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(54) Birdfood wrapper

(57) A drum container (10) fabricated from plastics material comprising a resilient floor portion (12) and a side walls (14) made from at least a single sheet of plastics material; said floor portion (12) being joined to the side walls (14) at the bottom edge of the side walls; wherein the side walls contain at least four lines of weakness (18,20) arranged in two or more generally parallel pairs and wherein said pairs are located in generally even spaced arrangement around said side walls (14) and follow substantially straight lines that extend from the bottom of said side walls to the top of said side walls.

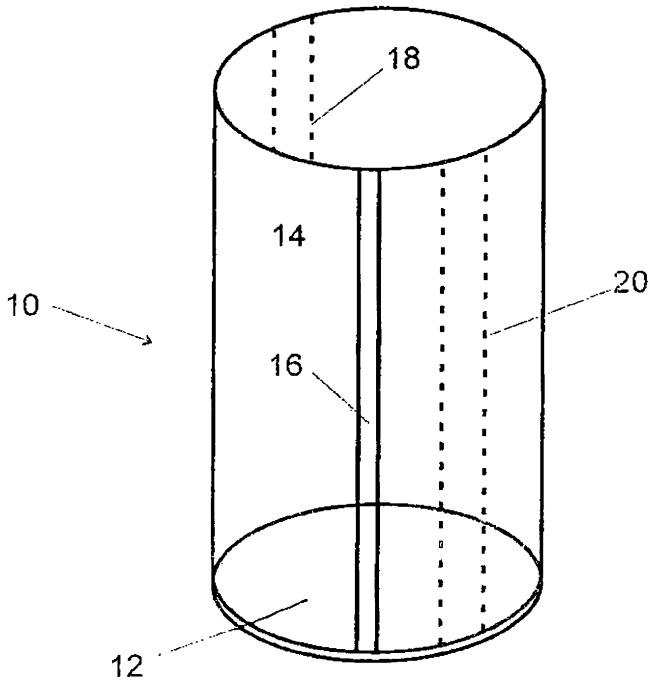

FIG 2

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Description

[0001] The present invention relates to an improved means of packaging soft but solid food by providing a wrapper that can be conveniently and easily removed. In particular, the invention relates to means of packaging a bird food solid cake made from a predominantly fat-containing material.

[0002] Solid bird food containing predominantly fats is commonly sold in pre-cast cylinder blocks known as bird food cakes; for example peanut cakes. This form of bird food is typically suspended from the branch of a tree by string.

[0003] Such products need to be well packaged. However, to permit consumption the food needs to be unwrapped. This can be a problem. For example, such food is often packaged within a cylindrical wrapping with means provided for removing a base or lid portion. However, a user must then push the typically pliable cake material out of the remaining cylindrical wrapper. This is rather inconvenient and often requires direct contact with the product, resulting in fat on the user's hands.

[0004] An aim of the present invention is to provide wrapping for such food which can be more conveniently removed without a user suffering the disadvantage referred to above.

[0005] According to one aspect of the invention, there is provided a drum container for solid bird food of predominantly fat-containing material, said container (preferably of plastics material) comprising a resilient floor portion and side walls extending away from said floor portion, wherein the side walls define at least two separate tear away strips that can be removed to leave spaced side wall portions upstanding from said floor portion.

[0006] The drum is preferably of self-supporting construction, so as to have side walls freely upstanding from said floor portion.

[0007] Said tear away strips are preferably evenly spaced around the side walls of the container, and may be arranged to leave diametrically opposing side wall portions, once removed. The tear strips may extend in a curved or angular manner along at least a part of their length.

[0008] In a preferred embodiment the tear away strips are formed from lines of weakness arranged in pairs around said side walls. In a preferred embodiment, the lines of weakness in each pair are generally parallel, and more preferably follow substantially straight lines that extend from the bottom of said side walls to the top of said side walls. However, in other embodiments, the lines of weakness in each pair may follow undulating, zig-zag or otherwise divergent/convergent paths along all or at least a part of their length.

[0009] In one aspect, the invention comprises a drum container fabricated from plastics material and preferably of free-standing or self-supporting construction, the drum container comprising a resilient floor portion and side walls made from at least a single sheet of plastics material; said floor portion being joined to the side walls at the bottom edge of the side walls; wherein the side walls contain at least four lines of weakness arranged in two or more generally parallel pairs and wherein said pairs are located in generally even spaced arrangement around said side walls and follow substantially straight lines that extend from the bottom of said side walls to the top of said side walls.

