obtained from a sheet of tin or aluminium foil, of which at least the surface which will be inside the wrapper has been treated

with lacquers which give said surface heat-sealable characteristics. The blank or portion 11' may also be obtained from a heat-sealable plastic film.

[0018] The present packaging element also has upper means for covering the product, which consist of upper tabs 26, 28, 30 extending from the sides, which retain an upper lid 31, taken from a different reel of material similar to that used for the blank which forms the lower wrapper.

[0019] The numerals 34, 36 and 40 are used in the figures to indicate two-layered fold-over tabs which are, as clearly illustrated in Figure 3, obtained from flaps in the blank which extend through the flaps defining the sides 20, 22, 24 of the packaging element.

[0020] In Figure 2 the dashed lines on the blank indicate fold or crease lines which allow the present wrapper to be obtained.

[0021] In particular, the blank 11' comprises a central panel 16, which the longitudinal crease lines 1620 and 1622 (converging at a vertex V) separate from flaps 20, 22 defining the longitudinal sides of the wrapper and which an arched crease line 1624 extending transversally separates from the flap 24 which defines the back of the wrapper.

[0022] The flaps 20, 22, 24 are, in turn, separated by crease lines 2026, 2228, 2430 from other, outer flaps, labelled 26, 28, 30, which define the retaining tabs for the lid of the present packaging element.

[0023] The flaps 20, 22 are, therefore, separated at the front by means of crease lines 2040, 2240, by respective flaps 40a, 40b, which can in turn be folded along an intermediate separating crease line (labelled 40ab), which divides the two flaps 40a and 40b and extends from the vertex V of the flap at the base of the blank. Said flaps 40a and 40b are designed so that, when folded, they form a vertex tab 40, which is folded over one side 20 of the wrapper.

[0024] At the back, the flaps 20, 22 are separated by crease lines 2034, 2236 from respective flaps 34a, 36a, which in turn are folded along intermediate crease lines (labelled 34ab, 36ab), relative to corresponding flaps 34b and 36b, which are in turn separated from the back flap 24 by crease lines 2434 and 2436.

[0025] The flaps 34a, 34b and 36a, 36b are designed so that, when folded, as is more clearly described below, they form fold-over tabs 34 and 36, which are folded over the longitudinal sides 20, 22 of the wrapper.

[0026] In the rear corners of the blank, separated by crease lines, there are also flaps, labelled 34'a, 34'b and 36'a, 36'b, which, when folded, define two-layered folded portions which extend above the longitudinal covering tabs 26, 28.

[0027] The flaps 34'a and 36'a define the upper parts of the fold-over tabs 34, 36, which are folded over the adjacent tabs 26, 28 and are labelled 34' and 36' in Figure 1.

[0028] The lid 31 may be sealed to the wrapper 11 and the side tabs 34, 36, 40 of the wrapper may be sealed,

in order to guarantee an improved seal.

[0029] As illustrated in Figure 2, suitable means 41 for tearing and opening the wrapper are attached to the wrapper before it is folded, being made integral with the upper surface of the blank 14, which is designed to form the inner surface of the wrapper.

[0030] The tearing means comprise a single linear element 41 with two separate tearing branches 42, 44 attached to the blank sheet in such a way as to define a V-shaped linear element.

[0031] As illustrated in Figure 2, in the first preferred embodiment, the first and second branches 42, 44 of the linear tearing means are located at the flaps defining the sides 20, 22 of the packaging element, parallel with the longitudinal edges defining the sides 20, 22 of the packaging element.

[0032] This positioning makes it possible to tear the sides of the packaging element. It also allows a reduction in the surface of the sides which remains in contact with the product in the open condition, facilitating removal of the product P from the wrapper.

[0033] In particular, as illustrated, the first and second branches 42, 44 of the linear tearing means 41 are located close to the fold line which delimits the base 16 of the packaging element. In this way, during tearing, a higher section of the sides can be left, allowing the user a greater surface area on which to rest his or her fingers.

[0034] The linear tearing element 41 has a portion 46 which extends outside the wrapper and is designed to be gripped and pulled in order to tear and open the wrapper.

