United States Patent Application Publication	20250262633
Kind Code	A1
Publication Date	August 21, 2025
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LIQUID CONTENT-DISCHARGING CONTAINER

Abstract

A liquid content-discharging container according to an embodiment of the present invention comprises: an inner container in which a liquid content is received; an outer container surrounding the exterior of the inner container; a shoulder coupled to the inner container or the outer container; a discharge means installed in the shoulder and connected to the inner container to discharge the liquid content; a discharge unit installed in the shoulder and connected to the inner container to discharge the liquid content; a button connected to one side of the discharge means to operate the discharge means and having a discharge fluid channel formed therein; a button connected to one side of the discharge unit to operate the discharge unit and having a discharge fluid channel formed therein; a nozzle coupled to one side of the button and having a discharge port; and an opening/closing means which is formed inside the button and the nozzle and opens/closes the discharge port and the discharge fluid channel simultaneously or sequentially when moved back and forth due to the discharge pressure of the liquid content.

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Family ID: **1000008600339**

Appl. No.: **18/569980**

Filed (or PCT Filed): **July 08, 2022**

PCT No.: **PCT/KR2022/009937**

Foreign Application Priority Data

KR	10-2021-0100502	Jul. 30, 2021

Publication Classification

Int. Cl.: **B05B11/00** (20230101); **A45D34/00** (20060101); **A45D40/00** (20060101); **A47K5/12** (20060101)

U.S. Cl.:

CPC **B05B11/0067** (20130101); **A45D34/00** (20130101); **A45D40/00** (20130101); **A47K5/1205** (20130101); **B05B11/0008** (20130101); **B05B11/0038** (20180801); A45D2200/056 (20130101)

Background/Summary

TECHNICAL FIELD

[0001] In today's modern society, both men and women of all ages use cosmetics upon needs in accordance with the rapid diversification trend of the times. Particularly, women use cosmetic products and cosmetic tools with various types and various colors, and various high-quality cosmetic products and tools are being released into the market everyday through the research and development of cosmetics-related companies.

[0002] The cosmetics are classified, based on the purpose of use, into facial cleansing cosmetics used for removing sebum, wastes and contaminants on a surface of a skin, base cosmetics used for properly supplying moisture and oil to the skin, color cosmetics used for expressing beautiful colors, hair cosmetics used for protecting hairs and supplying nutrition as well as removing foreign substances from hairs or scalp, and perfumes obtained by dissolving fragrant materials in alcohol or the like and used for giving a fragrance to others.

[0003] In addition, the cosmetics are manufactured from natural raw materials as interest in the stability of cosmetic compositions and the skin beauty are increased due to the improvement of living standards. However, since preservatives are not added to the above cosmetics to minimize irritation to the skin, the risk of deterioration is relatively high compared to cosmetics manufactured from chemical raw materials. For example, the cosmetics manufactured from natural raw materials may be contaminated or deteriorated when bacteria permeate due to contact with external air during use or the composition is oxidized due to contact with air.

[0004] In addition, in order to store and use cosmetics in a liquid or gel form, such as lotions, creams, gels, shampoos, and hair conditioners, among the above cosmetics, a container having a simple opening/closing function is generally used. The cosmetics are put from the container by using a spatula or a finger and applied to the skin or hair. However, the above conventional container fails to constantly control the amount of discharged cosmetics, and thus the cosmetics are wasted.

[0005] Accordingly, a pump-type cosmetic container capable of constantly controlling the discharge amount of cosmetics has been developed so that contact between cosmetics and outside air is minimized, and convenience in use is facilitated.

[0006] The pump-type cosmetic container includes a container body configured to accommodate contents; a pressurized pump provided in an opening of the container body and operated by pressing; and a nozzle head coupled to an upper portion of the container body while being connected to the pressurized pump, wherein the contents accommodated in the container body are discharged to the outside by a predetermined amount by the pumping operation of the pressurized pump when the nozzle head exposed to the outside is pressed downward.

[0007] According to the above-described pump-type cosmetic container, the contents accommodated in the container body may be prevented from coming into contact with outside air, it may be economical because the contents are not excessively discharged through a discharge port

of the nozzle, and it may be convenient to use because the cosmetic container operates even when the container body is placed on the floor.

[0008] However, according to the pump-type cosmetic container, since a discharge port for discharging the contents to the outside is always opened, the discharged content may not be finished cleanly and may flow downward from the nozzle, thereby causing a mess. In addition, the contents remaining in the discharge port and the discharge passage may be exposed to the outside for a long period of time and hardened to block the discharge port or cause unsanitariness due to due to contamination or deterioration of ingredients.

[0009] In order to solve the above-mentioned problems, the applicant of the present invention filed the application entitled “VISCOUS FLUID DISCHARGE PUMP STRUCTURE” and registered under Korean Utility Model Registration No. 20-0467636. The above related art includes: a coupling body having a mounting portion attached to and detached from a storage container for storing a viscous fluid; a pump body positioned above the coupling body and moving up and down inside the coupling body; a nozzle head mounted to pass through the pump body and having a fluid discharge hole for discharging the viscous fluid guided along a discharge passage inside the pump body; and an opening/closing unit that opens the fluid discharge hole by a pressure applied to the pump body to discharge the viscous fluid to the outside of the pump body, and blocks the fluid discharge hole when the discharge of the viscous fluid is completed.

