(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 2 650 227 A2**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
16.10.2013 Bulletin 2013/42

(21) Application number: **11834614.7**

(22) Date of filing: **19.10.2011**

(51) Int Cl.:
B65D 35/44 *(2006.01)* ***B65D 41/32*** *(2006.01)*
B65D 35/38 *(2006.01)* ***B65D 43/04*** *(2006.01)*

(86) International application number:
PCT/KR2011/007776

(87) International publication number:
WO 2012/053814 (26.04.2012 Gazette 2012/17)

(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

(30) Priority: **19.10.2010 KR 20100010689 U**

(71) Applicant: **Yonwoo Co., Ltd.**
Incheon 404-250 (KR)

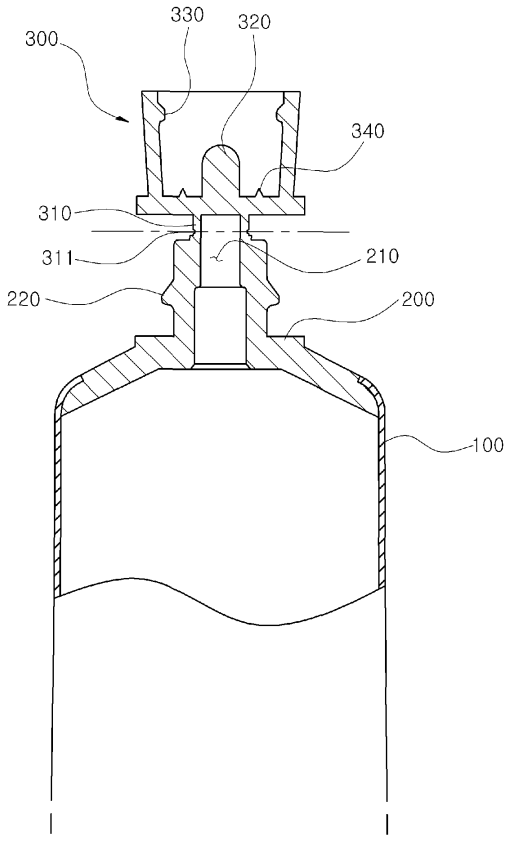
(72) Inventor: **SON, Su-Jin**
Incheon 404-250 (KR)

(74) Representative: **Patentanwaltskanzlei WILHELM & BECK**
Prinzenstrasse 13
80639 München (DE)

(54) DISPOSABLE TUBULAR CONTAINER HAVING AN INTEGRATED CAP

(57) According to an embodiment of the present invention, a disposable tubular container having an integrated cap is configured such that the cap is formed integrally with a tube neck through a connection member, perforations are formed along an outer surface of the connection member such that the cap may be detached from the tube neck, and the cap is inverted and coupled to the tube neck after being detached, thus thoroughly preventing air from entering a tubular body to minimize the spoilage of the container in the tubular container and enable the cap to be easily opened/closed so as to provide user convenience.

[Fig. 2]



EP 2 650 227 A2

Description

Technical Field

[0001] The present invention relates to a disposable tubular container having an integrated cap, and in particular to a disposable tubular container having an integrated cap which has features in that the stored contents can be used even it is long stored in such a way to minimize in multiple ways the spoilage of contents by preventing air from entering a tubular body while providing a user with convenience when in use because the opening and closing of a cap are easier.

Background Art

[0002] A disposable tubular container is generally configured to store a small amount of contents in a smaller container. The contents can be discharged by cutting off a cap and opening a discharge hole. Since the above mentioned disposable tubular container is configured in a disposable form, all the contents stored in the container should be consumed once it is opened because the conventional disposable tubular container is not equipped with a closing means after it is cut off and opened.

[0003] Since the use amount of contents is different depending on the user, all the contents cannot be stored at a time, so the contents is generally used multiple times. Since the conventional disposable tubular container is not equipped with a closing means for closing the discharge hole, the contents is stored with the discharge hole open, so the contents may be spoiled due to the input of air, so the conventional disposable tubular container cannot be applied to functional cosmetics, salve, dye, etc.

[0004] In order to improve the above mentioned problems, a new product is disclosed with a discharge hole opening and closing rod at a cap in the attempt to close the discharge hole after the cap of the disposable tubular container is cut off; however it still has a problem that air may be inputted through a gap formed between the discharge hole and the discharge hole opening and closing rod. In this case, when contents is stored for a long while, the contents may go bed.

[0005] In case that the input of air is prevented by engaging a cap to the tubular neck by making the discharge hole opening and closing rod have the same size as the size of the discharge hole, the opening and closing of the cap are not easy, thus causing inconveniences when in use.

