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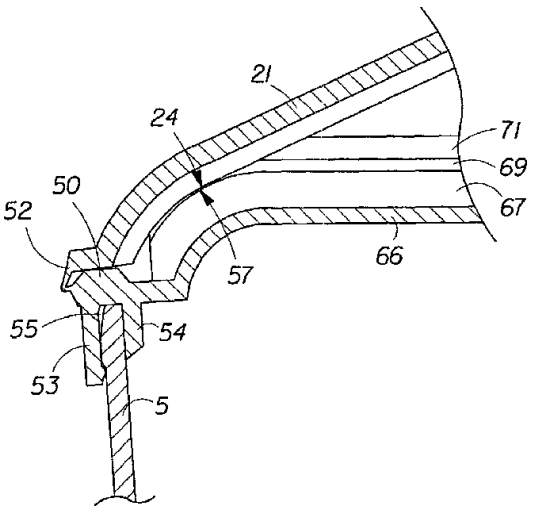
(54)【発明の名称】ワイパー用ディスペンサー

(57)【要約】
ワイパー用ディスペンサーである。本ディスペンサーは、単一一体ヒンジと、ポップアップカバーとを備える。単一ヒンジにより、構成、加工及び使用の簡略化が可能となる。また、この一体ヒンジは、補助的な機械的ヒンジの必要性を取り除く。ポップアップカバーにより、蓋を開放位置において手で押さえる必要なく、片手で簡単にワイパーを取出すことができる。



【特許請求の範囲】
【請求項１】
ワイパーを取出すためのディスペンサーであって、前記ディスペンサーが本体に装着される蓋を備え、前記蓋が単一の材料片で構成され、
前記蓋が、
ａ）取出し開口と、
ｂ）カバーと、前記カバーが外側封止部と、内側封止部と、後部周囲封止部を包含する周囲封止部と、係止機構とを備え、
ｃ）前記カバーを前記蓋に接続するヒンジと、前記ヒンジが段部と、ヒンジ段部接触部材と、たわみ部材とを包含し、
ｄ）前記取出し開口に隣接する内側環と、
ｅ）前記内側環に隣接する中間環と、
ｆ）前記中間環に隣接する外側環と、
ｇ）前記外側環に隣接する前記下部蓋と、前記下部蓋が押し下げ部材を包含し、
ここで、前記ヒンジ段部接触部材が、前記段部と接触して第一の干渉を生成し、結果として、前記たわみ部材の外側へのたわみを生成し、第一の貯蔵エネルギーを生成し、前記カバーの前記後部周囲封止部が、前記中間環と前記外側環とにより形成された前記壁に接触することにより第二の干渉を生成し、結果として付加的貯蔵エネルギーを生成し、前記外側封止部が、前記外側環と前記蓋表面とにより形成された前記壁と接触し、前記ラッチ留具が、前記係止機構と係合するディスペンサー。
【請求項２】
前記内側環が、前記中間環につながる外側テーパ状表面を有する、請求項１に記載のディスペンサー。
【請求項３】
前記内側封止部が、テーパ状表面を有する、請求項１に記載のディスペンサー。
【請求項４】
前記ディスペンサーが、射出成型される、請求項１に記載のディスペンサー。
【請求項５】
前記ディスペンサーが、ポリプロピレンを含む、請求項４に記載のディスペンサー。
【請求項６】
前記ポリプロピレンが、１．９の溶融流量を有する、請求項５に記載のディスペンサー。
【請求項７】
支持リブを備える、請求項１に記載のディスペンサー。
【発明の詳細な説明】
【技術分野】
【０００１】
（関連出願に対する相互対照）
本出願は、２００１年６月２９日に出願された米国特許仮出願番号第６０／３０２，２６５号の利益を請求する。
【０００２】
（発明の分野）
本発明は、ポップアップカバー及びポップアップワイパー能力を特徴とするワイパー用ディスペンサーに関する。
【背景技術】
【０００３】
従来技術におけるワイパー用ディスペンサーの制限の１つは、単一のディスペンサーが、そのディスペンサーを構成するのに幾つかの異なる材料を必要とすることである。例えば、ディスペンサーの本体がある材料で作製され、蓋が第二の異なる材料で作製され、ディスペンサー本体を蓋に接続するヒンジが更に第三の材料で作製されることがある。これは、ディスペンサー製造プロセスを複雑にする。

