



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
22.01.2020 Bulletin 2020/04

(51) Int Cl.:
B65D 47/06 (2006.01) **B65D 47/08** (2006.01)
B65D 51/16 (2006.01)

(21) Application number: **19187076.5**

(22) Date of filing: **18.07.2019**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

(71) Applicant: **Joonil Industrial Co., Ltd.**
Incheon 21314 (KR)

(72) Inventor: **AHN, Bum Joon**
21314 Incheon (KR)

(74) Representative: **Grünecker Patent- und Rechtsanwälte PartG mbB**
Leopoldstraße 4
80802 München (DE)

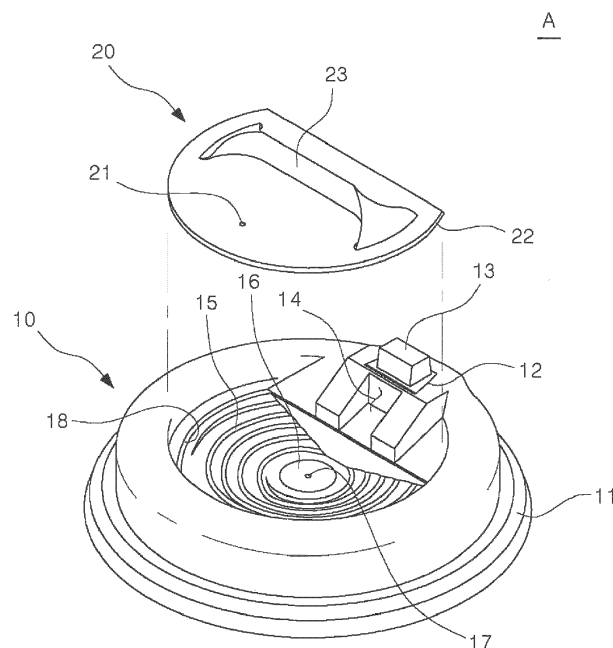
(30) Priority: **20.07.2018 KR 20180003345 U**

(54) **BEVERAGE CUP LID**

(57) Disclosed is a beverage cup lid, in which the beverage cup lid (A) is coupled to a beverage cup (C), and is provided with a dispensing opening and a vent hole, the beverage cup lid including: a lid main body (10) including an engaging groove (11) provided at an edge of the lid main body to be engaged with an engaging protrusion (31) provided at an upper portion of the beverage cup (C), a dispensing opening (12) configured to

be open upward at an upper portion of the lid main body, with a cap (13) being attached thereto, and a first vent hole (17) formed at an upper center of the lid main body to allow outside air or inside air of the beverage cup (C) to flow inside and outside the beverage cup (C), wherein the lid main body (10) is provided with a spiral groove portion (15).

Fig 2



Description

CROSS REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority to Korean Patent Application No. 20-2018-0003345, filed July 20, 2018, the entire contents of which is incorporated herein for all purposes by this reference.

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] The present invention relates generally to a beverage cup lid. More particularly, the present invention relates to a beverage cup lid, in which in the case where a beverage contained in a beverage cup leaks around the beverage cup lid through a vent hole of the beverage cup lid due to shaking occurring when the beverage cup is carried, the leaked beverage is allowed to be collected back in the beverage cup, and the beverage is prevented from leaking outside the beverage cup.

Description of the Related Art

[0003] Generally, in fast-food restaurants or family restaurants, disposable cups that can contain a beverage for a take-out are widely used. The disposable cup for a beverage is used by being covered with a cup lid on the top to prevent the beverage contained inside the cup from leaking outside.

[0004] FIG. 1 is a perspective view of a conventional beverage cup and a cup lid.

[0005] With reference to FIG. 1, a conventional beverage cup lid 1 is coupled to an upper portion of a beverage cup C, and includes: a dispensing opening 2 to allow a user to drink a beverage therethrough; and a vent hole 3 formed at an upper portion of the beverage cup lid to allow outside air or inside air of the beverage cup C to flow inside and outside the beverage cup C and facilitate discharge of a beverage. That is, when a user drinks a beverage through the dispensing opening 2, outside air is introduced into the beverage cup C through the vent hole 3, whereby it is possible to prevent the pressure inside the beverage cup C from being lowered, which allows the user to drink the beverage smoothly through the dispensing opening 2.