[0010] However, according to the above related art, since the contents may be hardened at an end of a nozzle, an inner end of the nozzle and an opening/closing portion incompletely come into close contact with each other or an elastic restoring force of an elastic spring is decreased, thereby forming a gap between the opening/closing portion and the nozzle, and accordingly, sealing inside the nozzle and pump body fail to be properly maintained.

[0011] In addition, according to the above related art, since the contents are accommodated inside the storage container without a refill container, and the storage container is screw-coupled to the coupling body, it may be inconvenient to replace the storage container when the content contained in the storage container is entirely exhausted.

DOCUMENTS OF CONVENTIONAL ART

Patent Documents

[0012] (Patent Document 1) Korea Patent Publication No. No. 10-2011-0023299 (published on Mar. 8, 2011)

[0013] (Patent Document 2) Korean Patent Registration No. No. 10-1376050 (published on Mar. 19, 2014)

[0014] (Patent Document 3) Korean Utility Model Registration No. 20-0467636 (published on Jul. 2, 2013)

DISCLOSURE

Technical Problem

[0015] In order to solve the above problems, an object of the present invention is to provide a liquid content-discharging container in which an opening/closing unit is operated by a discharge pressure of a liquid content to open and close a discharge port of a nozzle and a discharge passage of a button together, thereby doubly sealing the inside of the nozzle and the button to stably block contact between the liquid contents and external air, so that the liquid contents may be prevented from being contaminated and deteriorated.

Technical Solution

[0016] In order to achieve the above-mentioned object, the present invention provides a liquid content-discharging container including: an inner container for accommodating a liquid content; an outer container surrounding an exterior of the inner container; a shoulder coupled to the inner container or the outer container; a discharge unit installed inside the shoulder and connected to the inner container to discharge the liquid content; a button connected to one side of the discharge unit to operate the discharge unit and having a discharge fluid channel formed therein; a nozzle coupled

to one side of the button and formed therein with a discharge port; and an opening/closing unit formed inside the button and the nozzle to simultaneously or sequentially open/close the discharge port and the discharge fluid channel while reciprocating due to a discharge pressure of the liquid content.

[0017] In addition, the inner container may include a pouch container having a shape changed when the liquid contents contained therein are consumed.

[0018] In addition, the inner container may include a soft receiving portion in which the liquid contents are accommodated, and a hard coupling portion joined to the receiving portion so as to be coupled to the shoulder.

[0019] In addition, the inner container and the outer container may be formed therein with a detachable protrusion and a detachable groove, respectively, so that the inner container and the outer container may be detached from each other by a rotational operation between the inner container and the outer container.

[0020] In addition, the shoulder may be formed therein with a first drain hole and the outer container may be formed therein with a second drain hole, so that water introduced between the shoulder and the button sequentially may pass through the first drain hole and the second drain hole and be discharged to an outside.

[0021] In addition, the discharge unit may be a pump that pumps the liquid contents contained in the inner container.

[0022] In addition, the discharge passage of the button may be formed therein with a sealing blade to come into close contact with an outer circumference of the opening/closing unit.

[0023] In addition, the sealing blade of the button may protrude from an inner wall of the discharge passage and be inclined at a predetermined angle in a discharge direction of the liquid contents.

[0024] In addition, the button and the discharge unit may be connected to each other through a connection unit, and the connection unit may be formed therein with a connection path.

[0025] In addition, a button stopper may be detachably coupled to an outer side of the button to prevent the button from being pressed.

[0026] In addition, the opening/closing unit may include an opening/closing rod reciprocating back and forth by the discharge pressure of the liquid contents, and an elastic member for providing elasticity to the opening/closing rod.

[0027] In addition, the opening/closing rod of the opening/closing unit may include a first sealing portion for sealing the discharge port, a second sealing portion for sealing the discharge passage, a fitting portion fitted to the elastic member, and a guide blade protruding from an outer circumference of the opening/closing rod to come into close contact with an inner wall of the discharge passage, and the second sealing portion may have a diameter relatively larger than a diameter of the first sealing portion.

Advantageous Effects

[0028] According to the embodiment of the present invention, an opening/closing unit is operated by a discharge pressure of a liquid content to open and close a discharge port of a nozzle and a discharge passage of a button together, thereby doubly sealing the inside of the nozzle and the button to stably block contact between the liquid contents and external air, so that the liquid content can be prevented from being contaminated and deteriorated.

[0029] According to the embodiment of the present invention, the outer container may be easily attached to and detached from the inner container by a simple rotational operation between the inner container for containing the liquid contents and the outer container for surrounding an outer side of the inner container, so that the inner container can be conveniently replaced after the outer container is separated.

[0030] According to the embodiment of the present invention, a first drain hole and a second drain hole are formed in the shoulder and the outer container, respectively, and accordingly, water introduced between the button and the shoulder is discharged to the outside sequentially through

the first and second drain holes without remaining inside the shoulder or between the inner and outer containers, so that hygienic use can be implemented.