【０００４】
更に、ヒンジは、一般的には、ばね、ストラップ、又は他の類似の弾性材料などのある種類の機械的装置からなる。当該装置は、１９９９年１０月２７日に公開されたＥＰ０９５２０８８及びイシカワ（Ishikawa）らに対して１９９７年１２月２３日に発行された米国特許第５，６９９，９１２号に開示されている。これらの種類の機械的ヒンジ装置における欠点は、機械的故障が生じやすいことである。更に、これらの種類の機械的ヒンジ装置は、ディスペンサーの製造を更に複雑にする。
【０００５】
従来技術におけるワイパー用ディスペンサーの別の一般的な制限は、蓋が閉じられている時に、ディスペンサー内に収容された湿ったワイパーが、乾燥から十分に保護されていないということである。
【発明の開示】
【発明が解決しようとする課題】
【０００６】
本発明は、これらの制限を解決する。ディスペンサーは、２つの部品のみ、即ち、ワイパーを収容するための本体と、ワイパーを取出す開口を覆う蓋とを備える。機械的部品はない。蓋構成の一部である一体ヒンジは、蓋を開閉する目的で使用される。従って、ディスペンサー製造プロセスは、非常に簡略化される。更に、ディスペンサーは、蓋が閉鎖位置にある時、ワイパーから液体が蒸発するのを防止するための封止手段を包含する。更にまた、蓋は、ワイパーを取出す間、使用者はカバーを開放位置において手で押さえる必要なく、片手で簡単にワイパーを取出すことができるポップアップカバーを伴って設計される。
【課題を解決するための手段】
【０００７】
本発明は、ワイパーを取出すためのディスペンサーに関する。このディスペンサーは、本体に装着される蓋を備える。蓋は、単一の材料片で構成される。蓋は、取出し開口と、カバーとを包含する。カバーは、外側封止部と、内側封止部と、後部周囲封止部を包含する周囲封止部と、係止機構とを備える。蓋はまた、カバーを蓋に接続するヒンジを包含する。ヒンジは、段部と、ヒンジ段部接触部材と、たわみ部材とを包含する。蓋はまた、取出し開口に隣接する内側環を包含する。中間環は、内側環に隣接する。外側環は、中間環に隣接する。下部蓋は、外側環に隣接する。下部蓋は、押し下げ部材を包含する。ヒンジ段部接触部材は、段部と接触して第一の干渉を生成し、結果として、たわみ部材の外側へのたわみを生成し、第一の貯蔵エネルギーを生成する。カバーの後部周囲封止部は、中間環と外側環とにより形成された壁に接触することにより第二の干渉を生成し、結果として、付加的貯蔵エネルギーを生成する。外側封止部は、外側環と蓋表面とにより形成された壁と接触する。ラッチ留具は、係止機構と係合する。
【０００８】
ディスペンサーは、中間環につながる外側テーパ状表面を包含する内側環を有してもよい。ディスペンサーはまた、テーパ状表面を備える内側封止部を有してもよい。ディスペンサーは、任意選択的に支持リブを包含してもよい。
【発明を実施するための最良の形態】
【０００９】
本発明は、ワイパーを取出すためのディスペンサーに関する。図１を参照すると、ディスペンサー１は、本体５に装着される蓋３を備える。蓋３は、取出し開口６４と、ヒンジ５１とにより蓋３に接続されるカバー９を備える。蓋３及び全てのその構成要素は、単一の一体材料片から構成される。蓋３はまた、取出し開口６４に隣接する内側環６６と、内側環６６に隣接する中間環６８と、中間環６８に隣接する外側環７０とを包含する。内側環６６は、好ましくは、中間環６８につながる外側テーパ状表面を有する。
【００１０】
下部蓋７２は、外側環７０に隣接する。下部蓋７２はまた、押し下げ部材６２を包含する

。カバー９が図６に示すような閉鎖位置にある時、使用者は、押し下げ部材６２を押し下げることによって、カバー９を図１、図２、図４、及び図５に示すような開放位置に解放してもよい。これにより、カバー９がポップアップする。

【００１１】

図１を参照すると、カバー９は、ヒンジ５１を備える。ヒンジ５１は、段部５０と、ヒンジ段部接触部材５２とを包含する。カバー９はまた、後部周囲封止部２４を備える周囲封止部２０を包含する。カバー９は、更に、外側封止部２１と、内側封止部２２とを包含する。好ましくは、内側封止部２２は、テーパ状表面を有する。カバー９はまた、係止機構２３を包含する。任意選択的に、カバー９は、１以上の支持リブ４５を包含してもよい。

