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

(11) EP 2 974 980 A1

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

(43) Date of publication:
20.01.2016 Bulletin 2016/03

(21) Application number: **13877536.6**

(22) Date of filing: **21.06.2013**

(51) Int Cl.:
B65D 83/08 *(2006.01)* ***A47K 7/00*** *(2006.01)*
A47K 10/42 *(2006.01)*

(86) International application number:
PCT/JP2013/067740

(87) International publication number:
WO 2014/141494 (18.09.2014 Gazette 2014/38)

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

(30) Priority: **14.03.2013 PCT/JP2013/001700**

(71) Applicant: **Yamada, Kikuo**
Shinagawa-ku
Tokyo 141-0022 (JP)

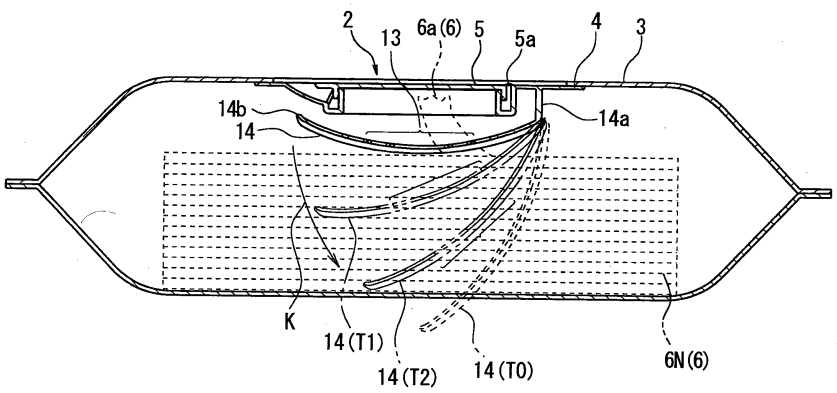
(72) Inventor: **Yamada, Kikuo**
Shinagawa-ku
Tokyo 141-0022 (JP)

(74) Representative: **Ishiguro, Masaoki**
IPecunia Patents B.V.
P.O. Box 593
6160 AN Geleen (NL)

(54) WIPE DISPENSER

(57) Provided is a wipe dispenser configured such that an orifice member is pressed constantly against the surface of a stack of wipes when wipes are consumed and the bulk of the stack of wipes inside a storage body is reduced. The wipe dispenser includes: a stack of wipes constituted by a plurality of wipes; a storage body that can store the stack of wipes inside thereof and is provided with a take-out hole member that enables a wipe to be pulled out to the outside from a take-out hole through which the wipe can pass; and a lid that can close and open the take-out hole from the outside, the stack of wipes being stored in the storage body. An orifice member, in which an orifice is formed for applying resistance to the wipe when the wipe is pulled out from the take-out hole, is provided between the take-out hole member and the stack of wipes; and the orifice of the orifice member is configured to move to a deeper side of the storage body according to an amount by which a bulk of the stack of wipes is reduced as a result of the wipes being pulled out from the take-out hole. The orifice member is supported by the take-out hole member and biased toward the deeper side of the storage body.

[FIG. 2]



EP 2 974 980 A1

Description

TECHNICAL FIELD

[0001] The present invention relates to a wipe dispenser in which a stack of wipes is stored inside a storage body. The "wipe", as referred to in the present invention, is a wiping material, more specifically a material that is obtained by applying a liquid chemical to a flexible fiber sheet and is capable of demonstrating a function of wiping off unwanted substances or the like from a solid surface. The concept of the wipe includes, for example, wiping materials, body washers, makeup removers, and toilet seat cleaners.

BACKGROUND ART

[0002] In a wipe dispenser formed as a bag, a stack of wipes formed by continuously folding a large number of wipes is stored in a storage body, and a take-out hole for pulling out the wipes one by one is formed in a take-out hole member attached to the storage body in intimate contact therewith.

[0003] In the stack of wipes, the end of each wipe is interfolded with the end of the wipe adjacent thereto, whereby a state in which where the forefront wipe is pulled out, the next wipe also moves continuously can be achieved. A set of a plurality of wipes in this state is called a "wipe continuous body".

[0004] An orifice member in which an orifice is formed for applying resistance to a wipe passing therethrough is disposed on the inner side of the take-out hole in the wipe dispenser. As a result, when a wipe is pulled out to the outside from the inside of the storage body, the wipe continuous body is separated at a boundary portion of a plurality of wipes which is located at a position just beyond the orifice, and therefore only one forefront wipe located on the front side is taken out (see Patent Literature 1 and 2).

Patent Literature 1: Japanese Patent Application Publication No. 2004-196303

Patent Literature 2: Japanese Patent Application Publication No. 2010-173649

DISCLOSURE OF THE INVENTION

[0005] In a wipe dispenser in which a stack of wipes is stored in a storage body, the bulk of the stack of wipes stored in a folded state inside the storage body decreases gradually as the wipes are consumed. Accordingly, the distance between the surface of the stack of wipes and the orifice increases, and the tension state of the wipe continuous body passing through the orifice is loosened. As a result, the wipe continuous body can easily slip through the orifice and the resistance applied to the wipe continuous body decreases.

[0006] In such a case, a situation may occur in which the wipe continuous body is not separated appropriately at the boundary of a wipe which is being pulled out and the next wipe, the separation timing of the wipe continuous body is delayed, a plurality of wipes is continuously pulled out contrary to the user's intensions, and an unnecessary number of wipes are exposed. Where the unnecessary number of wipes are exposed, a lid provided on the outside cannot be sealed because of those wipes and the stack of wipes can dry inside the storage body which results in degraded quality at the time of use.

[0007] Further, in the wipe dispenser, it is important to minimize the probability of the constituent members coming unnecessarily into contact and interfering with other members when the wipe dispenser is manufactured and assembled. This is also desirable for smoothly performing the assembling operation in the manufacturing process when the wipe dispenser is automatically assembled by using an automatic production machine.

[0008] It is an objective of the present invention to provide a wipe dispenser configured such that the resistance applied to the wipe continuous body is not decreased even when the wipes are consumed and the bulk of the stack of wipes inside the storage body is gradually reduced, thereby making it possible to separate successfully the forefront wipe and the next wipe and prevent the occurrence of troubles such as drying of the stack of wipes inside the storage body.

[0009] Another objective of the present invention is to provide a wipe dispenser configured such that the constituent members of the wipe dispenser are prevented from coming unnecessarily into contact and interfering with other members when the wipe dispenser is manufactured and assembled and the assembling can be performed smoothly and easily at the time of production.

[0010] In order to attain the abovementioned objectives, the present invention provides a wipe dispenser including: a stack of wipes constituted by a plurality of wipes; a storage body that can store the stack of wipes inside thereof and is provided with a take-out hole member that enables a wipe to be pulled out to the outside from a take-out hole through which the wipe can pass; and a lid that can close and open the take-out hole from the outside, the stack of wipes being stored in the storage body, wherein an orifice member, in which an orifice is formed for applying resistance to the wipe when the wipe is pulled out from the take-out hole, is provided between the take-out hole member and the stack of wipes; the orifice of the orifice member is configured to move to a deeper side of the storage body according to an amount by which a bulk of the stack of wipes is reduced as a result of the wipes being pulled out from the take-out hole; and the orifice member is supported by the take-out hole member and biased toward the deeper side of the storage body.

[0011] Further, in the present invention, a holding member for holding the orifice member in a state of being drawn in the direction against a biasing force may be provided such that the state of holding the orifice member

can be released. In this case, the holding member may be provided such that a state in which the orifice member is not held can be obtained by accessing the holding member from the outside through the take-out hole.

[0012] Further, in the present invention, an opening member may be provided that can seal the take-out hole and open the take-out hole by being removed to the outside of the take-out hole, and the holding member may be connected to the opening member so that a state in which the holding member does not hold the orifice member is obtained when the opening member is removed from the take-out hole. In this case, the holding member may be provided to protrude from a rear surface side of the opening member to the inner side of the storage body, and an engagement portion that disengageably engages with the orifice member may be formed in the holding member such that, in a state in which the opening member seals the take-out hole, the engagement portion may engage with the orifice member and hold the holding member in a state of being drawn to the take-out hole member side, and when the opening member is removed from the take-out hole, the engagement of the engagement portion with the orifice member may be released at the same time and the orifice member may assume a state of being pressed against the stack of wipes.

[0013] Further, in the present invention, the holding member may be connected to the lid so that a state in which the holding member does not hold the orifice member is obtained when the lid is opened.

[0014] In the present invention, an opening member may be provided that can seal the take-out hole and open the take-out hole by being removed to the outside of the take-out hole; the holding member may be an adhesive bonding together a rear surface of the opening member and the orifice member; in a state in which the opening member seals the take-out hole, the adhesive may bond together the rear surface of the opening member and the orifice member and hold the orifice member in a state of being drawn against the biasing force; and when the opening member is removed from the take-out hole, the bonding of the opening member and the orifice member may be released, and a state in which the orifice member is pressed against the stack of wipes may be obtained.