[0006] However, when a user carries the beverage cup C containing a beverage, or when a beverage is delivered, shaking occurs, whereby the beverage contained in the beverage cup C may leak out of the beverage cup C through the vent hole 3, and in the case of hot beverages such as coffee, there is a risk that the user may burn his/her hand and there also may be a hygienic problem. That is, it is difficult to package and deliver products containing beverages due to these problems.

[0007] The foregoing is intended merely to aid in the understanding of the background of the present inven-

tion, and is not intended to mean that the present invention falls within the purview of the related art that is already known to those skilled in the art.

5 Documents of Related Art

[0008] (Patent Document 1) Korean Utility Model Application Publication No. 20-2012-0005484

10 SUMMARY OF THE INVENTION

[0009] Accordingly, the present invention has been made keeping in mind the above problems occurring in the related art, and the present invention is intended to propose a beverage cup lid, in which in the case where a beverage contained in a beverage cup leaks around a beverage cup lid through a vent hole of the beverage cup lid due to shaking occurring when a user carries the beverage cup containing the beverage or the beverage is delivered, the leaked beverage is allowed to be collected back in the beverage cup, and the beverage is prevented from leaking outside the beverage cup.

[0010] In order to achieve the above object, according to one aspect of the present invention, there is provided a beverage cup lid, in which the beverage cup lid A is coupled to a beverage cup C, and is provided with a dispensing opening for allowing a user to drink a beverage and with a vent hole for smoothly discharging the beverage, the beverage cup lid including: a lid main body 10 including: an engaging groove 11 provided at an edge of the lid main body to be engaged with an engaging protrusion 31 provided at an upper portion of the beverage cup C; a dispensing opening 12 configured to be open upward at a side of an upper portion of the lid main body, with a cap 13 being attached thereto so as to allow the user to drink the beverage; and a first vent hole 17 formed at an upper center of the lid main body to allow outside air or inside air of the beverage cup C to flow inside and outside the beverage cup C, wherein the lid main body 10 is provided at the upper portion thereof with a spiral groove portion 15 having a spiral groove.

[0011] Further, the spiral groove portion 15 may be configured such that a height thereof is gradually decreased from an outermost edge toward a center thereof so as to have an inclined shape, and a spiral groove starting point provided at the outermost edge and a spiral groove end point provided at the center may be connected together by a single groove.

[0012] Further, the spiral groove portion 15 may be provided at the center thereof with a collecting portion 16 to allow the beverage leaking through the first vent hole 17 to be collected.

[0013] The beverage cup lid may further include a cover 20 that is fitted to the upper portion of the lid main body 10 and is configured to prevent the beverage leaking through the first vent hole 17 from leaking outside.

[0014] Further, the cover 20 may include: a second vent hole 21 provided at a first side of the cover 20 to

allow outside air to be introduced; a locking protrusion 22 protrudingly provided at a side edge of the cover 20 to be engaged with a locking groove 18 provided at the upper portion of the lid main body 10; and a knob 23 provided at a second side of the cover 20 to allow the user to easily insert and separate the cover 20 from the lid main body.

[0015] In order to achieve the above object, according to another aspect of the present invention, there is provided a beverage cup lid, in which the beverage cup lid A is coupled to a beverage cup C, and is provided with a dispensing opening for allowing a user to drink a beverage and with a vent hole for smoothly discharging the beverage, the beverage cup lid including: a lid main body 10 including: an engaging groove 11 provided at an edge of the lid main body to be engaged with an engaging protrusion 31 provided at an upper portion of the beverage cup C; a dispensing opening 12 configured to be open upward at a side of an upper portion of the lid main body, with a cap 13 being attached thereto so as to allow the user to drink the beverage; and a first vent hole 17 formed at an upper center of the lid main body to allow outside air or inside air of the beverage cup C to flow inside and outside the beverage cup C; and a cover 20 fitted to the upper portion of the lid main body 10, provided with a second vent hole (21) provided at a first side thereof to allow air to pass therethrough, and configured to prevent the beverage leaking through the first vent hole 17 from leaking outside.

