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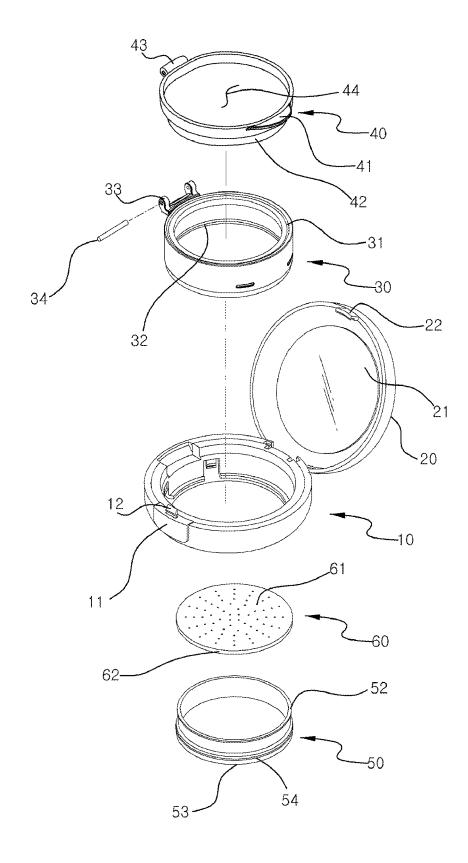
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(54) FOUNDATION CONTAINER PROVIDED WITH RUBBER DISCHARGE PAD

(57)The present invention relates to a foundation container provided with a rubber discharge pad and, more specifically, to a foundation container provided with a rubber discharge pad, which is capable of: utilizing the contents accommodated in a content container without having any residual content, by pressing a rubber discharge pad down to the lower part of the content container by the elasticity of the rubber discharge pad; and adjusting a discharge rate of the contents according to a force of pressing the rubber discharge pad, since the rubber discharge pad is coupled to an upper end of the content container such that the contents accommodated in the content container is discharged by passing through discharge holes of the rubber discharge pad. The present invention provides the foundation container comprising a rubber discharge pad, and the foundation container provided with a container body (10) and a container cover (20) opened and closed by being hingedly coupled to the container body (10), the foundation container comprising: an inner container (30) which is mounted inside the container body (10) and has a coupling groove (32) formed on the inner circumference thereof; an inner container cover (40) coupled to the inner container (30); a content container (50) coupled to the inner side of the inner container (30) and provided with an elastic rib (53) on a side thereof; and a rubber discharge pad (60) which is coupled to an upper end of the content container (50) and has discharge holes (61). In addition, a diameter of the discharge holes (61) of the present invention is formed with a size of 0.01 mm to 1.0mm. The discharge holes (61) of the present invention are formed by allowing 50 to 200 of the discharge holes to be distributed on the rubber discharge pad (60). The inner container (30) of the present invention has a sealed groove (31) on an upper end thereof. It is preferred that the inner container cover (40) of the present invention has an opening and closing handle (41) on one surface thereof. The inner container cover (40) of the present invention has a sealed piece(42) on the lower part thereof. The content container (50) of the present invention has a locking protrusion (52) on an upper end thereof. The elastic rib (53) of the content container (50) of the present invention has a coupling protrusion (54) on the outer part thereof. An impregnation member (70) is capable of being formed on the inner side of the content container (50) of the present invention. Furthermore, a locking portion (62) is formed at an end part of the rubber discharge pad (60) of the present invention.

Fig. 2



Description

[Technical Field]

[0001] The present invention relates to a foundation container provided with a rubber discharge pad, and more specifically, to a foundation container provided with a rubber discharge pad, which is capable of using the contents contained in a content container without any residual contents, by pressing the rubber discharge pad down to a lower part of the content container due to the elasticity of the rubber discharge pad, and controlling a discharging amount of the contents according to force of pressing the rubber discharge pad since the rubber discharge pad is coupled to an upper end of the content container such that the contents contained in the content container are discharged through discharge holes of the rubber discharge pad.

[Background Art]

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[0002] In general, a container according to the related art contains powder-type contents, which are used by using a puff.
 [0003] However, when the powder-type contents are used, the contents are scattered in use so that the adhesion is deteriorated when the contents are coated on a face.