Disclosure of Invention

[0006] Accordingly, the present invention is made to improve the above mentioned problems encountered in the conventional art and other problems. It is an object of the present invention to provide a disposable tubular container having an integrated cap which has features in that the stored contents can be used even it is long stored in such a way to minimize in multiple ways the spoilage of contents by preventing air from entering a tubular body while providing a user with convenience when in use because the opening and closing of a cap are easier.

[0007] To achieve the above objects, there is provided a disposable tubular container having an integrated cap, comprising a tubular body configured to store a certain contents; a tubular neck which is engaged to the top of the tubular body and has a discharge hole through which contents stored in the tubular body is discharged and an engaging shoulder helping for a cap to be engaged to an upper outer side; a discharge hole opening and closing rod which is integrally formed at the tubular neck through a joint member at the top of the tubular neck and has a cutting groove surrounding an outer surface of the joint member for the sake of cutting and is engaged to the discharge groove for the sake of engagement of the tubular neck in an inverted form in a state it is cut off; and a cap having a mounting protrusion mounted at the lower side of the engaging shoulder.

[0008] In addition, the cap includes a protrusion part which protrudes surrounding the discharge hole opening and closing rod and pressurizes the top of the tubular neck.

Advantageous Effects

[0009] As described above, the present invention has features in that the stored contents can be used even it is long stored in such a way to minimize in multiple ways the spoilage of contents by preventing air from entering a tubular body while providing a user with convenience when in use because the opening and closing of a cap are easier.

Brief Description of Drawings

[0010] Figure 1 is a perspective view illustrating a construction of a disposable tubular container having an integrated cap according to a preferred embodiment of the present invention.

[0011] Figure 2 is a cross sectional view illustrating a construction of a disposable tubular container having an integrated cap according to a referred embodiment of the present invention.

[0012] Figure 3 and 4 are views for describing the state that a cap of a disposable tubular container having an integrated cap is cut from a tubular neck and is reengaged according to a preferred embodiment of the present invention.

Best modes for carrying out the invention

[0013] The present invention will be described with reference to the accompanying drawings. It is noted that the same reference numerals appearing in each drawing

means the same elements.

[0014] Figure 1 is a perspective view illustrating a construction of a disposable tubular container having an integrated cap according to a preferred embodiment of the present invention. Figure 2 is a cross sectional view illustrating a construction of a disposable tubular container having an integrated cap according to a referred embodiment of the present invention. Figure 3 and 4 are views for describing the state that a cap of a disposable tubular container having an integrated cap is cut from a tubular neck and is reengaged according to a preferred embodiment of the present invention.

[0015] As show in Figures 1 to 4, the disposable tubular container having an integrated cap according to a preferred embodiment of the present invention comprises a tubular body 10, a tubular neck 200 and a cap 300.

[0016] The tubular body 100 serves to store contents and is made from a flexible tube so the stored contents can be discharged to the outside as a user squeezes.

[0017] The tubular neck 200 is engaged to the top of the tubular body 100 for thereby supporting the tubular body 100, with a discharge hole 210 being formed at its upper center for the contents stored in the tubular 100 to be discharged, with an engaging shoulder 220 being formed at its upper outer surface for a mounting protrusion 330 to be mounted thereon for the sake of an engagement of the cap 300.

[0018] The cap 300 is integrated at the tubular neck 200 through a joint member 310 at the top of the tubular neck 200, and it is preferred that the joint member 310 surrounds an outer surface and is equipped with a cutting groove 311 for the sake of cutting as a user pressurizes.

[0019] In the present invention, it is configured such that the cap 300 hangs on inverted at an angle of 180° while surrounding the tubular neck. For this, the cap 300 comprises a discharge hole opening and closing rod 320 engaged at the discharge hole 210, and a mounting protrusion 330 mounted in the lower side of the engaging shoulder 220.

[0020] The discharge hole opening and closing rod 230 is engaged to the discharge hole 210 and serves to prevent air from entering the interior of the tubular body 100 for thereby preventing spoilage of the contents. It is preferred that the discharge hole opening and closing rod 320 is smaller than the discharge hole 210 for the sake of easier opening and closing of the cap 300.

[0021] The mounting protrusion 330 is mounted in the engaging shoulder 220 so as to prevent the cap 300 from moving and parting in the upward direction of the tubular neck 200.

[0022] In addition, the mounting protrusion 330 serves to prevent air from entering the interior of the tubular body 100 like the discharge hole opening and closing rod 320 for the purpose of preventing spoilage of the contents.

[0023] Meanwhile, in the cap 300 is provided a protrusion part 340 which protrudes surrounding the discharge hole opening and closing rod 320 for thereby pressurizing the top of the tubular neck 200. The protrusion part 340 serves to prevent air from entering the interior of the tubular body 100 like the discharge hole opening and closing rod 320 and the mounting protrusion 330 for thereby preventing spoilage of the contents.