【００１２】

理論により拘束されることを望まないが、カバー９のポップアップ機構は、以下の構造により作動すると考えられている。図２、図２Ａ、図２Ｂ、及び図２Ｃを参照すると、使用者がカバー９を閉め始める時、ヒンジ段部接触部材５２が段部５０に接触する。図２Ｂを参照すると、ここで、第一の干渉５６を生成し、結果として、たわみ部材５３が外側へたわむ。この第一の干渉５６は、第一の貯蔵エネルギーを生成する。図２Ｃを参照すると、使用者がカバー９を閉め続けると、カバー９の後部周囲封止部２４が、中間環６８と、外側環７０とにより形成された壁６９に接触する時、第二の干渉５７を生成する。この第二の干渉５７は、付加的貯蔵エネルギーを生成する。図３Ａ、図６、及び図６Ａに示すように、外側封止部２１が、外側環７０と、蓋表面７２とにより形成された壁７１に接触し、ラッチ留具６１が係止機構２３と係合する時に、カバー９は、完全に閉められると共に封止される。これは、取出し開口６４の周りに封止を生成し、それにより、ワイパーからの水分の損失が防止される。

【００１３】

任意選択的に、図１に示すように、１以上のリブ４５が、カバー９の構造支持体として使用されてもよい。使用者が押し下げ部材６２を押し下げると、貯蔵エネルギーが放出され、それにより、カバー９がポップアップする。

【００１４】

本発明に適するディスペンサー１は、射出成形又は当業者に既知の他のいかなる好適な技術によって製造されてもよい。限定はされないが、好適なディスペンサー用構成材料としては、ポリプロピレンなどの塑性体が挙げられる。好適なポリプロピレンとしては、１．９の溶融流量を有するポリプロピレンが挙げられる。当該のポリプロピレンは、テキサス州、ヒューストン（Houston, Texas）のイクイスターケミカルズ・エルピー社（Equistar Chemicals LP）からＰＰ　ＴＲ３７５として販売されている。

【００１５】

本発明の特定の実施形態について図示し、説明してきたが、本発明の主旨及び範囲を逸脱せず様々な変更及び修正を行ってもよいことは当業者には明らかである。

【図面の簡単な説明】

【００１６】

【図１】本発明のディスペンサーの一実施形態の等角投影図である。

【図２】図１のディスペンサーの側面図であり、開放位置にあるカバーを示している。

【図２Ａ】図２の線４－４に沿った断面図である。

【図２Ｂ】図２の線４－４に沿った断面図である。

【図２Ｃ】図２の線４－４に沿った断面図である。

【図３】図１のディスペンサーの側面図であり、閉鎖位置にあるディスペンサーカバーを示している。

【図３Ａ】図３の線６－６に沿った断面図である。

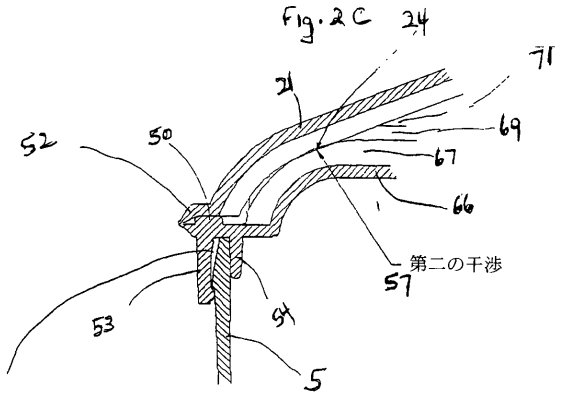
【図４】図１のディスペンサーの部分上面等角図である。

【図５】図１のディスペンサーの部分側面等角図である。

【図６】図１のディスペンサーの部分上面等角図であり、閉鎖位置にあるカバーを示している。

【図６Ａ】図６の線７－７に沿った断面図である。

【図２Ｃ】



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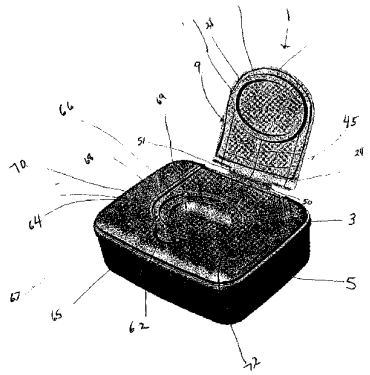
(54) Title: DISPENSER FOR WIPES



(57) Abstract: A dispenser for wipes. The present dispenser comprises a unitary living hinge and a pop-up cover. The unitary hinge allows for simplicity of construction, processing, and use. It also eliminates the need for a secondary mechanical hinge. The pop-up cover permits easy one-handed wipe dispensing without requiring that the lid be manually held in an open position.