Description

DESCRIPTION OF DRAWINGS

[0031] FIG. **1** is a perspective view of a liquid content-discharging container according to the embodiment of the present invention.

[0032] FIG. **2** is an exploded perspective view of the liquid content-discharging container according to the embodiment of the present invention.

[0033] FIG. **3** is a sectional view of the liquid content-discharging container according to the embodiment of the present invention.

[0034] FIG. **4** is a sectional view illustrating a state in which liquid contents are discharged to the outside by pressurizing a button according to the embodiment of the present invention.

[0035] FIG. **5** is a sectional view illustrating a state in which a discharge port and a discharge passage are doubly sealed by depressurizing the button according to the embodiments of the present invention.

[0036] FIG. **6** is a sectional view illustrating a state in which water introduced between the button and the shoulder is drained according to the embodiments of the present invention.

[0037] FIG. **7** is a perspective view illustrating an attachment and detachment structure between inner and outer containers of the liquid content-discharging container according to the embodiment of the present invention.

[0038] FIG. **8** is a perspective view illustrating a state in which the inner and outer containers are unfastened by rotating the shoulder or the outer container according to the embodiment of the present invention.

[0039] FIG. **9** is a perspective view illustrating a state in which the outer container is separated from the inner container according to the embodiments of the present invention.

BEST MODE

Mode for Invention

[0040] Hereinafter, the detailed descriptions of the present invention are embodiments for carrying out the present invention, and the corresponding embodiment refers to the accompanying drawings as an example. The embodiments will be described in detail to enable those skilled in the art to carry out the present invention. It is apparent to be understood that the various embodiments of the present invention may be different from each other but do not need to be mutually exclusive. For example, the particular shape, structure, and feature described herein may be embodied in other embodiments without departing from the idea and scope of the present invention in connection with the embodiment. In addition, it will be understood that the location or arrangement of an individual element within each disclosed embodiment may be modified without departing from the idea and scope of the present invention.

[0041] Accordingly, the following detailed description does not disclose a limited meaning, and the scope of the invention is limited only by the appended claims, along with the full scope of equivalents to which the claims are entitled, if properly explained. Similar reference numerals in the drawings refer to the same or similar function throughout several aspects.

[0042] General terms widely used recently have been selected in the present invention in consideration of the function according to the present invention as possible, however, the terms may vary depending on the intention of those skilled in the art, judicial cases, the advent of new technology, or the like. In addition, in certain cases, the terms may be arbitrarily selected by the applicant, and in this case, the meaning thereof will be described in detail in the relevant description of the invention. Therefore, the terms used in the present invention will be defined

based on the meaning of the term and contents throughout the present invention, not simply on the names of the terms.

[0043] When one part “includes” one element in the present invention, the above expression does not exclude other elements, but may further include the other elements, unless particularly stated otherwise.

[0044] Hereinafter, a liquid content-discharging container according to the embodiment of the present invention will be described in detail with reference to the accompanying drawings.

[0045] FIG. **1** is a perspective view of a liquid content-discharging container according to the embodiment of the present invention. FIG. **2** is an exploded perspective view of the liquid content-discharging container according to the embodiment of the present invention. FIG. **3** is a sectional view of the liquid content-discharging container according to the embodiment of the present invention. FIG. **6** is a sectional view illustrating a state in which water introduced between the button and the shoulder is drained according to the embodiments of the present invention. FIG. **7** is a perspective view illustrating an attachment and detachment structure between inner and outer containers of the liquid content-discharging container according to the embodiment of the present invention.

[0046] As shown in the drawings, the liquid content-discharging container according to the embodiment of the present invention may include an inner container **10**, an outer container **20**, a shoulder **30**, a discharge unit **40**, a button **50**, a nozzle **60**, and an opening/closing unit **70**.

[0047] Hereinafter, the liquid content-discharging container according to the embodiment of the present invention will be described separately for each component as follows.

[0048] The inner container **10** served as a storage container in which liquid contents are stored, and has an inside maintained in a vacuum state, so that the liquid contents are safely stored. The liquid contents may include any content in a liquid or gel state, such as cosmetics, shampoo, or soap. it may be preferable that the inner container **10** is a pouch container having a shape changed as the liquid contents contained therein are consumed.

[0049] The inner container **10** may include a soft receiving portion **12** in which the liquid contents are accommodated, and a hard coupling portion **14** joined to the receiving portion **12** so as to be coupled to the shoulder **30**.

[0050] As shown in FIG. **2**, the coupling portion **14** is formed on one side thereof with an inlet portion **14***a* into which the liquid contents are injected and at least a part of the discharge unit **40** is inserted, the inlet portion **14***a* is formed on an opposite side thereof with a joint portion **14***b* to which the receiving portion **12** is joined while surrounding the joint portion **14***b*, and a detachable protrusion **14***c* protrudes on an edge of the coupling portion **14** so as to be detachably coupled to the outer container **20**. A fixing groove **14***c*-**1** may be formed on the detachable protrusion **14***c* in which the fixing groove **14***c*-**1** is configured to prevent the inner container **10** and the outer container **20** from being arbitrarily rotated with respect to each other when the inner container **10** and the outer container **20** are fastened to each other.