[0010] The provision of a drum container having at least two tear strips (e.g. formed from at least two pairs of lines of weakness) that can be removed to leave spaced side wall portions upstanding from said floor portion, greatly assists removal of the wrapper from the food, after tearing. In particular, the use of at least two separate tear portions in combination with the resilient base allows (after tearing) the remaining wall portions of the drum container to be pulled apart (in a hinged-like manner about the resilient base), e.g. thus allowing removal of the packaging with minimal handling of the contents. This makes the packaging especially suitable for fatty (greasy) foods, such as bird food peanut cake.

[0011] Preferably, the drum has side walls that comprise a plurality of individual sheet members joined side to side. Preferably, the bottom edge of the side wall is heat sealed to said floor portion. The floor portion of the drum may be elliptical, circular, or polygonal in shape, or may be of another less regular shape.

[0012] Preferably, the side walls are cylindrical in shape. The joints in the side walls or between the side walls and the base may be welded or heat formed. For example, the joints may be formed using an adhesive or by using ultrasonic welding.

[0013] The drum may have 2, 3, 4, 5 or 6 pairs of lines of weakness. A line of weakness may be formed by a continuous score in the surface or by a linear series of short length scores in the surface, for example. Other suitable methods are known in the art.

[0014] The drum of the present invention is particularly suited for holding a single cast cake of bird food.

[0015] Other aspects and features of the invention will be apparent from the following claims and description, made by way of example only, with reference to the following diagrammatic figures, in which:

Figure 1 is a schematic perspective view of a drum container according to a preferred embodiment of the intervention;

Figure 2 shows a drum container similar to that shown in Figure 1 except that the plastics material used in its construction is transparent;

Figure 3 is a schematic perspective view of a drum container according to a further preferred embodiment of the invention having a triangular shaped floor and comprising three flat wall surfaces;

Figure 4 shows cylindrical drum container similar to

Figure 2 wherein the tear strips follow a generally spiral path;

Figure 5 shows cylindrical drum container similar to Figure 4 wherein the tear strips follow non-parallel lines; and

Figure 6 shows various configurations of lines of weakness for incorporation in preferred containers of the invention.

[0016] Figure 1 shows a drum wrapper 10, consisting of a circular shaped floor member 12 and cylindrical side walls 14 formed by overlapping side edges of a rectangular sheet of thin plastics material and having a heat sealed (or welded) joint 16. The lower edge of the cylinder, formed by the plastics sheet is also heat sealed (or welded) to said floor member 12. Before the plastics sheet is formed into the cylindrical shape a first pair of substantially linear lines of weakness 18 are formed in the sheet, said lines extending from the bottom edge of the said rectangular sheet to the top edge of the sheet. In addition, a second pair 20 of such lines of weakness are also formed such that when the cylinder is made said first and second pair of lines are generally parallel to one another and extend approximately vertically from the base up the cylindrical side wall. The container is now ready to accept food product, which in a preferred embodiment is initially added predominantly as a warm high fat containing liquid, which solidifies on cooling. Optionally, a removable lid can be used to cover the open top of the drum wrapper.

[0017] In order to open the container the user simply has to remove the lid (if provided) and then tear a first strip (defined as the plastics material between the first pair of lines 18) and a second strip (defined as the plastics material between the second pair of lines 20). This leaves a pair of arcuate side walls, to the food product which can easily be pulled away at their upper ends owing to the fact that the lower end is attached to the floor and may flex in a "hinge-like" manner owing to the fact that the floor is made from a flexible/resilient plastics material; preferably a sheet material.

[0018] The provision of a drum container having pairs of lines of weakness, allowing separate tear strips to be provided, greatly assists removal of the wrapper from the food by allowing hinged movement of the remaining side wall portions relative to said resilient floor portion after tearing. The use of at least two separate tear portions in combination with the resilient base allows (after tearing) the remaining wall portions of the drum container to be pulled apart (in a hinged-like manner about the resilient base), e.g. thus allowing removal of the packaging with minimal handling of the contents. This makes the packaging especially suitable for fatty (greasy) foods, such as bird food peanut cake. The walls of the container are preferably tubular in form and present a cylindrical outer face.

[0019] Figure 3 shows a drum 30 where the floor 32 is triangular in shape. The walls 34a-c comprise rectangular flat sheets, each with a pair of lines of weakness 36, 38, 40.