[0004] To solve the problem, gel-type foundation has been developed and the frequency of using it has been gradually increased because of the convenience for use.

[0005] In general, gel-type contents are manufactured by mixing mutually different materials having mutually different specific gravity, and the cosmetic materials may be classified into water-in-oil (W/O) emulsion type cosmetic material and oil-in-water (O/W) emulsion type cosmetic material obtained by mixing water-based material and oil-based material such as an emulsifying agent including a surface active agent.

[0006] The water-in-oil emulsion type cosmetic material has a larger quantity of oil than that of water and is oily so that the absorption of skin is slow. Although the touch feeling of the water-in-oil emulsion type cosmetic material is heavy, the persistence is longer than that of the oil-in-water emulsion type cosmetic material. The oil-in-water emulsion type cosmetic material has a larger quantity of water than that of oil and is little oily so that the absorption of skin is fast. Although the touch feeling of the water-in-oil emulsion type cosmetic material is flash and light, the persistence is low.

[0007] Therefore, the cosmetics requiring persistence are manufactured by using the W/O emulsion type cosmetic material to increase water resistance against sweat and water.

[0008] Although the touch feeling of the W/O emulsion type cosmetic material is heavy and sticky, the defects may be compensated by reducing the viscosity of content. However, when the water-in-oil product having low viscosity remains for a long time in circulation, the aqueous material of internal phase and the oil materials of external phase may be separated from each other. In this case, a user shakes a container to mix the separated aqueous and oil materials with each other for use, but it is inconvenient to shake the container for use.

[0009] To solve the problems, applicant of the present invention has developed a compact container disclosed in Korean Patent Registration No. 10-1159877, where low-viscosity water-in-oil contents are impregnated into an impregnation member contained in the compact container.

[0010] In a gel-type content impregnated compact container, the gel-type contents are uniformly impregnated into the gel-type content impregnation member contained in an inner container in initial use.

[0011] However, as a customer uses the gel-type contents of the impregnation member after sticking the gel-type contents on a puff, the gel-type contents placed at an upper part of the impregnation member is used up and in addition, the gel-type contents moves from the upper part to a lower part. Thus, even though the gel-type contents remains below, when the puff makes contact with the upper surface of the impregnation member, the gel-type contents are not sufficiently stuck on the puff, so that it is very difficult to use the compact.

[0012] In addition, since the impregnated contents into the impregnation member are directly taken with a puff for use, it is difficult to control the discharge of contents.

[Disclosure]

[Technical Problem]

[0013] To solve the problems described above, an object of the present invention is to provide a foundation container provided with a rubber discharge pad, which is capable of using the contents contained in a content container without any residual contents by pressing the rubber discharge pad down to a lower part of the content container due to the elasticity of the rubber discharge pad.

[0014] Another object of the present invention is to provide a foundation container provided with a rubber discharge pad, which is capable of controlling a discharging amount of the contents according to force of pressing the rubber

discharge pad to prevent the contents from being wasted since the rubber discharge pad is coupled to an upper end of the content container such that the contents contained in the content container are discharged through discharge holes of the rubber discharge pad.

⁵ [Technical Solution]

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[0015] The present invention provides a foundation container provided with a rubber discharge pad, which includes a container body (10) and a container cover (20) hinge-coupled to the container body (10) to be opened or closed. The foundation container includes:

an inner container (30) coupled to an inside of the container body (10), and provided on an inner periphery surface thereof with a coupling groove (32);

an inner container cover (40) coupled to the inner container (30);

a content container (50) coupled to an inside of the inner container (30) and provided on a side surface thereof with an elastic rib (53); and

a rubber discharge pad (60) coupled to an upper end of the content container (50) and having discharge holes (61).

[0016] In addition, the discharge hole (61) has a diameter in the range of 0.01 mm to 1.0 mm.

[0017] In addition, 50 to 200 discharge holes (61) are distributed on the rubber discharge pad (60).

[0018] In addition, the inner container (30) is provided an upper end thereof with a sealing groove (31).

[0019] Preferably, the inner container cover (40) is provided on one side surface with an opening/closing handle (41).

[0020] In addition, a sealing piece (42) is provided below the inner container cover (40).