[0016] Further, the cover 20 may include: a second vent hole 21 provided at a first side of the cover 20 to allow outside air to be introduced; a locking protrusion 22 protrudingly provided at a side edge of the cover 20 to be engaged with a locking groove 18 provided at the upper portion of the lid main body 10; and a knob 23 provided at a second side of the cover 20 to allow the user to easily insert and separate the cover 20 from the lid main body.

[0017] The beverage cup lid according to the present invention has the following effects.

[0018] First, in the case where some of a beverage leaks through the first vent hole 17 due to shaking of the beverage cup C occurring when a user carries the beverage cup C containing the beverage or the beverage is delivered, the beverage leaked to the upper portion of the lid main body 10 is collected back in the beverage cup C by the spiral groove portion 15 provided at the upper portion of the lid main body 10.

[0019] Second, even if some of a beverage leaks through the first vent hole 17 formed in the lid main body 10, the beverage is prevented from leaking outside the beverage cup C by the cover 20.

[0020] In other words, the present invention is advantageous in that by maintaining the vent hole, a user is facilitated drinking a beverage, and the beverage is allowed to be collected back in the beverage cup without leaking outside the beverage cup even if shaking occurs, and thus safe packaging and delivery are secured.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] The above and other objects, features and other advantages of the present invention will be more clearly understood from the following detailed description when taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a perspective view of a conventional beverage cup and a cup lid,

FIG. 2 is an exploded perspective view of a beverage cup lid according to an embodiment of the present invention,

FIG. 3 is an exploded sectional view of the beverage cup lid of FIG. 2, and

FIG. 4 is a perspective view of a beverage cup and beverage cup lid of FIG. 2.

DETAILED DESCRIPTION OF THE INVENTION

[0022] The above and other objects, advantages and features of the present invention will become apparent with reference to the embodiment described in detail below with reference to the accompanying drawings.

[0023] Hereinbelow, to aid to understanding the invention, a preferred embodiment of the present invention will be described in detail with reference to the accompanying drawings. Wherever possible, the same reference numerals will be used throughout the drawings and the description to refer to the same or like elements or parts.

[0024] FIG. 2 is an exploded perspective view of a beverage cup lid according to an embodiment of the present invention, FIG. 3 is an exploded sectional view of the beverage cup lid of FIG. 2, and FIG. 4 is a perspective view of a beverage cup and beverage cup lid of FIG. 2.

[0025] With reference to FIGS. 2 to 4, a beverage cup lid A (hereinafter, referred to as a cup lid) according to an embodiment of the present invention may roughly include a lid main body 10, and a cover 20.

[0026] The beverage cup lid A of the present invention is a cup lid for preventing a beverage contained in a cup from leaking outside by being coupled to an upper portion of a beverage cup such as a disposable cup capable of containing a beverage for take-out in a fast food restaurant or a family restaurant.

[0027] Firstly, the lid main body 10 may be provided at an inner edge thereof with an engaging groove 11 to be engaged with an engaging protrusion 31 protruding along an outer circumference of an open upper portion of a beverage cup C.

[0028] The lid main body 10 may be provided with a dispensing opening 12 configured to be open upward at a side of an upper portion of the lid main body by cutting some of the lid main body 10 so as to allow a user to drink a beverage. The user can drink the beverage directly in the dispensing opening 12 or drink the beverage by putting a straw in the dispensing opening 12 if needed.

[0029] Further, the dispensing opening 12 may be pro-

vided at a side thereof with a cap 13 for opening or closing the dispensing opening 12. The cap 13 is attached to one side of the cut dispensing opening 12, and the dispensing opening 12 may be changed to the opened state from the state where the cap 13 closes the dispensing opening 12 when the cap 13 is rotated about a junction with the dispensing opening 12. Here, a fixing groove 14 may be formed at a position corresponding to the position where the cap 13 is rotated so as to fix the cap 13 in the state where the dispensing opening 12 is opened by rotating the cap 13.

[0030] Meanwhile, the lid main body 10 may be provided at an upper portion thereof with a spiral groove portion 15 having a spiral groove, and the spiral groove portion 15 may be provided at a center thereof with a first vent hole 17 for allowing inside air of the beverage cup C to flow outside the beverage cup C or for allowing outside air to be introduced in the beverage cup C when a user drinks a beverage through the dispensing opening 12 so as to prevent the pressure inside the beverage cup C from being lowered, whereby the air inside the beverage cup C can be discharged by the first vent hole 17 or a user can easily drink the beverage through the dispensing opening 12.

