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(71) Applicant: **Kim, Yeong Ho**
Gwangju-si, Gyeonggi-do 12748 (KR)

(72) Inventor: **Kim, Yeong Ho**
Gwangju-si, Gyeonggi-do 12748 (KR)

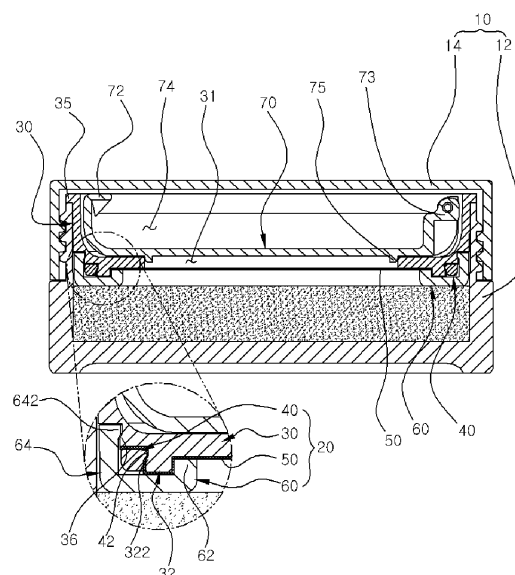
(74) Representative: **Eder, Michael**
df-mp Dörries Frank-Molnia & Pohlman
Patentanwälte Rechtsanwälte PartG mbB
Theatinerstrasse 16
80333 München (DE)

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(54) **INTERMEDIATE CAP OF POWDER CONTAINER TO WHICH MESH IS JOINED BY COUPLING RING AND LOWER COVER, AND METHOD FOR PRODUCING SAME**

(57) The present invention relates to an intermediate cap of a powder container to which a mesh is coupled by a coupling ring and a lower cover, and a method of manufacturing the same and, more particularly, to an intermediate cap of a powder container to which a mesh is coupled by a coupling ring and a lower cover, wherein the intermediate cap is mounted on the inside of the powder container; the intermediate cap comprises a cap body, a mesh, a coupling ring and a lower cover; a coupling protrusion wheel is formed in the lower part of the cap body; the coupling ring is forcedly fitted into the outside of the coupling protrusion wheel of the cap body in a state where the mesh is positioned between the cap body and the coupling ring to fix the mesh between the cap body and the coupling ring; and the lower cover is coupled to the lower part of the cap body to assemble the intermediate cap, so that the mesh is strongly coupled between the cap body and the coupling ring, thereby preventing the mesh from being decoupled therefrom, and preventing the mesh from being assembled while being pushed to one side.

[Fig. 5]



Description

[Technical Field]

[0001] The present invention relates to an intermediate cap of a powder container to which a mesh is coupled by a coupling ring and a lower cover, and a method of manufacturing the same and, more particularly, to an intermediate cap of a powder container to which a mesh is coupled by a coupling ring and a lower cover, wherein the intermediate cap is mounted on the inside of the powder container; the intermediate cap includes a cap body, a mesh, a coupling ring and a lower cover; a coupling protrusion wheel is formed in the lower part of the cap body; the coupling ring is forcibly fitted into the outside of the coupling protrusion wheel of the cap body in a state where the mesh is positioned between the cap body and the coupling ring to fix the mesh between the cap body and the coupling ring; and the lower cover is coupled to the lower part of the cap body to assemble the intermediate cap, so that the mesh is strongly coupled between the cap body and the coupling ring, thereby preventing the mesh from being decoupled therefrom, and preventing the mesh from being pushed to one side when assembled.

[0002] In addition, the present invention relates to a method for producing an intermediate cap mounted on the inside of a powder container and to which a mesh is coupled by a coupling ring and a lower cover, in which the method includes: preparing a cap body, a mesh, a coupling ring, and a lower cover constituting the intermediate cap of the powder container; reversely turning over the cap body; placing the mesh on an upper portion of a coupling wheel of the cap body; fixing the mesh by forcibly fitting the coupling ring around the coupling wheel of the cap body; and coupling the lower cover to the cap body while wrapping the coupling ring and the mesh, thereby simplifying the manufacturing process for the intermediate cap and improving the productivity because a large working space and a lot of workers are not needed.

[Background Art]

[0003] In general, women perform makeup by using cosmetic products to make their faces look bright and beautiful.

[0004] The cosmetic products are classified into basic cosmetics, makeup cosmetics, functional cosmetics, hair cosmetics and the like according to a function of the cosmetic products. In addition, the cosmetic products are classified into powder, liquid, gel, and solid cosmetic products according to a state of the cosmetic products, and stored in a container suitable for each state of the cosmetic products.

[0005] The makeup cosmetics are classified into a base makeup used for uniformly toning the skin and covering a defect on the skin and a point makeup for partially increasing a three-dimensional effect on lips, eyes, nails and the like, in which the base makeup includes a makeup base, a foundation, a powder and the like, and the point makeup includes a lipstick, an eyeliner, a mascara and the like.

[0006] The powder in the makeup cosmetics is a powder color cosmetics, which is used mainly to give a color effect to the skin and conceal the skin from being greasy due to defects of the skin, sweat or oil components, while making the skin dry and soft.

[0007] The powder is applied to a face by using a puff or a makeup brush to spread the powder uniformly on the face without sticking to hands. Therefore, in general, a powder container for containing the powder is provided therein with a puff or a cosmetic brush in use.

[0008] In such a conventional powder container, an intermediate cap formed with a mesh is provided inside the powder container in order to fix a puff and apply powder stored in the powder container. When a makeup is performed, the mesh formed in the intermediate cap is pressed by the puff such that the powder sticks to the puff.

[0009] The conventional powder container is disclosed in Korean Patent No. 10-1138661 entitled "powder container for makeup". As shown in FIG. 1, the conventional powder container includes an intermediate cap (1) having a powder lid (2), a mesh (3) formed of a flexible material, and a ring-shaped mesh frame (4) for fixing the mesh (3) to a bottom surface of the powder lid (2).

[0010] In the conventional powder container, the mesh (3) formed of the flexible material and the mesh frame (4) are ultrasonic welded together and edges of the welded mesh (3) are cut according to the size of the mesh frame (4). Then, the mesh frame (4) to which the mesh (3) is ultrasonic welded is placed in a mold and the powder lid (2) is injection-molded through an insert injection molding, so that the intermediate cap (1) is manufactured and assembled.

[0011] However, according to the conventional powder container, the intermediate cap (1) is manufactured through the steps of welding the mesh (3) with the mesh frame (4), cutting the mesh (3), placing the mesh frame (4) in the mold and injection-molding the powder lid (2), so that the manufacturing process is complicated and the work space and a lot of workers are required, thereby remarkably lowering the productivity and increasing the manufacturing cost.

[0012] In order to solve the above-mentioned problems, Korean Patent No. 10-1248345 discloses "intermediate cap of cosmetic powder container and manufacturing method thereof". According to the above related art, as shown in FIG. 2, an intermediate cap mounted in a cosmetic powder container includes a powder lid (5), a mesh 6 and a mesh frame

(7) for forcibly fixing the mesh (6) to the powder lid (5). In addition, a fixing protrusion (5a) and a pressing wedge (5b) circumferentially protrude from the powder lid (5) for primarily and secondarily fixing and pressing the mesh (6) when the mesh (6) is assembled with the powder lid (5), and the mesh frame (7) is formed with annular grooves (7a) and (7b) into which the fixing protrusion (5a) and the pressing wedge (5b) are fitted.