[0015] Further, in the present invention, the orifice member may be cantilever supported close to a position on the inner side of the take-out hole of the storage body, and a free end side of the orifice member may be biased toward the deeper side of the storage body. Alternatively, the orifice member may be movably disposed close to a position on the inner side of the take-out hole of the storage body, and the entire orifice member may be biased toward the deeper side of the storage body.

[0016] In accordance with the present invention, as a result of the orifice member being constantly pressed against the surface of the wipe stack by a biasing force, the distance between the surface of the wipe stack and the orifice is not increased and the resistance applied by the orifice to the wipes is not decreased even when the wipes are consumed and the bulk of the stack of wipes inside the storage body is gradually reduced, thereby making it possible to separate the wipes successfully and improve the quality of use. Further, in accordance with the present invention, where the holding member is provided, the holding member holds the orifice member in a state of being drawn in the direction against the biasing force in the unused state of the wipe dispenser. Therefore, the wipe dispenser can be smoothly and easily assembled with an automatic machine.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017]

FIG. 1 is an external perspective view of the wipe dispenser of the first embodiment of the present invention.

FIG. 2 is a side sectional view (sectional view along line II-II in FIG. 1) of the wipe dispenser of the first embodiment of the present invention.

FIG. 3 is a perspective view of the take-out hole member portion of the wipe dispenser of the first embodiment of the present invention, in which (3A) is an outer surface view and (3B) is a rear surface view.

FIG. 4 is a partial side sectional view illustrating schematically the operations performed when a wipe is taken out from the wipe dispenser of the first embodiment of the present invention, in which (4A) shows a state in which the take-out is started, (4B) - a state during the take-out, and (4C) - a state after the take-out is completed.

FIG. 5 is a side sectional view illustrating the usage state of the wipe dispenser of the first embodiment of the present invention.

FIG. 6 is a side sectional view illustrating a state before the use of the wipe dispenser of the first embodiment of the present invention is started.

FIG. 7 is a perspective view of the surface side of the take-out hole member portion of the wipe dispenser of the first embodiment of the present invention in the unused state.

FIG. 8 is a perspective view of the rear surface side of the take-out hole member portion of the wipe dispenser of the first embodiment of the present invention in the unused state.

FIG. 9 is a partial side sectional view illustrating schematically the operations of removing the opening member from the wipe dispenser of the first embodiment of the present invention, in which (9A) shows a state before the removal and (9B) shows a state during the removal.

FIG. 10 (10A, 10B) is a side sectional view of the take-out hole member portions of the wipe dispensers of the second and third embodiments of the present invention.

FIG. 11 is a perspective view of the take-out hole member portion of the wipe dispenser of the fourth

embodiment of the present invention.

FIG. 12 is a perspective view illustrating a state in which the take-out hole portion of the wipe dispenser of the fifth embodiment of the present invention is viewed from the rear side.

BEST MODE FOR CARRYING OUT THE INVENTION

[0018] Embodiments of the present invention will be explained hereinbelow with reference to the drawings. FIGS. 1 to 9 illustrate a wipe dispenser of the first embodiment of the present invention. In FIGS. 2 to 5, the below-described holding member 25 is omitted for the sake of convenience of explanation.

[0019] FIG. 1 is an external view of the wipe dispenser. A storage body 3 in which an opening 2 is formed in the center of one surface is formed from an air-tight flexible plastic film or the like, for example in a pillow-shaped bag form, and portions other than the opening 2 are air-tight sealed with a heat seal or the like. The storage body 3 may have a monolayer structure or a multilayer structure, and the below-described stack of wipes 6N is stored inside thereof. The storage body 3 may have a shape other than the bag-like shape. For example, a box-shaped storage body formed from a rigid plastic may be used.

[0020] The opening 2 is formed in a quadrangular shape in the central portion of the widest surface of the storage body 3. However, this shape of the opening 2 is not limited to this example and other shapes may be used. A take-out hole member 4 constituted by a rigid plastic material is brought into intimate contact with and fixedly attached to the opening 2. A take-out hole 8 through which the wipes taken out from the inside of the storage body 3 pass is formed in the take-out hole member 4 to communicate with the opening 2 of the storage body 3, and a lid 5 that can close and open the outer end mouth of the take-out hole 8 from the outside is mounted on the take-out hole member 4 so that the lid can be opened and closed.

[0021] In a closed state, the lid 5 engages with the edge of the outer end mouth of the take-out hole 8 and closes the take-out hole 8. The take-out hole member 4 and the lid 5 are formed integrally, for example, from a thermoplastic resin such as polyethylene and polypropylene, with a hinge portion 5a being interposed therebetween, the hinge portion serving as a shaft of rotation operation. The take-out hole member 4 is air-tightly fixedly attached by a means such as hot melting or thermal fusion to the inner surface side of the storage body 3 along the edge of the opening 2. The hatched portion denoted by P in FIG. 1 is the fixed attachment portion. The take-out hole member 4 and lid 5 may be also formed separately and then assembled.

[0022] FIG. 2 is a sectional view taken along II-II in FIG. 1. The below-described opening member which can seal the take-out hole 8 and open the take-out hole 8 by being removed to the outside of the take-out hole 8 is disposed at the end on the inner side of the take-out hole 8. FIG. 2 depicts a state after the opening member has been removed.

[0023] The stack of wipes 6N stored in the storage body 3 is formed by continuously folding a plurality of wipes. The stack of wipes 6N may be obtained, for example, by folding individually the independent sheet-like wipes in a state of the so-called Z-fold and interfolding the end portions of the adjacent wipes. Where the forefront end (that is, the uppermost stage) of such a stack of wipes 6N is pulled, since the adjacent wipes are interfolded, the subsequent wipe is pulled by the wipe located at the forefront end and is moved. As mentioned hereinabove, in the present case, the sequence of wipes configured such that the subsequent wipe is pulled by the wipe located at the forefront end and can be moved is called a wipe continuous body 6. In the wipe continuous body 6, contact portions of the adjacent wipes can be separated, and a single wipe 6a which is not in contact with the subsequent wipe at the forefront end portion of the wipe continuous body 6 is separated from the wipe continuous body 6.

[0024] The wipe material is obtained by impregnating a liquid chemical or the like into a base fabric formed using paper, woven fabric, or non-woven fabric constituted, for example, by synthetic fibers or natural fibers. Examples of liquid chemicals include alcohols, water, or mixtures thereof, but perfumes, antimicrobial agents, deodorants, surfactants, preservatives, colorants, antifoaming agents, antioxidants, clarifying agents, and solubilizers may be compounded therewith. A base cloth and liquid chemical constituted by other materials may be also used.

[0025] An outer edge circumferential wall 10 of a short tubular shape is formed concentrically with the take-out hole 8 on the outside of the outer circumference of the take-out hole 8. A gap between the outer edge circumferential wall 10 and the take-out hole 8 is blocked on the inner side, and where the lid 5 is closed, the side wall edge of the lid 5 is hidden in the recess between the outer edge circumferential wall 10 and the take-out hole 8. Prior to use, the take-out hole 8 is sealed by the below-described opening member 20 which is attached to the end portion on the inner side thereof, but where the usage of the wipe dispenser is started and the opening member 20 is removed, a state is obtained in which the interior of the take-out hole 8 fully communicates with the interior of the storage body 3, as depicted in FIG. 3 (3A).

[0026] As depicted in FIG. 3 (3B), an orifice 13 for applying resistance to a passing wipe (wipe continuous body 6) is formed in the orifice member 14, which is connected to the rear surface of the take-out hole member 4 and is a "constituent member" disposed inside the storage body 3 at a position inside the take-out hole 8. The orifice 13 is well known, and as sequentially depicted in FIG. 4 (4A, 4B, 4C), when the wipe continuous body 6 is pulled out to the outside from the interior of the storage body 3, friction resistance acts from the orifice 13 upon the wipe passing inside thereof (4A), the wipes are separated from each other at the boundary of two wipes

which is located at a position just beyond the orifice 13 (4B), and only the wipe 6a located at the forefront end which is positioned at the leading side from the boundary is taken out. Thus, a state is reached in which the forefront end portion 6aN of the remaining wipe continuous body 6 protrudes slightly outward from the orifice 13 (4C).

[0027] In this example, as depicted in FIG. 3, the orifice 13 has a configuration in which a slit 13b is formed in a partition of a plurality of elongated holes 13a provided parallel to each other. However, various shapes of the orifice 13 are known, and the orifice 13 of any shape may be used. The orifice 13 of a shape that is not well known may be also used.

[0028] In the wipe dispenser of this example, the orifice member 14 in which the orifice 13 has been formed is cantilever supported on the rear-surface portion of the take-out hole member 4, as depicted in FIG. 2 and FIG. 3. However, the orifice member 14 in accordance with the present invention may be supported by a means other than the cantilever support.

[0029] The orifice member 14 depicted in this example is formed as a sheet curved to protrude inward of the storage body 3 from a predetermined position at a base end 14a side toward a free end 14b side, and the free end 14b side of the orifice member 14 is biased toward the deeper side of the storage body 3 (that is, in the direction of pressing against the surface of the stack of wipes 6N).