[0021] In addition, the content container (50) is provided on an upper end thereof with a latch protrusion (52).

[0022] In addition, the elastic rib (53) of the content container (50) is provided an outside thereof with a coupling protrusion (54).

[0023] In addition, an impregnation member (70) may be further provided inside the content container (50).

[0024] In addition, the rubber discharge pad (60) is provided on an end thereof with a latch part (62).

[Advantageous Effects]

[0025] According to the present invention, the foundation container provided with a rubber discharge pad is capable of using the contents contained in a content container without any residual contents by pressing the rubber discharge pad down to a lower part of the content container due to the elasticity of the rubber discharge pad.

[0026] In addition, the foundation container provided with a rubber discharge pad is capable of controlling a discharging amount of the contents according to force of pressing the rubber discharge pad to prevent the contents from being wasted since the rubber discharge pad is coupled to an upper end of the content container such that the contents contained in the content container are discharged through discharge holes of the rubber discharge pad.

[Description of Drawings]

[0027]

FIG. 1 is a perspective view of a foundation container provided with a rubber discharge pad, of which the container cover is opened, according to one embodiment of the present invention.

FIG. 2 is an exploded perspective view of a foundation container provided with a rubber discharge pad according to the present invention.

FIG. 3 is a perspective view of a foundation container provided with a rubber discharge pad, of which the container cover is closed, according to the present invention.

FIG. 4 is a view illustrating a process of coupling the rubber discharge pad of the foundation container to the content container according to the present invention.

FIG. 5 is a view illustrating a state that the rubber discharge pad of the foundation container is coupled to the content container according to the present invention.

FIG. 6 is a view illustrating a state that the content container of the foundation container is coupled to the container body according to the present invention.

FIG. 7 is a sectional view showing a foundation container provided with a rubber discharge pad according to another embodiment of the present invention.

[Best Mode]

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[Mode for Invention]

[0028] A foundation container provide with a rubber discharge pad, which includes a screen net and a wrinkle storage part, according to an embodiment of the present invention will be described with reference to accompanying drawings as follows.

[0029] FIG. 1 is a perspective view of a foundation container provided with a rubber discharge pad, of which the container cover is opened, according to one embodiment of the present invention. FIG. 2 is an exploded perspective view of a foundation container provided with a rubber discharge pad according to the present invention. FIG. 3 is a perspective view of a foundation container provided with a rubber discharge pad, of which the container cover is closed, according to the present invention. FIG. 4 is a view illustrating a process of coupling the rubber discharge pad of the foundation container according to the present invention. FIG. 5 is a view illustrating a state that the rubber discharge pad of the foundation container is coupled to the content container according to the present invention.

FIG. 6 is a view illustrating a state that the content container of the foundation container is coupled to the container body according to the present invention. FIG. 7 is a sectional view showing a foundation container provided with a rubber discharge pad according to another embodiment of the present invention.

[0030] A foundation container provided with a rubber discharge pad according to one embodiment of the present invention includes a container body (10), a container cover (20) hinge-coupled to the container body (10), an inner container (30) coupled to an inside of the container body (10), an inner container cover (40) coupled to the inner container (30), a content container (50) coupled to the inner container (30), and a rubber discharge pad (60) coupled to an upper end of the content container (50).

[0031] The container body (10) includes a push button (11) provided on one side surface thereof with a locking sill (12) and a hinge which is opposite to the push button (11), such that the container body (10) is hinge-coupled to the container cover (20).

[0032] The inner container (30) is installed in the container body (10). The inner container (30) may be integrated with the container body (10).

[0033] The push button (11) allows the locking sill (12) extending from an upper portion of the push button (11) to be easily drawn back by the pushing operation of a user, such that the locking sill 12 may be separated from a locking protrusion (22) of the container cover (20).

[0034] The container cover (20), which covers an upper portion of the container body (10), is hinge-coupled to the container body (10) such that the container body (10) is opened or closed with the container cover (20).

[0035] The locking protrusion (22), which is formed at one side of the container cover (20), has a protrusion shape corresponding to the locking sill (12) of the outer container (10).

[0036] A mirror (21) may be provided inside the container cover (20) to enable a user to easily wear makeup with foundation.