[0024] The cap 300 of the present invention has features in that the contents is prevented from going bad in triple ways by preventing air from entering the interior of the tubular body 100 by providing the discharge hole opening and closing rod 320, the mounting protrusion 330 and the protrusion part 340. Even when the contents is long stored, the contents can be used without spoilage.

[0025] It is preferred that the tubular neck 200 and the cap 300 are made from a substantially solid material which is different from the tubular body 100 for the sake of better sealing when the cap 300 is engaged.

[0026] As the present invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, it should also be understood that the above-described examples are not limited by any of the details of the foregoing description, unless otherwise specified, but rather should be construed broadly within its spirit and scope as defined in the appended claims, and therefore all changes and modifications that fall within the meets and bounds of the claims, or equivalences of such meets and bounds are therefore intended to be embraced by the appended claims.

[0027] As the present invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, it should also be understood that the above-described examples are not limited by any of the details of the foregoing description, unless otherwise specified, but rather should be construed broadly within its spirit and scope as defined in the appended claims, and therefore all changes and modifications that fall within the meets and bounds of the claims, or equivalences of such meets and bounds are therefore intended to be embraced by the appended claims.

Claims

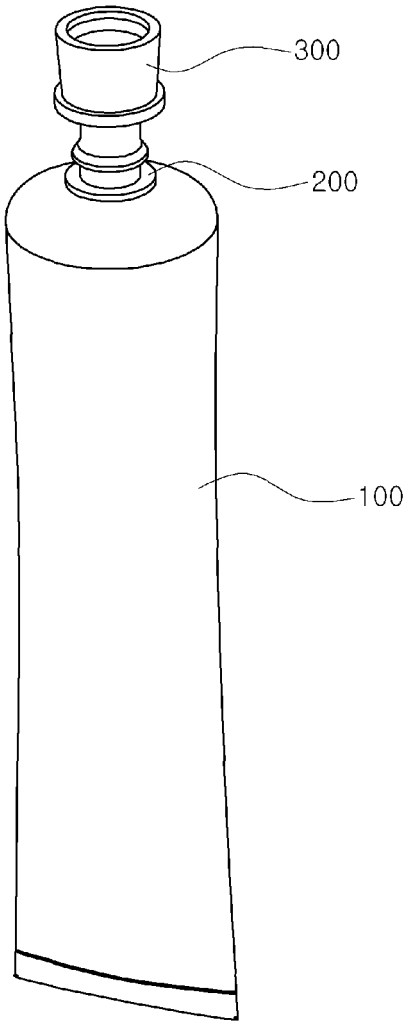
1. A disposable tubular container having an integrated cap, comprising:

   a tubular body configured to store contents;
   a tubular neck which is engaged to the top of the tubular body and has a discharge hole through which contents stored in the tubular body is discharged and an engaging shoulder helping for a cap to be engaged to an upper outer side;
   a discharge hole opening and closing rod which is integrally formed at the tubular neck through a joint member at the top of the tubular neck and has a cutting groove surrounding an outer surface of the joint member for the sake of cutting and is engaged to the discharge groove for the sake of engagement of the tubular neck in an

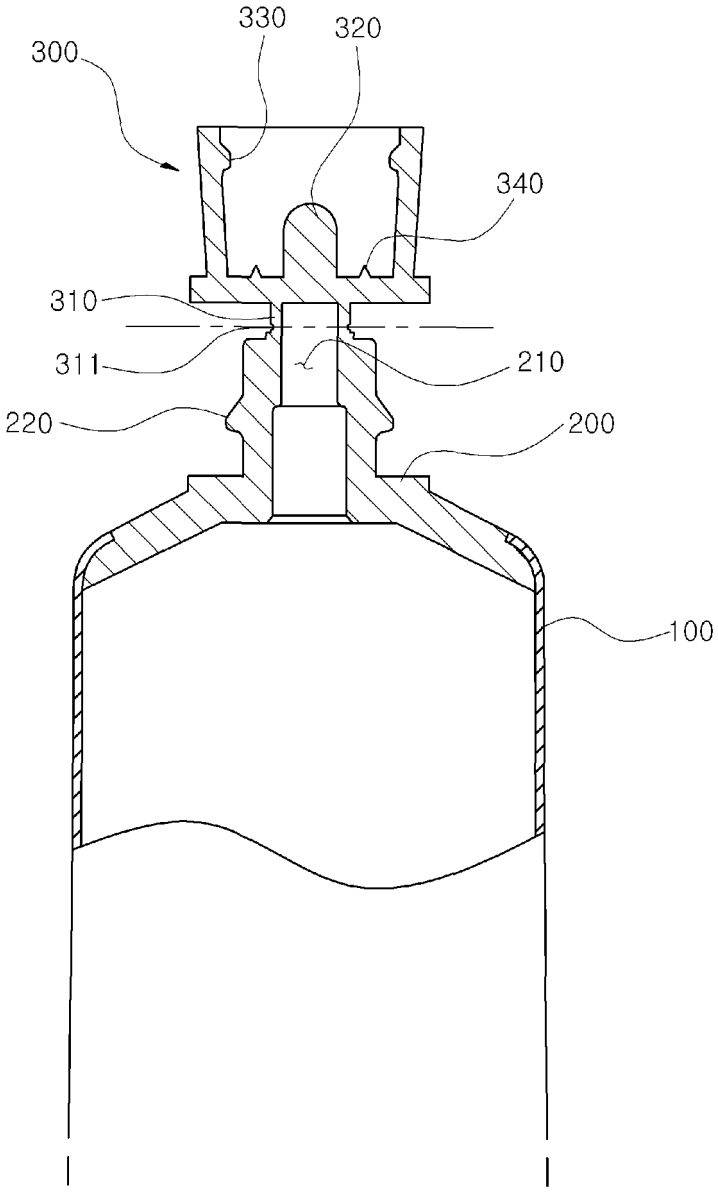
inverted form in a state it is cut off; and
a cap having a mounting protrusion mounted at the lower side of the engaging shoulder.

