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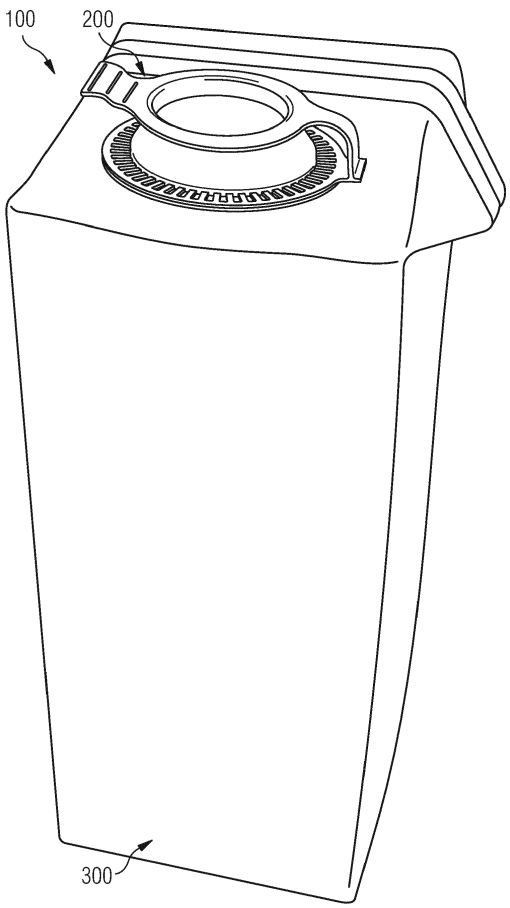
(54) POURABLE FOOD CONTAINER WITH DRINK SPOUT

(57) The present invention relates to a container for pourable food (100). The container comprises an initially sealed body portion (300) for holding the pourable food and a drink spout (200) adapted for drinking from the container. The drink spout (200) is permanently attached to the outer surface of the container. The drink spout comprises a base portion (210) wherein the proximal end (220) of the base portion is permanently attached to the outer surface of the container, the proximal end (220) has an opening adapted for receiving pourable food from the body of the container, the distal end (250) of the base portion has an opening adapted for drinking the pourable food from the container, and the opening at the proximal end and the opening at the distal end are connected by a conduit for pourable food. The drink spout comprises a lid portion (250) which is initially attached to the base portion so that it seals the opening at the distal end by a breakable sealing portion wherein the sealing portion is adapted for being broken by the user so that the opening of the base portion becomes accessible and which remains permanently attached to the container by a connection portion after the breakable sealing portion has been broken by the user. The present invention further relates to a drink spout suitable for use with a container for pourable food.

FIG 1



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Description

Technical field of the invention

[0001] The present invention relates to containers for pourable food. More specifically, the present invention relates to containers for pourable food comprising a drink spout as well as a drink spout for a container for pourable food

Background of the invention

[0002] Containers for pourable food are widely used by consumers around world. There is consensus that such containers are useful for transporting pourable food, and in particular beverages, to locations remote from the food production sites throughout the globe while at the same time preserving the quality of the packaged food, preventing contamination, and protecting against premature spoilage.

[0003] At the same time, it must be recognized that when such containers are used only a single time, an undesirably large amount of used and empty containers is disposed of. To address this concern, recycling systems for used containers have been successfully employed. For these systems to be efficient, it is desirable that as many parts of such containers as possible are collected in the receptacles for the used containers.

[0004] Accessory items such as straws and their wrappers, both which are typically affixed to the outside of the food containers, may become detached from the container and subsequently be disposed of separately from the container and potentially outside the designated recycling systems.

[0005] It is the objective of the container and the method of the present invention to overcome the issues and challenges faced by the prior art.

[0006] It is one aspect of the present invention to provide a container for pourable food from which a consumer can drink comfortably without having to detach a wrapped straw, unpack the straw from the wrapper, pierce the straw through body of the package, and dispose of the empty wrapper.

[0007] It is another aspect of the present invention to provide a container for pourable food for which all components will routinely remain attached to one another so that they can be disposed of together after use. This aspect is particularly useful for portion-sized containers which are intended to emptied and then discarded within a short period of time and on-the-go.