[0031] The spiral groove portion 15 is a portion that allows the leaked beverage to flow back to the beverage cup C when the beverage contained in the beverage cup C leaks through the first vent hole 17.

[0032] The spiral groove portion 15 may be configured such that a height thereof is gradually decreased from an outermost edge toward a center thereof so as to have an inclined shape, and a spiral groove starting point at the outermost edge and a spiral groove end point at the center may be connected together by a single groove.

[0033] Further, the spiral groove portion 15 may be provided at the center thereof with a collecting portion 16 to allow a beverage leaking through the first vent hole 17 to be collected.

[0034] In other words, in the case where a beverage contained in the beverage cup C leaks out of the lid main body 10 through the first vent hole 17 due to shaking when a user carries the beverage cup C containing the beverage, the beverage leaked from the first vent hole 17 flows toward the first vent hole 17 along the spiral groove portion 15, and is temporarily collected in the collecting portion 16 and flows back to the beverage cup C through the first vent hole 17.

[0035] Meanwhile, the upper portion of the lid main body 10, that is, the upper edge of the spiral groove portion 15 may be provided with a locking groove 18 to allow the cover 20 to be fitted therein.

[0036] Next, the cover 20 is a part that prevents a beverage from leaking outside the beverage cup C when the beverage leaks through the first vent hole 17 in the above described embodiment.

[0037] The cover 20 may be fitted in the locking groove 18 at the upper portion of the lid main body 10. In other words, the locking groove 18 formed at the upper portion

of the lid main body 10 may be formed along the edge of the upper portion of the lid main body 10 except positions corresponding to the dispensing opening 12 and the fixing groove 14, and cover 20 may be formed in a shape corresponding to the shape of the locking groove 18 so that the cover 20 can be coupled to the lid main body 10 as a locking protrusion 22 is engaged with the locking groove 18.

[0038] The cover 20 may include: a second vent hole 21 provided at a first side of the cover 20 to allow outside air to be introduced; a locking protrusion 22 protrudingly provided at a side edge of the cover 20 to be engaged with the locking groove 18 formed at the upper portion of the lid main body 10; and a knob 23 provided at a second side of the cover 20 to allow a user to easily insert and separate the cover 20 from the lid main body.

[0039] The second vent hole 21, similar to the first vent hole 17, is for allowing inside air of the beverage cup C to flow outside the beverage cup C or for allowing outside air to be introduced in the beverage cup C when a user drinks a beverage through the dispensing opening 12 so as to prevent the pressure inside the beverage cup C from being lowered. When the user drinks the beverage, the outside air is first introduced through the second vent hole 21 formed in the cover 20, and then the introduced air is sent to the inside of the beverage cup C through the first vent hole 17 again, so that the user can drink the beverage smoothly through the dispensing opening 12.

[0040] The locking protrusion 22 is a part that protrudes along the edge of the cover 20 and is fitted in the locking groove 18 of the lid main body 10 so that the cover 20 is fixed to the lid main body 10.

[0041] The knob 23 is a part that facilitates insertion or separation of the cover 20 from the lid main body 10, and may protrude upward. Further, the knob 23 may be configured such that the height thereof is increased from the opposite ends toward the center thereof so as to have an inclined shape.

[0042] The beverage cup lid A according to an embodiment of the technical idea of the present invention is advantageous in that: in the case where some of a beverage leaks through the first vent hole 17 due to shaking of the beverage cup C occurring when a user carries the beverage cup C containing the beverage or the beverage is delivered, the beverage leaked to the upper portion of the lid main body 10 may be collected back in the beverage cup C by the spiral groove portion 15 provided at the upper portion of the lid main body 10; and even if some of the beverage leaks through the first vent hole 17 formed in the lid main body 10, the beverage may be prevented from leaking outside the beverage cup C by the cover 20. In other words, by maintaining the vent hole, a user is facilitated drinking beverage, and the beverage is allowed to be collected back in the beverage cup without leaking outside the beverage cup even if shaking occurs, and thus safe packaging and delivery are secured.