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GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*
as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

Published:

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DISPENSER FOR WIPES

CROSS REFERENCE TO RELATED APPLICATION

This application claims the benefit of U.S. Provisional Application No. 60/302,265 filed June 29, 2001.

FIELD OF THE INVENTION

This invention relates to a dispenser for wipes which features a pop-up cover and pop-up wipes capability.

BACKGROUND OF THE INVENTION

One of the limitations of prior art wipe dispensers is that a single dispenser requires several different materials to construct the dispenser. For instance, the body of the dispenser may be made of one material, the lid of a second different material, and the hinge connecting the dispenser body to the lid of yet a third material. This adds complexity to the dispenser manufacturing process.

Furthermore, the hinge is commonly comprised of some type of mechanical device such as a spring, a strap, or other like elastic material. Such devices are disclosed in EP 0952088 published on October 27, 1999 and in U.S. 5,699,912 issued to Ishikawa et al. on December 23, 1997. The drawback of these types of mechanical hinging devices is that they are subject to mechanical failure. Additionally, these types of mechanical hinging devices add further complexity to the dispenser manufacturing.

Another common limitation of prior art wipes dispensers is that the wet wipe contained within the dispenser is not adequately protected from drying out when the lid is closed.

The present invention overcomes these limitations. The dispenser comprises only two parts-- a body for containing the wipes and a lid that covers

the wipes dispensing aperture. There are no mechanical parts. A living hinge, which is part of the lid construction, is used for the purpose of opening and shutting the lid. Hence, the dispenser manufacturing process is greatly simplified. Additionally, the dispenser includes a sealing means for preventing evaporation of liquid from the wipes when the lid is in the closed position. Yet further, the lid is designed with a pop-up cover allowing for easy one-handed wipes dispensing without requiring the user to hold the cover in an open position while dispensing a wipe.

SUMMARY OF THE INVENTION

The present invention relates to a dispenser for dispensing wipes. The dispenser comprises a lid which is attached to a body. The lid is constructed of a single unitary piece of material. The lid includes a dispensing aperture and a cover. The cover includes an exterior seal, an inner seal, a perimeter seal comprising a backside perimeter seal, and a locking mechanism. The lid also includes a hinge which connects the cover to the lid. The hinge includes a step, a hinge step contacting member, and a deflection member. The lid also includes an inner ring adjacent to the dispensing aperture. A middle ring is adjacent to the inner ring. An outer ring is adjacent to the middle ring. A lower lid is adjacent to the outer ring. The lower lid includes a depression member. The hinge step contacting member contacts the step creating a first interference resulting in the outward deflection of the deflection member and creating a first storage energy. The backside perimeter seal of the cover contacts the wall formed by the middle ring and the outer ring thereby creating a second interference resulting in additional storage energy. The exterior seal contacts the wall formed by the outer ring and the lid surface. The latch catch engages the locking mechanism.

The dispenser may have an inner ring which includes an outer tapered surface leading to the middle ring. The dispenser may also have an inner seal with a tapered surface. The dispenser may optionally include support ribs.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is an isometric view of one embodiment of the dispenser of this invention.

Fig. 2 is a side view of the dispenser of Fig. 1 showing the cover in an open position.

Fig. 2A is a cross-sectional view taken along line 4 - 4 of Fig. 2.

Fig. 2B is a cross-sectional view taken along line 4 - 4 of Fig. 2.

Fig. 2C is a cross-sectional view taken along line 4 - 4 of Fig. 2.

Fig. 3 is a side view of the dispenser of Fig. 1 showing the dispenser cover in a closed position.

Fig. 3A is a cross-sectional view taken along line 6 - 6 of Fig. 3.

Fig. 4 is a partial top isometric view of the dispenser of Fig. 1.

Fig. 5 is a partial side isometric view of the dispenser of Fig. 1.

Fig. 6 is a partial top isometric view of the dispenser of Fig. 1 showing the cover in a closed position.