[0035] As illustrated, the tearing element 41 is attached to the blank sheet 11' in such a way that the portion 46 at which the branches 42, 44 of the linear tearing element 41 are joined projects from the front of the blank sheet 11' to define the portion to be gripped and pulled.

[0036] Moreover, the rear free ends 48, 50 of the branches 42, 44 of the linear tearing means advantageously extend through the flaps 34a, 34b and 36a, 36b envisaged between the sides 20, 22, 24 of the wrapper and which are folded and positioned opposite one another to define the fold-over tabs 34, 36.

[0037] The opposite flaps defining the fold-over tabs may be sealed together, to hold the free ends 48, 50 of the linear tearing means firmly.

[0038] Figure 3 in particular illustrates how, in accordance with the method disclosed, firstly the other flaps of the blank are folded perpendicular to the base 16 and the tabs 34, 36, 40 are folded over the corresponding sides. Then, the wrapper is filled with the product P (schematically illustrated with the dashed line in Figure 3).

[0039] The lid 31 is then placed on the product P and the side tabs 26, 28, 30 folded over the lid 31, creating the configuration illustrated in Figure 1. This is not expressly illustrated in the accompanying drawings.

[0040] Figures 4 and 5 in particular illustrate how the wrapper can be opened using the first embodiment dis-

closed. In practice, the user grips the portion 46 projecting from the fold-over tab 40 (see Figure 1) and, by pulling said portion with a single, substantially linear movement, the sides 20, 22 of the wrapper 11 are simultaneously torn.

[0041] If said pulling action is not excessive, the ends 48, 50 of the tear tape can be left attached to the wrapper, which can then be advantageously removed and placed in a refuse container with a single movement by the user.

[0042] Figures 6 to 11 illustrate a second preferred embodiment 100 of the packaging element made in accordance with the present invention.

[0043] In this second preferred embodiment the packaging wrapper and lid are very similar to those in the first embodiment and are not, therefore, described in detail again. For characteristics similar to those of the first preferred embodiment, the same numeric references are, therefore, used as for said first embodiment.

[0044] In this second preferred embodiment, the linear tearing means, which are labelled 141 as a whole, comprise a single linear element with a first and a second branch 142, 144 which are attached to the blank sheet in such a way as to define a linear element with "V" configuration.

[0045] The linear element 141 has a portion which extends outside the wrapper, designed to be gripped and pulled in order to tear and open the wrapper. Therefore, in this case, the means to be gripped consist of a rear free end 146 of the branch 144 of the linear element. The end 146 projects from the blank sheet 11, defining the portion to be gripped and pulled, extending to the rear of the blank sheet 11' at the flap 36'a designed, when the wrapper is finished, to form the portion 36' folded parallel with the lid 31.

[0046] In this second preferred embodiment, the first and second branches 142, 144 of the linear tearing means 141 are located on the flap defining the base 16, positioned close to and parallel with the side longitudinal edges of the latter.

[0047] The branches 142, 144 of the linear tearing element comprise end portions 142', 144' which have a respective first section 142'a, 144'a extending through the flap 24 defining the back of the wrapper, close to the edges of the sides 2434 and 2436, and, downstream of this, a second section 142'b, 144'b extending through the flaps defining the fold-over tabs 34, 36 which are folded over a corresponding side of the packaging element.

[0048] The opposite flaps defining the fold-over tabs may be sealed together to hold the corresponding parts of the end portions 142', 144' of the linear tearing means firmly, and to improve the package seal.

[0049] Figures 9, 10 and 11 in particular illustrate how the wrapper can be opened with the present second preferred embodiment of the packaging element. In practice, the user grips the projecting portion 146 extending from the portion 34', which extends above the fold-over

tab 34 and is folded over the retaining tab 28 (see Figure 6), then pulls said portion, firstly tearing the tab 36 and the edge of the back 24 surface, at which the portion is located.

[0050] If the user continues to pull the linear element, the base 16 is torn along the edges of the sides 1620, 1622 (see Figure 10). Continuing the pulling action further, the other edge of the rear surface 24 is torn and the corresponding tab 34, giving the condition illustrated in Figure 11, in which the base 16 and the rear surface 24 are detached from the rest of the wrapper, to which they remain connected only thanks to the crease line 2430 which connects the rear surface 24 to the retaining tab 30.