[0043] Although the invention is described with refer-

ence to specific items such as specific structural elements, to merely some embodiments, and to drawings, such specific details disclosed herein are merely representative for purposes of helping more comprehensive understanding of the present invention. The present invention, however, is not limited to only the example embodiments set forth herein, and those skilled in the art will appreciate that the present invention can be embodied in many alternate forms.

Claims

1. A beverage cup lid, in which the beverage cup lid (A) is coupled to a beverage cup (C), and is provided with a dispensing opening for allowing a user to drink a beverage and with a vent hole for smoothly discharging the beverage, the beverage cup lid comprising:

a lid main body (10) including: an engaging groove (11) provided at an edge of the lid main body to be engaged with an engaging protrusion (31) provided at an upper portion of the beverage cup (C); a dispensing opening (12) configured to be open upward at a side of an upper portion of the lid main body, with a cap (13) being attached thereto so as to allow the user to drink the beverage; and a first vent hole (17) formed at an upper center of the lid main body to allow outside air or inside air of the beverage cup (C) to flow inside and outside the beverage cup (C), wherein the lid main body (10) is provided at the upper portion thereof with a spiral groove portion (15) having a spiral groove.

2. The beverage cup lid of claim 1, wherein the spiral groove portion (15) is configured such that a height thereof is gradually decreased from an outermost edge toward a center thereof so as to have an inclined shape, and a spiral groove starting point provided at the outermost edge and a spiral groove end point provided at the center are connected together by a single groove.

3. The beverage cup lid of claim 1 or 2, wherein the spiral groove portion (15) is provided at the center thereof with a collecting portion (16) to allow the beverage leaking through the first vent hole (17) to be collected.

4. The beverage cup lid of claim 1, further comprising: a cover (20) fitted to the upper portion of the lid main body (10), and configured to prevent the beverage leaking through the first vent hole (17) from leaking outside.

5. The beverage cup lid of claim 1, wherein the cover

(20) includes:

a second vent hole (21) provided at a first side of the cover (20) to allow outside air to be introduced;
a locking protrusion (22) protrudingly provided at a side edge of the cover (20) to be engaged with a locking groove (18) provided at the upper portion of the lid main body (10); and
a knob (23) provided at a second side of the cover (20) to allow the user to easily insert and separate the cover (20) from the lid main body.

6. A beverage cup lid, in which the beverage cup lid (A) is coupled to a beverage cup (C), and is provided with a dispensing opening for allowing a user to drink a beverage and with a vent hole for smoothly discharging the beverage, the beverage cup lid comprising:

a lid main body (10) including: an engaging groove (11) provided at an edge of the lid main body to be engaged with an engaging protrusion (31) provided at an upper portion of the beverage cup (C); a dispensing opening (12) configured to be open upward at a side of an upper portion of the lid main body, with a cap (13) being attached thereto so as to allow the user to drink the beverage; and a first vent hole (17) formed at an upper center of the lid main body to allow outside air or inside air of the beverage cup (C) to flow inside and outside the beverage cup (C); and
a cover (20) fitted to the upper portion of the lid main body (10), provided with a second vent hole (21) provided at a first side thereof to allow air to pass therethrough, and configured to prevent the beverage leaking through the first vent hole (17) from leaking outside.

7. The beverage cup lid of claim 6, wherein the cover (20) includes:

a second vent hole (21) provided at a first side of the cover (20) to allow outside air to be introduced;
a locking protrusion (22) protrudingly provided at a side edge of the cover (20) to be engaged with a locking groove (18) provided at the upper portion of the lid main body (10); and
a knob (23) provided at a second side of the cover (20) to allow the user to easily insert and separate the cover (20) from the lid main body.