[0037] A sealing groove (31) is formed on an upper end of the inner container (30) and a coupling groove (32) is formed on a lower end of an inner periphery surface of the inner container (30).

[0038] In addition, a hinge bracket (33) and a hinge pin (34) are formed on the inner container (30) such that the inner container holder is coupled to the inner container cover (40).

[0039] The inner container (30) may be formed to be integrated with or separated from the container body (10).

[0040] In the embodiment, the inner container (30) separated from the container body (10) will be mainly described.

[0041] A sealing piece (42) of the inner container cover (40) is inserted into the sealing groove (31) which is formed on the upper end of the inner container (30) such that the sealing of the content container (50) is enhanced.

[0042] The coupling groove (32) is coupled to the content container (50) to allow the content container (50) to be fixedly coupled to the inner container (30).

[0043] The hinge bracket (33) is formed on the side surface of the inner container (30) such that the hinge bracket (33) is hinge-coupled to a container cover (40) with a hinge pin (34).

[0044] A hinge protrusion (43) is formed on one side of the inner container cover (40) such that the inner container cover (40) is hinge coupled to the inner container (30).

[0045] In addition, a puff keeping space (44) for keeping a puff (not shown) as a makeup tool is formed on an upper surface of the inner container cover (40).

[0046] A hinge protrusion (43) formed at one side of the inner container cover (40) is fitted into the hinge bracket (33) of the inner container (30) so that the hinge protrusion (43) is fixed by the hinge pin (34).

[0047] The sealing piece (42) formed on a lower end of the inner container cover (40) is inserted into the sealing groove (31) of the inner container (30) such that the sealing of the content container (50) is enhanced.

[0048] An opening/closing handle (41) is formed on one side surface of the inner container cover (40) to easily open or close the inner container cover 40.

[0049] The content container (50) is coupled to an inside of the inner container (30) and an elastic rib (53) is formed on a side surface of the content container (50). In addition, a latch protrusion (52) is formed on an outer periphery surface of an upper end of the content container (50).

[0050] The inner container (50) contains contents therein.

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[0051] The latch protrusion (52) is formed on an outer periphery surface of an upper end of the content container (50) and is coupled to the rubber discharge pad (60).

[0052] The elastic rib (53) elastically moves and is provided at an outside thereof with the coupling protrusion (54), such that the content container (50) may be easily coupled to the coupling groove (32) of the inner container (30).

[0053] In addition, as shown in FIG. 7, the impregnation member (70) may be further mounted at the inside of the content container (50).

[0054] The impregnation member (70) may be formed of at least one selected from the group consisting of butadiene rubber (BR), styrene butadiene rubber (SBR), natural rubber (NR), acrylonitrile-butadiene rubber (NBR), wet urethane, dry urethane, polyether, polyvinyl chloride, polyethylene, latex, silicon, polyvinyl alcohol (PVA), nitrile rubber, butyl-rubber and neoprene.

[0055] A plurality of discharge holes (61) are formed on the rubber discharge pad (60) to discharge contents through the discharge holes (61), and a latch part (62) is formed on an end of the rubber discharge pad (60).

[0056] The rubber discharge pad (60) is pressed down to a lower part of the content container (50) due to the elasticity of the rubber discharge pad (60), so that the contents contained in the content container (50) may be used without any residual contents. In addition, since the contents are discharged through the discharge holes (61) of the rubber discharge pad (60), a discharging amount of the contents may be controlled according to force of pressing the rubber discharge pad (60) so that the contents are prevented from being wasted.

[0057] . The rubber discharge pad (60) may be formed of at least one of natural rubber, elastomer, silicon rubber, NBR rubber and synthetic resin having excellent elasticity.

[0058] The discharge hole (61) has a diameter in the rang e of 0.01 mm to 1.0 mm, and 50 to 200 discharge holes are distributed on the rubber discharge pad (60).

[0059] We conducted a survey with respect to (30) female customers in the age range of 20 to 30 in order to check the feeling of using the rubber discharge pad of embodiments 1 to 5 below.

[Experimental example 1] Measurement of feeling according to diameter of discharge hole of rubber discharge pad

[0060] The feeling of customers using the rubber discharge pad was measured according to the diameter of the discharge hole of the rubber discharge pad.