[0051] A ring-shaped first fastening protrusion **14***a*-**1** may be formed along an outer circumference of the inlet portion **14***a* and fastened to the shoulder **30**, and at least one first anti-rotation protrusion **14***a*-**2** may be formed at a position adjacent to the first fastening protrusion **14***a*-**1** so as to be spaced apart at a predetermined distance along the circumference of the inlet portion **14***a* and coupled to the shoulder **30**.

[0052] The outer container **20** protects the inner container **10** while surrounding the outside of the inner container **10**. The outer container **20** has a hard cylindrical shape with one side opened to define an appearance of the liquid content-discharging container. The outer container **20** is not limited to the cylindrical shape, and may be formed in various shapes and formed of various materials in consideration of types of contents stored therein, usability, design factors, or the like. However, it may be preferable that the outer container **20** has a narrow width, a relatively long length and a gentle bottom so as to be easily gripped with a hand by a user and easily placed on the

floor.

[0053] As shown in FIG. **7**, a detachable groove **22** may be formed on an upper inner circumference of the outer container **20** and fastened to the detachable protrusion **14***c* of the inner container **10**, and accordingly, a detachable structure may be implemented between the outer container **20** and the inner container **10** through a rotational operation between the inner container **10** and the outer container **20**. The detachment groove **22** is a groove extending horizontally along the inner circumference of the outer container **20**, in which one side is opened to allow the detachable protrusion **14***c* to be inserted thereto, and an opposite side is closed to limit a rotation range of the detachable protrusion **14***c*. A fixing protrusion **22***a* may be formed inside the detachable groove **22**. When the detachable protrusion **14***c* is fastened to the detachable groove **22**, the fixing protrusion **22***a* is coupled to the fixing groove **14***c*-**1** of the inner container **10**, thereby limiting the rotation between the inner container **10** and the outer container **20** until the user applies a predetermined force. Accordingly, the inner container **10** and the outer container **20** may be prevented from being unfastened while being rotated with each other due to an external force regardless of the user's intention. The liquid content-discharging container according to the embodiment of the present invention is illustrated that the detachable protrusion **14***c* provided with the fixing groove **14***c*-**1** is formed in the inner container **10**, and the detachable groove **22** provided with the fixing protrusion **22***a* is formed in the outer container **20**. However, the present invention is not limited thereto, and the positions of the detachable protrusion **14***c* provided with the fixing groove **14***c*-**1** and the detachable groove **22** provided with the fixing protrusion **22***a* may be replaced with each other.

[0054] More particularly, when the inner container **10** or the outer container **20** is rotated in one direction while the inner container **10** is fully inserted into the outer container **20**, the detachable protrusion **14***c* of the inner container **10** enters the detachable groove **22** of the outer container **20** so that the inner container **10** and the outer container **20** are fastened to each other, and the fixing groove **14***c*-**1** of the detachable protrusion **14***c* and the fixing protrusion **22***a* of the detachable groove **22** are coupled to each other, so that the rotation between the inner container **10** and the outer container **20** is temporarily restricted. In addition, when the inner container **10** or the outer container **20** is rotated in an opposite direction, the fixing groove **14***c*-**1** of the detachable protrusion **14***c* and the fixing protrusion **22***a* of the detachable groove **22** are uncoupled to each other, and the inner container **10** and the outer container **20** are in a separable state while the detachable protrusion **14***c* of the inner container **10** comes out of the detachable groove **22** of the outer container **20**. In other words, the outer container **20** is easily attached to and detached from the inner container **10** through the simple rotational operation between the inner container **10** for containing the liquid contents and the outer container **20** for surrounding the outside of the inner container **10**, so that the inner container **10** can be conveniently replaced after the outer container **20** is separated.

[0055] As shown in FIG. **3**, at least one second drain hole **23** may be formed in the bottom of the outer container **20**, in which the second drain hole **23** serves as an outlet through which the water introduced into the outer container **20** flows out.

[0056] The shoulder **30** is coupled to one side of the inner container **10** or the outer container **20** to protect the discharge unit **40** installed therein. As shown in FIG. **2**, for the beauty or luxury of appearance, the continuity of design, and the like of the liquid content-discharging container, it may be preferable that the shoulder **30** has a lower part with the same diameter as the outer container **20** to come into contact with the upper end of the outer container **20**, and has a narrower diameter toward the top while forming a smooth curved surface.

[0057] The shoulder **30** may be formed on an upper inner side thereof with a button insertion groove **32** into which at least a part of the button **50** is inserted, an upper extension annular protrusion **34** may extend upward from the bottom of the button insertion groove **32**, and a discharge unit through-hole **36** through which the discharge unit **40** passes may be formed in a

center of the upper extension protrusion wheel **34**.