[0013] However, according to the above related art, when the powder lid (5) is coupled in a state in which the mesh (6) is placed on the mesh frame (7), the mesh (6) may be pushed in one direction depending on the degree of friction between the mesh frame (7) and the powder lid (5), so that the intermediate cap may be assembled poorly or one side of the mesh (6) of the intermediate cap may be decoupled between the mesh frame (7) and the powder lead 5 during use.

[Disclosure]

[Technical Problem]

[0014] The present invention has been made to solve the problems described above, and it is an object of the present invention to provide an intermediate cap mounted on an inside of a powder container and to which a mesh is coupled by a coupling ring and a lower cover, wherein the intermediate cap includes a cap body, a mesh, a coupling ring and a lower cover; a coupling protrusion wheel is formed in the lower part of the cap body; the coupling ring is forcedly fitted into the outside of the coupling protrusion wheel of the cap body in a state where the mesh is positioned between the cap body and the coupling ring to fix the mesh between the cap body and the coupling ring; and the lower cover is coupled to the lower part of the cap body to assemble the intermediate cap, so that the mesh is strongly coupled between the cap body and the coupling ring, thereby preventing the mesh from being decoupled therefrom, and preventing the mesh from being pushed to one side when assembled.

[0015] Another object of the present invention is to provide a method for producing an intermediate cap mounted on the inside of a powder container and to which a mesh is coupled a coupling ring and a lower cover, in which the method includes: preparing a cap body, a mesh, coupling ring, and a lower cover constituting the intermediate cap of the powder container; reversely turning over the cap body; placing the mesh on an upper portion of a coupling wheel the cap body; fixing the mesh by forcibly fitting the coupling ring around the coupling wheel of cap body; and coupling the lower cover to the cap body while wrapping the coupling ring and mesh, thereby simplifying the manufacturing process for the intermediate cap and improving the productivity because a large working space and a lot of workers are not needed.

[Technical Solution]

[0016] The present invention provides an intermediate cap mounted on an inside of a powder container and to which a mesh is coupled by a coupling ring and a lower cover, the intermediate cap including: a cap body provided at one side thereof with a coupling wheel; a coupling ring forcedly fitted around the coupling wheel of the cap body; a mesh fixed between the cap body and the coupling ring; and a lower cover coupled to one side of the cap body while wrapping the coupling ring and the mesh.

[0017] The intermediate cap may be provided at one side thereof with an intermediate cap lid hinged to the intermediate cap to open and close the intermediate cap.

[0018] A first coupling protrusion may be formed at an outer periphery of the coupling wheel of the cap body and a second coupling protrusion may be formed at an inner periphery of the coupling ring so that the cap body and the coupling ring may be coupled to each other.

[0019] The lower cover may be provided with a pressing portion that presses the mesh from a lower side of the mesh so that the mesh may come into close contact with a lower surface of the cap body.

[0020] A first toothed protrusion may be formed on an outer periphery of the pressing portion of the lower cover and a second toothed protrusion may be formed on an inner periphery of the coupling wheel of the cap body so that the lower cover and the cap body may be engaged with each other.

[0021] In addition, the present invention provides a method of producing an intermediate cap a powder container to which a mesh is coupled by a coupling ring and a lower cover, the including: preparing a cap body, a mesh, a coupling ring, and a lower cover constituting the intermediate cap of the powder container; reversely turning over the cap body; placing the mesh on an upper portion of a coupling wheel of the cap body; fixing the mesh by forcibly fitting the coupling ring around the coupling wheel of the cap body; and coupling the lower cover to the body while wrapping the coupling ring and the mesh.

[0022] When coupling the lower cover to the cap body, a pressing portion of the lower cover may press the mesh downward so that the mesh may come into close contact with a lower surface of the cap body.

[0023] When the pressing portion of the lower cover presses the mesh to allow the mesh to come into close contact with the lower surface of the cap body, a first toothed protrusion of the pressing portion may be engaged with a second toothed portion of the cap body so that the mesh may be pulled outward.

[Advantageous Effects]

[0024] An intermediate cap mounted on an inside of a powder container and to which a mesh is coupled by a coupling ring and a lower cover according to the present invention includes a cap body, a mesh, a coupling ring and a lower cover, a coupling protrusion wheel is formed in the lower part of the cap body, the coupling ring is forcedly fitted into the outside of the coupling protrusion wheel of the cap body in a state where the mesh is positioned between the cap body and the coupling ring to fix the mesh between the cap body and the coupling ring, and the lower cover is coupled to the lower part of the cap body to assemble the intermediate cap, so that the mesh is strongly coupled between the cap body and the coupling ring, thereby preventing the mesh from being decoupled therefrom, and preventing the mesh from being pushed to one side when assembled.

[0025] In addition, a method for producing an intermediate cap mounted on the inside of a powder container and to which a mesh is coupled by a coupling ring and a lower cover to the present invention includes: preparing a cap body, a mesh, a coupling ring, and a lower cover constituting the intermediate cap of the powder container; reversely turning over the cap body; placing the mesh on an upper portion of a coupling wheel of the cap body; fixing the mesh by forcibly fitting the coupling ring around the coupling wheel of the cap body; and coupling the lower cover to the cap body while wrapping the coupling ring and the mesh, thereby simplifying the manufacturing process for the intermediate cap and improving the productivity because a large working space and a lot of workers are not needed.

[Description of Drawings]

[0026]

FIG. 1 is a conventional powder container for cosmetics.

FIG. 2 is a sectional view showing an intermediate cap of a conventional cosmetic powder container and a method of manufacturing the same.

FIG. 3 is a perspective view showing a powder container equipped with an intermediate cap according to an embodiment of the present invention.

FIG. 4 is an exploded perspective view of a powder container equipped with an intermediate cap according to an embodiment of the present invention.

FIG. 5 is a sectional view of a powder container equipped with an intermediate cap according to an embodiment of the present invention.

FIG. 6 is a sectional view illustrating a state in which an intermediate cap lid is opened and a mesh is pressed by a puff according to an embodiment of the present invention.

FIG. 7a is a sectional view illustrating a state in which a cap body is reversely turned over according to an embodiment of the present invention.

FIG. 7b is a sectional view illustrating a state in which a mesh is seated on a cap body according to an embodiment of the present invention.

FIG. 7c is a sectional view illustrating a coupling ring coupled to an outer portion of a cap body according to an embodiment of the present invention.

FIG. 7d is a sectional view illustrating a state in which a lower cover is coupled to a cap body according to an embodiment of the present invention.

FIG. 7e is a sectional view illustrating an assembled intermediate cap according to an embodiment of the present invention.

FIG. 8 is a flowchart according to an embodiment of the present invention.

[Best Mode]

[Mode for Invention]

[0027] The present invention and the technical object accomplished by the embodiment of the present invention will be more apparent from the following detailed description. Hereinafter, an intermediate cap of a powder container to which a mesh is coupled by a coupling ring and a lower cover according to the present invention will be described in detail with reference to the accompanying drawings.