[0051] In the present embodiments, the fold-over tabs 34, 36 at the rear surface 24 are illustrated folded over the sides 20, 22. However, in another embodiment they may be folded over the rear surface 24.

[0052] Although, as illustrated the preferred application for the present linear tearing element is a packaging element with base whose shape is triangular or the sector of a circle, the present linear element may also be applied to quadrangular packaging elements, in particular those which are square or rectangular, in order to tear the sides or base of the packaging elements, starting from a portion to be gripped which projects from the wrapper, preferably at a fold-over tab on the wrapper.

[0053] The invention described can be subject to modifications and variations without thereby departing from the scope of the inventive concept. Moreover, all the details of the invention may be substituted by technically equivalent elements.

Claims

1. A packaging element (10; 100) for a creamy food product (P), in particular a creamy product such as a processed cheese or similar, comprising a wrapper (11) which contains a portion of product, the wrapper (11) being obtained from a flat blank sheet with a suitable profile (15), the latter being folded in such a way as to define a base (16), from which the sides (20, 22, 24) of the packaging element extend perpendicularly; covering means being envisaged, with tabs (26, 28, 30) which extend from the sides (20, 22, 24) and which are folded parallel with the base (16); and in which linear means for tearing the wrapper (11) are envisaged, being attached to the wrapper itself; the packaging element being characterised in that the wrapper tearing means consist of a single linear element (41; 141) comprising a first and a second branch (42, 44; 142, 144), the latter being attached to the blank sheet in such a way as to define a V-shaped linear element configuration, said linear element (41; 141) having a portion (46; 146) which extends outside the wrapper (11) and is designed to be gripped and pulled in order to tear

and open the wrapper (11).

2. The packaging element according to claim 1, characterised in that the base (16) has the shape of a triangle or the sector of a circle.
3. The packaging element according to either of the foregoing claims, characterised in that the first and second branch (42, 44) of the linear tearing means are positioned at the flaps defining the sides (20, 22) of the packaging element.
4. The packaging element according to claim 3, characterised in that the first and second branch (42, 44) of the linear tearing means are positioned parallel with the longitudinal edges defining the sides (20, 22) of the packaging element.
5. The packaging element according to any of the foregoing claims or according to the preamble to claim 1, characterised in that the linear tearing means (42, 44) tear the sides of the wrapper (11), being located close to the base (16) of the packaging element.
6. The packaging element according to any of the foregoing claims, characterised in that the tearing element (41) is attached to the blank sheet (11) in such a way that the portion (46) at which the branches (42, 44) of the linear tearing element (41) are joined projects from the wrapper (11), defining the portion to be gripped and pulled.
7. The packaging element according to claim 6, characterised in that the joining portion (46) of the branches (42, 44) of the linear tearing element (41) projects from the wrapper (11) between the folds of the tab (40) at the vertex of the wrapper.
8. The packaging element according to any of the foregoing claims, characterised in that the free ends (48, 50) of the branches (42, 44) of the linear tearing means extend through flaps between the sides (20, 22, 24) of the wrapper, also being characterised in that they are folded and positioned opposite one another to define the fold-over tabs (34, 36) which are folded over a corresponding side of the packaging element.
9. The packaging element according to claim 7 or 8, characterised in that the opposite folds defining the fold-over tabs (34, 36) which hold the free ends (48, 50) of the linear tearing means are sealed together.
10. The packaging element according to claim 1 or 2, characterised in that the first and second branch (142, 144) of the linear tearing means (141) are positioned at the flap defining the base (16) close to and parallel with the longitudinal side edges (1620,

1622) of the base.