[0020] Figure 4 shows a modified drum 40 in which the tear strips are formed from parallel lines of weakness 18, 20 which follow a curved or generally spiral path. The base 12 includes an upstanding side wall 42 which is fitted in to the pre-formed tubular body of the drum and welded thereto.

[0021] Although the tear strips in the illustrated embodiments are shown extending in a straight or curved manner along their entire length, in other embodiments the tear strips may extend in a straight, curved or angular manner along only part of their length. Although the illustrated embodiments include generally parallel lines of weakness, the lines of weakness in each pair may follow undulating, zig-zag or otherwise relatively divergent/convergent paths along all or at least a part of their length. Examples of possible configurations for the lines of weakness are shown in Figure 6, wherein the lines 50 include an angular deviation from the otherwise parallel lines, the lines 60 are parallel but follow a zig-zag path and the lines 70 follow a symmetrical non-parallel path.

[0022] In other embodiments, the floor of the container may be elliptical or polygonal in shape and may have walls formed from a plurality of flat sheet surfaces that provide a tubular wall having an elliptical or polygonal cross section. For example, if the wall comprises five rectangular sheets arranged in the form of a pentagonal tube; then up to five pairs of lines of weakness may be provided so that, after tearing, the tubular container may be pulled away from the solid food by the movement of some or all of the five side portions; again hinged to the floor member.

[0023] While it is preferable for the wall to have a generally tubular form, it may have a variable cross section along its length; for example as provided by a frustroconical rather than cylindrical shaped outer surface.

[0024] The sheet material used to form the floor portion and/or the walls may be a plastics material such as a polymerised polyethylene compound; for example, polyethylene tetrachloride. The lines of weakness may be formed by the application of heat to produce lines in the sheet of lower thickness than the rest of the sheet or may comprise a series of such short lines of weakness produced; for example, by a knurling type process. Typically, the walls will first be formed; for example by joining cut sheet material using an adhesive. Sheet material cut to the shape of the floor portion may then be welded to the lower portion of the walls. Preferably, during this step a small rim is formed by the application of pressure and heat around the bottom edge of the wall portion and a base portion already inserted within the tube etc., is sealed by application of pressure or welding.

Claims

1. A drum container for solid bird food of predominantly fat-containing material, said container comprising a resilient floor portion and side walls extending away from said floor portion, wherein the side walls define at least two separate tear away strips that can be removed to leave spaced side wall portions upstanding from said resilient floor portion.

2. A drum container according to Claim 1 wherein the drum is of self-supporting construction.

3. A drum container according to claim 1 or claim 2 wherein the side walls are made of at least a single sheet of plastics material.

4. A drum container according to any of claims 1 to 3 wherein the tear way strips are arranged to leave diametrically opposing side wall portions upstanding from said base, once removed.

5. A drum container according to any preceding claim wherein the tear away strips are formed from lines of weakness arranged as spaced pairs extending from the bottom of said side walls to the top of said side walls.

6. A drum container according to claim 5 wherein there are 2, 3, 4, 5 or 6 pairs of lines of weakness.

7. A drum container according to claim 5 or claim 6 wherein the lines of weakness follow straight lines from the bottom of said side walls to the top of said side walls.

8. A drum container according to claim 5 or claim 6 wherein the lines of weakness follow undulating, zigzag or otherwise relatively divergent/convergent paths along all or at least a part of their length.

9. A drum container according to any of claims 5 to 8 wherein said lines of weakness are formed by a continuous score in the surface or by a linear series of short length scores in the surface.

10. A drum container according to any preceding claim wherein the side walls comprise a plurality of individual sheet members joined side to side.

11. A drum container according to any preceding claim including a heat seal between the bottom edge of the side wall and the floor portion for sealing the side wall to the floor portion.

12. A drum container according to any preceding claim wherein the floor portion is elliptical, circular or polygonal in shape.

13. A drum container according to any preceding claim wherein the side walls define a cylinder.

14. A drum container fabricated from plastics material comprising a resilient floor portion and side walls made from at least a single sheet of plastics material; said floor portion being joined to the side walls at the bottom edge of the side walls; wherein the side walls contain at least four lines of weakness arranged in two or more generally parallel pairs and wherein said pairs are located in generally even spaced arrangement around said side walls and follow substantially straight lines that extend from the bottom of said side walls to the top of said side walls.