[0030] In this example, a biasing force is applied to the orifice member 14 by the elasticity of the orifice member 14 itself. However, an elastic material for applying a biasing force to the orifice member 14 may be separately provided at the orifice member 14. The base end 14a of the orifice member 14, as referred to herein, is a region close to the end of the support portion side when the orifice member 14 is cantilever supported by the take-out hole member 4, and the free end 14b is a region close to the end on the side which is not supported by the take-out hole member 4, this side being opposite that of the base end 14a.

[0031] As indicated by a broken line in FIG. 2, the orifice member 14 is formed such as to extend obliquely and incline inward of the storage body 3 in a free state (TO) in which no load is applied and such that the free end 14b is positioned below the bottom of the storage body 15. In a state in which the orifice member 14 is pressed against the surface of the stack of wipes 6N, the orifice member 14 is elastically deformed from a free state to this state. As a result, the free end 14b side of the orifice member 14 is biased by the elastic force, which is generated by the elastic deformation of the orifice member 14, toward the deeper side of the storage body 3, as indicated by an arrow K.

[0032] As a result of the free end 14b side of the orifice member 14 being biased toward the deeper side of the storage body 3, even though the bulk of the stack of wipes 6N is reduced as the wipes are being used, as sequentially indicated by way of example by T1 and T2 in FIG. 2, a state in which the orifice member 14 is pressed against the surface of the stack of wipes 6N is constantly maintained. Further, as indicated in FIG. 5, when the bulk of the stack of wipes 6N is decreased, a state is reached in which the orifice member 14 is inclined with respect to the pull-out direction of the wipe continuous body 6 and an angle is formed between the direction followed by the portion that exited to the outside through the orifice 13 (exit direction (an arrow S in FIG. 5)) and the direction followed by the wipe continuous body 6 immediately before passing through the orifice 13 (entry direction (an arrow R in FIG. 5)).

[0033] In this manner, the larger is the angle formed between the exit direction S and entry direction R of the wipe continuous body 6, the stronger is the friction resistance acting upon the wipes from the orifice 13. As a result, the wipe 6a located at the forefront end of the leading wipe continuous body 6 can be separated at an appropriate position from the following wipe continuous body 6 and pulled out.

[0034] With the wipe dispenser of the present embodiment which has the above-described configuration, a state in which a suitable friction resistance is loaded upon the wipes (wipe continuous body 6) from the orifice 13 is maintained even when the bulk of the stack of wipes 6N has decreased. The situation in which the wipe continuous body 6 slips through the orifice 13 in a large amount, without receiving a suitable friction resistance from the orifice 13, is unlikely to occur. Further, as a result of eliminating the delay of timing at which the wipe continuous body 6 is separated, the wipes can be prevented from being unnecessarily exposed to the outside, the lid 5 can be reliably closed, and the stack of wipes 6N stored inside the storage body 3 can be prevented from drying.

[0035] FIG. 6 is a cross-sectional view illustrating a state before the usage of the wipe dispenser is started, this view corresponding to the II-II cross section in FIG. 1. When the wipe dispenser is not used (that is, before the wipe dispenser is used), the take-out hole 8 is entirely sealed by the opening member 20 provided on the inner side with respect to the lid 5 in order to completely prevent the stack of wipes 6N stored inside the storage body 3 from drying. Where the opening member 20 is removed to the outside from the take-out hole 8, the sealed state of the take-out hole 8 can be released.

[0036] The opening member 20 is formed by integral molding with the take-out hole 4 so as to close the bottom portion of the take-out hole 8. A weak portion 21 having a V-shaped cross-section is formed at the outer periphery of the opening member 20 over the entire circumference thereof. Further, a pull top ring 22, which can be pulled outward with a finger, is formed by integral molding with the opening member 20 at the surface side of the opening member 20, as depicted in FIG. 7 in which the opening member 20 and the peripheral portion thereof are shown in an extracted state.

[0037] In the unused state of the wipe dispenser in which the opening member 20 is not removed from the

take-out hole 8, the take-out hole 8 is sealed by the opening member 20, and where the pull top ring 22 is pulled outward, the weak portion 21 is sheared and ruptured and the opening member 20 is removed to the outside. In this case, the entire inner region of the take-out hole 8 forms a portion in which the storage body 3 communicates with the outside, and a state is formed in which the wipe continuous body 6 can be pulled out from inside of the storage body 3. The opening member 20 which has once been removed cannot be reattached to the take-out hole 8 to obtain the original state.

[0038] It is preferred that the wipe dispenser be provided with the holding member 25. In the examples depicted in FIGS. 6 and 7, a pair of holding members 25 is formed in a protruding condition in the direction from the rear surface (that is, the surface on the side facing the interior of the storage body 3) of the opening member 20 toward the inner side of the storage body 3. The holding members 25 are held in a state such that the orifice member 14 is drawn to the take-out hole member 4 side against the biasing force, thereby preventing the orifice member 14 from being pressed against the stack of wipes 6N.

[0039] The holding members 25 of the present embodiment are formed as thin rods protruding from the rear surface side of the opening member 20 and are connected to the opening member 20, as depicted in the aforementioned FIGS. 6 and 7 and also FIG. 8 in which the portion of the orifice member 14 is viewed from the rear side. More specifically, the holding members 25 illustrated by this example are molded integrally with the opening member 20. Further, in the present example, two holding members 25 are provided, and engagement portions 25a for disengageably engaging with the rear surface of the orifice member 14 on the left and right sides thereof are formed at the distal ends of the respective holding members 25. The engagement portion 25a is formed as a hook in the present example, but other shapes may be also used. The engagement of the orifice member 14 by the engagement portion 25a is such that the engagement portion 25a is disengaged from the orifice member 14 when the holding member 25 is moved as appropriate.

[0040] As depicted in FIG. 9 (9A), in the unused state in which the opening member 20 is not removed, the engagement portions 25a engage with the left and right sides of the orifice member 14, and the orifice member 14 is held in a state of being drawn close to the rear surface of the take-out hole member 4 against the biasing force attempting to rotate the orifice member 14. In this case, as depicted in FIG. 6, the orifice member 14 can be held at a position without contact with the front surface of the stack of wipes 6N.

[0041] With the configuration such that the orifice member 14 in the wipe dispenser can be held in a state of being drawn to a position close to the rear surface of the take-out hole member 4, the operation steps can be smoothly performed even in the wipe dispenser production process. Thus, in the process after the orifice member 14 has been drawn to a position close to the rear surface of the take-out hole member 4, the possibility of the orifice member 14 accidentally jumping out toward the interior of the storage body 3 is reduced. Therefore, the operations such as the process of fixedly attaching the storage body 3 and the take-out hole member 4 to each other can be smoothly and easily performed in an automatic production machine, or the like.

[0042] Further, as depicted in FIG. 9 (9B), where the opening member 20 is removed to the outside through the take-out hole 8 the first time the wipe dispenser is used, the engagement portions 25a of the holding member 25, which is formed integrally with the opening member 20, and the orifice member 14 are disengaged from each other, and the orifice member 14 is rotated toward the deeper side of the storage body 3 by the biasing force, as indicated by the arrow K. As a result, when the wipe dispenser is used, the orifice member 14 is pressed against the surface of the stack of wipes 6N, as indicated by the solid line in FIG. 2.

[0043] The wipe dispenser in accordance with the present invention is not limited to the above-described embodiment and includes a variety of embodiments. For example, FIG. 10 depicts another embodiment of the mechanism for applying a biasing force to the orifice member 14. In the example depicted in FIG. 10, a biasing member is provided for applying a biasing force to the orifice member 14. In the second embodiment illustrated by FIG. 10A, a spring 115 is provided as the biasing member and the orifice member 14 is biased by the spring 115. In the third embodiment illustrated by FIG. 10B, a bellows 215 is provided as the biasing member and the orifice member 14 is biased by the bellows 215.

[0044] In the second and third embodiments, by contrast with the first embodiment, the orifice member 14 is not configured to be rotated by the biasing force. Instead, the entire orifice member 14 is configured to be moved straight toward the front surface side of the stack of wipes 6N by the biasing force. Although not shown in the figure, a rubber or a plastic may be used as the biasing member that biases the orifice member 14. In the second and third embodiments, the constituent members other than the biasing member that applies a biasing force to the orifice member 14 may be the same as in the first embodiment.

[0045] Further, the support structure of the orifice member 14 in the wipe dispenser of the present embodiment is not limited to the structure in which the orifice member 14 is cantilever supported as in the first embodiment, and various other structures such as the structure in which the orifice member 14 is supported at both ends as in the second and third embodiments, and the structure in which the entire circular-arc body constituting the orifice member 14 is supported can be used.

[0046] The structure of the orifice member 14 itself in the wipe dispenser in accordance with the present invention is also not limited to that described in the first embodiment. Thus, a variety of different structures can be used, for example, a structure in which a plurality of can-

tilever orifice members 14, such as that in the first embodiment, is combined may be used as the orifice member, and a pantograph-like structure may be used as the orifice member.