11. The packaging element according to claim 10, characterised in that the tearing element (141) has a free end (146) which projects from the blank sheet, defining the portion to be gripped and pulled.
12. The packaging element according to claim 10 or 11, characterised in that the end portions (142', 144') of the branches (142, 144) of the linear tearing means have a first section (142'a, 144'a) extending through the flap defining the rear surface (24) and, downstream of this, a second section (142'b, 144'b) extending through flaps which are folded and opposite one another, defining the fold-over tabs (34, 36) which are folded over a corresponding side (20, 22) of the packaging element.
13. The packaging element according to claim 12, characterised in that one of the branches (144) of the tearing means is longer than the other, terminating with a free end (146) extending, outside the wrapper (11), in a position above the corresponding fold-over tab (36).
14. The packaging element according to claim 13, characterised in that the fold-over tabs (34, 36) are sealed together around the end portions (142', 144') of the linear tearing means.
15. The packaging element according to any of the foregoing claims, characterised in that the parts (26, 28, 30, 31) defining the covering means and the opposite flaps defining the fold-over tabs (34, 36, 40) are sealed together to make the packaging element airtight.
16. A method for packaging a creamy food product (P), in particular a creamy product such as a processed cheese or similar, the method envisaging the production of a wrapper (11) which contains a portion of product, the wrapper being obtained from a flat blank sheet with a suitable profile (15), the latter being folded in such a way as to define a base (16), from which the sides (20, 22, 24) of the packaging element extend perpendicularly; covering means being envisaged, with tabs (26, 28, 30) which extend from the sides (20, 22, 24) and which are folded parallel with the base (16); and linear means (41; 141) for tearing the wrapper (11) being envisaged, attached to the wrapper (11) itself; the method being characterised in that the wrapper tearing means consist of a single linear element (41; 141) comprising a first and a second branch (42, 44; 142, 144), the latter being attached to the blank sheet in such a way as to define a V-shaped linear element configuration, said linear element (41; 141) having a portion (46; 146) which extends outside the wrapper

(11) and is designed to be gripped and pulled in order to tear and open the wrapper (11).

17. The method according to claim 16, characterised in that the folding is performed in such a way as to obtain a base (16) whose shape is triangular or the sector of a circle.
18. The method according to claim 16 or 17, characterised in that the first and second branch (42, 44) of the linear tearing means are positioned at the flaps defining the sides (20, 22) of the packaging element.
19. The method according to claim 18, characterised in that the first and second branch (42, 44) of the linear tearing means are positioned parallel with the longitudinal edges defining the sides (20, 22) of the packaging element.
20. The method according to any of the foregoing claims from 16 to 19, characterised in that the first and second branch (42, 44) of the linear tearing means (41) are positioned close to the base (16) of the packaging element.
21. The method according to any of the foregoing claims from 16 to 20, characterised in that the tearing element (41) is attached to the blank sheet (14) in such a way that the portion (46) at which the branches (42, 44) of the linear tearing element (41) are joined projects from the blank sheet, defining the portion to be gripped and pulled.
22. The method according to claim 21, characterised in that the portion (46) at which the branches (42, 44) of the linear tearing element (41) are joined projects from the blank sheet (14) through the flaps defining the tab (40) at the vertex of the blank.
23. The method according to any of the foregoing claims from 16 to 22, characterised in that the free ends (48, 50) of the branches (42, 44) of the linear tearing means are extended through flaps, in the sides (20, 22, 24) of the wrapper, the latter being folded and positioned opposite one another to define the fold-over tabs (34, 36) which are folded over a corresponding side (20, 22) of the packaging element.
24. The method according to claim 22 or 23, characterised in that the opposite flaps defining the fold-over tabs (34, 36, 40) are sealed together.
25. The method according to claim 16 or 17, characterised in that the first and second branch (142, 144) of the linear tearing means (141) are positioned at the flap defining the base (16), close to and parallel

with the longitudinal side edges (1620, 1622) of the base.