[0008] It is another aspect of the present invention to provide drink spout for pourable food containers which has a better hygiene for drinking directly from the container.

Summary of the invention

[0009] In a first aspect, the present invention provides a container for pourable food (100) as described in Claim 1.

[0010] The container comprises an initially sealed body portion (300) for holding the pourable food and a drink spout (200) adapted for drinking from the container. The drink spout (200) is permanently attached to the outer surface of the container. The drink spout comprises a base portion (210) wherein the proximal end (220) of the base portion is permanently attached to the outer surface of the container, the proximal end (220) has an opening adapted for receiving pourable food from the body of the container, the distal end (250) of the base portion has an opening adapted for drinking the pourable food from the container, and the opening at the proximal end and the opening at the distal end are connected by a conduit for pourable food. The drink spout comprises a lid portion (250) which is initially attached to the base portion so that it seals the opening at the distal end by a breakable sealing portion wherein the sealing portion is adapted for being broken by the user so that the opening of the base portion becomes accessible and which remains permanently attached to the container by a connection portion after the breakable sealing portion has been broken by the user.

[0011] In a second aspect, the present invention provides a drink spout suitable for use with a container for pourable food as described in Claim 16.

Brief description of the figures

[0012] These and other aspects, features and advantages of which examples of the invention are capable of will be apparent and elucidated from the following description of examples of the present invention, reference being made to the accompanying drawings, in which:

Figure 1 shows a perspective view of an exemplary embodiment of the container for pourable food according to the present invention.

Figure 2 shows an enlarged perspective view of an exemplary embodiment of a drink spout suitable for use with the container for pourable food according to the present invention.

[0013] In the figures, the features of the depicted exemplary embodiments are designated with the following reference numerals. Similar features in different exemplary embodiments may be numbered with the same reference numerals.

100	Container for pourable food
200	Drink spout
210	Base portion
220	Proximal end
225	Proximal end portion
230	Distal end
235	Distal end portion

240 Flange of base portion
250 Lid portion
260 Flange of lid portion
270 Connecting portion
300 Body portion

Detailed description of the invention

[0014] Specific examples of the invention will now be described with reference to the accompanying drawings. This invention may, however, be embodied in many different forms and should not be construed as limited to the examples set forth herein; rather, these examples are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. The terminology used in the detailed description of the examples illustrated in the accompanying drawings is not intended to be limiting of the invention.

[0015] The present invention relates to a container for pourable food.

[0016] As used herein, the term "pourable food" refers to any product for human or animal consumption which can be poured from a container through an opening of appropriate size. The pourable food can be liquid, fluid, or granular. The pourable food may comprise solid pieces of food which can be poured together with the liquid or fluid portion of the pourable food.

[0017] The container comprises an initially sealed body portion for holding the pourable food. The container comprises a drink spout adapted for drinking from the container, preferably drinking directly from the container. The drink spout comprises a base portion and a lid portion.

[0018] Drinking from the container requires that the connection formed between the distal end portion of the drink spout and the mouth of the consumer is such that little or preferably no leakage can occur during the drinking process. For example, leakage can be avoided if the lips of the consumer can be wrapped around the distal end portion to form an essentially liquid tight connection. The geometric configuration of the drink spout play an important role and should be designed Tetra Pak conform with the natural configuration of the consumer's lips in a drinking position. The height of the drinking spout which is the distance between its proximal and its distal end is also important to provide enough surface area for the lips top seal the connection with the base portion of the drink spout.

[0019] The drink spout is permanently attached to the outer surface of the container. The permanent attachment provides that the drink spout cannot be separated easily from the container and hence will likely be disposed of together with the container. The drink spout comprises a base portion wherein the proximal end of the base portion is permanently attached to the outer surface of the container. The proximal end has an opening adapted for receiving pourable food from the body of the container. The distal end of the base portion has an opening adapted for drinking the pourable food from the container. The opening at the proximal end and the opening at the distal end are connected by a conduit for pourable food.

[0020] The drink spout comprises a lid portion which is initially attached to the base portion so that it seals the opening at the distal end by a breakable sealing portion wherein the sealing portion is adapted for being broken by the user so that the opening of the base portion becomes accessible. The lid portion remains permanently attached to the container by a connection portion after the breakable sealing portion has been broken by the user. Preferably, the lid portion remains permanently attached to the base portion of the drink spout so that the drink spout including base a lid portion can be injection moulded as one piece.

