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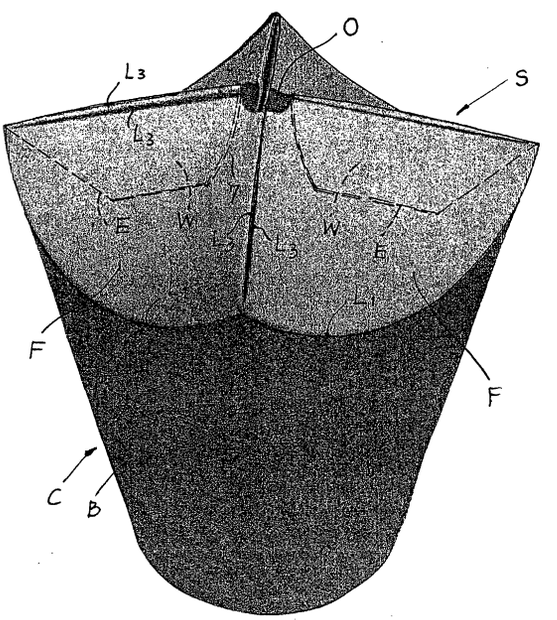
Amended claims in accordance with Rule 86 (2) EPC.

## (54) Spill-proof disposable container

(57) A disposable cup is equipped at the cup opening with an integrated spill resistant lid structure (S) formed by at least four identical, inwardly foldable lid flaps (F). Each lid flap (F) is connected to the cup body (D) in a first arcuate fold line (L1) concave towards the cup opening (A). Adjacent lid flap side edge regions are interconnected pair-wise along second fold lines (F) which in the unfolded condition of the lid flaps extend from the points (8) of intersection between adjacent first arcuate fold lines (L1) along cup cone generatrices (G) to the free lid flap edge (3, 3'). Each lid flap (F) further comprises a pair of third fold lines (L3) extending straight from the point (8) of intersection to a third fold line end point (9) at the free lid flap edge (3,3'). The third fold line end point (9) is located between the adjacent second fold line end point (12) and the centre (10) of the free lid flap edge (3, 3') so that symmetrical lid flap side wings (W) are formed. The lid flaps (F) in their inwardly folded condition at least substantially abut one another along two adjacent third fold lines (L3)

FIG 3




EP 1 354 804 A1

## Description

**[0001]** The invention relates to a disposable cup and to a planar blank for producing a disposable cup.

**[0002]** Customary disposable cups having a cup body portion with an integrated spill resistant lid structure are suitable for cold and warm beverages, peanuts, popcorn and other solid food stuffs. Conventionally, they are made of paper, paperboard or plastics sheet material, e.g. from stamped planar blanks.

**[0003]** The spill resistant lid structure of a known disposable cup consists of four essentially rectangular lid flaps which fully overlap one another in their inwardly folded condition. The top side inwardly folded lip flap additionally can be secured by a protruding edge tab inserted into an opening of another lid flap. Each lid flap is connected to the truncated conical cup body along an arcuate fold line concave towards the upper cup opening. The lid structure is closed in the following fashion: slight pressure exerted against the outer side of the lid flap, when the lid flap is in a vertical position, will cause the lid to fold over into the cup opening with a sudden click or flip. The lid flap itself will move to a new stable position located inside the cup opening, essentially sealing the contents of the cup from spilling out. The final closed positions of all of the lid flaps is near to the horizontal.

**[0004]** The disposable cup of US 6,176,420 B1 is equipped with a single lid flap. In the inwardly folded condition of the lid flap, the free lid flap edge is abutting on the inner cup body wall. A pair of second straight fold lines is formed in the lid flap edge regions.

**[0005]** The disposable container of US 2,160,488 is equipped at its container rim with a plurality of narrow, rectangular lid flaps. The base of each lid flap is connected to the container body along an arcuate fold line concave towards the container opening. The side edges of adjacent lid flaps are interconnected along a common straight fold lines each extending straight from a point of intersection between two adjacent arcuate fold lines to the free lid flap edge. Each lid flap furthermore has one fold line extending from the point of intersection between adjacent arcuate fold lines to the centre of the free lid flap edge. In the inwardly folded condition of all lid flaps, a fan-like spill resistant lid structure results. A central opening defined by the free lid flap ends is closed by an inserted closure plug which fixes the inwardly folded lid flaps.

**[0006]** It is an object of the invention to create a disposable cup having a stable spill resistant lid structure of at least four inwardly folded lid flaps and to provide a planar blank for producing the disposable cup allowing to form a stable spill resistant lid structure. Stable means also that the inwardly folded lid flaps reliably have to close the disposable cup without additional fixation means.

**[0007]** Said object can be achieved by the features of claim 1 and with respect to the planar blank with the features of claim 11.

**[0008]** In the inwardly folded condition of all lid flaps, the mechanical co-action between the first, second and third fold lines is assuring a stable and spill resistant lid structure. The click action of each inwardly folded lid flap in the first arcuate fold line and the mutually abutting of adjacent third fold lines result in stable end positions of the lid flaps and a high degree of spill resistance. The side wings at least essentially abutting pair-wise on one another improve the spill resistance and stabilise the lid structure without additional fixation means.

**[0009]** The planar blank is easy to manufacture, e.g. by stamping and forming the fold lines. Once the side seam edges are joined and the cup bottom is inserted, the lid flaps in their erected and unfolded condition provide a large opening for filling the cup. Then the lid flaps can be folded inwardly by a simple and rapid process to confine the contents at least substantially spill proof. The plurality of fold lines provide good mobility of the lid flaps and the respective lid flap regions bound by the fold lines such that the lid flaps are not prone to fold line ruptures.