[0058] A lower extension protrusion wheel **38** may extend downward from a lower inner side of the shoulder **30**, and the inlet portion **14***a* of the inner container **10** may be inserted and fixedly coupled to the inside of the lower extension protrusion wheel **38**. The lower extension protrusion wheel **38** may be formed on an inner circumference thereof with a second fastening protrusion **38***a* undercut-coupled to the first fastening protrusion **14***a*-**1** of the inner container **10**, and at least one second anti-rotation protrusion **38***b* may be formed at a position adjacent to the second fastening protrusion **38***a* so as to be spaced apart at a predetermined distance along the circumference of the lower extension protrusion wheel **38** so that the first anti-rotation protrusion **14***a*-**2** of the inner container **10** may be inserted therebetween. Accordingly, the inner container **10** and the shoulder **30** are rotated together while being coupled to each other without idling.

[0059] In addition, as shown in FIG. **6**, a first drain hole **33** may be formed on an outer side adjacent to the lower extension protrusion wheel **38**, in which the first drain hole **33** serves as an outlet to allow water introduced into a gap between the shoulder **30** and the button **50** to move to the inside of the outer container **20**. In other words, when the liquid content-discharging container is filled with shampoo, rinse, or soap and used in a bathroom or the like, water may be introduced into the gap between the button and the shoulder or between the shoulder and the outer container, and the water introduced may remain inside the liquid content-discharging container for a long time and become corrupted to cause hygiene problems. Thus, in the liquid content-discharging container according to the embodiment of the present invention, the first drain hole **33** and the second drain hole **23** are formed in the shoulder **30** and the outer container **20**, respectively, the water introduced between the button **50** and the shoulder **30** is prevented from remaining inside the shoulder **30** or between the inner container **10** and the outer container **20**, and sequentially passes through the first drain hole **33** and the second drain hole **23** so as to be discharged to the outside, so that more hygienic use can be implemented.

[0060] The discharge unit **40** is installed inside the shoulder **30** and connected to the inner container **10**, and operated by pressing the button **50** to discharge the liquid contents contained in the inner container **10**. The discharge unit **40** is inserted and fixedly coupled between the inner container **10** and the shoulder **30**, and has at least a part inserted into the inlet portion **14***a* of the inner container **10** and connected to the inner container **10** and a remaining part passing through the discharge unit through-hole **36** of the shoulder **30**, inserted into the inside of the upper extension protrusion wheel **34** and connected to the button **50**. It may be preferable that the discharge unit **40** is a pump for discharging a fixed amount of the liquid contents when being pumped.

[0061] As shown in FIG. **3**, the discharge unit **40** may include a cylinder **41** inserted into the inlet portion **14***a* of the inner container **10** and formed in a lower part thereof with a content suction port **41***a*, a contents suction tube **42** extending from the content suction port **41***a* and inserted into the inner container **10**, a suction valve plate **43** for opening/closing the content suction port **41***a* of the cylinder **41**, a sealing cap **44** coupled to an upper part of the cylinder **41** while surrounding the upper part of the cylinder, a stem **45** reciprocating in a pumping operation direction while passing through the sealing cap **44**, an elastic spring **46** for elastically supporting the stem **45**, an operation discharge tube **47** coupled to the stem **45** and reciprocating together, and an operation discharge ring **48** fitted to an outer side of the operation discharge tube **47** to come into close contact with an inner circumference of the cylinder **41**.

[0062] In addition, a sealing ring **49** is further formed between the cylinder **41** of the discharge unit **40** and the inlet portion **14***a* of the inner container **10** so that a sealing force of the inner container **20** can be increased. The sealing ring **49** may be formed of an elastic material for further improving the sealing force of the inner container **40**, and it may be preferable to be formed of at least one material of urethane rubber, natural rubber, elastomer, nitrile-butadiene rubber (NBR), and silicone, or polypropylene, polyethylene, or acrylonitrile butadiene styrene (ABS) having elasticity material. Particularly, it is most preferable to be formed of thermos-plastic elastomer (TPE) as a material