[0021] Figure 1 shows a perspective view of an exemplary embodiment of the container for pourable food according to the present invention. The container comprises an initially sealed body portion (300) for holding the pourable food and a drink spout (200) adapted for drinking from the container. The drink spout (200) is permanently attached to the outer surface of the container. The drink spout comprises a base portion (210) wherein the proximal end (220) of the base portion is permanently attached to the outer surface of the container, the proximal end (220) has an opening adapted for receiving pourable food from the body of the container, the distal end (250) of the base portion has an opening adapted for drinking the pourable food from the container, and the opening at the proximal end and the opening at the distal end are connected by a conduit for pourable food. The drink spout comprises a lid portion (250) which is initially attached to the base portion so that it seals the opening at the distal end by a breakable sealing portion wherein the sealing portion is adapted for being broken by the user so that the opening of the base portion becomes accessible and which remains permanently attached to the container by a connection portion after the breakable sealing portion has been broken by the user.

[0022] The drink spout of the container for pourable food according to the present inventio may be adapted for drinking by sucking. Sucking requires that the lips of the consumer may be positioned around the distal end portion of the drink spout to form a air tight seal.

[0023] The drink spout of the container for pourable food according to the present inventio may be adapted for drinking by squeezing the container. Squeezing of the container requires that the material from which the body of the container is formed is sufficiently flexible or pliable such as a typical laminate packaging material comprising a paperboard layer. The container of the present may further be adapted for drinking by a combination of sucking and squeezing the container.

[0024] The drink spout of the container for pourable food according to the present inventio may be adapted for drinking by pouring from the container. The pourable food would thus pour from the container through the drink

spout in the action of the gravitational forces.

[0025] The conduit of the drink spout may be dimensioned to limit the through-flow of the pourable food to be comfortable for consumption by a human. The precise dimension depend on the type and viscosity of the pourable food to be consumed.

[0026] The outer surface of the distal end portion of the base portion of the drink spout may have an oval shape in the horizontal cross-section. The oval shape corresponds to a convenient lip position while drinking. The proximal end portion of the base portion of the drink spout may also have an oval shape in the horizontal cross-section for convenient construction and manufacture of the drink spout.

[0027] The distal end portion of the base portion of the drink spout may have a frustoconical shape in the horizontal cross-section which is tapering towards the distal end. This shape allowed for a comfortable and effective seal between the lips of the consumer and the distal end portion during drinking. The distal end portion of the base portion of the drink spout may be dimensioned such that it can be comfortable sealed by the lips of the consumer while drinking.

[0028] The breakable sealing portion may be arranged below the distal end portion of the base portion. If the breakable sealing portion is placed below the distal end portion, then the distal end portion is protected from contamination and soiling before the sealing portion is broken. After breaking this sealable portion, the consumer may thus drink from a more hygienically kept drink spout.

[0029] The lid portion may comprise a flange portion which extends beyond the dimension of the distal end in the horizontal plane. Contamination and soiling of the distal end portion of the base portion of the drink spout should be reduced as much as possible so that the consumer can drink from the container in a hygienic fashion. Such soiling and contamination can for example happen when the containers is handled during placement in a shelf prior to its sale. Having a large flange of the lip portion renders it less likely that the fingertips of the person handling the container touch the distal end portion of the drink spout's base portion which eventually will come into contact with the lips of the consumer.

[0030] The proximal end of the base portion may be wider than the distal end and the base portion has a frustoconical shape between the base and the distal portion. This configuration allows for a good connection of the base portion to the outer surface of the body of the container.

[0031] The proximal end of the base portion may comprise a flange portion. The flange portion increases the surface areas of the base portion which is attached to the body of the container and consequently the strength of the attachment. The size of the flange further reduces the chance that the lips of the consumer come into contact with the packaging material instead of the drinking spout. The packaging may be perceived by the consumer as less hygienic.