Fig 1

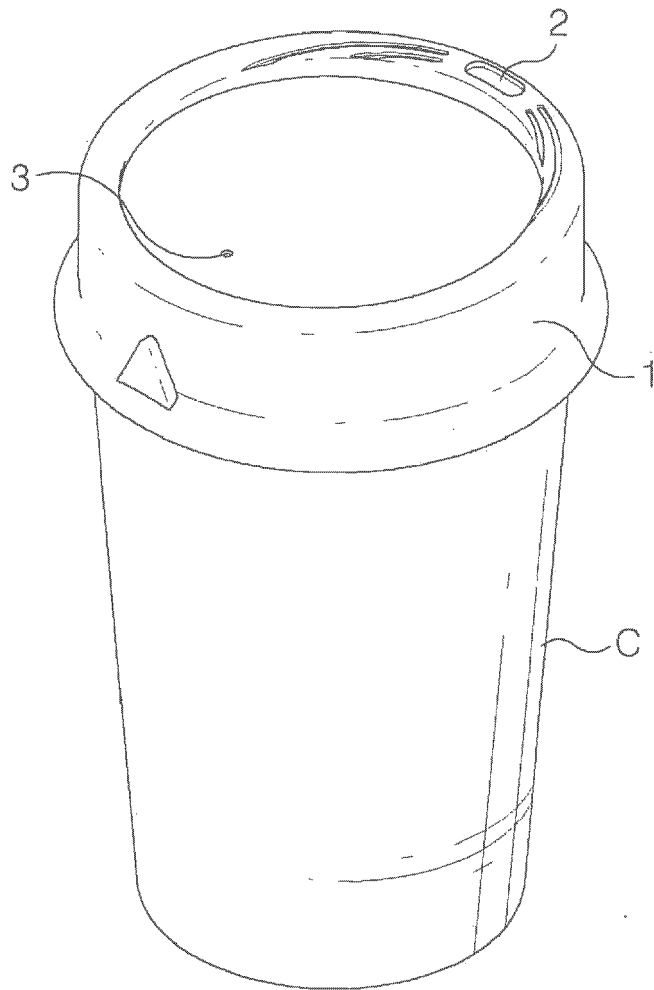


Fig 2

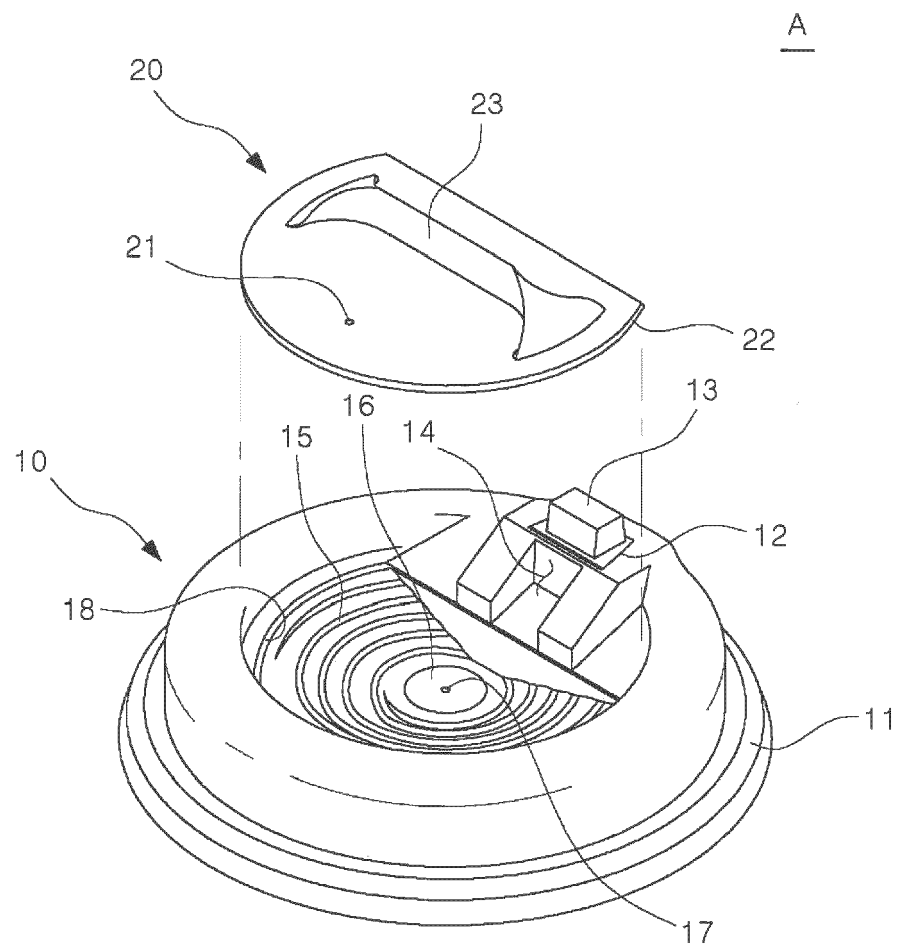


Fig 3

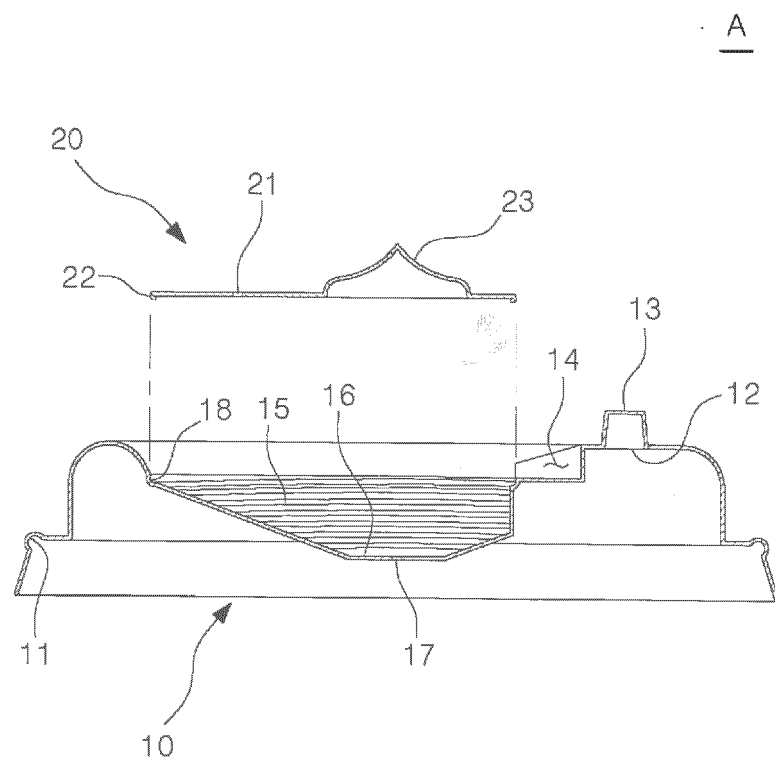