between rubber and plastic with softness and excellent durability.
[0063] The button **50** is connected to one side of the discharge unit **40**, to operate the discharging unit **40** while reciprocating vertically when being pressed by the user. The button **50** may have at least a part inserted into the button insertion groove **32** of the shoulder **30** and reciprocating vertically along an upper inner wall of the shoulder **30**.
[0064] A discharge passage **52** is formed inside the button **50**, in which one end of the discharge passage **52** is connected to the discharge unit **40**, and an opposite end is connected to the nozzle **60**. The discharge passage **52** serves as a path through which the liquid contents discharged by the discharge unit **40** passes, and as a space into which the opening/closing unit **70** is inserted, and may extend horizontally across an inner space of the button **50**.
[0065] As shown in the partially enlarged view of FIG. **3**, a sealing blade **52***a* may be formed in the discharge passage **52** of the button **50**. The sealing blade **52***a* may protrude from an inner wall of the discharge passage **52** to block the discharge passage **52** while coming into close contact with an outer circumference of the opening/closing unit **70**, and may form a gap through which the liquid contents pass while being temporarily separated from the outer circumference of the opening/closing unit **70** when the opening/closing unit **70** moves horizontally due to the discharge pressure of the liquid contents. It may be preferable that the sealing blade **52***a* is formed in a ring shape inclined at a predetermined angle in a discharge direction of the liquid contents.
[0066] In addition, the button **50** and the discharge unit **40** may be connected to each other through a connection unit **80**. The connection unit **80** may be formed therein with a connection path **82** for connecting the discharge passage **52** of the button **50** to an inner path of the discharge unit **40**, a button coupling protrusion wheel **84** fixedly coupled to the button **50** may extend upward from an upper part thereof, and a discharge unit coupling protrusion wheel **86** fixedly coupled to a stem **45** of the discharge unit **40** may extend downward from a lower part thereof. In the liquid content-discharging container according to the embodiment of the present invention, the button **50** and the discharge unit **40** are configured to be connected by the connection unit **80**, however the present invention is not limited thereto, and the button **50** and the discharge unit **40** may be directly connected and fixedly coupled without the connection unit **80**.
[0067] In addition, a stopper **90** for preventing the button **50** from being pressed may be detachably coupled to an outer side of the button **50**. The stopper **90** is coupled to the button **50** while surrounding an outer side surface and an upper surface thereof and has a lower end seated on the top of the shoulder **30**, so that the button **50** may be prevented from being pressed unintentionally by a user's mistake or an external force. Accordingly, the button **50** is prevented from being pressed until the user separates and removes the stopper **90** from the button **50**. As shown in FIG. **2**, a nozzle through-hole **92** through which the nozzle **60** passes may be formed in the stopper **90**, and a button insertion hole **94** into which the button **50** is inserted may be formed on an opposite side.
[0068] The nozzle **60** is coupled to one side of the button **50** to protrude outward from the button **50**. The nozzle **60** is formed in a tubular shape with a hollow inside, and has at least a part inserted into the button **50** and connected to the discharge passage **52**, and has an end formed with a discharge port **62** to discharge the liquid contents passing through the discharge passage **52** to the outside.
[0069] The nozzle **60** may extend in the same direction as the discharge passage **52** to smoothly discharge the liquid contents, and at least a part of the opening/closing unit **70** may be inserted into an inner space of the nozzle. In other words, when the opening/closing unit **70** reciprocates horizontally to come into close contact with or be spaced apart from an inner wall of the discharge port **62** of the nozzle **60**, the discharge port **62** is selectively opened and closed, and accordingly, the cosmetics remaining inside the nozzle **60** may be prevented from being contaminated or deteriorated when coming into contact with external air.
[0070] The opening/closing unit **70** is formed inside the button **50** and the nozzle **60** to simultaneously or continuously open and close the discharge passage **52** and the discharge port **62**

while reciprocating back and forth due to the discharge pressure of the liquid contents.
[0071] As shown in FIG. **3**, the opening/closing unit **70** may include an opening/closing rod **72** reciprocating back and forth by the discharge pressure of the liquid contents, and an elastic member **74** for providing elasticity to the opening/closing rod **72** in the discharge direction of the liquid contents.
[0072] The opening/closing rod **72** of the opening/closing unit **70** has a round circumference and a long length so as to be inserted into the inner spaces of the button **50** and the nozzle **60**, and may include a first sealing portion **72***a* inserted into the nozzle **60** to seal the discharge port **62**, a second sealing portion **72***b* inserted into the button **50** to seal the discharge passage **52**, a fitting portion **72***c* fitted to the elastic member **74**, and a guide blade **72***d* protruding from an outer circumference of the opening/closing rod **72** to come into close contact with an inner wall of the discharge passage **52**. It is preferable that the first sealing portion **72***a*, the second sealing portion **72***b* and the fitting portion **72***c* extend in a line along the operational direction of the opening/closing rod **72**.
[0073] In addition, a step may be formed between the first sealing portion **72***a* and the second sealing portion **72***b*, so that the second sealing portion **72***b* may have a relatively larger diameter than the first sealing portion **72***a*. This is because, when the opening/closing unit **70** moves back and forth, the sealing blade **52***a* of the button **50** comes close contact with the outer circumference of the opening/closing rod **72**, that is, the outer circumference of the second sealing portion **72***b* having the relatively large diameter to close the discharge passage **52**, or is spaced apart from the outer circumference of the first sealing portion **72***a* having the relatively small diameter to open the discharge passage **52**. In other words, the sealing blade **52***a* may be selectively brought into contact with the outer surface of the opening/closing rods **72** by changing a position of the opening/closing rods **72** having different diameters for each section, so that the discharge passage **52** of the button **50** is opened and closed together with the discharge port **62** of the nozzle **60**. It may be preferable that the diameter of the first sealing portion **72***a* is relatively smaller than the inner diameter of the sealing blade **52***a*, and the diameter of the second sealing portion **72***b* is the same as or relatively larger than the inner diameter of the sealing blade **52***a*. However, since the operation of the opening/closing rod **72** may be disturbed when the diameter of the second sealing portion **72***b* is too large than the inner diameter of the sealing blade **52***a*. Thus, it may be preferable to adjust the difference between the diameter of the second sealing portion **72***b* and the inner diameter of the sealing blade **52***a*.
[0074] The guide blade **72***d* of the opening/closing unit **70** is formed in a ring shape on the outer circumference of the opening/closing rod **72** to come into close contact with the inner wall of the discharge passage **52**, so that the opening/closing rod **72** may be guided to move stably horizontally without being tilted to either side when the opening/closing rod **72** moves back and forth, and the liquid contents remaining inside the discharge passage **52** of the button **50** may be prevented from moving toward the elastic member **74**.
[0075] The elastic member **74** may have one side fitted by surrounding the fitting portion **72***c* of the opening/closing rod **72**, and an opposite side fitted by surrounding an insertion protrusion wheel **54** formed inside the button **50** to allow the opening/closing rod **72** to flexibly move back and forth.
[0076] As described above, According to the liquid content-discharging container according to the embodiment of the present invention, the opening/closing unit **70** reciprocates back and forth due to the discharge pressure of the liquid contents to open and close the discharge port **62** of the nozzle **60** and the discharge passage **52** of the button **50**, thereby doubly sealing the inside of the nozzle **60** and the button **50**, so that contact between the liquid contents and the external air may be stably blocked unlike the conventional liquid content-discharging containers, so as to prevent the liquid contents from being contaminated and deteriorated.
[0077] FIGS. **4** and **5** are views illustrating the operation of the liquid content-discharging container according to the embodiment of the present invention. FIGS. **7** to **9** are views illustrating