[0028] FIG. 3 is a perspective view showing a powder container equipped with an intermediate cap according to an embodiment of the present invention, FIG. 4 is an exploded perspective view of a powder container equipped with an intermediate cap according to an embodiment of the present invention, FIG. 5 is a sectional view of a powder container equipped with an intermediate cap according to an embodiment of the present invention, and FIG. 6 is a sectional view illustrating a state in which an intermediate cap lid is opened and a mesh is pressed by a puff according to an embodiment

of the present invention.

[0029] An intermediate cap (20) mounted on an inside of a powder container (10) and to which a mesh is coupled by a coupling ring and a lower cover according to the present invention includes a cap body (30) provided at one side thereof with a coupling wheel (32); a coupling ring (40) forcibly fitted around the coupling wheel (32) of the cap body (30); a mesh (50) fixed between the cap body (30) and the coupling ring (40); and a lower cover (60) coupled to one side of the cap body (30) while wrapping the coupling ring (40) and the mesh (50).

[0030] As shown in FIGS. 3 and 5, the powder container (10) includes a container body (12) and a container lid (14) for opening and closing the container body (12).

[0031] Powder cosmetics are contained in the container body (12) of the powder container (10), and the container body (12) and the container lid (14) may be screw-coupled, undercut-coupled or hinge-coupled with each other.

[0032] As shown in FIG. 4, the intermediate cap (20) includes a cap body (30), a coupling ring (40), a mesh (50) and a lower cover (60) and is mounted on an inside of the container body (12) of the powder container (10).

[0033] A discharge hole (31) is formed at the lower center of the cap body (30) and the powder cosmetic contained in the container body (12) is discharged to the outside through the discharge hole (31).

[0034] A first hinge portion (33), to which an intermediate cap lid (70) is hinged, is formed at one side of an inner circumferential surface of the cap body (30), and a seating portion (35), which is seated on an upper end of the container body (12) of the powder container (10), extends outward from an upper portion of the cap body (30).

[0035] The cap body (30) is provided at a lower end thereof with a coupling wheel (32) protruding downward, and the coupling wheel (32) is provided at an outer periphery thereof with a first coupling protrusion (322) coupled with the coupling ring (40) and provided at an inner periphery thereof with a second toothed protrusion (324) engaged with a first toothed protrusion (624) of the lower cover (60).

[0036] A first coupling protrusion (36) coupled with the lower cover (60) is provided at an outer side of the coupling wheel (32) of the cap body (30).

[0037] The coupling ring (40) is forcibly fitted around the outer side of the coupling wheel (32) of the cap body (30) to firmly fix the mesh (50) positioned between the cap body (30) and the coupling ring (40).

[0038] The coupling ring (40) has a ring shape and a second coupling protrusion (42) is formed on an inner periphery of the coupling ring (40) so as to be coupled with the first coupling protrusion (322) of the cap body (30).

[0039] That is, as shown in FIG. 1, according to the conventional mesh-coupling structure, the mesh is fixed by pressing the mesh from the top and bottom of the mesh, so that the mesh may be moved and biased in one direction in the process of coupling the mesh.

[0040] However, according to the present invention, the mesh (50) is positioned between the cap member (30) and the coupling ring (40) and the coupling ring (40) is coupled to an outer portion of the coupling wheel (32) of the cap member (30). Thus, the mesh (50) positioned between the cap member (30) and the coupling ring (40) is uniformly pulled outward without being biased in one direction.

[0041] As shown in the enlarged view of FIG. 5, the mesh (50) is fixedly inserted between the cap body (30) and the coupling ring (40), and has a plurality of mesh holes, so that the cosmetic contained in the container body (12) may be discharged evenly.

[0042] The mesh (50) may be formed of a fiber material, a synthetic resin material, or a rubber material, or may be formed of various materials.

[0043] The lower cover (60) has a sectional shape of "⌒" and is coupled to the lower portion the cap body (30) while wrapping the coupling ring (40) and the mesh (50).

[0044] A pressing portion (62) extends upward from an inner periphery of the lower cover (60). The pressing portion (62) presses the mesh (50) from the bottom of the mesh (50) so that the mesh (50) comes in close contact with the lower surface of the cap body (30).

[0045] The first toothed protrusion (624) is formed on an outer periphery of the pressing portion (62) of the lower cover (60) to mesh with the second toothed protrusion (324) of the cap body (30), so that the mesh (50) may be pulled more tightly.

[0046] The first toothed protrusion (624) and the second toothed protrusion (324) will be described below in detail. When the lower cover (60) is assembled to the lower side of the cap body (30), the pressing portion (62) of the lower cover (60) is fitted into an inner side of the coupling wheel (32) of the cap body (30) together with the mesh (50) so that the mesh (50) is pulled outward.

[0047] In this case, since the first toothed protrusion (624) is formed on the outer periphery of the pressing portion (62) of the lower cover (60), and the second toothed protrusion (324) is formed on the inner periphery of the coupling wheel (32) of the cap body (30), the engagement area may be expanded so that the length of the mesh (50) pulled by the first toothed protrusions (624) and the second toothed protrusions (324) may be increased. As a result, the mesh (50) may be further pulled outward corresponding to the increased length.

[0048] A coupling portion (64) is provided outside the pressing portion (62) of the lower cover (60) while being spaced apart from the pressing portion by a predetermined distance. A second coupling protrusion (642) is provided on an inner

periphery of an upper portion of the coupling portion (64) and coupled to the first coupling protrusion (36) of the cap body (30).

[0049] The coupling portion (64) may extend upward higher than the pressing portion (62) so that the coupling portion (64) of the lower cover (60) can be coupled to the outer side of the cap body (30).

[0050] The coupling wheel (32) of the cap body (30) and the coupling ring (40) and a portion of the mesh (50) are inserted between the pressing portion (62) and the coupling portion (64).

[0051] In addition, the intermediate cap lid (70), which is hinged to the intermediate cap (30) to open and close the intermediate cap (30), may be further provided at one side of the intermediate cap (30).

[0052] A handle (72) is formed at one side of the intermediate cap lid (70) so that a user can easily hold the handle (72) and a second hinge portion (73), which is coupled to a first hinge portion (33) of the cap body (30), is provided in opposition to the handle (72).

[0053] A puff seating space (74), on which a puff (P) is seated, is formed on an upper portion of the intermediate cap lid (70).

[0054] A sealing wheel (75) that seals the container body (12) of the powder container (10) extends downward from a lower portion of the intermediate cap lid (70). The sealing wheel (75) may be inserted into the discharge hole (31) of the cap body (30) while making close-contact with an end of the inner periphery of the cap body (30).

[0055] Hereinafter, a method for manufacturing an intermediate cap of a powder container to which a mesh is coupled by a coupling ring and a lower cover according to the present invention will be described in detail with reference to the accompanying drawings.