[0032] Figure 2 shows an enlarged perspective view of an exemplary embodiment of a drink spout suitable for use with the container for pourable food according to the present invention. The drink spout comprises a base portion (210) wherein the proximal end (220) of the base portion is permanently attached to the outer surface of the container, the proximal end (220) has an opening adapted for receiving pourable food from the body of the container, the distal end (250) of the base portion has an opening adapted for drinking the pourable food from the container, and the opening at the proximal end and the opening at the distal end are connected by a conduit for pourable food. The drink spout comprises a lid portion (250) which is initially attached to the base portion so that it seals the opening at the distal end by a breakable sealing portion wherein the sealing portion is adapted for being broken by the user so that the opening of the base portion becomes accessible and which remains permanently attached to the container by a connection portion after the breakable sealing portion has been broken by the user.

[0033] The body of the container may be made from a laminate packaging material comprising a layer of paperboard. The container may be made from a laminate packaging material comprising an oxygen barrier layer.

[0034] The drink spout may be positioned over an opening in the body portion of the container. Alternatively, the drink spout may be positioned over a portion of the body of the container adapted for easy opening.

[0035] One suitable method for manufacturing the container of the present invention is to produce the drink spout with all its components by injection molding. The drink spout is the attached to the packaging material before or after the container is filled with the pourable food and subsequently sealed. A suitable material for injection moulding the drink spout is polyethylene.

[0036] The present invention has been described above with reference to specific examples. However, other examples than the above described are equally possible within the scope of the invention. The different features and steps of the invention may be combined in other combinations than those described. The scope of the invention is only limited by the appended patent claims.

[0037] More generally, those skilled in the art will readily appreciate that all parameters, dimensions, materials, and configurations described herein are meant to be exemplary and that the actual parameters, dimensions, materials, and/or configurations will depend upon the specific application or applications for which the teachings of the present invention is/are used.

Claims

1. A container for pourable food (100) **characterized in that**

   • the container comprises an initially sealed body

portion (300) for holding the pourable food
• the container comprises a drink spout (200) adapted for drinking from the container,
• the drink spout (200) is permanently attached to the outer surface of the container,
• the drink spout comprises a base portion (210) wherein

◦ the proximal end (220) of the base portion is permanently attached to the outer surface of the container
◦ the proximal end (220) has an opening adapted for receiving pourable food from the body of the container
◦ the distal end (250) of the base portion has an opening adapted for drinking the pourable food from the container
◦ the opening at the proximal end and the opening at the distal end are connected by a conduit for pourable food

• the drink spout comprises a lid portion (250)

◦ which is initially attached to the base portion so that it seals the opening at the distal end by a breakable sealing portion wherein the sealing portion is adapted for being broken by the user so that the opening of the base portion becomes accessible
◦ which remains permanently attached to the container by a connection portion after the breakable sealing portion has been broken by the user

2. A container for pourable food (100) according to any of the preceding claims
wherein
the drink spout (200) is adapted for drinking by sucking.

3. A container for pourable food (100) according to any of the preceding claims
wherein
the drink spout (200) is adapted for drinking by squeezing the container.

4. A container for pourable food (100) according to any of the preceding claims
wherein
the drink spout (200) is adapted for drinking by pouring from the container.

5. A container for pourable food (100) according to any of the preceding claims
wherein
the conduit of the drink spout (200) is dimensioned to limit the through-flow of the pourable food to be comfortable for consumption by a human.

6. A container for pourable food (100) according to any of the preceding claims
wherein
the outer surface of the distal end portion (235) of the base portion (210) of the drink spout has an oval shape in the horizontal cross-section.

7. A container for pourable food (100) according to any of the preceding claims
wherein
the proximal end portion (225) of the base portion (210) of the drink spout has an oval shape in the horizontal cross-section.

8. A container for pourable food (100) according to any of the preceding claims
wherein
the distal end portion (235) of the base portion (210) of the drink spout has a frustoconical shape in the horizontal cross-section which is tapering towards the distal end (230).

9. A container for pourable food (100) according to any of the preceding claims
wherein
the distal end portion (235) of the base portion (210) of the drink spout (200) is dimensioned such that it can be comfortable sealed by the lips of the consumer while drinking.

10. A container for pourable food (100) according to any of the preceding claims
wherein
the breakable sealing portion is arranged below the distal end portion (235) of the base portion (210).

11. A container for pourable food (100) according to any of the preceding claims
wherein
the lid portion (250) comprises a flange portion (260) which extends beyond the dimension of the distal end in the horizontal plane.