26. The method according to claim 25, characterised in that one free end (146) of the tearing element (141) projects from the wrapper (11) in order to provide the portion to be gripped and pulled. 5
27. The method according to claim 25 or 26, characterised in that the end portions (142', 144') of the branches (142, 144) of the linear tearing means are positioned on the blank sheet in such a way that they have a first section extending through the flap defining the rear surface (24) and, downstream of this, a second section extending through flaps which are folded and positioned opposite one another to define the fold-over tabs, the latter being folded over a corresponding side of the packaging element. 10 15 20
28. The method according to claim 27, characterised in that one of the branches (144) of the tearing means is longer than the other, terminating with a free end (146) which extends upwards outside the corresponding fold-over tab (36). 25
29. The method according to claim 28, characterised in that the opposite flaps, defining the fold-over tabs (34, 36), are sealed together around the end portions (142', 144') of the linear tearing means. 30
30. The method according to any of the foregoing claims from 16 to 29, characterised in that the parts (26, 28, 30, 31) defining the covering means and the opposite flaps defining the fold-over tabs (34, 36, 40) are sealed together to make the packaging element airtight. 35 40 45 50 55

FIG. 1

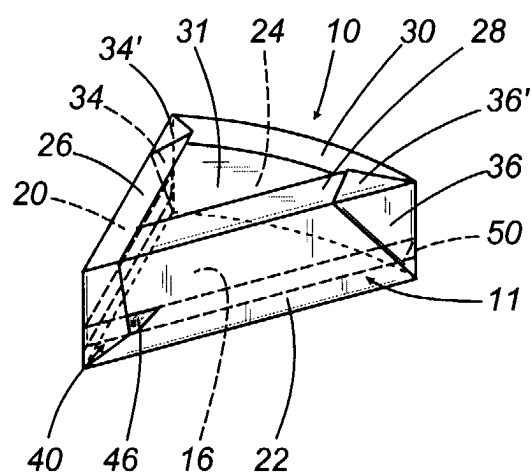


FIG. 2

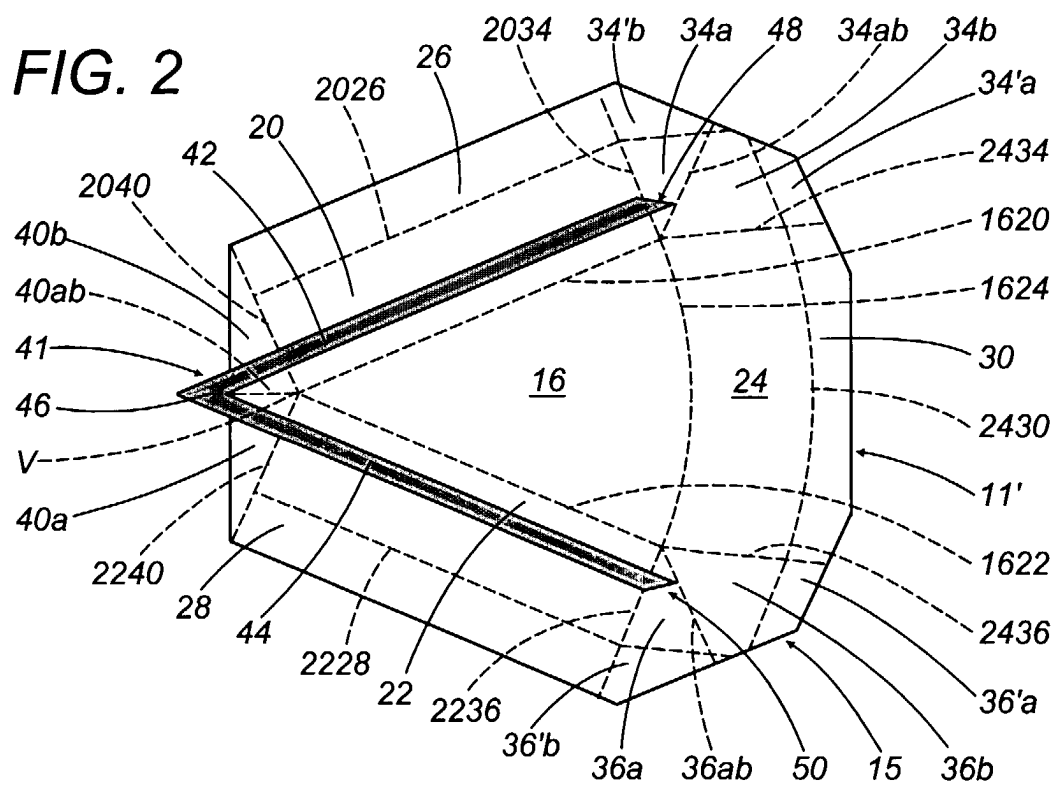


FIG. 3

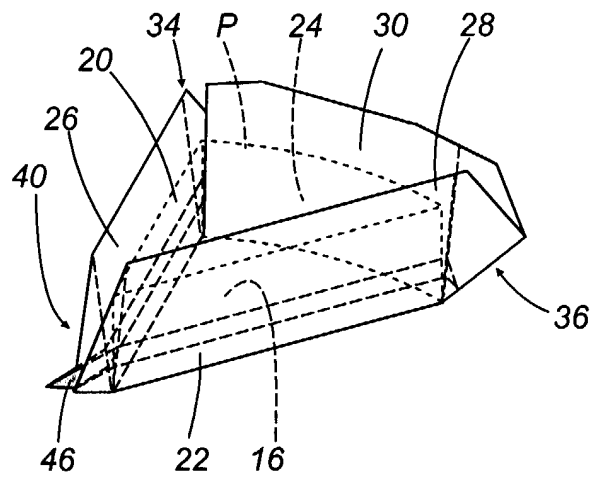


FIG. 4

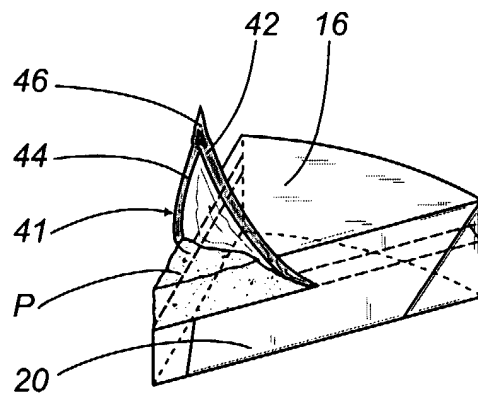


FIG. 5

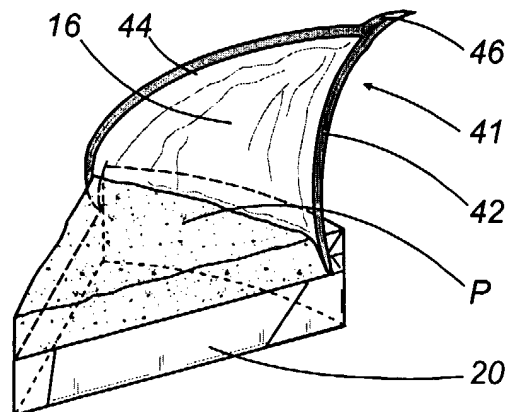


FIG. 6

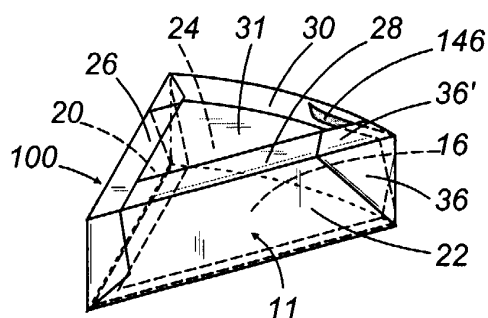


FIG. 7

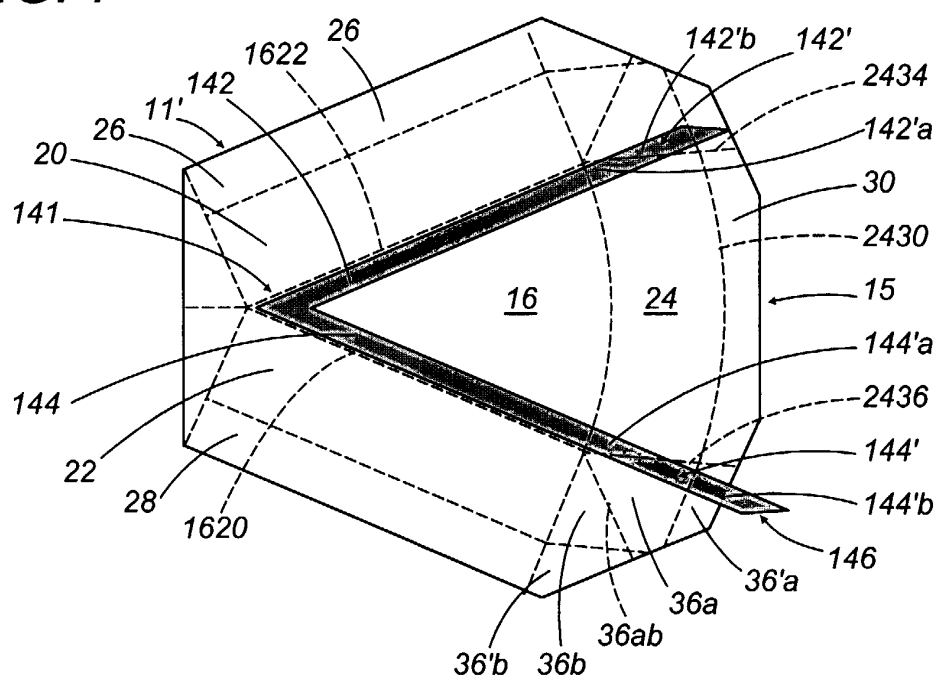


FIG. 8

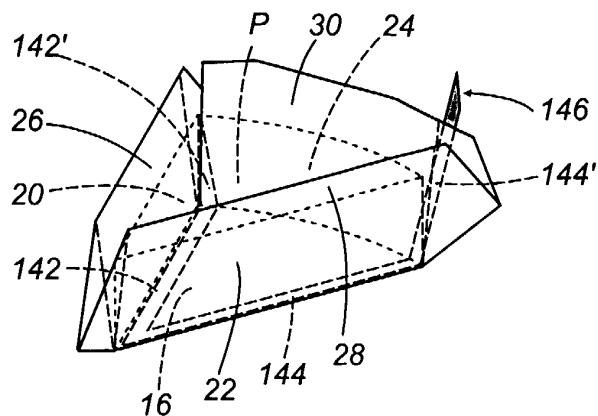


FIG. 9

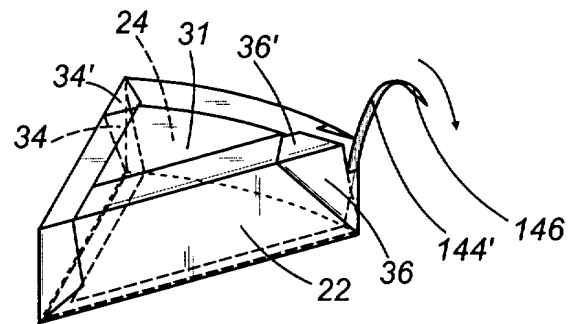


FIG. 10

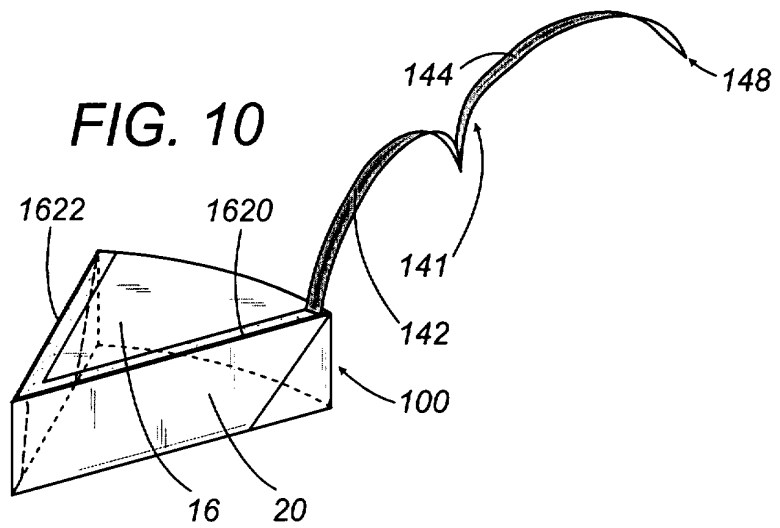


FIG. 11