15. A drum container for holding a single cast cake of bird food according to any preceding claim.

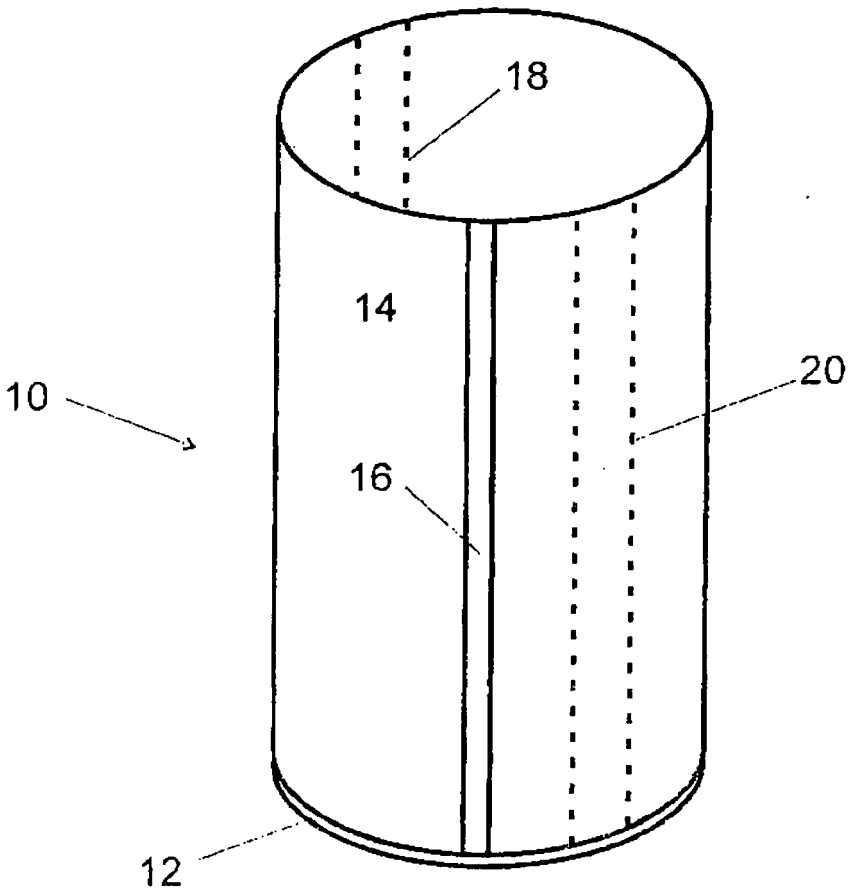


FIG 1

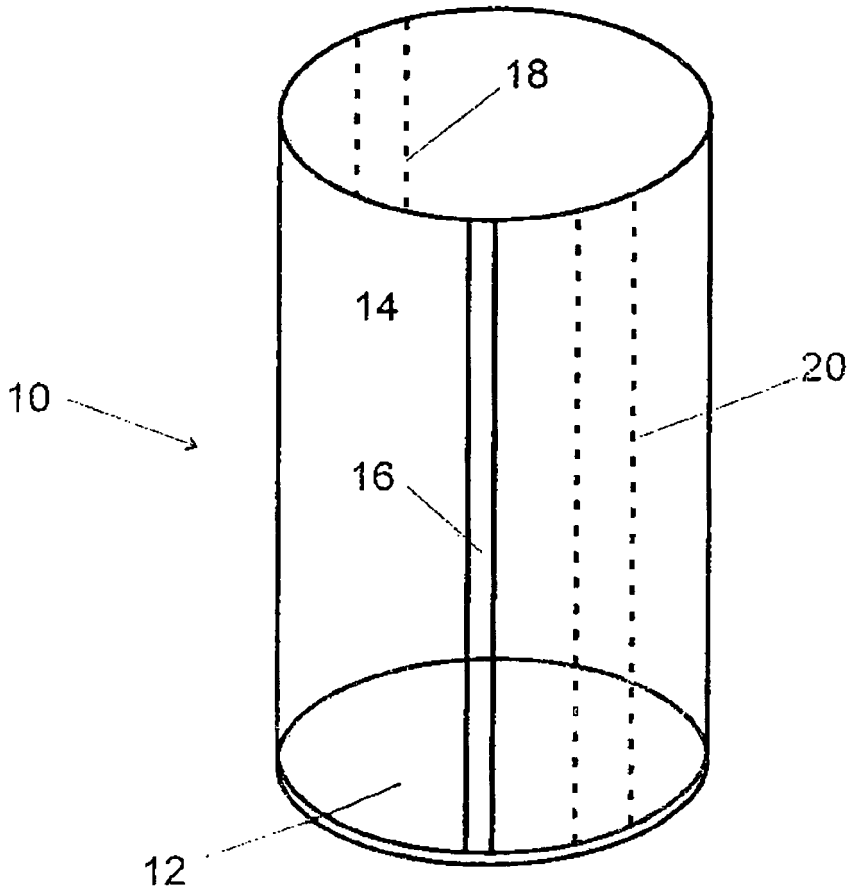


FIG 2