[0047] FIG. 11 illustrates the fourth embodiment of the present invention in which the base portion of the holding member 25 same as that of the first embodiment is attached on the take-out hole member 4 which is fixedly attached to the opening 2 of the storage body 3. In FIG. 11, the opening member 20 is not provided. However, the opening member 20 may be provided. In the fourth embodiment of the present invention, configurations other than the configuration in which the holding member 25 is attached to the take-out hole member 4 can be used in the same manner as in the first embodiment. In the fourth embodiment, before the use of the wipe dispenser is started, a state is maintained in which the orifice member 14 is drawn by the holding member 25 close to the rear side of the take-out hole member 4 against the biasing force and is not pressed against the surface of the stack of wipes 6N. When the use of the wipe dispenser is started, the holding member 25 positioned deep inside the take-out hole 8 is accessed with a tool or finger through the take-out hole, thereby making it possible to disengage the engagement portion 25a from the orifice member 14 and obtain a usage state in which the orifice member 14 is pressed against the surface of the stack of wipes 6N.

[0048] The wipe dispenser in accordance with the present invention is not limited to the case in which the disengagement of the holding member 25 from the orifice member 14 is performed by accessing the holding member 25 through the take-out hole 8, and a state in which the orifice member 14 is not held may be obtained by another access. With the configuration of the embodiment illustrated by FIG. 11, a state in which the orifice member 14 is not held may be obtained by adjusting, as appropriate, the process for manufacturing the wipe dispenser. For example, the process for manufacturing the wipe dispenser can be configured such that before a fixed attachment step for attaching the storage body 3 and the take-out hole member 4 to each other is performed, the holding member 25 is directly accessed from the rear side of the take-out hole member 4, and a state in which the orifice member 14 is not held is obtained. This can be realized by providing a pin, or the like, for disengaging the holding member 25 from the orifice member 14 and operating the pin before the fixed attachment step. The state in which the holding member 25 does not hold the orifice member 14 may be also obtained by pressing the orifice member 14 against the stack of wipes 6N in the manufacturing process. Furthermore, the state in which the holding member 25 does not hold the orifice member 14 may be also obtained by applying a pressing force from the rear side of the storage body 3 after the manufacturing process has been completed.

[0049] Although not shown in the figure, the holding member 25 may be configured of an adhesive which bonds together the rear surface of the opening member 20 and the orifice member 14 in the wipe dispenser in accordance with the present invention. In this case, the opening member 20 and the orifice member 14 or the like are formed in shapes (for example, as sheets) that can be bonded with an adhesive. In the wipe dispenser of such a configuration, before the wipe dispenser is used, that is, in a state in which the take-out hole 8 is sealed with the opening member 20, the rear surface of the opening member 20 and the orifice member 14 are bonded together with an adhesive and a state is maintained in which the orifice member 14 is drawn close to the rear surface of the take-out hole member 4. Where the opening member 20 is removed from the take-out hole 8, bonding of the opening member 20 and the orifice member 14 is released, and the orifice member 14 is pressed against the stack of wipes 6N. In such a case, the operation effect same as that of the first embodiment can be obtained.

[0050] The wipe dispenser according to the fifth embodiment of the present invention is explained hereinbelow. FIG. 12 is a perspective view, taken from the rear side (that is, the inner side of the storage body 3), of the take-out hole portion of the wipe dispenser according to the fifth embodiment of the present invention. In the fifth embodiment of the present invention, the features other than the configurations of the holding member 25 and the composite structure of the lid 5, take-out hole member 4, and orifice member 14 depicted in FIG. 12 are the same as in the first embodiment. In the fifth embodiment illustrated by FIG. 12, no structure corresponding to the opening member 20 illustrated in the first embodiment is provided. This, however, does not prohibit the use of a member that can ensure the sealed state of the storage body 3, such as the opening member 20, in the wipe dispenser. For example, a structure may be used in which the wipe dispenser is covered with a flap-seal member such that covers the opening 2, and a composite structure of the lid 5, take-out hole member 4, and orifice member 14 is mounted on the flap-seal member. In this case, the sealed state of the storage body 3 can be released by opening the lid 5 and pulling out the flap-seal member from the orifice of the orifice member 14.

[0051] In the example depicted in FIG. 12, the lid 5 is arranged to be capable of opening and closing, as indicated by an arrow A, in the outer end mouth portion of the take-out hole 8 formed in the take-out hole member 4. One end of the orifice member 14 is attached to the take-out hole member 4 and disposed in a region on the inner side of the storage body 3 with respect to the take-out hole member 4 in a state of being biased in the direction of an arrow B toward the stack of wipes 6N. Further, in an example of the fifth embodiment illustrated by FIG. 12, the orifice member 14 is cantilever supported in the same manner as in the first embodiment, but the orifice member 14 may be also configured to move as a whole, as in the second and third embodiments, or may have other configurations.

[0052] The holding member 25 is provided to protrude to the rear surface side of the lid 5. Further, an engagement hole 25N which engages with the holding member 25 when the lid 5 is closed is formed in the orifice member 14. In this embodiment, the engagement hole 25N is a through hole passing through the orifice member 14 perpendicular to the sheet surface, and the holding member 25 is an engagement pin having a distal end portion that is inserted into the engagement hole 25N with resistance.

[0053] In the wipe dispenser of the fifth embodiment, in a state in which the lid 5 is closed and the distal end of the holding member 25 is inserted into the engagement hole 25N, the holing material 25 holds the orifice member 14 in a state of being drawn to the lid 5 side, and where the lid 5 is open, as shown by the arrow A, the holding member 25 is pulled out from the engagement hole 25N, whereby the orifice member 14 is moved by the biasing force in the direction of the arrow B and pressed against the stack of wipes 6N. As a result, the wipe dispenser of the fifth embodiment makes it possible to obtain the same effect as that of the first embodiment.

[0054] A slit or the like may be formed in the distal end portion for the holding member 25 which is to be press fitted into the engagement hole 25N, so that the distal end portion could be reliably pulled out from the engagement hole 25N when a constant force is applied. Further, the holding member 25 is formed by integral molding with the lid 5, but it may be also attached as a separate member to the lid 5.

[0055] The present invention is not limited to the above-described embodiments and includes all of the embodiments included in the concept of the invention set forth in the claims.

Claims

1. A wipe dispenser comprising:

a stack of wipes constituted by a plurality of wipes;
a storage body that can store the stack of wipes inside thereof and is provided with a take-out hole member that enables a wipe to be pulled out to the outside from a take-out hole through which the wipe can pass; and
a lid that can close and open the take-out hole from the outside,
the stack of wipes being stored in the storage body,
wherein
an orifice member, in which an orifice is formed for applying resistance to the wipe when the wipe is pulled out from the take-out hole, is provided between the take-out hole member and the stack of wipes,
the orifice of the orifice member is configured to move to a deeper side of the storage body according to an amount by which a bulk of the stack of wipes is reduced as a result of the wipes being pulled out from the take-out hole, and
the orifice member is supported by the take-out hole member and biased toward the deeper side of the storage body.

2. The wipe dispenser according to claim 1, wherein a holding member for holding the orifice member in a state of being drawn in the direction against the biasing force is provided such that the state of holding the orifice member can be released.

3. The wipe dispenser according to claim 2, wherein the holding member is provided such that a state in which the orifice member is not held can be obtained by accessing the holding member from the outside through the take-out hole.

4. The wipe dispenser according to claim 2, wherein an opening member is provided that can seal the take-out hole and open the take-out hole by being removed to the outside of the take-out hole, and the holding member is connected to the opening member so that a state in which the holding member does not hold the orifice member is obtained when the opening member is removed from the take-out hole.

5. The wipe dispenser according to claim 4, wherein the holding member is provided to protrude from a rear surface side of the opening member to the inner side of the storage body, and an engagement portion that disengageably engages with the orifice member is formed in the holding member such that, in a state in which the opening member seals the take-out hole, the engagement portion engages with the orifice member and holds the holding member in a state of being drawn to the take-out hole member side, and when the opening member is removed from the take-out hole, the engagement of the engagement portion with the orifice member is released at the same time and the orifice member assumes a state of being pressed against the stack of wipes.

6. The wipe dispenser according to claim 2, wherein the holding member is connected to the lid so that a state in which the holding member does not hold the orifice member is obtained when the lid is opened.