[Table 1]

	Embodiment 1	Embodiment 2	Embodiment 3	Embodiment 4	Embodiment 5
Diameter of discharge hole	0.007mm	0.01mm	0.05mm	1.0mm	1.2mm
Degree of feeling	2.66	4.12	4.86	4.28	2.84
(1.0: Very bad, 2.0: Bad, 3.0: Normal, 4.0: Good, 5.0: Very good)					

[Experimental example 2] Measurement of feeling according to number of discharge holes of rubber discharge pad

[0061] To measure the feeling of customers using the rubber discharge pad according to the number of discharge holes (61) of the rubber discharge pad (60), after the diameter of the discharge hole of the rubber discharge pad (60) is fixed to 0.05 mm, foundation containers having rubber discharge pads (60) with various numbers of discharge holes (61) were provided to the customers and the feeling of customers was measured.

[Table 2]

[, =]					
	Embodiment 1	Embodiment 2	Embodiment 3	Embodiment 4	Embodiment 5
Number of discharge holes	30	50	130	200	250
Degree of feeling	2.48	4.26	4.92	4.48	3.02
(1.0: Very bad, 2.0: Bad, 3.0: Normal, 4.0: Good, 5.0: Very good)					

[0062] As the result of measuring the feeling of customers, when the diameter of the discharge hole 61 is less than

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0.01 mm, due to the surface tension, the content particles are not smoothly discharged so that the feeling of customers was bad. When the diameter of the discharge hole (61) exceeds 1.0 mm, the contents are excessively discharged, so that the feeling of customers was bad and the rubber discharge pad 60 does not control a discharge amount of contents. [0063] In addition, when the number of discharge holes (61) is less than (50), the contents are not smoothly discharged so that the feeling of customers was bad. When the number of discharge holes (61) exceeds 200, the contents are excessively discharged, so that the feeling of customers was bad and the rubber discharge pad (60) does not control a discharge amount of contents.

[0064] That is, since the contents are discharged through the discharge holes (61) of the rubber discharge pad (60), when the diameter is formed in the range of 0.01 mm to 1.0 mm and the number of holes is 50 to 200, the feeling of customers was good and the discharge amount of contents was suitably controllable.

[0065] The latch part (62) is formed on an end of the rubber discharge pad (60) and is coupled to the latch protrusion (52) of the content container (50), such that the rubber discharge pad (60) may be fixedly coupled to the upper end of the content container (50).

[0066] Hereinafter, a method of assembling a foundation container provided with a rubber discharge pad according to an embodiment and a state of using it will be described in detail as follows.

[0067] According to the foundation container including the container body (10) and the container cover (20), the inner container (30) is coupled to the inside of the container body (10). The inner container (30) is hinge coupled to the inner container cover (40).

[0068] Thereafter, as shown in FIG. 4, the rubber discharge pad (60) is coupled to the upper end of the content container (50) so that the rubber discharge pad (60) is assembled as shown in FIG. 5. Then, as shown in FIG. 6, the content container (50) is fitted into the container body (10) from the lower part of the container body (10), so that the assembly of the foundation container provided with a rubber discharge pad is completed.

[0069] To use the contents of the foundation container provided with a rubber discharge pad assembled according to the above method, the rubber discharge pad (60) is pressed with a puff.

[0070] When the rubber discharge pad (60) is pushed, the rubber discharge pad (60) is pressed down to the lower part of the content container (50) due to the elasticity of the rubber discharge pad (60), so that the contents contained in the content container (50) may be discharged upward without any residual contents.

[0071] In addition, since the rubber discharge pad (60) is coupled to the upper end of the content container (50) to discharge the contents contained in the content container (50) through the discharge holes (61) of the rubber discharge pad (60), a discharging amount of the contents may be controlled according to force of pressing the rubber discharge pad (60) so that the contents are prevented from being wasted.

[0072] In addition, as shown in FIG. 7, the impregnation member (70) may further included in the content container (50). When the low-viscosity water-in-oil product having low viscosity remains for a long time in circulation, the aqueous material of internal phase and the oil materials of external phase may be separated from each other. However, when the contents are impregnated to the impregnation member (70), since the contents are contained in a small cell of the impregnation member, the aqueous material and the oil materials of the contents are not separated from each other.