2. The container of claim 1, wherein the cap includes a protrusion part which protrudes surrounding the discharge hole opening and closing rod and pressurizes the top of the tubular neck.

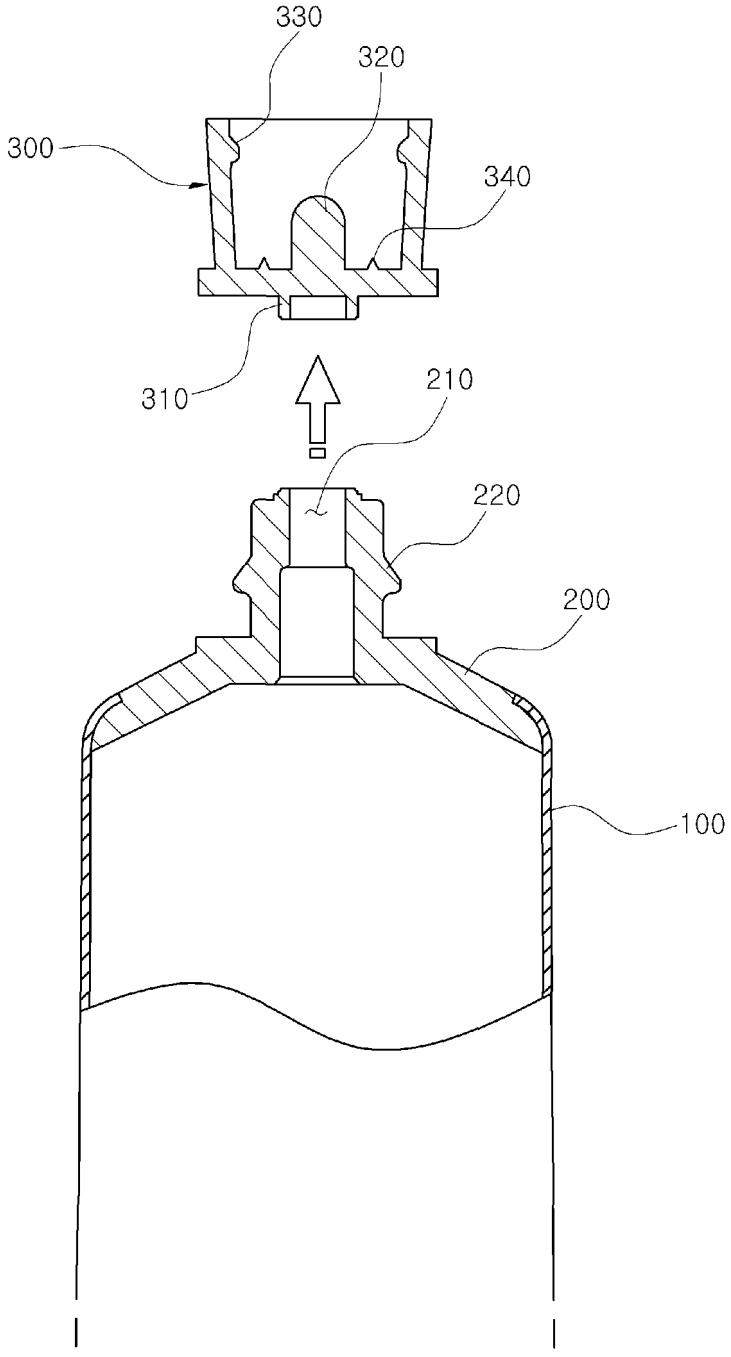
[Fig. 1]



[Fig. 2]



[Fig. 3]



[Fig. 4]