Fig. 6A is a cross-sectional view taken along line 7 - 7 of Fig. 5.

DETAILED DESCRIPTION OF THE INVENTION

This invention relates to a dispenser for dispensing wipes. Referring to Fig. 1, the dispenser 1 comprises a lid 3 which is attached to the body 5. The lid 3 comprises a dispensing aperture 64 and a cover 9 which is connected to the lid 3 by a hinge 51. The lid 3 and all its components are constructed from a single unitary piece of material. The lid 3 also includes an inner ring 66 adjacent to the dispensing aperture 64, a middle ring 68 adjacent to the inner ring 66, and an outer ring 70 adjacent to the middle ring 68. The inner ring 66 preferably has an outer tapered surface leading to the middle ring 68.

The lower lid 72 is adjacent to the outer ring 70. The lower lid 72 also includes a depression member 62. When the cover 9 is in a closed position such as shown in Fig. 6, the user may release the cover 9 into an open position such as shown in Figs. 1, 2, 4, and 5, by depressing the depression member 62. This then allows the cover 9 to pop-up.

Referring to Fig. 1, the cover 9 is comprised of a hinge 51. The hinge 51 includes a step 50 and a hinge step contacting member 52. The cover 9 also includes a perimeter seal 20 which comprises a backside perimeter seal 24. The cover 9 further includes an exterior seal 21 and an inner seal 22. Preferably the inner seal 22 has a tapered surface. The cover 9 also includes a locking mechanism 23. Optionally, the cover 9 may include one or more support ribs 45.

While not wishing to be limited by theory, it is believed that the pop-up feature of the cover 9 works by the following mechanism. Referring to Figs. 2, 2A, 2B, and 2C, as a user begins to close cover 9 the hinge step contacting member 52 contacts the step 50. Referring to Fig. 2B, this creates a first interference 56 which results in the outward deflection of the deflection member 53. This first interference 56 creates a first storage energy. Referring to Fig. 2C, as the user continues to close the cover 9, a second interference 57 is created when the backside perimeter seal 24 of the cover 9 comes into contact with the wall 69 formed by the middle ring 68 and outer ring 70. This second interference 57 creates additional storage energy. As shown in Figs. 3A, 6, and 6A, the cover 9 is fully closed and sealed when the exterior seal 21 contacts the wall 71 formed by the outer ring 70 and lid surface 72 and the latch catch 61 engages the locking mechanism 23. This creates a seal around the dispensing aperture 64 thereby preventing the loss of moisture from the wipes.

Optionally, one or more ribs 45 may be used as structural support for the cover 9 as shown in Fig. 1. As a user depresses the depression member 62, the storage energy is released thereby permitting the cover 9 to pop-up.

A suitable dispenser 1 for the present invention can be produced by injection molding or any other suitable technique familiar to those of ordinary skill in the art. A non-limiting suitable material of construction for the dispenser includes a plastic such as polypropylene. A suitable polypropylene includes a polypropylene having a melt flow rate of 1.9. One such polypropylene is sold as PP TR375 and commercially available from Equistar Chemicals LP of Houston, Texas.

While particular embodiments of the invention have been illustrated and described, it would be obvious to those skilled in the art that various changes and modifications can be made without departing from the scope and spirit of the invention.

WHAT IS CLAIMED IS:

1. A dispenser for dispensing wipes said dispenser comprising,
a lid which is attached to a body, said lid constructed of a single unitary piece of material said lid comprising:
a) a dispensing aperture;
b) a cover, said cover including an exterior seal, an inner seal, a perimeter seal comprising a backside perimeter seal, and a locking mechanism;
c) a hinge which connects said cover to said lid, said hinge including a step, a hinge step contacting member, and a deflection member,
d) an inner ring adjacent said dispensing aperture;
e) a middle ring adjacent said inner ring;
f) an outer ring adjacent said middle ring;
g) a lower lid adjacent to said outer ring, said lower lid including a depression member;
whereby said hinge step contacting member contacts said step creating a first interference resulting in the outward deflection of said deflection member and creating a first storage energy, said backside perimeter seal of said cover contacting said wall formed by said middle ring and said outer ring thereby creating a second interference resulting in additional storage energy, said exterior seal contacting said wall formed by said outer ring and said lid surface, and said latch catch engages said locking mechanism.