[0056] FIG. 7a is a sectional view illustrating a state in which a cap body is reversely turned over according to an embodiment of the present invention, FIG. 7b is a sectional view illustrating a state in which a mesh is seated on a cap body according to an embodiment of the present invention, FIG. 7c is a sectional view illustrating a coupling ring coupled to an outer portion of a cap body according to an embodiment of the present invention, FIG. 7d is a sectional view illustrating a state in which a lower cover is coupled to a cap body according to an embodiment of the present invention, FIG. 7e is a sectional view illustrating an assembled intermediate cap according to an embodiment of the present invention, and FIG. 8 is a flowchart according to an embodiment of the present invention.

[0057] As shown in FIG. 8, the present invention includes the steps of: preparing the cap body (30), the coupling ring (40), the mesh (50) and the lower cover (60) constituting the intermediate cap (20) of the powder container (10) (S100); reversely turning over the cap body (30) (S200); placing the mesh (50) on an upper portion of the coupling wheel (32) of the cap body (30) fixing the mesh (50) by forcibly fitting the coupling ring (40) around the coupling wheel (32) of cap body (30) (S400); and coupling the lower cover (60) to the cap body (30) while wrapping the coupling ring (40) and the mesh (50) (S500).

[0058] As shown in FIG. 7b, in step (S300) of placing the mesh (50) on an upper portion of the coupling wheel (32) of the cap body (30), the mesh (50) may have a diameter larger than a diameter of the coupling wheel (32) such that the mesh (50) may completely cover the upper portion of the coupling wheel (32).

[0059] As shown in FIG. 7c, in step (S400) of fixing the mesh (50) by forcibly fitting the coupling ring (40) around the coupling wheel (32) of the cap body (30), the first coupling protrusion (322) of the coupling wheel (32) and the second coupling protrusion (42) of the coupling ring (40) are forcibly coupled with each other so that the mesh (50) is tightly pulled outward. As shown in FIG. 7d, in step (S500) of coupling the lower cover (60) to the cap body (30) while wrapping the coupling ring (40) and the mesh (50), the first coupling protrusion (36) of the cap body (30) is coupled with the second coupling protrusion (642) of the lower cover (60) and the pressing portion (62) of the lower cover (60) presses the mesh (50) from the bottom of the mesh (50) so that the mesh (50) comes in close contact with the lower surface of the cap body (30).

[0060] At the same time, as shown in FIG. 7e, the first toothed protrusion (624) of the pressing portion (62) is engaged with the second toothed protrusion (324) of the cap body (30) so that the mesh (50) is more firmly and tightly pulled.

[0061] A method of using the intermediate cap of the powder container to which the mesh is assembled by the coupling ring and the lower cover will be described below.

[0062] In order to use the intermediate cap of the powder container to which the mesh is coupled by the coupling ring and the lower cover according to the present invention, the container lid (14) is decoupled from the container body (12). Then, as shown in FIG. 6, the user holds the puff (P) seated on an upper portion of the intermediate cap lid (70) and the intermediate cap lid (70) is opened.

[0063] After that, the upper surface of the mesh (50) fixedly coupled between the cap body (30) and the coupling ring (40) is pressed by the puff (P), so that the mesh (50) having flexibility is elastically pressed downward against the container body (12). As a result, the powder cosmetics contained in the container body (12) are discharged through the mesh holes of the mesh (50) and put on the puff (P).

[0064] Then, when the pressure applied to the mesh (50) is released, the flexible mesh (50) is restored to its original shape, and the user performs makeup by using the puff (P).

[0065] After the makeup has been completed, the intermediate cap lid (70) is closed, the puff (P) is seated in the puff

seating space (74) of the intermediate cap lid (70), and the container lid (14) is coupled to the upper portion of the container body (12).

[0066] As described above, the intermediate cap of the powder container to which the mesh is coupled by the coupling ring and the lower cover and the method of manufacturing the intermediate cap are only examples, and the present invention is not limited to the above embodiment. It will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the present invention as defined by the appended claims and their equivalents..

[Description of Reference Numerals]

10: powder container	20: Intermediate cap
30: cap body	32: coupling wheel
40: coupling ring	42: second coupling protrusion
50: mesh	60: lower cover
62: pressing portion	70: intermediate cap lid
322: first coupling protrusion	324: second toothed protrusion
624: first toothed protrusion	

Claims

1. An intermediate cap mounted on an inside of a powder container and to which a mesh is coupled by a coupling ring and a lower cover, the intermediate cap comprising:

a cap body provided at one side thereof with a coupling wheel;
a coupling ring forcedly fitted around the coupling wheel of the cap body;
a mesh fixed between the cap body and the coupling ring; and
a lower cover coupled to one side of the cap body while wrapping the coupling ring and the mesh.

2. The intermediate cap of claim 1, wherein the intermediate cap is provided at one side thereof with an intermediate cap lid hinged to the intermediate cap to open and close the intermediate cap.

3. The intermediate cap of claim 1, wherein a first coupling protrusion is formed at an outer periphery of the coupling wheel of the cap body and a second coupling protrusion is formed at an inner periphery of the coupling ring so that the cap body and the coupling ring are coupled to each other.

4. The intermediate cap of claim 1, wherein the lower cover is provided with a pressing portion that presses the mesh from a lower side of the mesh so that the mesh comes into close contact with a lower surface of the cap body.

5. The intermediate cap of claim 4, wherein a first toothed protrusion is formed on an outer periphery of the pressing portion of the lower cover and a second toothed protrusion is formed on an inner periphery of the coupling wheel of the cap body so that the lower cover and the cap body are engaged with each other.

6. A method of producing an intermediate cap of a powder container to which a mesh is coupled by a coupling ring and a lower cover, the method comprising:

preparing a cap body, a mesh, a coupling ring, and a lower cover constituting the intermediate cap of the powder container;
reversely turning over the cap body;
placing the mesh on an upper portion of a coupling wheel of the cap body;
fixing the mesh by forcibly fitting the coupling ring around the coupling wheel of the cap body; and
coupling the lower cover to the cap body while wrapping the coupling ring and the mesh,

7. The method of claim 6, wherein, when coupling the lower cover to the cap body, a pressing portion of the lower cover presses the mesh downward so that the mesh comes into close contact with a lower surface of the cap body.

8. The method of claim 7, wherein, when the pressing portion of the lower cover presses the mesh to allow the mesh to come into close contact with the lower surface of the cap body, a first toothed protrusion of the pressing portion

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is engaged with a second toothed portion of the cap body so that the mesh is pulled outward.