[0073] As described above, the foundation container provided with a rubber discharge pad described in this disclosure is an illustrative purpose only, and the present invention is not limited thereto. Thus, it should be understood that numerous other modifications and embodiments can be devised by those skilled in the art within the spirit and scope of the present invention and they will fall within the scope of the present invention.

[Description of Reference Numeral]

[0074]

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- 10: Container body
- 11: Push button
- 12: Locking sill
- 20: Container cover
- 21: Mirror
 - 22: Locking protrusion
 - 30: Inner container
 - 31: Sealing groove
 - 32: Coupling groove
- 33: Hinge bracket
- 34: Hinge pin
- 40: Inner container cover
- 41: Opening/closing handle

- 42: Sealing piece
- 43: Hinge protrusion
- 44: Puff keeping space
- 50: Content container
- 52: Latch protrusion
- 53: Elastic rib
- 54: Coupling protrusion
- 60: Rubber discharge pad
- 61: Discharge hole
- 10 62: Latch part
 - 70: Impregnation member

Claims

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1. A foundation container provided with a rubber discharge pad, which includes a container body (10) and a container cover (20) hinge-coupled to the container body (10) to be opened or closed, the foundation container comprising:

a content container (50) coupled to an inside of the container body (10); and a rubber discharge pad (60) coupled to an upper end of the content container (50) and having discharge holes (61),

wherein the rubber discharge pad (60) is provided at an end thereof with a latch part (62) which is coupled to a latch protrusion (52) of the content container (50) such that the rubber discharge pad (60) is fixedly coupled to an upper end of the content container (50),

contents are discharged through the discharge holes (61) of the rubber discharge pad (60) so that the discharge holes (61) has a diameter in a rang e of 0.01 mm to 1.0 mm to control a discharging amount of the contents contained in the content container (50) according to force of pushing the rubber discharge pad (60),

50 to 200 discharge holes (61) are distributed in the rubber discharge pad (60),

the container body (10) is provided therein with an inner container (30) coupled to an inner container cover (40), a coupling groove (32) is formed on a lower end of an inner periphery surface of the inner container (30), an elastic rib (53) is formed on a side surface of the content container (50), and a coupling protrusion (54) is formed at an outside of the elastic rib (53).

- 2. The foundation container of claim 1, wherein the inner container (30) is provided on an upper end thereof with a sealing groove (31).
 - 3. The foundation container of claim 1, wherein the inner container cover (40) is provided on a lower end thereof with a sealing piece (42).
- **4.** The foundation container of claim 1, further comprising an impregnation member (70) mounted on an inside of the content container (50).
 - 5. The foundation container of claim 4, wherein the impregnation member (70) includes at least one selected from the group consisting of butadiene rubber, styrene butadiene rubber, natural rubber, wet urethane, dry urethane, polyether, polyester, polyvinyl chloride, polyethylene, ethylene vinyl acetate, latex, silicon, styrene isoprene styrene, styrene ethylene butylene styrene, polyvinyl alcohol, silicone agent elastomer, nitrile rubber, butyl rubber and neoprene.