**[0010]** The fold line arrangement offers the possibility to form spill resistant lid structures of different appearances. The lid flap side wings can be folded outwardly with respect to the lid flaps to form a number of essentially radially extending doubled walled ears on the outer side of the spill resistant lid structure. The ears stand upright, provide a unique appearance of the closed disposable cup and offer the advantage to grip and hold the cup by the ears. This may be expedient in the case of hot contents of the cup. Alternatively, the lid flap side wings can be folded inwardly with respect to the lid flaps so that they form inwardly hanging, essentially radially extending double walled ears on the inner side of the spill resistant lid structure.

**[0011]** The blank can stamped with minimum waste if each free lid flap end edge is straight or curved convexly or concavely.

**[0012]** In an alternative solution, the free lid flap edge has an essentially symmetrical V-notch, two outwardly pointing peaks and inclined flanks extending from the respective peak to the outer end of the adjacent second fold line. The design allows to essentially close the spill resistant lid structure in the centre or to leave a small opening, e.g. for a straw. The free lid flap edges at the V-notches form guiding edges, e.g. for a straw.

**[0013]** The appearance of the guiding edges, e.g. for a straw, is improved when the free lid flap edge forms two convex arcuate portions in the V-notch. The design results in smoothly inwardly or outwardly tapering guiding edges, e.g. for a straw.

**[0014]** Expediently, each flank is essentially parallel to the adjacent third fold line, while the free lid flap edge positions in the V-notch substantially extend in the directions of both third fold lines. The design results in relatively long lever arms suitable for a simple and rapid folding process and in a stable closed lid structure.

**[0015]** A cut-out, preferably, a rounded cut-out, is formed between the ends of adjacent third fold lines and results in the closed lid structure in a well-defined central opening, bound by all the cut-outs of the lid flaps, e.g. for a straw.

**[0016]** A perfectly round central opening is achieved if each rounded cut-out corresponds to a part of a full circle.

**[0017]** Expediently, each flank may be of convex arcuate or straight form. In case that the lid flap side wings are folded outwardly into the upright standing ears on the top side of the lid structure, it may be expedient to use convex arcuate flanks to avoid sharp corners.

**[0018]** Embodiments of the invention are described with the help of the drawings. In the drawings are:

Fig. 1: A plan view of a planar blank for producing a disposable cup,

Fig. 2: A perspective top view of a disposable cup in an intermediate phase of closing a lid structure by folding,

Fig 3: A perspective top view of the disposable cup of Fig 2 with the lid structure closed,

Fig 4: A top perspective view of a disposable cup in an intermediate phase of closing a lid structure in another way than in fig 2, and

Fig 5: A top perspective view of the disposable cup of Fig 3 in the final closed condition.

**[0019]** An essentially planar blank B made from paper, cardboard, plastics sheet material, or the like, for producing a truncated conical disposable cup C (figs. 2 to 5) has upwardly diverging side seam edges (1,1a), a concave base edge 2 and an upper edge portion consisting of interconnected free lid flap end edges 3 or 3'. A generatrice G of the truncated cone of the cup body D in Figs. 2 to 5 is indicated by dash dotted line G.

**[0020]** The blank B has, in the shown embodiment, four identical lid flaps F. In the blank, one lid flap is divided by the side seam edges 1,1a.

**[0021]** Each lid flap F is connected to cup body D at a lid flap base 4 in an arcuate first fold line L1 concave towards the upper edge portion defined by the free lid flap edges 3, 3'.

**[0022]** Each lid flap F has side regions 5,6. Adjacent side regions 5,6 of two adjacent lid flaps F are interconnected by a second fold line L2 which extends straightly from the point 8 of intersection between adjacent first arcuate fold lines L1 in the direction of the generatrice G passing through the point 8 of intersection to a second fold line end point 12 at the free lid flap edge 3, 3'.

**[0023]** Four identical lid flaps F, as shown, are an example only. The number of lid flaps F may be more than four.

**[0024]** Each lid flap F, furthermore, has a pair of symmetrically converging third fold lines L3 each extending straightly from the point 8 of intersection to a third fold line end 9 at the free lid flap edge 3, 3'.

**[0025]** In the embodiment shown, each third fold line end point 9 is located close to a centre 10 of the free lid flap edge. However, the third fold line end point 9 may be located at the free lid flap edge 3, 3'at one side of the centre 10 at any location between the centre 10 and the adjacent second fold line end point 12. The second and third fold lines L2, L3 define symmetrical lid flap side wings W in the edge regions 5,6 of each lid flap F.

**[0026]** As already mentioned, the free lid flap edges 3, 3' (indicated by a dotted line) may form a convexly rounded edge portion of the blank. Instead, the free lid flap edges may be straight or concave each.

**[0027]** The blank B, shown in full lines, is formed with a specific free lid flap edge configuration. On each lid flap F a V-notch N is symmetrically opens outwardly from the centre 10 of free lid flap edge 3. Edge portions 13 in the notch N are arcuate and convex and extend from the centre 10 to first and second outwardly protruding peaks P. Both third fold line ends 9 are a little distant from the centre 10. Between the third fold line ends L3, a small cut-out 11 is formed, preferably a rounded cut-out 11. The cut-out 11 may have the shape of $n^{th}$ part of a full circle; with n corresponding to the number of lid flaps F provided in the blank B. The edge portions 13 may form guiding edges 7 in the disposable cup, when the lid structure S is closed.