2. The dispenser of Claim 1 wherein said inner ring has an outer tapered surface leading to said middle ring.

3. The dispenser of Claim 1 wherein said inner seal has a tapered surface.

4. The dispenser of Claim 1 wherein said dispenser is injection molded.

5. The dispenser of Claim 4 wherein said dispenser comprises polypropylene.

6. The dispenser of Claim 5 wherein said polypropylene has a melt flow rate of 1.9

7. The dispenser of Claim 1 further comprising support ribs.

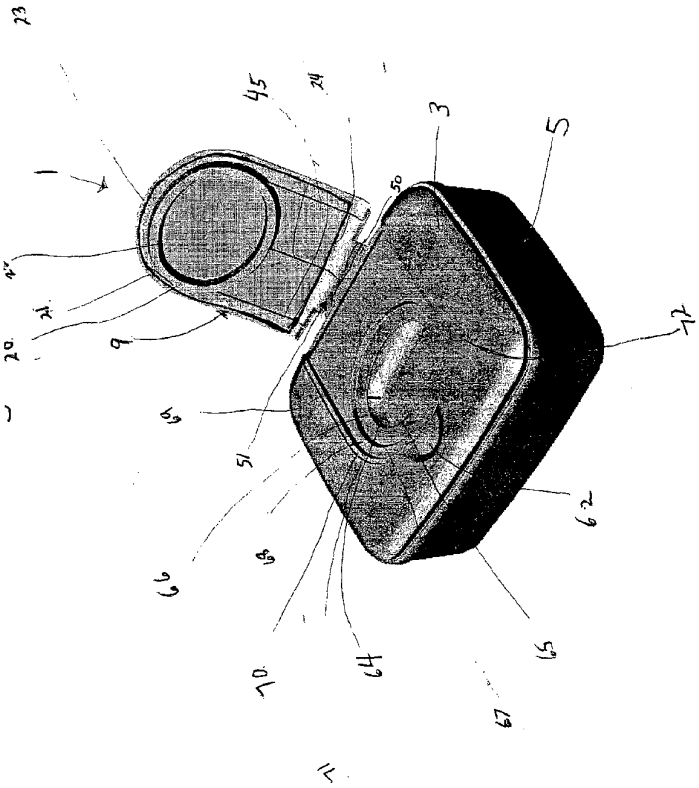


Fig 2

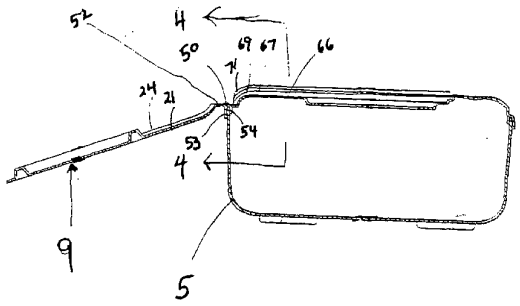
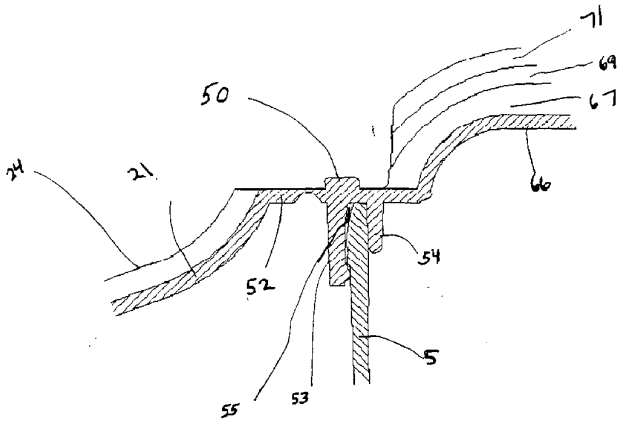


Fig. 2A



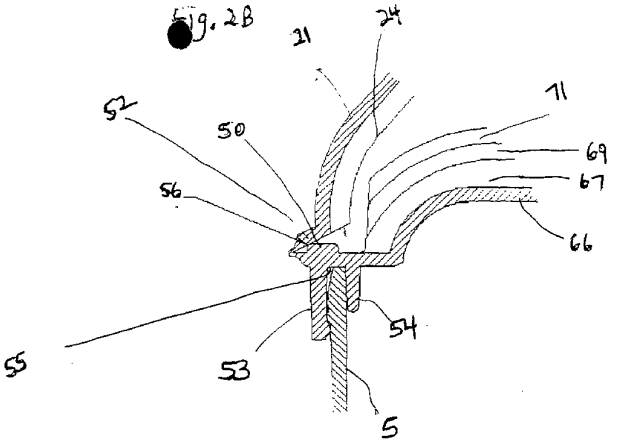


Fig. 2B
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24
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52
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67
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53
5