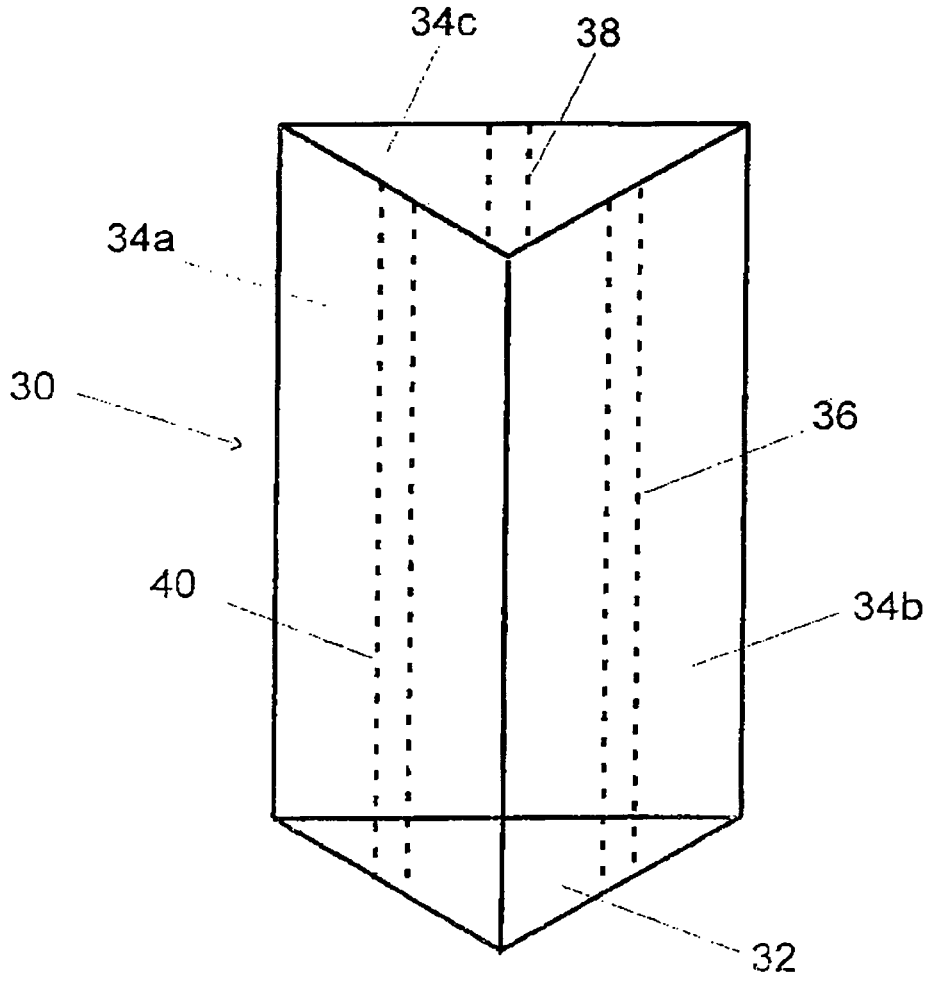


FIG. 3

Fig. 4

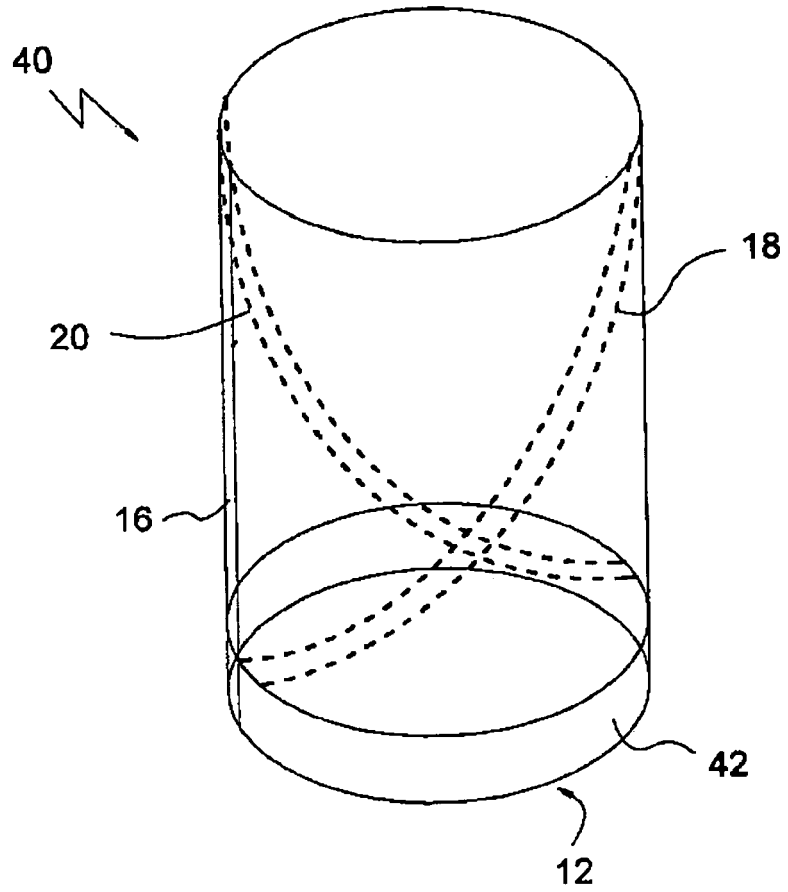


Fig. 5

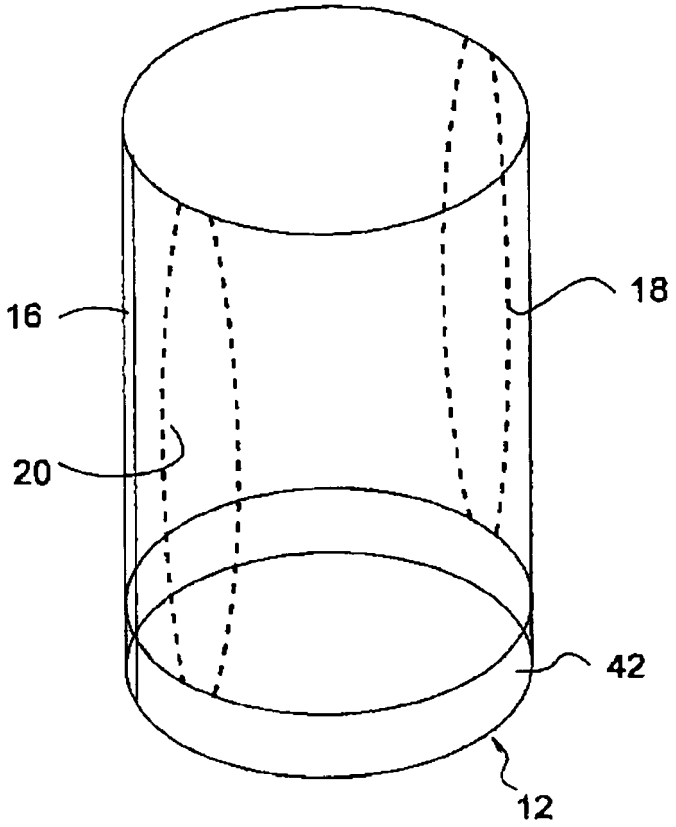
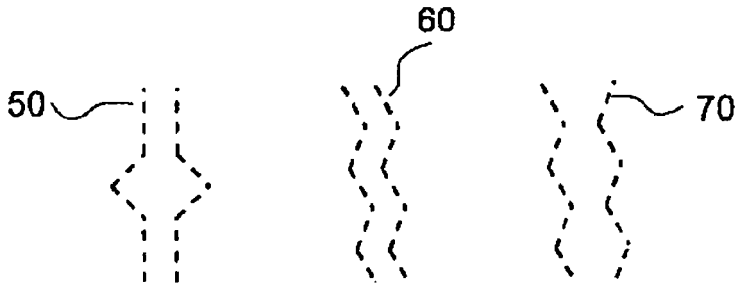


Fig. 6



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EUROPEAN SEARCH REPORT

Application Number
EP 08 25 0920

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	5 June 2008	Leijten, René

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