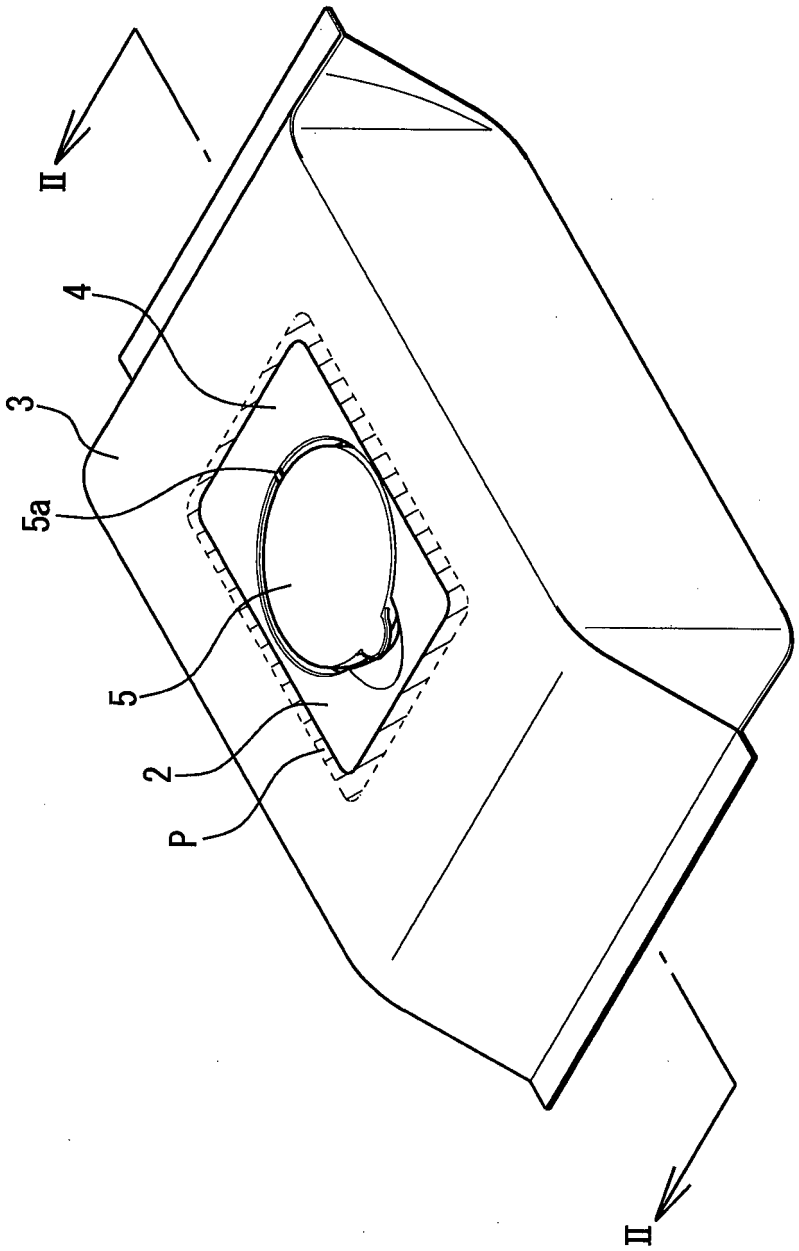
7. The wipe dispenser according to claim 2, wherein an opening member is provided that can seal the take-out hole and open the take-out hole by being removed to the outside of the take-out hole; the holding member is an adhesive bonding together a rear surface of the opening member and the orifice member; in a state in which the opening member seals the take-out hole, the adhesive bonds together the rear surface of the opening member and the orifice

member and holds the orifice member in a state of being drawn against the biasing force; and when the opening member is removed from the take-out hole, the bonding of the opening member and the orifice member is released, and a state in which the orifice member is pressed against the stack of wipes is obtained.

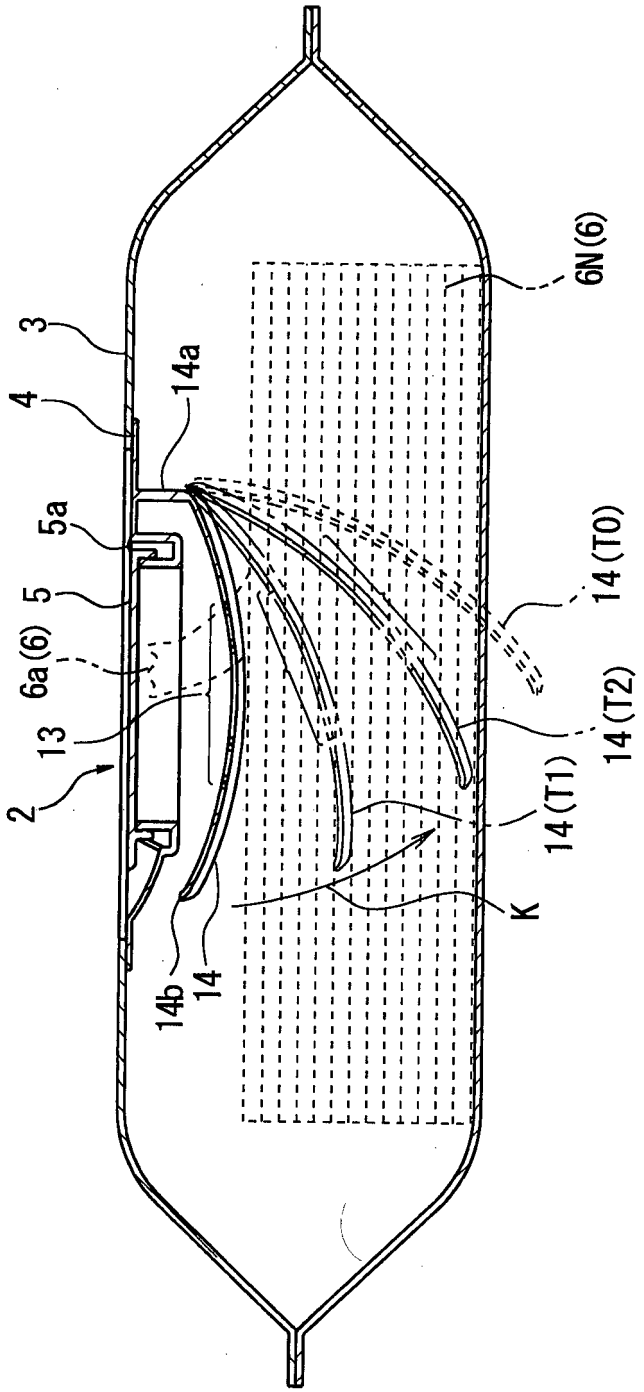
8. The wipe dispenser according to claim 1, wherein the orifice member is cantilever supported at a predetermined position on the inner side of the take-out hole of the storage body, and a free end side of the orifice member is biased toward the deeper side of the storage body.

9. The wipe dispenser according to claim 1, wherein the orifice member is movably disposed at a predetermined position on the inner side of the take-out hole of the storage body, and the entire orifice member is biased toward the deeper side of the storage body.

[FIG. 1]

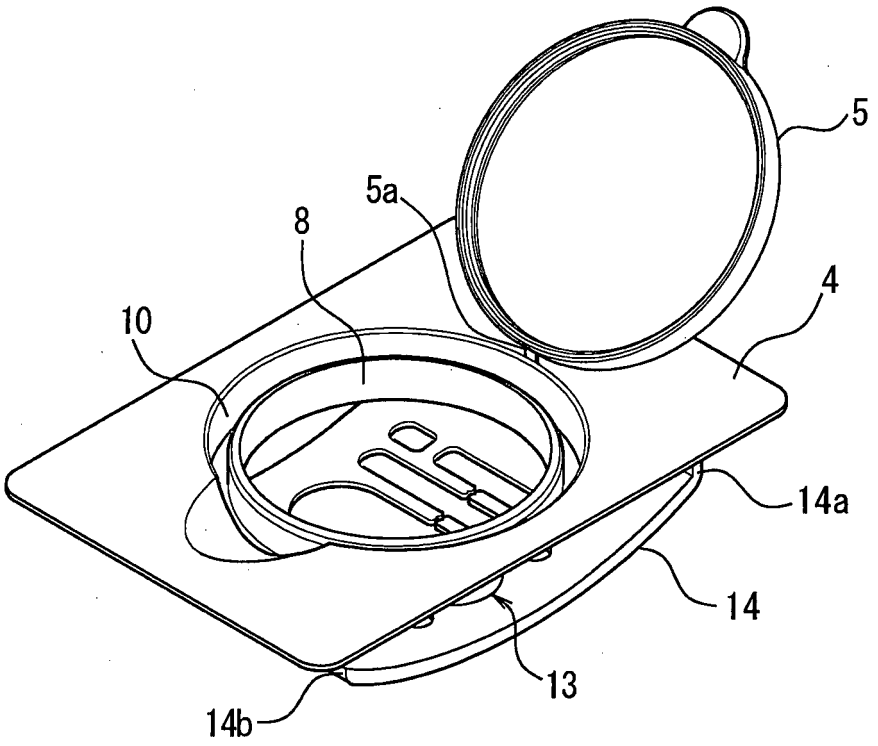


[FIG. 2]