**[0028]** The distance between the bottom edge 2 of the blank and the centre 10 is essentially equal to the distance between the bottom edge 2 and the second fold line end points 12. An inclined flank K connects each peak P and the adjacent second fold line end 12. The flank K is shown straight, however it can be formed arcuate, i.e. convex arcuate or concave arcuate.

**[0029]** When producing the disposable cup C, first the blank B is rolled into the shape of a hollow truncated cone (Figs. 2 to 5). The side seam edges 1,1a are joined in butt joint or an overlapping joint. In a next step, the bottom insert M can be fixed in the cup body D. All lid flaps F prolong the cup body D upwardly and surround an upper cup opening A.

**[0030]** Several of such prefabricated, still open disposable cups can be stacked within one another.

**[0031]** The lid flaps F and the plurality of first to third fold lines L1, L2, L3 serve to form a stable spill resistant lid structure S (figs 3 and 5). The arrangement of the lid flaps F and the fold lines L1 to L3 allows to form the spill resistant lid structure S in two different ways. Figs 2 and 3 illustrate the first possibility. Figs 4 and 5 illustrate the second possibility. Hybrid combinations of both spill resistant lid structures embodiments are possible as well.

**[0032]** E.g., after the disposable cup C is filled, first all lid flap side wings W are folded inwardly on the third fold lines L3 and in relation to another, on the second fold lines L2. The lid flaps F now start to slightly tilt inwardly over the cup opening A on the first arcuate fold lines L1. Slight pressure on to the outer sides of the lid flaps F promotes a click or snap action. Each lid flap gets deformed from its outwardly convex shape (Fig 2) into an

outwardly concave shape (Fig 3). Due to the material elasticity and the geometry between the truncated conical cup body D and the first arcuate fold lines L1, each lid flap F deforms into the outwardly concave shape by itself. Due to this deformation snap action, each lid flap F tends to move to an essentially horizontal position in the upper cup opening A until, if necessary, by assistance of slight pressure from the outside, the lid flap side wings W approach pair-wise and until each pair of third fold lines L3 emanating from the same point 8 of intersection between adjacent first arcuate fold lines L1 approach one another essentially into direct abutting contact. Each pair of the inwardly folded lid flap side wings W forms an essentially radially extending inwardly hanging ear E at the lower side of the spill resistant lid structure S.

**[0033]** In case that their is at least one cut-out 11 in one of the free lid flap edges 3, a central opening O remains in the spill resistant lid structure. With the configuration of the free lid flap edges 3' (shown in dotted lines) the lid structure S can even be closed completely.

**[0034]** The guiding edges 7 formed by the edge portions 13 of the ears E (the same number of ears as the number of lid flaps) may support a straw introduced through the central opening O such that the straw remains essentially aligned with the centre axis of the disposable cup C even when tilted or shaken. The closed spill resistant lid structure S presents a relatively smooth and attractive surface appearance by the shallow concave lid flap surfaces. The lid structure S remains stably in the shown closed condition (Fig. 3). In a side view of the disposable cup C, the juxtaposed or abutting third fold lines L3 show a slight upward inclination towards the centre of the lid structure S. Alternatively, by intentionally further pressing all lid flaps F downwardly, the lid structure S can be snapped further inwards such that the third fold lines L3 incline downwards towards the centre of the disposable cup C. Depending on the dimensions of the blank, even an essentially horizontal orientation of the third fold lines L3 can be adjusted.

**[0035]** In order to form the spill resistant lid structure of Fig. 5 from the same of similar blank B, in a first folding step, the lid flaps F are folded inwardly on their first fold lines L1 while the lid flap side wings W remain in their upright positions. When folding the lid flaps F inwardly, each pair of adjacent lid flap side wings W will fold on the common second fold line L2 and on the third fold line L3, until the third fold lines L3 at least essentially will abut one another. Then the side wings W at least essentially may contact each other. This folding process results in four upright standing, essentially radially extending, double walled ears E on the upper side of the lid structure S. The cut-outs 11, if provided, commonly form a circular central opening O surrounded by the relatively steep guiding edges 7, formed by the edge portions 13 of the V-notches N.

**[0036]** Also in-this case, in the closed structure S the lid flaps F may remain inclined upwards, essentially horizontal, or inclined upwards.

**[0037]** Alternatively, one or more of the pairs of adjacent lid flap side wings W may first be folded inwardly as shown in Fig. 2, while at the same time one or more pairs of the side wings W can be folded outwardly (as shown in Fig. 4). The result is a spill resistant lid structure S having one or more upright standing ears E and one or more downwardly hanging ears E.

**[0038]** The force fit and form fit of the components in the closed spill resistant lid structure S maintain a stable closed condition without additional fixation means. The disposable cup C shown in Fig. 5 can even be held and/or by the upwardly protruding ears E.

**[0039]** If desirable, the abutting third fold lines L3 and/or the pair-wise abutting lid flap wings W may be bonded to an another by an adhesive agent.