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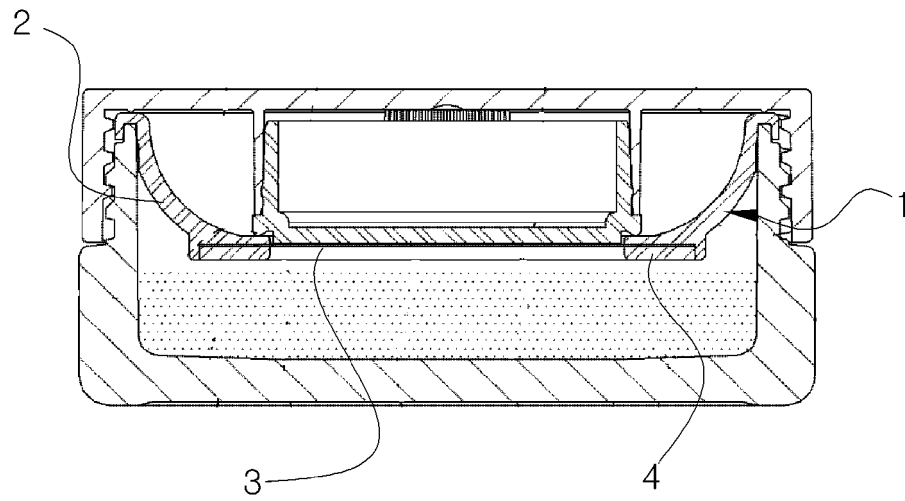
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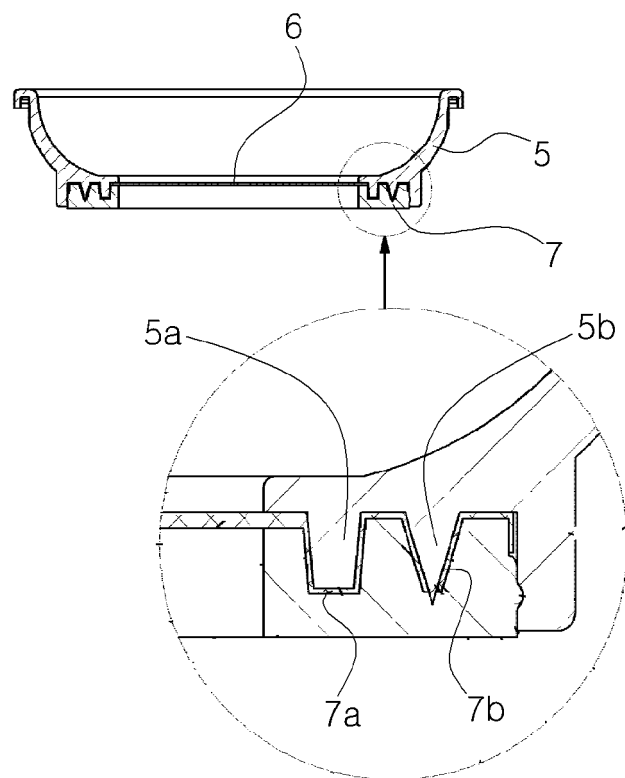
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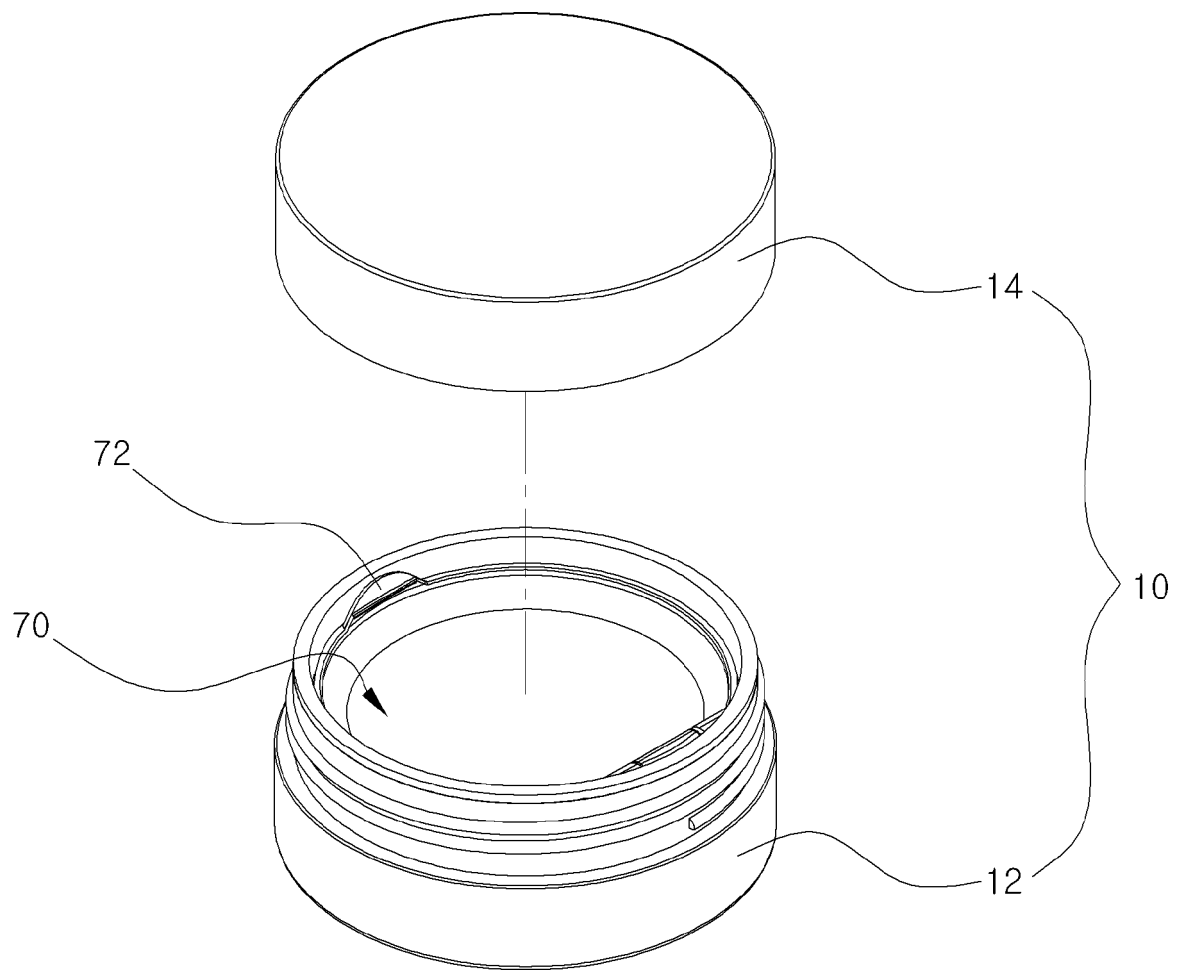
[Fig. 1]