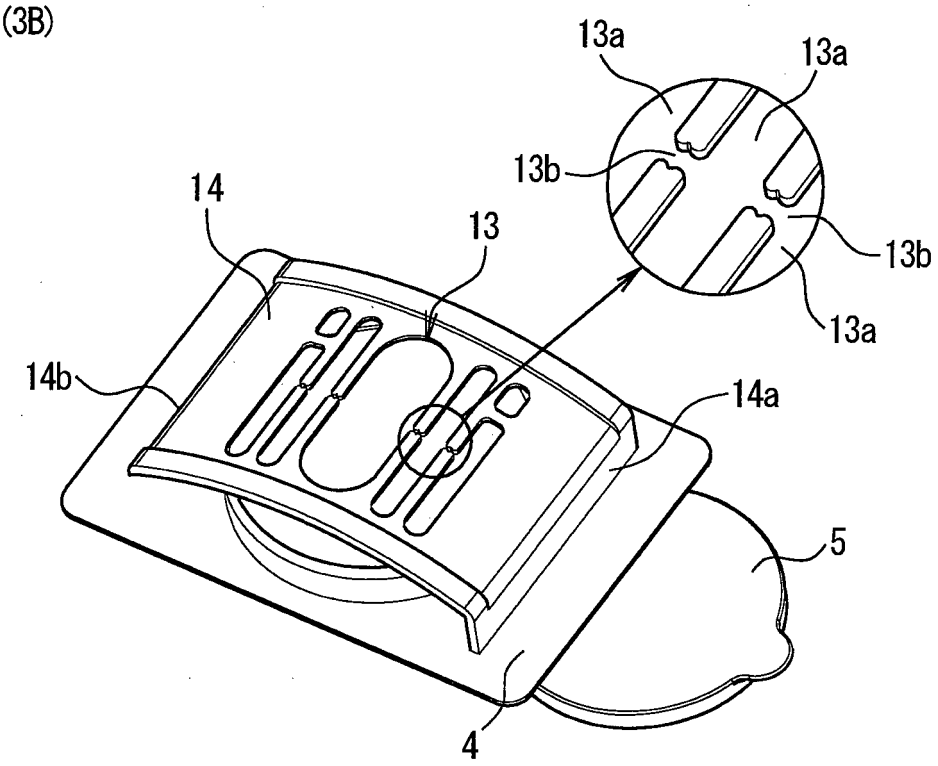


[FIG. 3]

(3A)

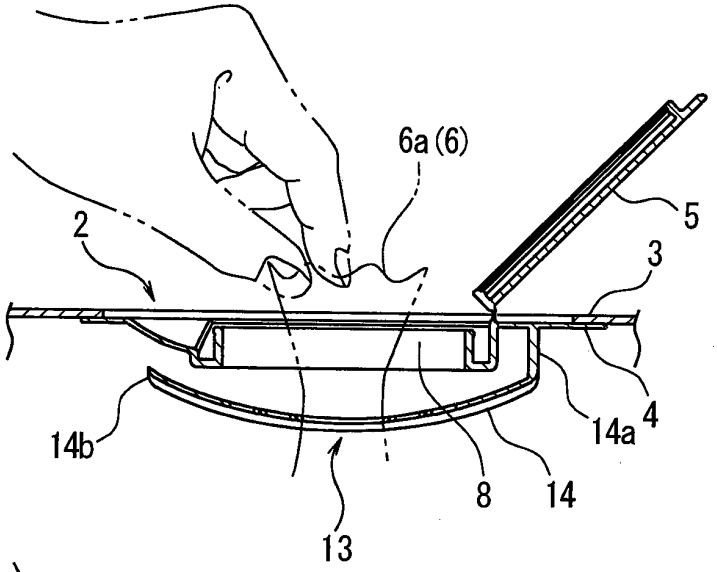


(3B)

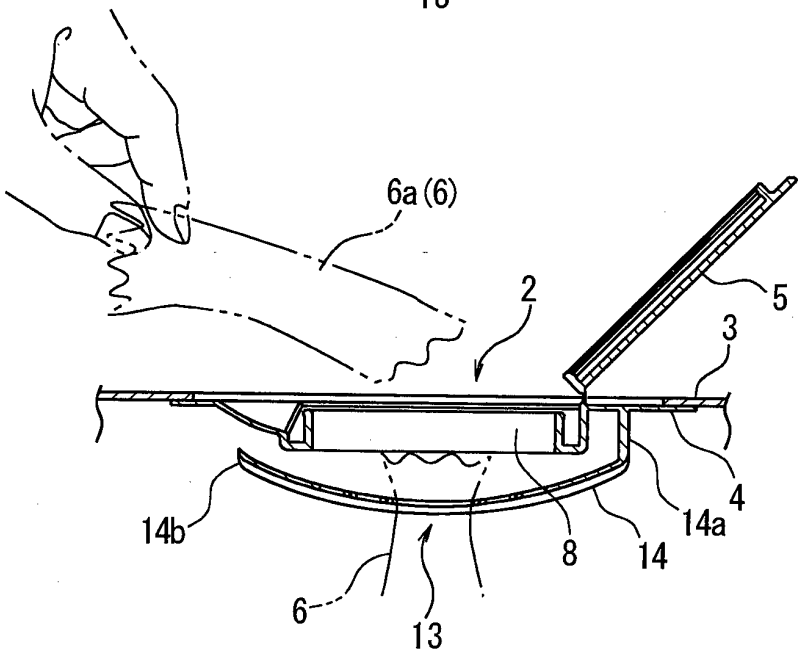


[FIG. 4]

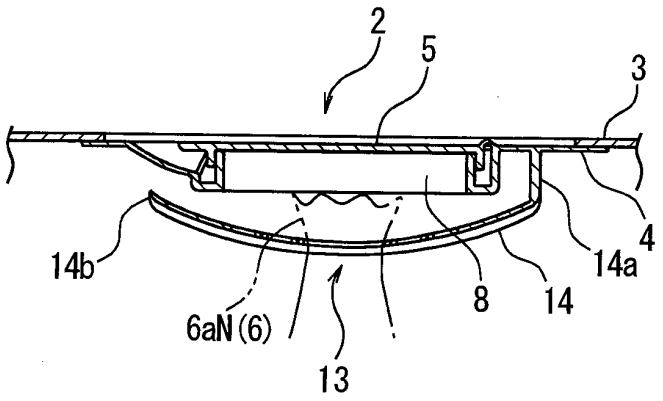
(4A)


6a (6)
5
2
3
4
14a
14b
8
14
13

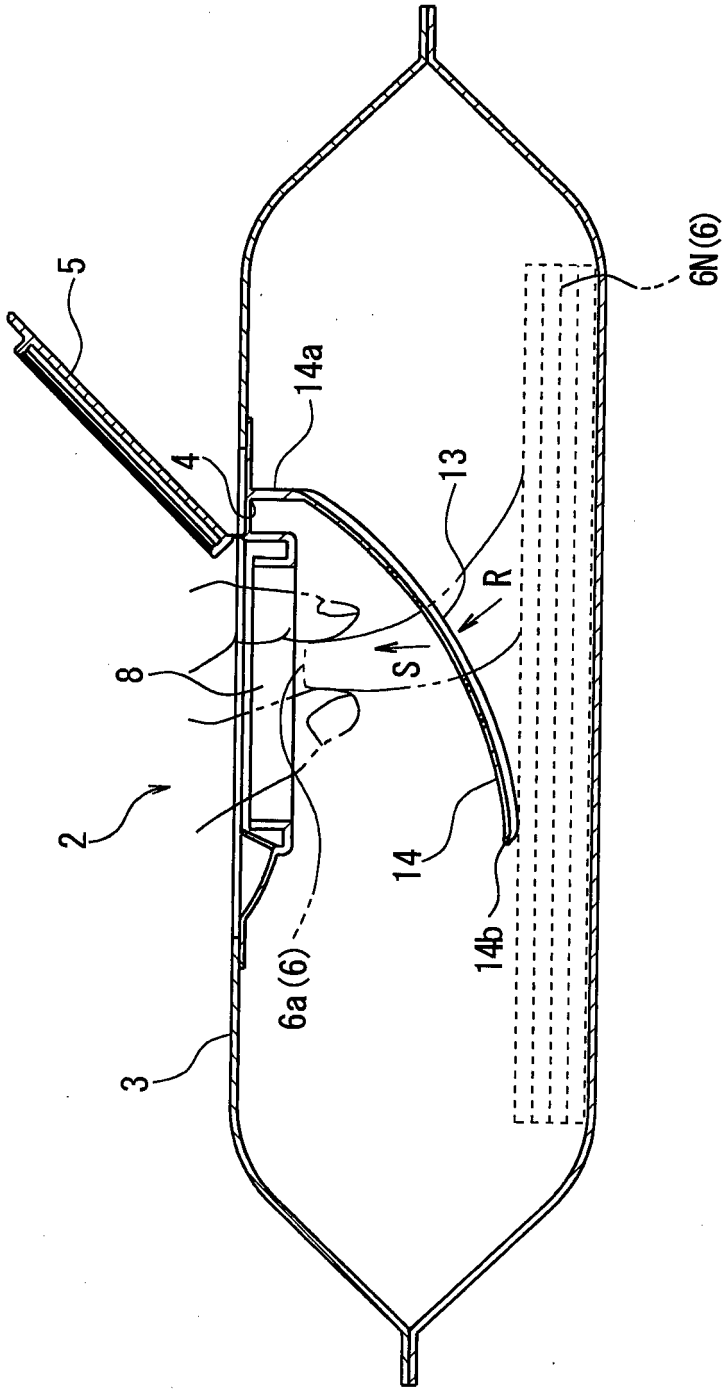
(4B)