## Claims

1. Disposable cup (C), comprising a substantially truncated conical cup body (D) and a bottom wall (M), the cup body (D) defining

   an upper cup opening (A) equipped at its opening rim with an integrated spill resistant lid structure (S) formed of at least four identical, inwardly foldable flaps (F),
   each lid flap (F) having a base (4), side edge regions (5,6), and a free lid flap edge (3,3'),
   each lid flap (F) connected at the base (4) to the cup body (D) in a first arcuate fold line (L1) concave towards the cup opening (A),
   adjacent lid flap side regions (5,6) being interconnected pair-wise along respective second fold lines (L2) which in the unfolded condition of the lid flaps (F) extend straightly from the points (8) of intersection between adjacent first arcuate fold lines (L1) along cup cone generatrices (G) to second fold line end points (12) at the free lid flap edge (3, 3'),
   each lid flap (F) further comprising a pair of third fold lines (L3), each third fold line (L3) in the unfolded condition of the lid flaps (F) extending straightly from the point (8) of intersection between adjacent first arcuate fold lines (L1) to a third fold line end point (9) at the free lid flap edge (3, 3'),
   the third fold line end point (9) being located at the free lid flap edge (3,3') between the adjacent section fold line end point (12) and the centre (10) of the free lid flap edge (3,3') so that in the side edge regions (5,6) of each lid flap (F) symmetrical foldable lid flap side wings (W) are formed, and
   the lid flaps (F) in their inwardly folded condition at least substantially abutting one another along respective two of the third fold lines (L3)

emanating from the same point (8) of intersection between adjacent first arcuate fold lines (L1).

**2.** Disposable cup as in claim 1, **characterised in that** in the inwardly folded condition of the lid flaps (F), the lid flap side wings (W) of two adjacent lid flaps (F) form one upright standing, essentially radially extending double walled ear (E) on the exterior of the spill resistant lid structure (S).

**3.** Disposable cup as in claim 1, **characterised in that** in the inwardly folded condition of the lid flaps (F), the lid flap side wings (W) of two adjacent lid flaps (F) form an inwardly hanging, essentially radially extending double walled ear (E) on the inner side of the spill resistant lid structure (S).

**4.** Disposable cup as in claim 1, **characterised in that** each free lid flap edge (3, 3') is straight or curved convexly or concavely.

**5.** Disposable cup as in claim 1, **characterised in that** the free lid flap edge (3) has an essentially symmetrical V-notch (N) opening outwardly from the centre (10) of the free lid flap edge to outwardly pointing peak portions (P), and inwardly inclined flanks (K) extending from the respective peak portions (P) to the second fold line ends (12).

**6.** Disposable cup as in claim 5, **characterised in that** the notch (N) is defined by two convex arcuate edge portion (13).

**7.** Disposable cup as in claim 5, **characterised in that** each flank (K) is essentially parallel to the adjacent third fold line (L3), and that the free lid flap edge (3) in the notch (N) substantially extends in the directions of both third fold lines (L3) of the lid flap (F).

**8.** Disposable cup as in claim 1, **characterised in that** both third fold line ends (9) of the same lid flap (F) are spaced apart from the centre (10) of the free lid flap edge (3) and that a cut-out (11), preferably a rounded cut-out (11), is formed between both third fold line ends (9).

**9.** Disposable cup as in claim 8, **characterised in that** the rounded cut-out (11) corresponds to an $n^{th}$ part of a full circle with n corresponding to the number of lid flaps (F) of the disposable cup (C).

**10.** Disposable cup as in claim 5, **characterised in that** each flank (K) is convex, concave or straight.

**11.** Planar blank (B) of paper or plastics sheet material for producing a substantially truncated conical cup body (D) with an integrated spill resistant lid structure (S) formed by at least four identical inwardly foldable lid flaps (F) at a defining upper part,

the blank (B) having two side seam edges (1,1a), the cup opening defining upper part, and a lower concave bottom edge (2)
each lid flap (F) having a base (4), side edge regions (5,6) and a free lid flap edge (3, 3'),
each lid flap (F) connected at the base (4) to the cup body (D) in a first arcuate fold line (L1) concave towards the cup opening defining upper part of the blank (B),
adjacent lid flap side edge regions (5,6) being interconnected along respective common second fold lines (L2) which extend straightly essentially parallel to the side seam edges (1,1a) from the points (8) of intersection between adjacent first arcuate fold lines (F1) to second fold line end points (12) at the free lid flap edge (3,3'),
each lid flap (F) further comprising a pair of third fold lines (L3) each third fold line (L3) extending straightly from the point (8) of intersection between adjacent first arcuate fold lines (L1) to a third fold line end point (9) at the lid flap edge (3,3'),
the third fold line end point (9) being located at the free lid flap edge between the adjacent second fold line end point (12) and the centre (10) of the free lid flap edge (3, 3') so that in the side edge regions (5,6) of each lid flap (F) symmetrical lid flap side wings (W) are formed, and
the lid flap side wings (W), when folding adjacent two of the lid flaps (F) in one direction about the first fold line (L1) being foldable inwardly or outwardly on the third fold lines (L3), respectively, with respect to the lid flap (F) and on the second fold line (L2) until third fold lines (L3) emanating from the same point (8) of intersection between adjacent first arcuate fold lines (L1) at least essentially abut on another.