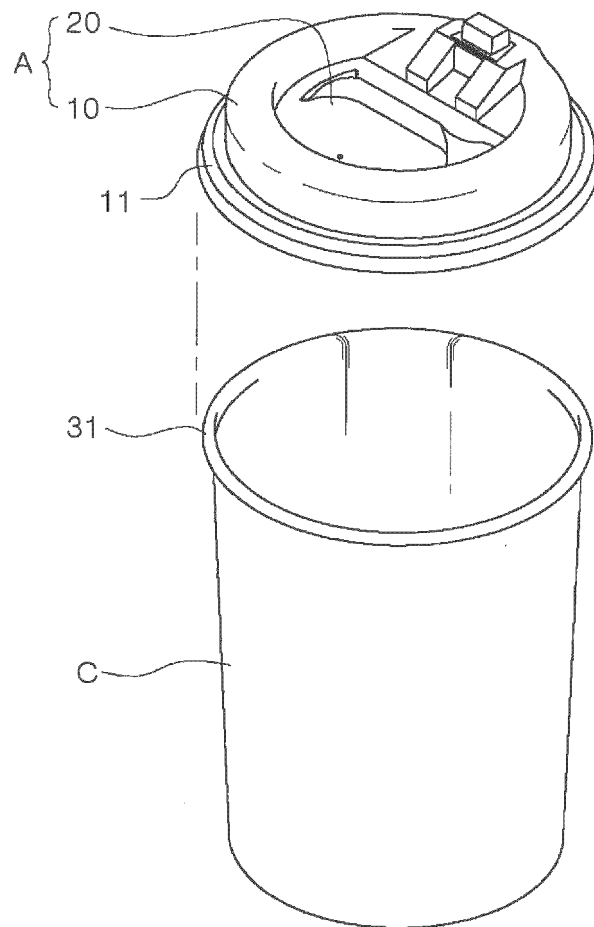


Fig 4



REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- KR 2020180003345 [0001]
- KR 2020120005484 [0008]