a refill process of the liquid content-discharging container according to the embodiment of the present invention. The operation and the refilling process of the liquid content-discharging container according to the embodiment of the present invention will be described with reference to the above drawings.

[0078] FIG. **4** is a sectional view illustrating a state in which liquid contents are discharged to the outside by pressurizing a button according to the embodiments of the present invention. FIG. **5** is a sectional view illustrating a state in which a discharge port and a discharge passage are doubly sealed by depressurizing the button according to the embodiments of the present invention.

[0079] In order to use the liquid content-discharging container according to the embodiment of the present invention, the stopper **90** surrounding the outer side of the button **50** is separated.

[0080] Thereafter, as shown in FIG. **4**, the button **50** is pressed to operate the discharging unit **40**. When the button **50** is pressed, the connection unit **80** coupled to the button **50** and the stem **45** and the operation discharge tube **47** of the discharging unit **40** coupled to the connection unit **80** move downward together. Since the operation discharge ring **48** comes into close contact with the inner surface of the cylinder **41**, only the operation discharge tube **47** moves downward to generate a gap between the operation discharge tube **47** and the operation discharge ring **48**, thereby generating a moving path for the contents. When the button **50** is further pressed, the lower end of the stem **45** moving downward by the button **50** presses the operation discharge ring **48**, and accordingly, the operation discharge ring **48** moves downward together with the operation discharge tube **47**, thereby reducing a volume inside the cylinder **41**. Accordingly, the suction valve plate **43** closes the content suction port **41***a* due to the discharge pressure in the cylinder **41**, and the liquid contents stored in the cylinder **41** come out between the operation discharge tube **47** and the operation discharge ring **48** and moves into inner paths of the operation discharge tube **47** and the stem **45**.

[0081] Continuously, as shown in the partially enlarged view of FIG. **4**, the liquid contents discharged from the discharge unit **40** pass through the connection path **82** of the connection unit **80** so as to be introduced into the discharge passage **52** of the button **50**, and the opening/closing rod **72** of the opening/closing unit **70** is pushed rearward by the discharge pressure of the liquid contents introduced into the discharge passage **52**. Simultaneously, the end of the opening/closing rod **72** is spaced apart from the inner end of the nozzle **60** to open the discharge port **62**, and simultaneously or continuously, the sealing blade **52***a* of the button **50** is spaced apart from the first sealing portion **72***a* of the opening/closing rod **72** to open the discharge passage **52** through the gap therebetween, so that the liquid contents are discharged to the outside through the discharge passage **52** and the discharge port **62**.

[0082] Thereafter, as shown in FIG. **5**, when the pressure of the button **50** is released, the stem **45** moves upward while the elastic spring **46** elastically supporting the stem **45** of the discharge unit **40** is restored to an initial shape, and the operation discharge tube **47** coupled to the lower side of the stem **45** also moves upward. The lower part of the operation discharge tube **47** pulls the operation discharge ring **48** upward to close the gap between the operation discharge tube **47** and the operation discharge ring **48**, so that the operation discharge tube **47** and the operation discharge ring **48** move upward together, and thus the volume inside the cylinder **41** is increased, thereby generating a vacuum pressure. Simultaneously, the suction valve plate **43** is lifted by the vacuum pressure generated inside the cylinder **41** to open the content suction port **41***a* formed on the bottom of the cylinder **41**, so that the contents contained in the inner container **10** are introduced into the cylinder **41** through the content suction tube **42** and the content suction port **41***a*, and the receiving portion **12** of the inner container **10** is distorted by the amount of discharged contents.