**Amended claims in accordance with Rule 86(2) EPC.**

**1.** Disposable cup (C), comprising a substantially truncated conical cup body (D) and a bottom wall (M), the cup body (D) defining

an upper cup opening (A) equipped at its opening rim with an integrated spill resistant lid structure (S) formed of at least four identical, inwardly foldable flaps (F),

each lid flap (F) having a base (4), side edge regions (5, 6), and a free lid flap edge (3, 3'),

each lid flap (F) connected at the base (4) to

the cup body (D) in a first arcuate fold line (L1) concave towards the cup opening (A),

adjacent lid flap side regions (5, 6) being interconnected pair-wise along respective second fold lines (L2) which in the unfolded condition of the lid flaps (F) extend straightly from the points (8) of intersection between adjacent first arcuate fold lines (L1) along cup cone generatrices (G) to second fold line end points (12) at the free lid flap edge (3, 3'),

each lid flap (F) further comprising a pair of third fold lines (L3), each third fold line (L3) in the unfolded condition of the lid flaps (F) extending straightly from the point (8) of intersection between adjacent first arcuate fold lines (L1) to third fold line end point (9) at the free lid flap edge (3, 3'),

the third fold line end point (9) being located at the free lid flap edge (3, 3') between the adjacent second fold line end point (12) and the centre (10) of the free lid flap edge (3, 3') so that in the side edge regions (5, 6) of each lid flap (F) symmetrical foldable lid flap side wings (W) are formed,

the free lid flap edge (3) having an essentially symmetrical V-notch (N) opening outwardly from the centre (10) of the free lid flap edge to outwardly pointing peak portions (P) and inwardly inclined flanks (K) extending from the respective peak portion (P) to the respective fold line end (12), and

both third fold line end points (9) of the same lid flap (F) being spaced apart from the centre (10) of the free lid flap edge with a cut-out (11), preferably a rounded cut-out (11), being formed between both third fold line ends (9).

**2.** Disposable cup as in claim 1, **characterised in that** in the inwardly folded condition of the lid flaps (F) the lid flap side wings (W) of two adjacent lid flaps (F) either form one upright standing, essentially radially extending double walled ear (E) on the exterior of the spill resistant lid structure (S) or an inwardly hanging, essentially radially extending double walled ear (E) on the inner side of the spill resistant lid structure (S), respectively.

**3.** Disposable cup as in claim 1, **characterised in that** the notch (N) is defined by two convex arcuate edge portions (13).

**4.** Disposable cup as in claim 1, **characterised in that** each flank (K) is essentially parallel to the adjacent third fold line (L3), and that the free lid flap edge (3) in the notch (N) substantially extends in the direction of both third fold lines (L3) of the lip flap (F).

**5.** Disposable cup as in claim 1, **characterised In that** the rounded cut-out (11) corresponds to an $n^{th}$ part of a full circle with n corresponding to the number of lid flaps (F) of the disposable cup (C).

**6.** Disposable cup as in claim 1, **characterised in that** each flank (K) is convex, concave or straight.

**7.** Planar blank (B) of paper or plastics sheet material for producing a substantially truncated conical cup body (D) with an integrated spill resistant lid structure (S) formed by at least four identical inwardly foldable lid flaps (F) at a defining upper part, the blank (B) having two side seam edges (1, 1a), the cup opening defining upper part, and a lower concave bottom edge (2),

each lid flap (F) having a base (4), side edge regions (5, 6) and a free lid flap edge (3, 3'),

each lid flap (F) connected at the base (4) to the cup body (D) in a first arcuate fold line (L1) concave towards the cup opening defining upper part of the blank (B),

adjacent lid flap side edge regions (5, 6) being interconnected along respective common second fold lines (L2) which extend straightly essentially parallel to the side seam edges (1, 1a) from the points 8 of intersection between adjacent first arcuate fold lines (F1) to second fold line end points (12) at the free lid flap edge (3, 3'),

the third fold line end point (9) being located at the free lid flap edge between the adjacent second fold line end point (12) and the centre (10) of the free lid flap edge (3, 3') so that in the side edge regions (5, 6) of each lid flap (F) symmetrical lid flap side wings (W) are formed,

the lid flap side wings (W), when folding adjacent two of the lid flaps (F) in one direction about the first fold line (L1) being foldable inwardly or outwardly on the third fold lines (L3), respectively, with respect to the lid flap (F) and on the second fold line (L2) until third fold lines (L3) emanating from the same point (8) of intersection between adjacent first arcuate fold lines (L1) at least essentially bout one another,

the free lid flap edge (3) having an essentially symmetrical V-notch (N) opening outwardly

from the centre (10) of the free lid flap edge to outwardly pointing peak portions (P) and inwardly inclined flanks (K) extending from the respective peak portion (P) to the respective fold line end (12), and

both third fold line end points (9) of the same lid flap (F) being spaced apart from the centre (10) of the free lid flap edge with a cut-out (11), preferably a rounded cut-out (11), being formed between both third fold line ends (9).