6a (6)
2
5
3
4
14a
14b
8
14
6
13

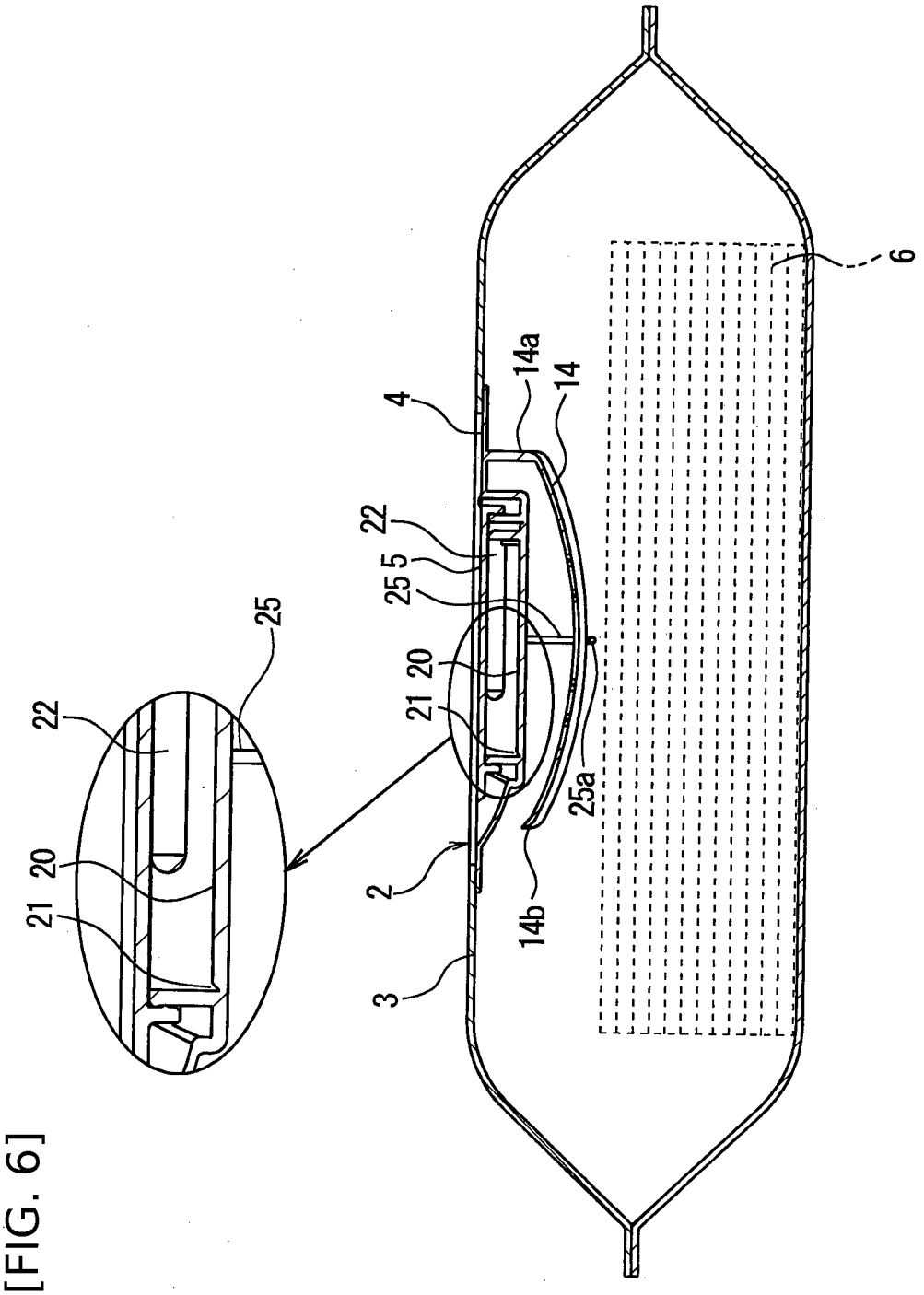
(4C)


2
5
3
4
14a
14b
8
14
6aN (6)
13

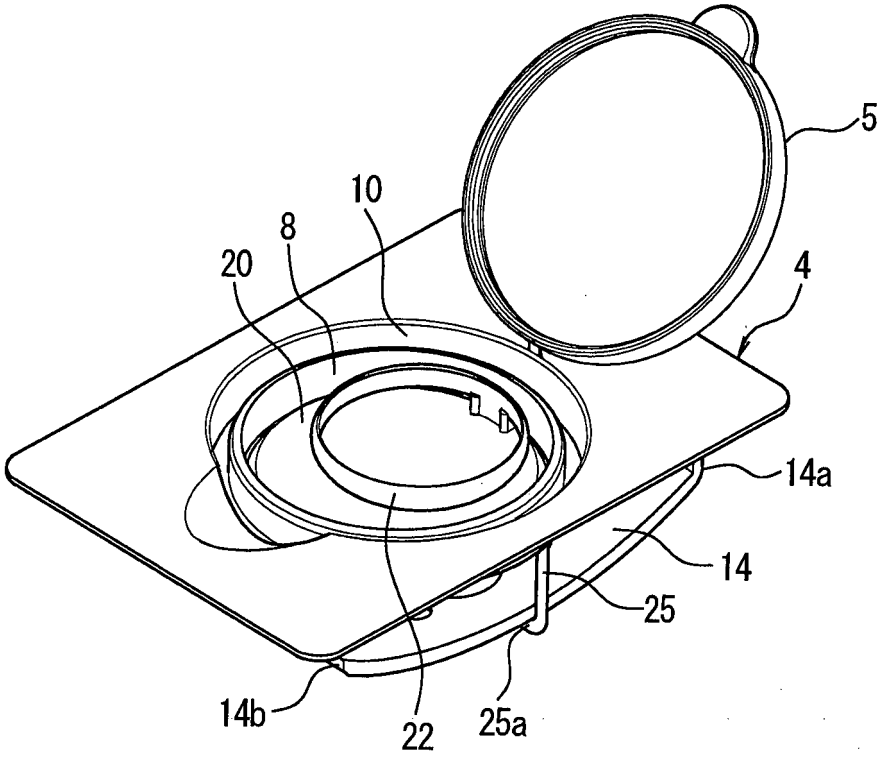
[FIG. 5]



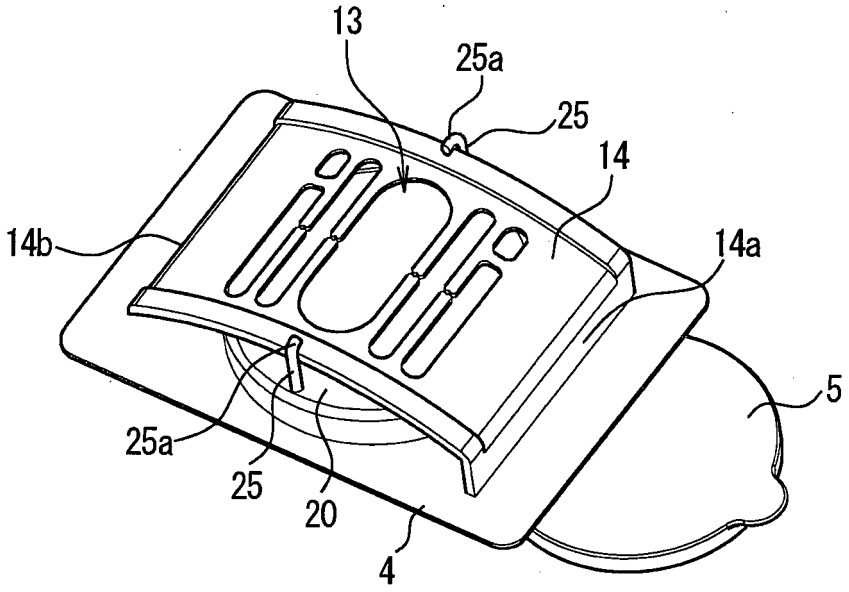
[FIG. 6]



[FIG. 7]

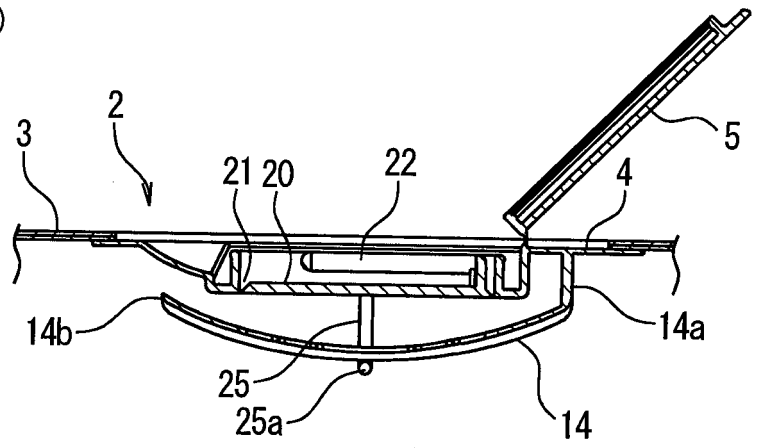


[FIG. 8]