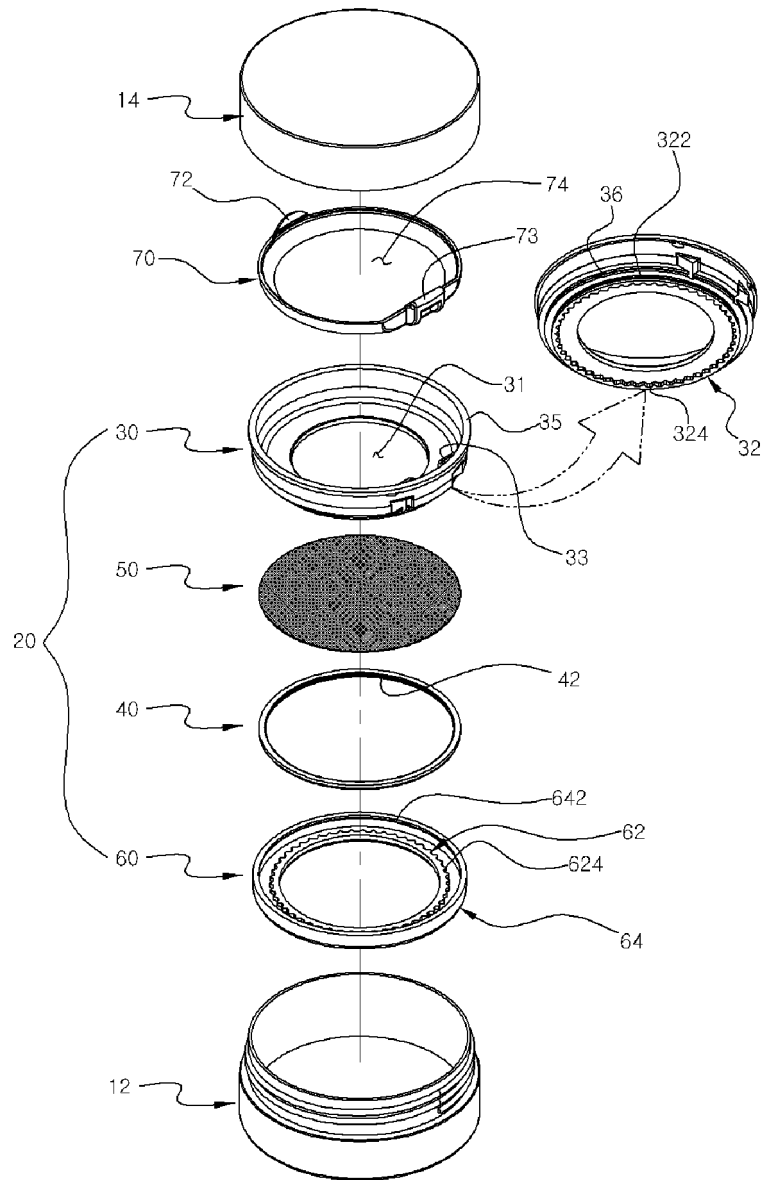
[Fig. 2]



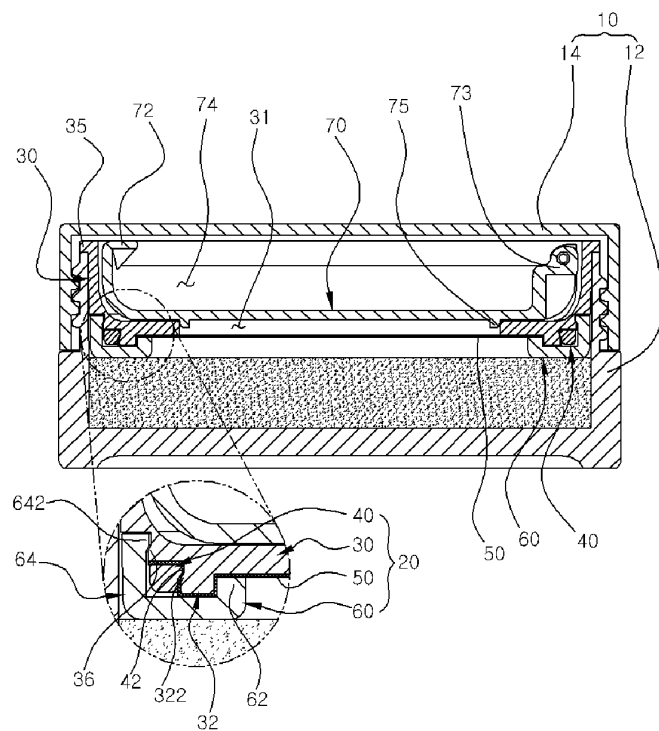
[Fig. 3]



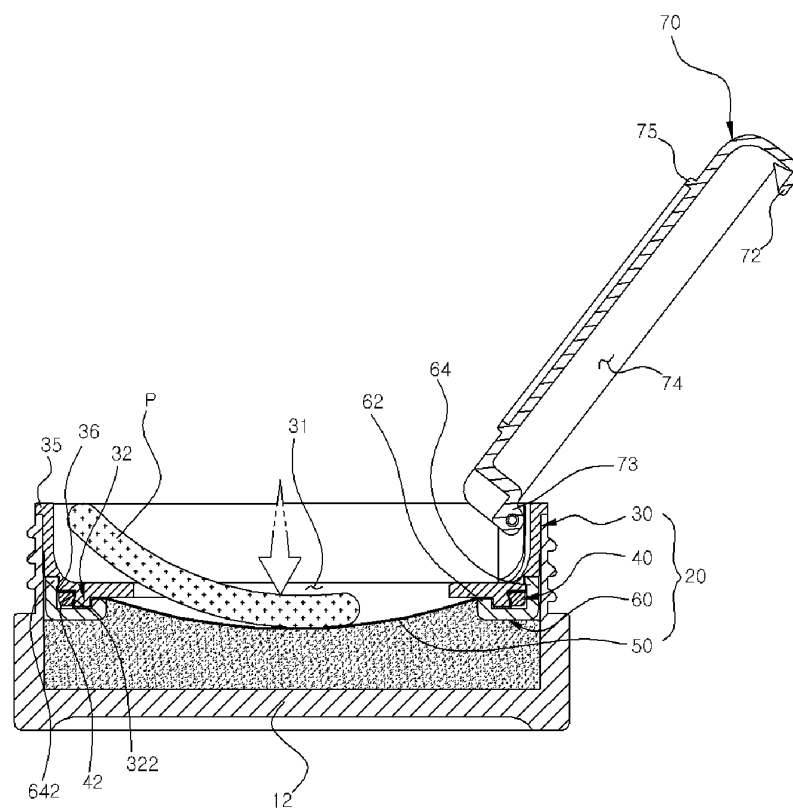
[Fig. 4]



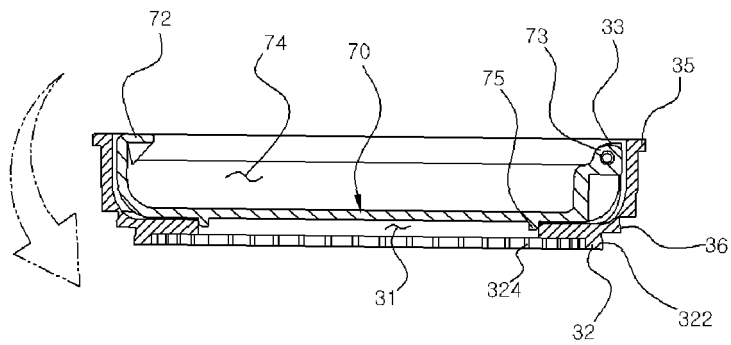
[Fig. 5]