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Fig. 1

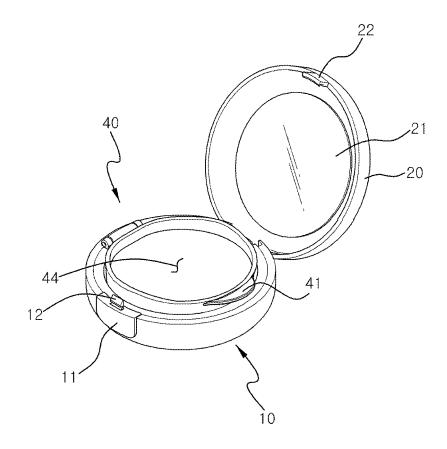


Fig. 2

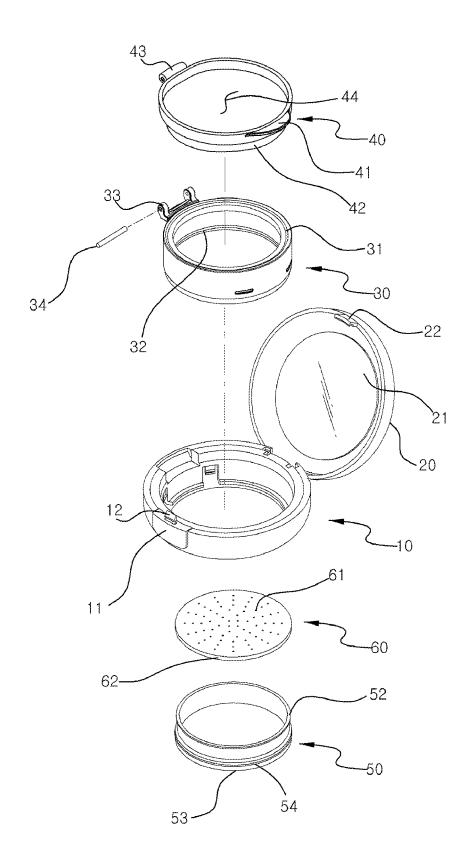


Fig. 3

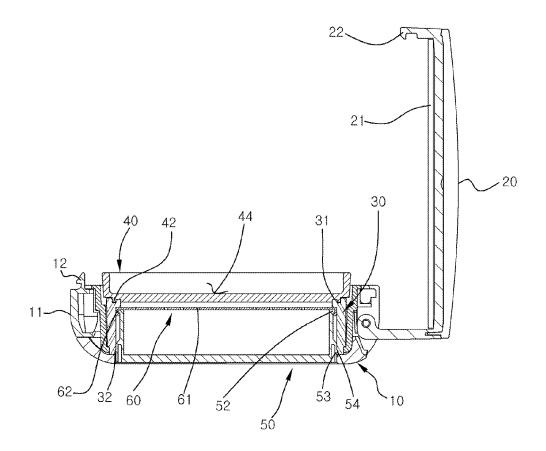


Fig. 4

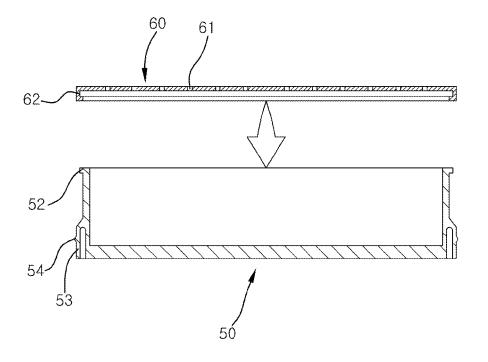


Fig. 5

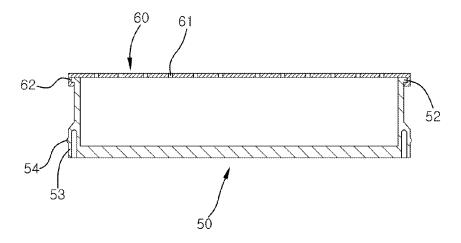


Fig. 6

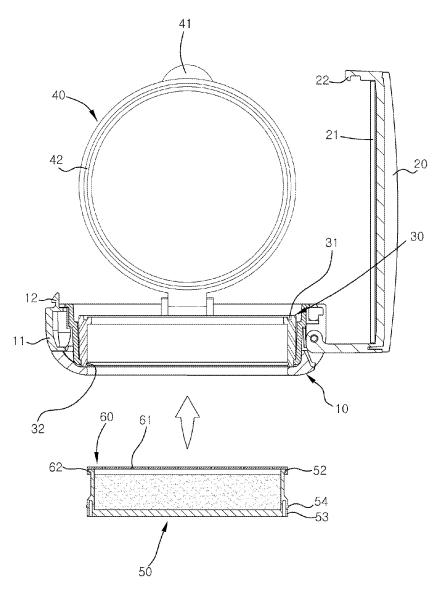
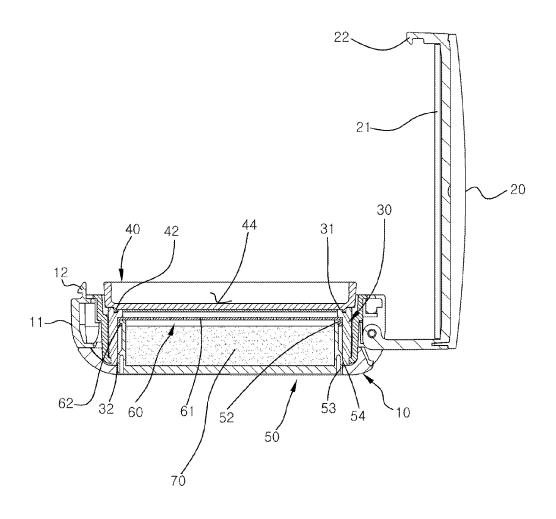