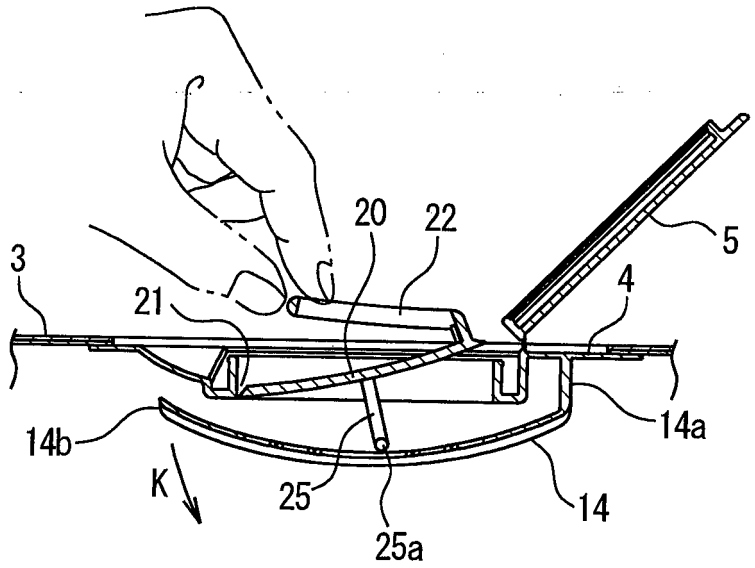


[FIG. 9]

(9A)

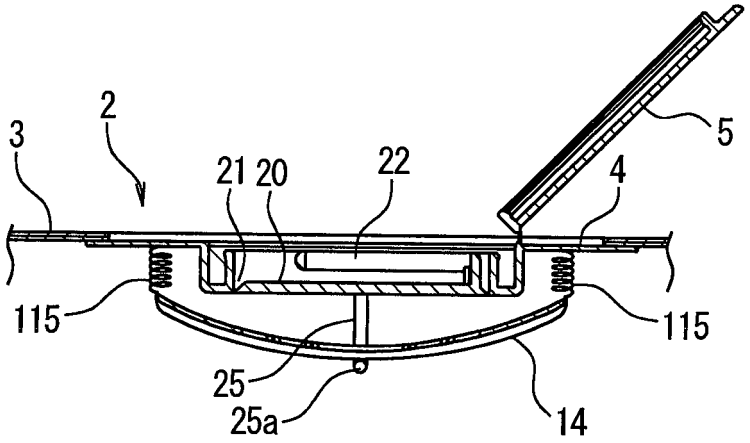


(9B)

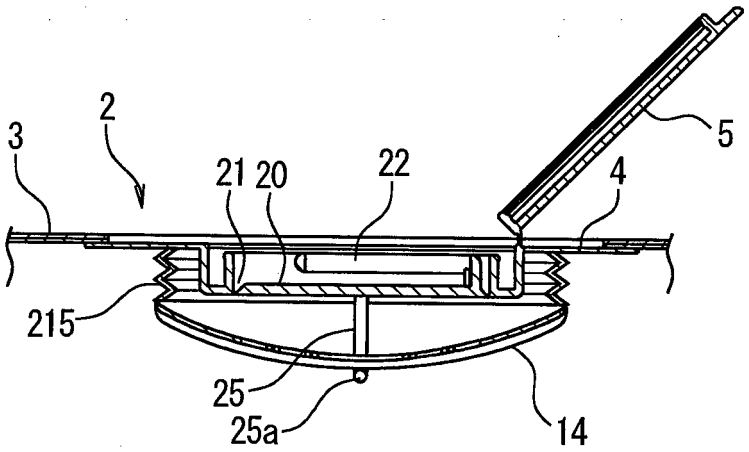


[FIG. 10]

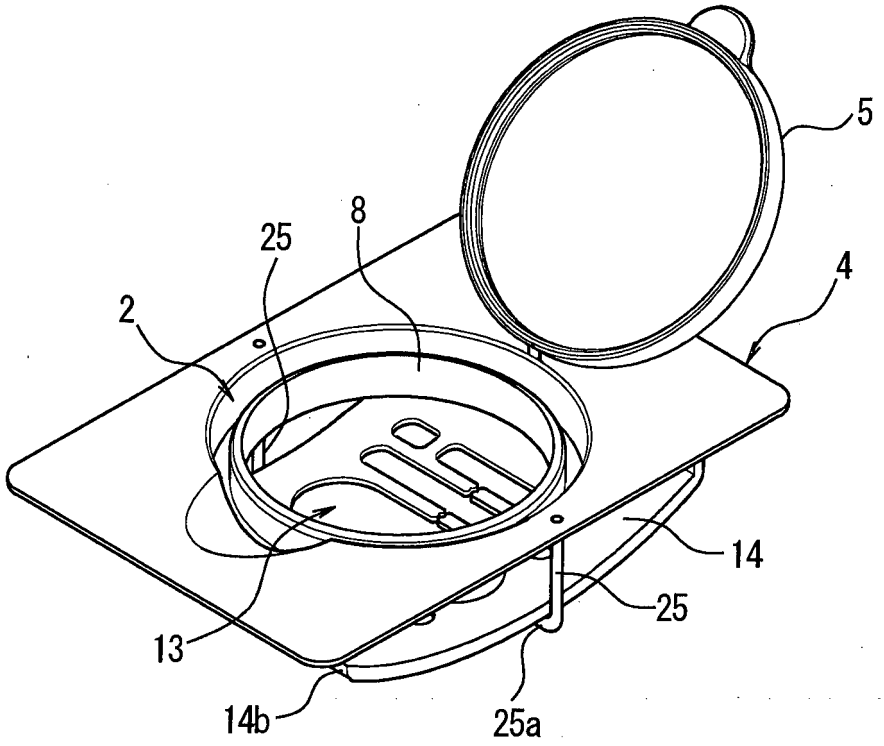
(10A)



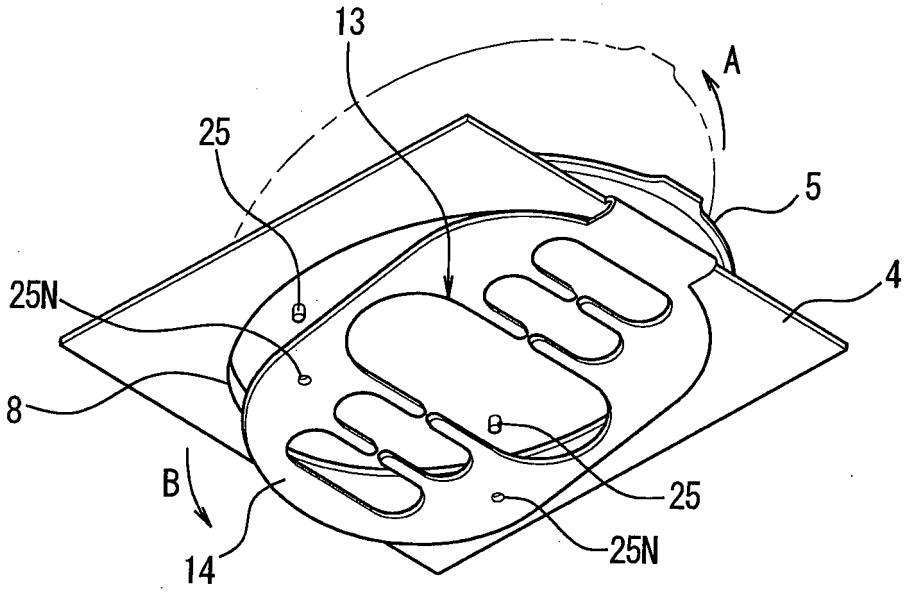
(10B)



[FIG. 11]



[FIG. 12]



INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2013/067740

A. CLASSIFICATION OF SUBJECT MATTER
B65D83/08(2006.01)i, *A47K7/00*(2006.01)i, *A47K10/42*(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)
B65D83/08, A47K7/00, A47K10/42

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2013
Kokai Jitsuyo Shinan Koho 1971-2013 Toroku Jitsuyo Shinan Koho 1994-2013

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	JP 9-132280 A (Uni-Charm Corp.), 20 May 1997 (20.05.1997), paragraphs [0008] to [0011]; fig. 1 to 3 (Family: none)	1,8-9 2-7
Y A	GB 1085560 A (CANADIAN INTERNATIONAL PAPER CO.), 04 October 1967 (04.10.1967), fig. 3 to 5 & DE 1554562 A	1,8-9 2-7

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

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
24 October, 2013 (24.10.13)	05 November, 2013 (05.11.13)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2013/067740

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 133031/1978(Laid-open No. 49612/1980) (Yoshino Kogyosho Co., Ltd.), 01 April 1980 (01.04.1980), claims; page 2, line 1 to page 3, line 17; fig. 1 to 4 (Family: none)	1,8-9 2-7

Form PCT/ISA/210 (continuation of second sheet) (July 2009)

REFERENCES CITED IN THE DESCRIPTION

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

Patent documents cited in the description

- JP 2004196303 A **[0004]**
- JP 2010173649 A **[0004]**