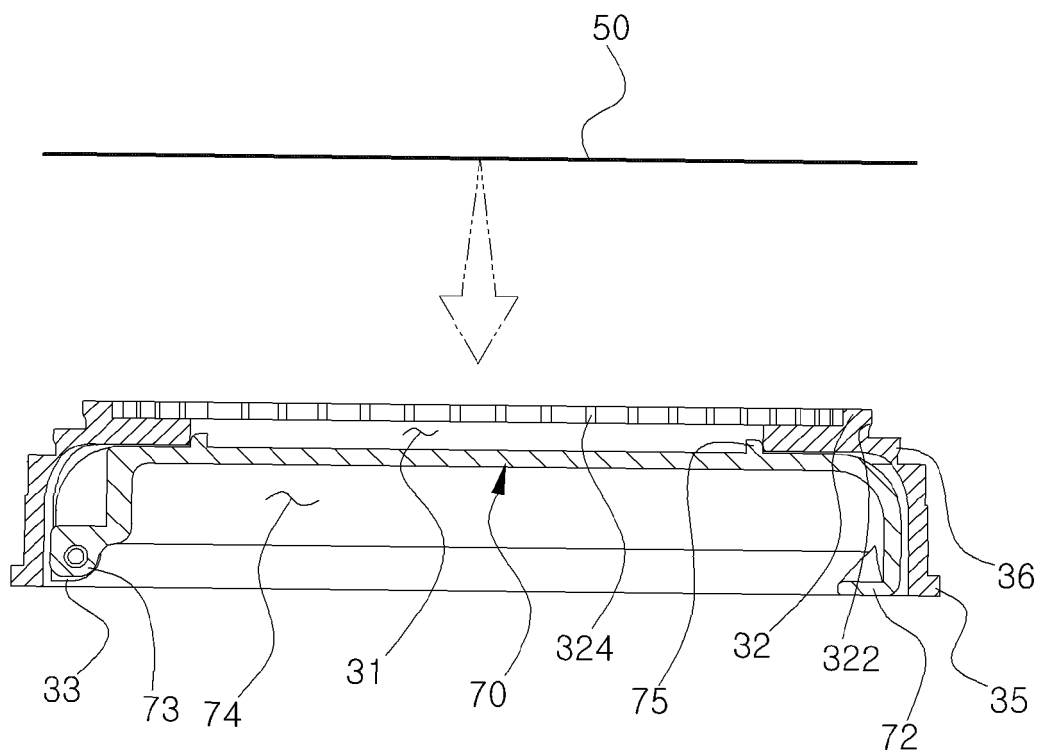
[Fig. 6]



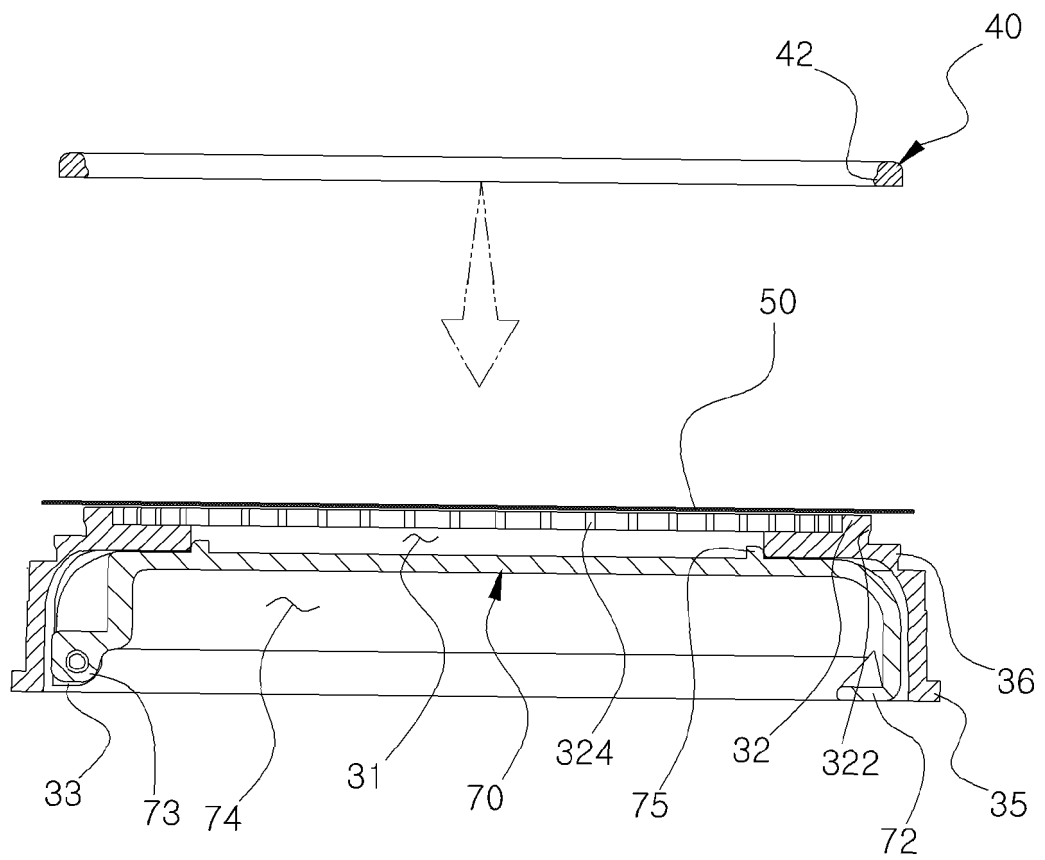
[Fig. 7a]



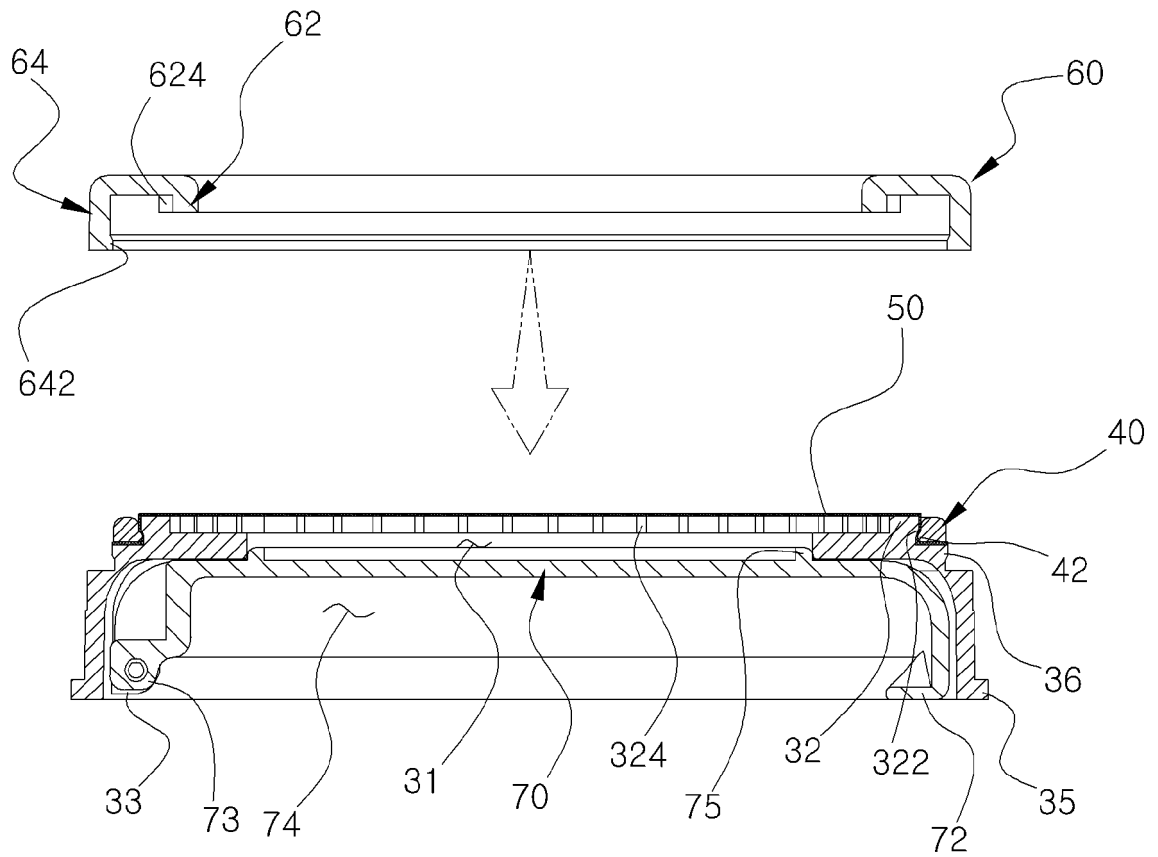
[Fig. 7b]