[0083] As shown in the enlarged view of FIG. **5**, when the discharge pressure of the liquid contents disappears, the opening/closing rod **72** of the opening/closing unit **70** moves forward by the elastic restoring force of the elastic member **74**, and the end of the opening/closing rod **72** and the inner end of the nozzle **60** simultaneously come into close contact with each other to close the discharge port **62**, and the sealing blade **52***a* of the button **50** and the second sealing portion **72***b* of the

opening/closing rod **72** come into close contact with each other to close the discharge passage **52**, so that the insides of the nozzle **60** and the button **50** are doubly sealed.
[0084] FIG. **8** is a perspective view illustrating a state in which the inner and outer containers are unfastened by rotating the shoulder or the outer container according to the embodiments of the present invention. FIG. **9** is a perspective view illustrating a state in which the outer container is separated from the inner container according to the embodiments of the present invention.
[0085] In addition, when the liquid contents contained in the inner container **10** are entirely used, the inner container **10** may be replaced and used. As shown in FIG. **8**, when the shoulder **30** is rotated from the outer container **20** in one direction, the fixing protrusion **22***a* formed in the detachable groove **22** of the outer container **20** comes out of the fixing groove **14***c*-**1** formed in the detachable protrusion **14***c* of the inner container and is disconnected from each other, and the detachable protrusion **14***c* of the inner container **10** moves horizontally from the detachable groove **22** of the outer container **20** and then deviates from the detachable groove **22**, so that the inner container **10** and the outer container **20** are in a separable state.
[0086] Thereafter, as shown in FIG. **9**, the shoulder **30** and the inner container **10** coupled to the lower part of the shoulder **30** are separated from the outer container **20**, the inner container **10** is replaced, the inner container **10** is inserted into the inner space of the outer container **20** in the above manner, and then the shoulder **30** is rotated in the opposite direction to fasten the inner container **10** to the outer container **20** for use.
[0087] Although the invention has been described with the particulars such as specific elements, the limited embodiments, and the drawings, the above description is provided only to help comprehensive understanding of the present invention, and the present invention is not limited to the embodiments. It is obvious to those skilled in the art that various changes and modifications may are available. Therefore, the spirit of the present invention will not be limited to the aforementioned embodiments, and the following claims as well as all modifications or variations belonging to the equivalents of the claims will be within the scope of the invention.
DESCRIPTION OF REFERENCE NUMERALS
TABLE-US-00001 10: Inner container 12: Receiving portion 14: Coupling portion 14a: Inlet portion 14c: Detachable protrusion 20: Outer container 22: Detachable groove 23: Second drain hole 30: Shoulder 33: First drain hole 40: Discharge unit 50: Button 52: Discharge passage 52a: Sealing blade 60: Nozzle 62: Discharge port 70: Opening/closing unit 72: Opening/closing rod 74: Elastic member 80: Connection unit 90: Stopper

Claims

1. A liquid content-discharging container comprising: an inner container for accommodating a liquid content; an outer container surrounding an exterior of the inner container; a shoulder coupled to the inner container or the outer container; a discharge unit installed inside the shoulder and connected to the inner container to discharge the liquid content; a button connected to one side of the discharge unit to operate the discharge unit and having a discharge fluid channel formed therein; a nozzle coupled to one side of the button and formed therein with a discharge port; and an opening/closing unit formed inside the button and the nozzle to simultaneously or sequentially open/close the discharge port and the discharge fluid channel while reciprocating due to a discharge pressure of the liquid content.
2. The liquid content-discharging container of claim 1, wherein the inner container includes a pouch container having a shape changed when the liquid content accommodated therein is consumed.
3. The liquid content-discharging container of claim 1, wherein the inner container includes a soft receiving portion in which the liquid content is accommodated, and a hard coupling portion joined to the receiving portion so as to be coupled to the shoulder.

4. The liquid content-discharging container of claim 1, wherein the inner container and the outer container are formed therein with a detachable protrusion and a detachable groove, respectively, so that the inner container and the outer container are attached to and detached from each other by a rotational operation between the inner container and the outer container.

5. The liquid content-discharging container of claim 1, wherein the shoulder is formed therein with a first drain hole and the outer container is formed therein with a second drain hole, so that water introduced between the shoulder and the button sequentially passes through the first drain hole and the second drain hole and is discharged to an outside.

6. The liquid content-discharging container of claim 1, wherein the discharge unit includes a pump for pumping the liquid content accommodated in the inner container.

7. The liquid content-discharging container of claim 1, wherein the discharge passage of the button is formed therein with a sealing blade to come into close contact with an outer circumference of the opening/closing unit.

8. The liquid content-discharging container claim 7, wherein the sealing blade of the button protrudes from an inner wall of the discharge passage so as to be inclined at a predetermined angle in a discharge direction of the liquid content.

9. The liquid content-discharging container of claim 1, wherein the button and the discharge unit are connected to each other through a connection unit, and the connection unit is formed therein with a connection path.

10. The liquid content-discharging container of claim 1, wherein a button stopper is detachably coupled to an outer side of the button to prevent the button from being pressed.

11. The liquid content-discharging container of claim 1, wherein the opening/closing unit includes an opening/closing rod reciprocating back and forth by the discharge pressure of the liquid content, and an elastic member for providing elasticity to the opening/closing rod.

12. The liquid content-discharging container of claim 1, wherein the opening/closing rod of the opening/closing unit includes a first sealing portion for sealing the discharge port, a second sealing portion for sealing the discharge passage, a fitting portion fitted to the elastic member, and a guide blade protruding from an outer circumference of the opening/closing rod to come into close contact with an inner wall of the discharge passage, and the second sealing portion has a diameter relatively larger than a diameter of the first sealing portion.