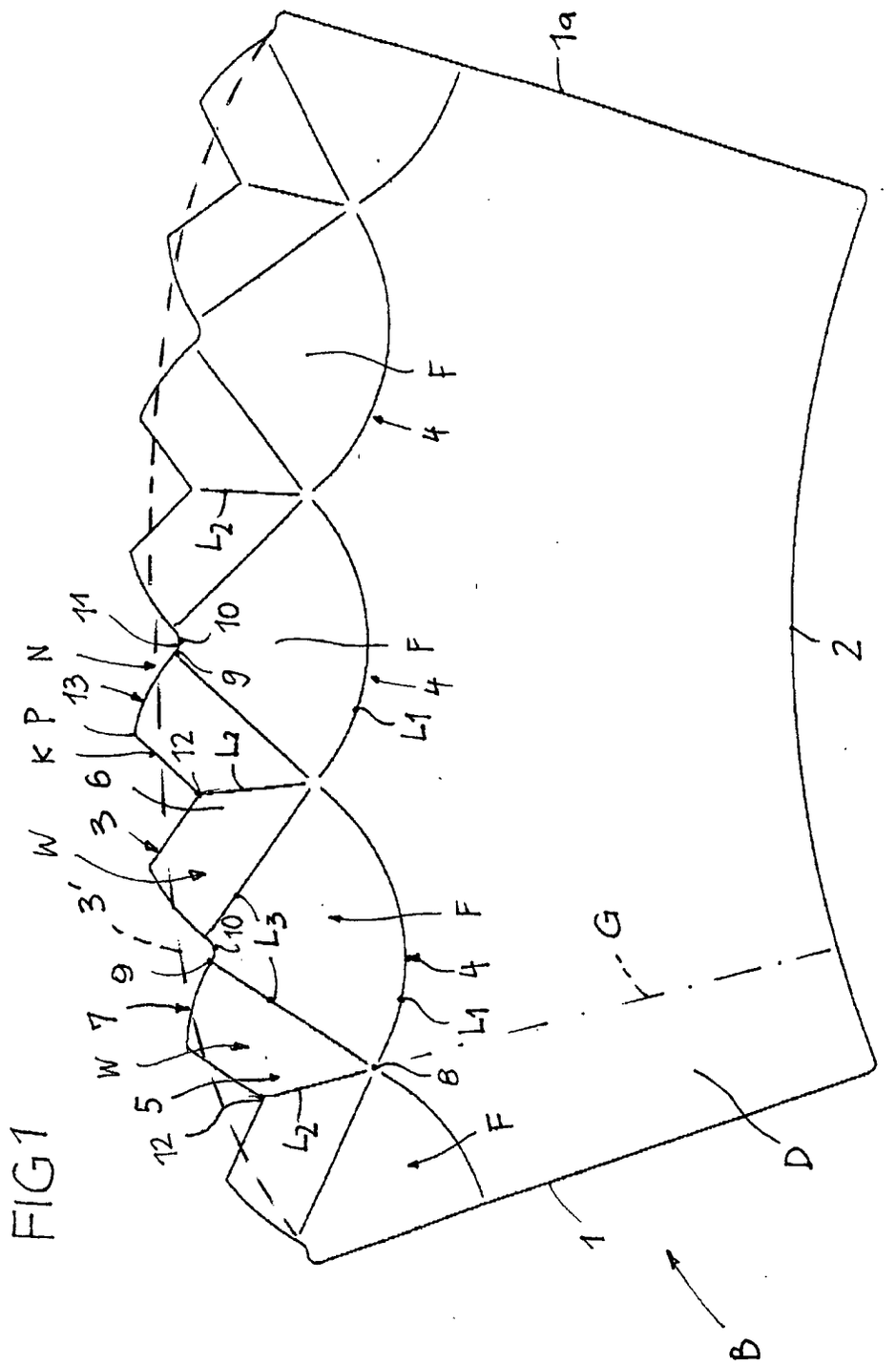



FIG1

FIG 2

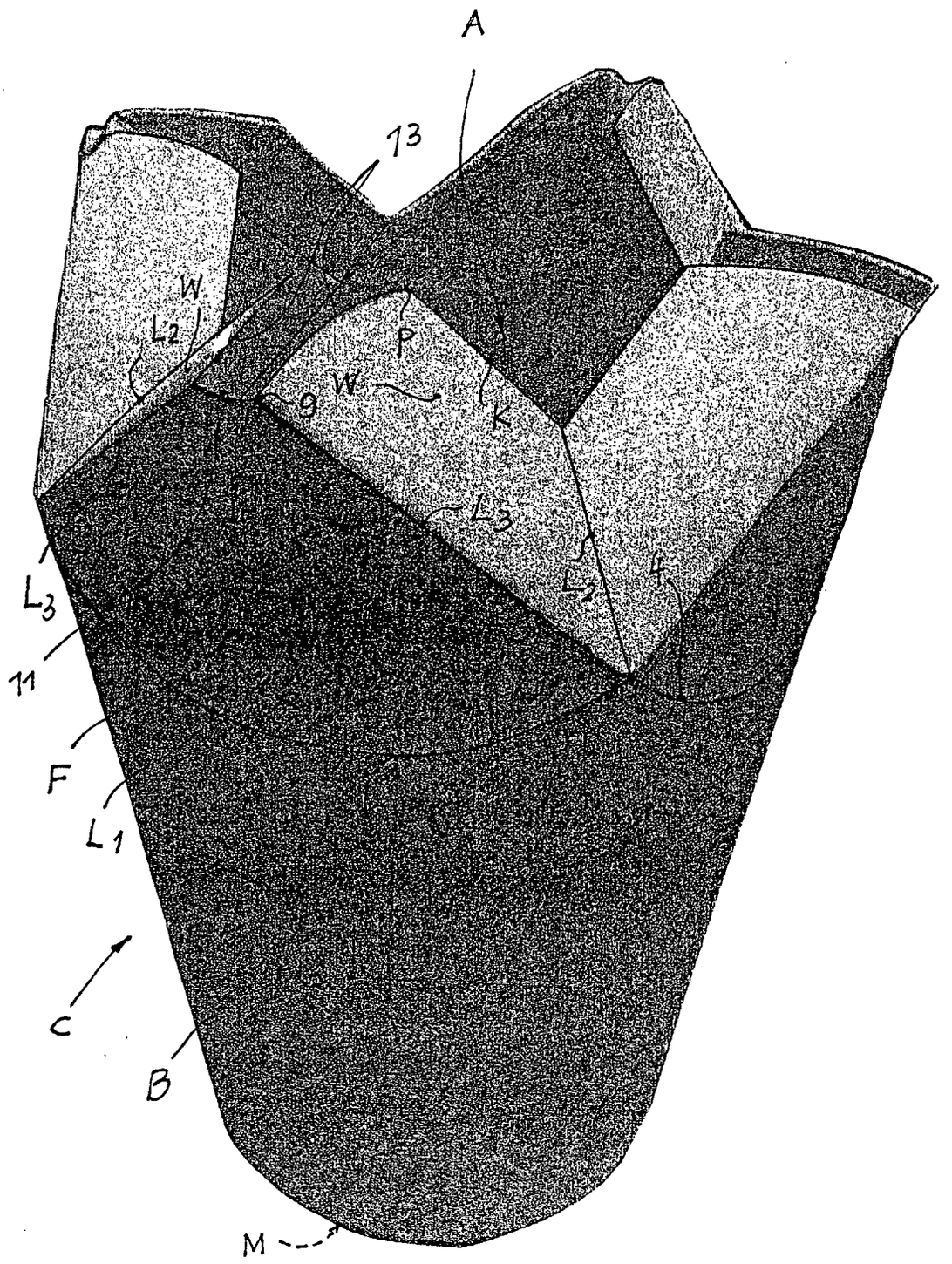


FIG 3

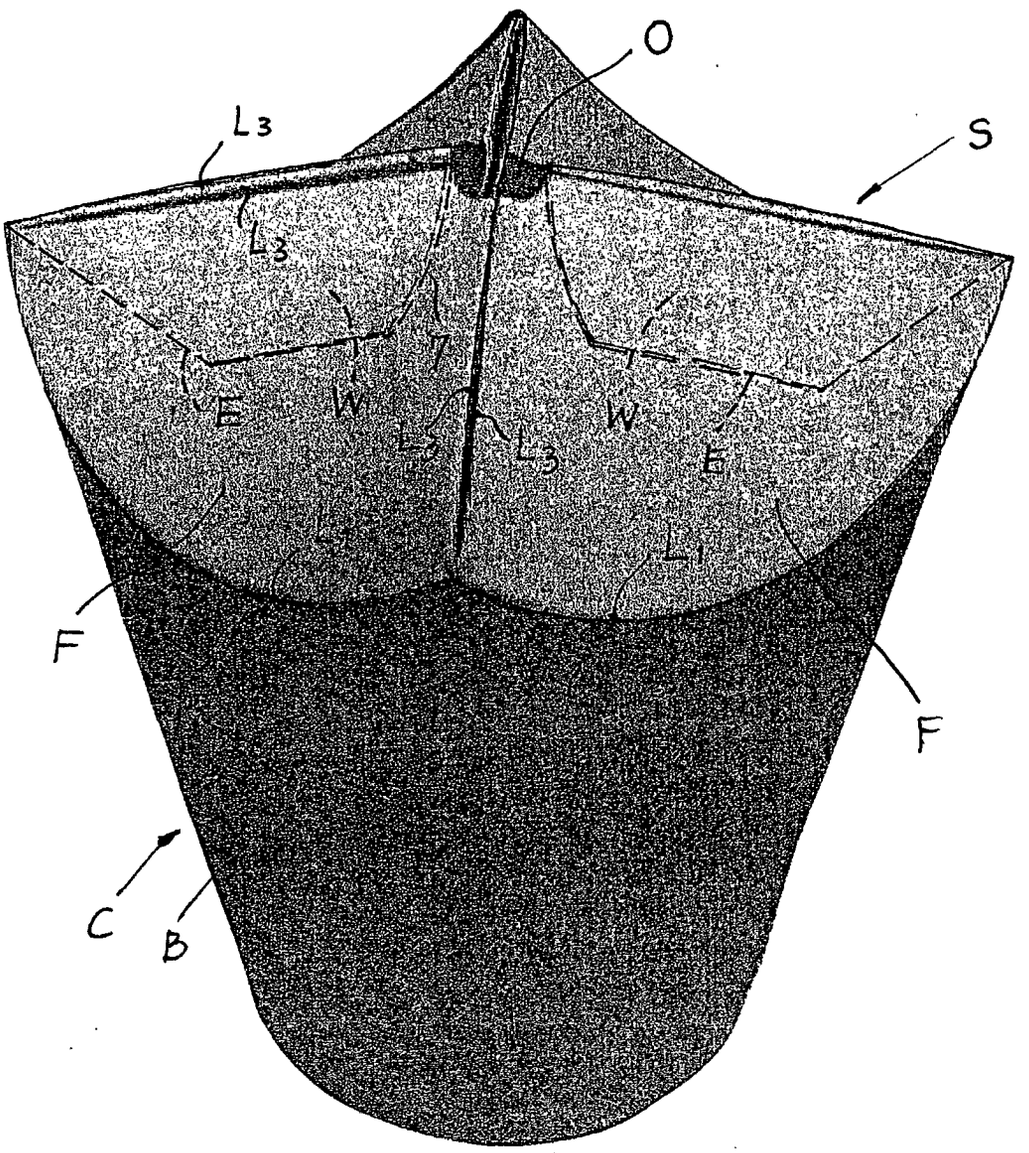