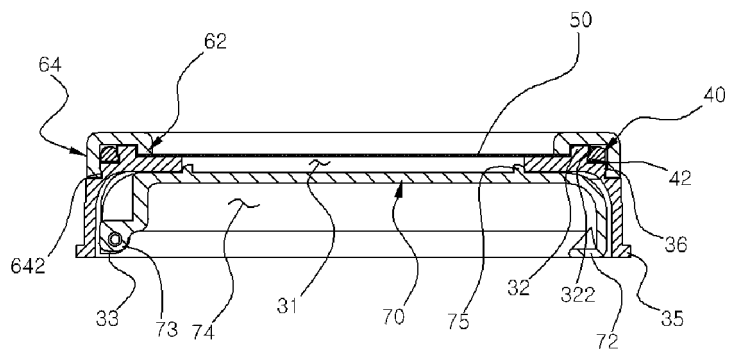
[Fig. 7c]



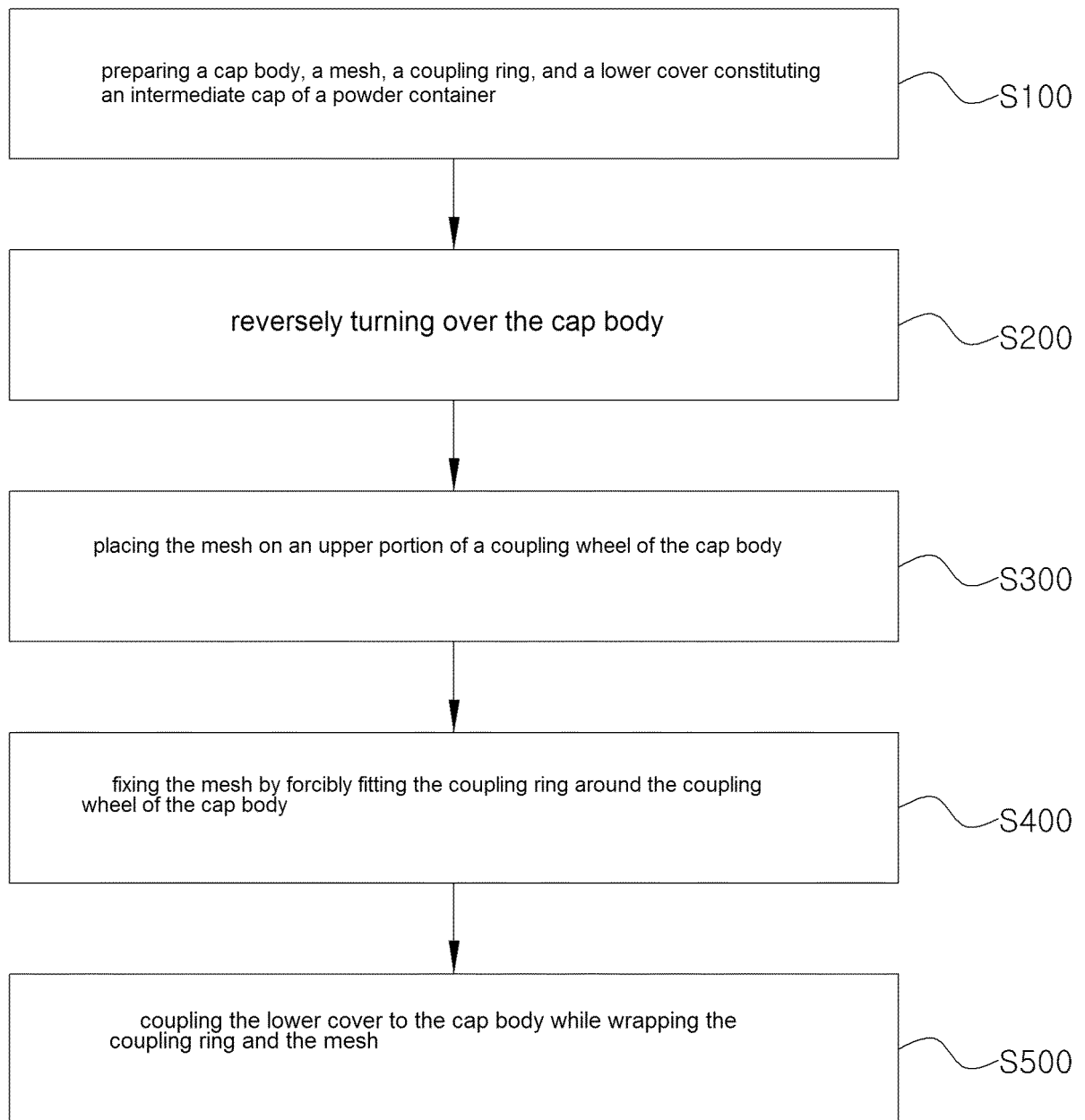
[Fig. 7d]



[Fig. 7e]



[Fig. 8]



INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2017/008403

A. CLASSIFICATION OF SUBJECT MATTER

A45D 33/24(2006.01)i, B65D 83/06(2006.01)i, B65D 47/08(2006.01)i, A45D 33/00(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A45D 33/24; A45D 33/00; A45D 34/00; B65D 47/06; A45D 34/04; A45D 40/00; B65D 83/06; B65D 47/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models: IPC as above

Japanese Utility models and applications for Utility models: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) & Keywords: powder, middle cap, ring, net, cover, coupling protrusion ring

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-1236050 B1 (KIM, Jin Woo) 28 February 2013 See paragraphs [0009], [0021] and figures 2-5.	1-8
A	KR 10-1477583 B1 (COSMECCA KOREA CO., LTD. et al.) 31 December 2014 See the entire document.	1-8
A	KR 20-2016-0000383 U (KIM, Yeong-Ho) 03 February 2016 See the entire document.	1-8
A	KR 10-1556904 B1 (NEWFRONTTECH CO., LTD.) 02 October 2015 See the entire document.	1-8
PX	KR 10-1686354 B1 (LG HOUSEHOLD & HEALTH CARE LTD.) 13 December 2016 See paragraphs [0030], [0033], [0061]-[0066] and figures 1-4.	1-4,6-7

☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

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Date of the actual completion of the international search

06 DECEMBER 2017 (06.12.2017)

Date of mailing of the international search report

07 DECEMBER 2017 (07.12.2017)

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Korean Intellectual Property Office
Government Complex-Daejeon, 189 Seonsa-ro, Daejeon 302-701,
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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

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