12. A container for pourable food (100) according to any of the preceding claims
wherein
the proximal end (220) of the base portion (210) is wider than the distal end (230) and the base portion (210) has a frustoconical shape between the base and the distal portion.

13. A container for pourable food (100) according to any of the preceding claims
wherein
the container is made from a laminate packaging material comprising a layer of paperboard.

14. A container for pourable food (100) according to any

of the preceding claims
wherein
the container is made from a laminate packaging material comprising an oxygen barrier layer.

15. A container for pourable food (100) according to any of the preceding claims
wherein
wherein the drink spout (200) is positioned over am opening in the body (300) of the container.

16. A container for pourable food (100) according to any of the preceding claims
wherein
wherein the drink spout (200) is positioned over a portion of the body (300) of the container adapted for easy opening.

17. A drink spout suitable for use with a container for pourable food according to any of the preceding claims.

FIG 1

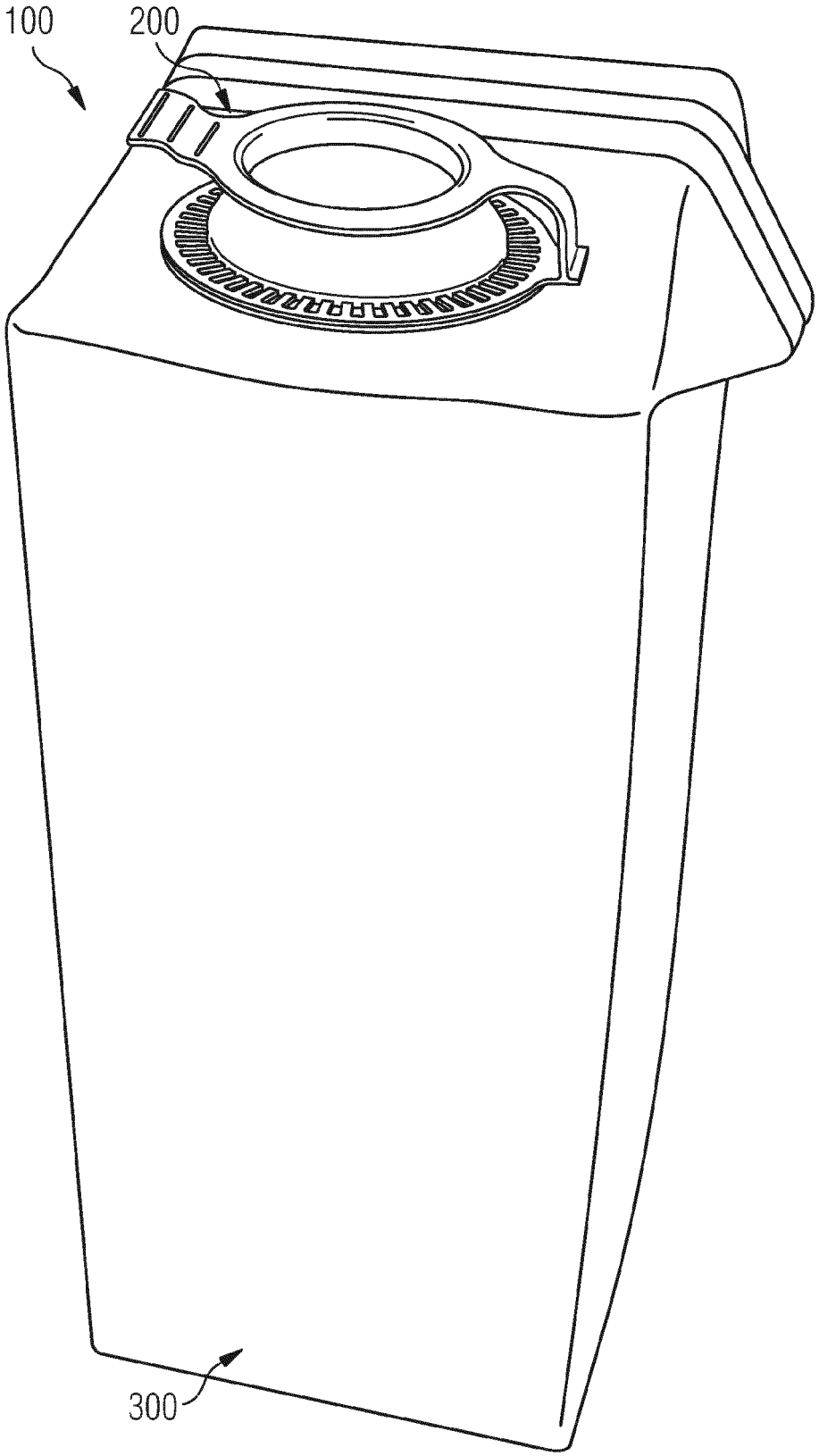
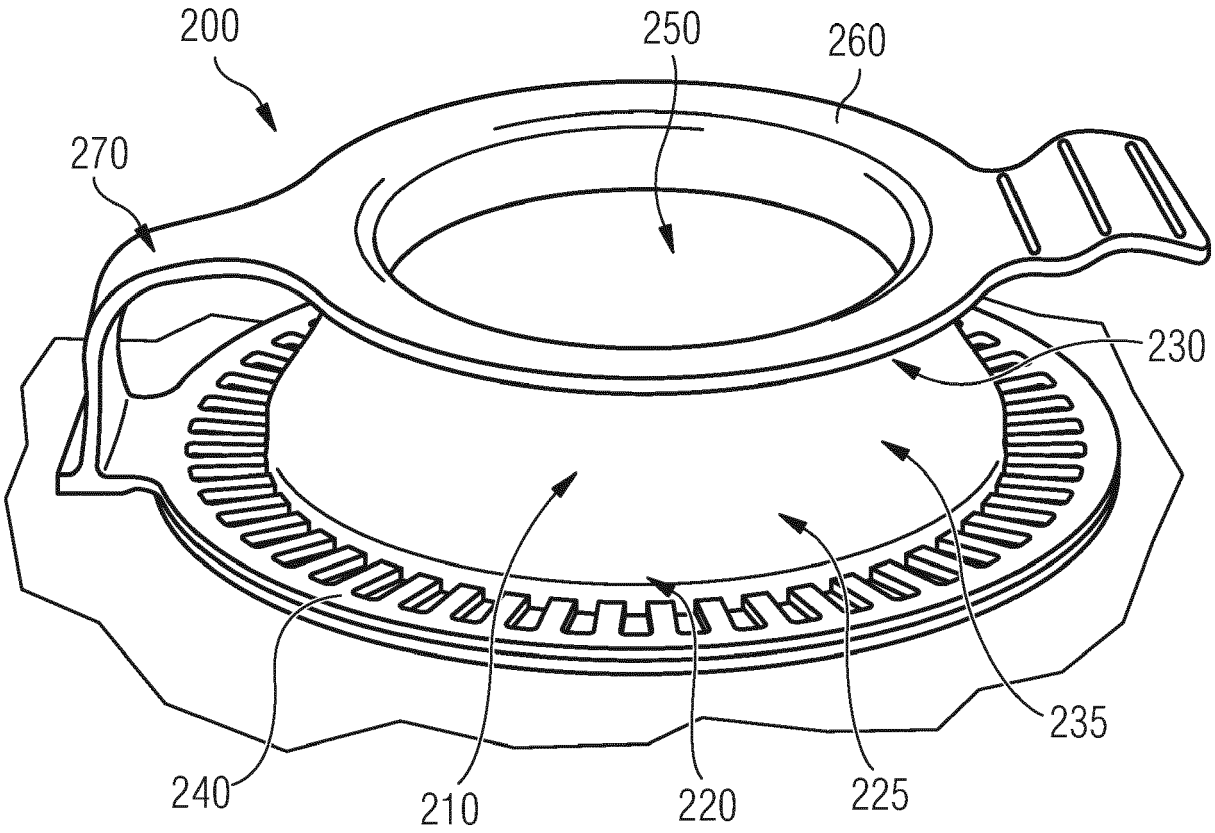


FIG 2



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EUROPEAN SEARCH REPORT

Application Number
EP 18 18 1730

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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TECHNICAL FIELDS SEARCHED (IPC)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	7 December 2018	Segerer, Heiko

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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