FIG5

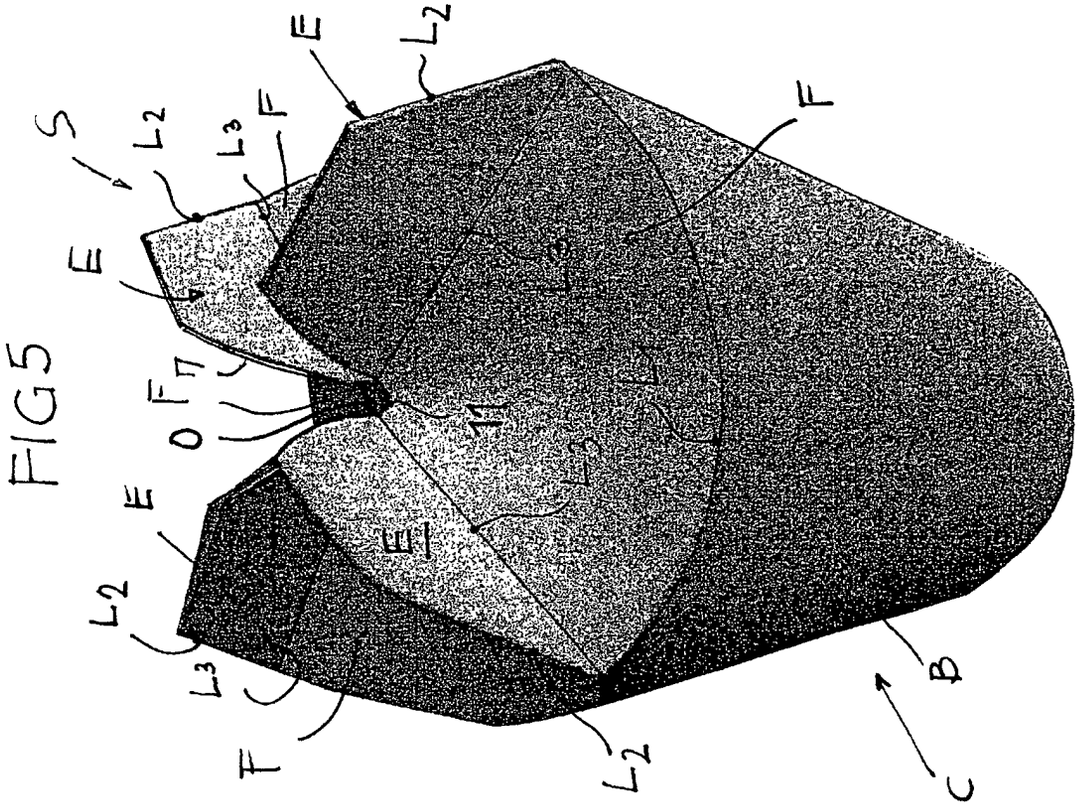
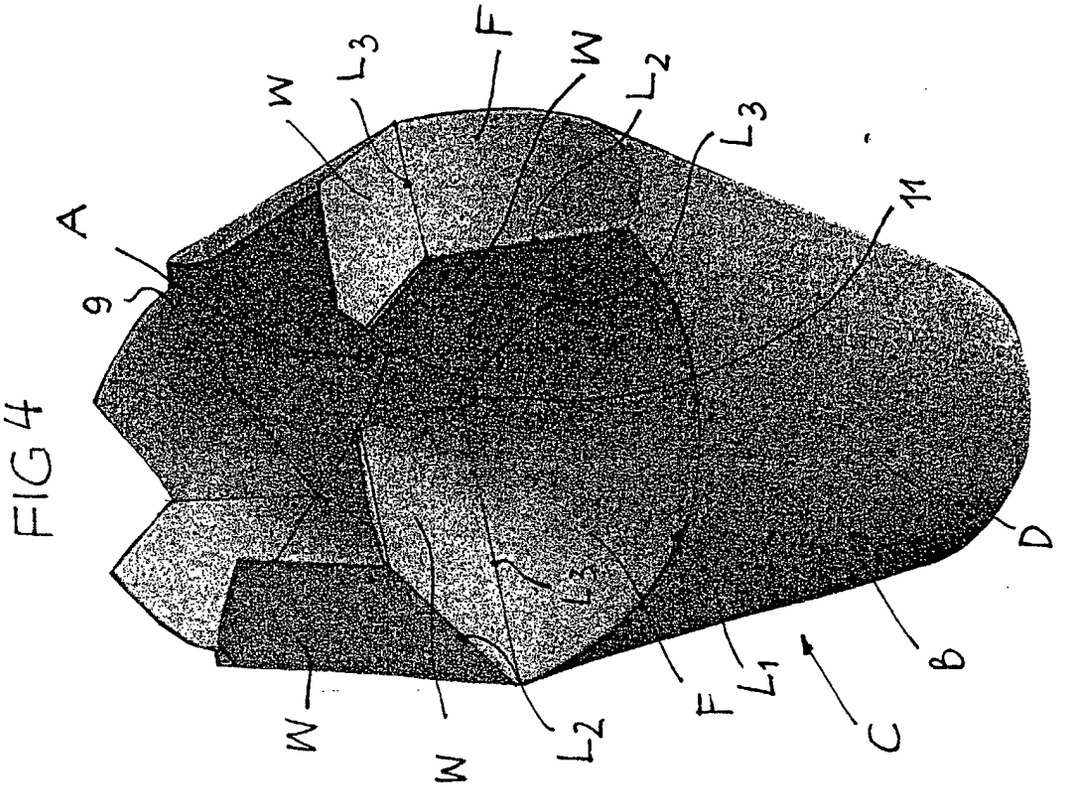



FIG4



European Patent Office

# EUROPEAN SEARCH REPORT

Application Number
EP 02 00 7847

## DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
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