Fig. 7



INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2014/009784

5	A. CLASSIFICATION OF SUBJECT MATTER							
	A45D 34/0	A45D 34/00(2006.01)i						
	According to	According to International Patent Classification (IPC) or to both national classification and IPC						
	B. FIELI	B. FIELDS SEARCHED						
10	Minimum do A45D 34/00	Minimum documentation searched (classification system followed by classification symbols)						
	Korean Utility	on searched other than minimum documentation to the expression of the models and applications for Utility models: IPC as above ty models and applications for Utility models: IPC as above	tent that such documents are included in th	e fields searched				
15	eKOMPAS	ta base consulted during the international search (name of KIPO internal) & Keywords: foundation, compact, , impregnation						
	C. DOCUM	MENTS CONSIDERED TO BE RELEVANT		•••••••••••••••••••••••••••••••••••••••				
20	Category*	Citation of document, with indication, where a	opropriate, of the relevant passages	Relevant to claim No.				
	A	KR 20-0463142 Y1 (AMOREPACIFIC CORPORA See abstract; claims 1-4; figures 1-4.	TION) 18 October 2012	1-5				
25	A	KR 10-0886430 B1 (YONHEE CHEMICAL CO., I See abstract; claim 6; figures 3, 4.	1-5					
	A	JP 09-037842 A (YOSHINO KOGYOSHO CO. LT See claims 1, 2; figure 2.	D.) 10 February 1997	1-5				
30	A	A JP 2003-312701 A (YOSHINO KOGYOSHO CO. LTD.) 06 November 2003 See claims 1, 2; figure 2.		1-5				
	A	KR 20-1997-0026725 U (LEE, Neung Hui) 24 July See abstract; figures 1-3.	1997	1-5				
35	A	KR 20-0316066 Y1 (AMOREPACIFIC GROUP) I See abstract; claims 1, 2; figures 1-4.	1 June 2003	1-5				
40	Furthe	r documents are listed in the continuation of Box C.	See patent family annex.					
	* Special "A" docume to be of "E" earlier a	categories of cited documents: nt defining the general state of the art which is not considered particular relevance pplication or patent but published on or after the international	"T" later document published after the inte date and not in conflict with the appli the principle or theory underlying the "X" document of particular relevance; the	ication but cited to understand e invention e claimed invention cannot be				
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50	Date of the a	ctual completion of the international search 5 DECEMBER 2014 (05.12.2014)	Date of mailing of the international sea					
	Name and m	ailing address of the ISA/KR an Intellectual Property Office rennent Complex-Daejoon, 189 Seonsa-ro, Daejoon 302-701,	Authorized officer					
55	Rep	blic of Korea 2. 82-42-472-7140	Telephone No.	***************************************				

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INTERNATIONAL SEARCH REPORT Information on patent family members

International application No.

PCT/KR2014/009784

5	Patent document cited in search report	Publication date	Patent family member	Publication date
10	KR 20-0463142 Y1	18/10/2012	NONE	
	KR 10-0886430 B1	06/03/2009	NONE	
	JP 09-037842 A	10/02/1997	JP 3616435 B2	02/02/2005
5	JP 2003-312701 A	06/11/2003	NONE	
	KR 20-1997-0026725 U	24/07/1997	KR 20-0117231 Y1	23/04/1998
	KR 20-0316066 Y1	11/06/2003	NONE	
20				
25				
10				
35				
0				
15				
50				
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Patent documents cited in the description

• KR 101159877 [0009]