Fig. 2C

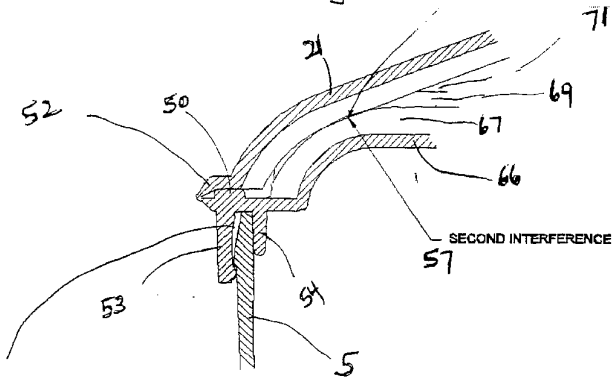


Fig 3

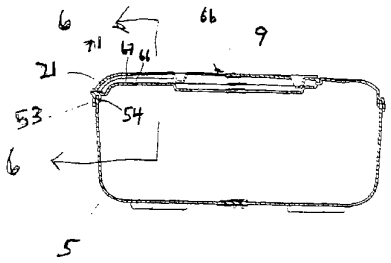
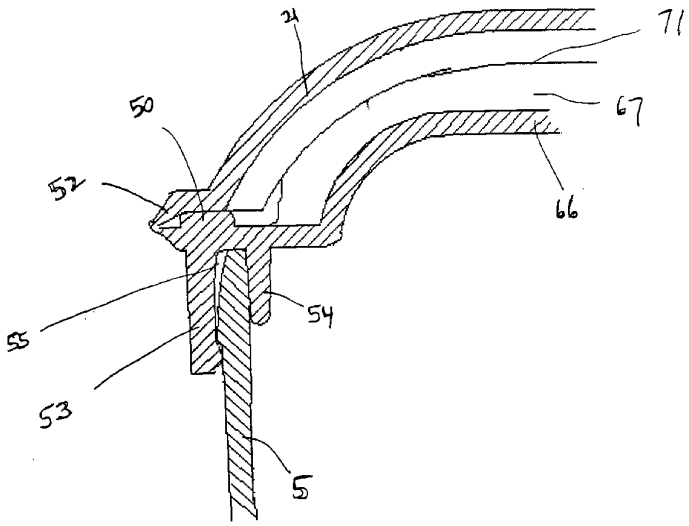


Fig. 3A



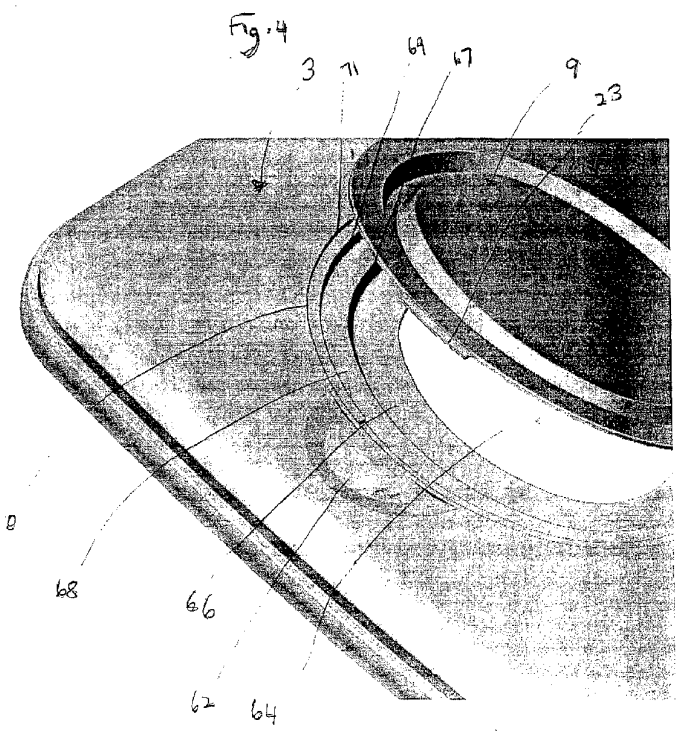


Fig. 4
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62
64

Fig. 5

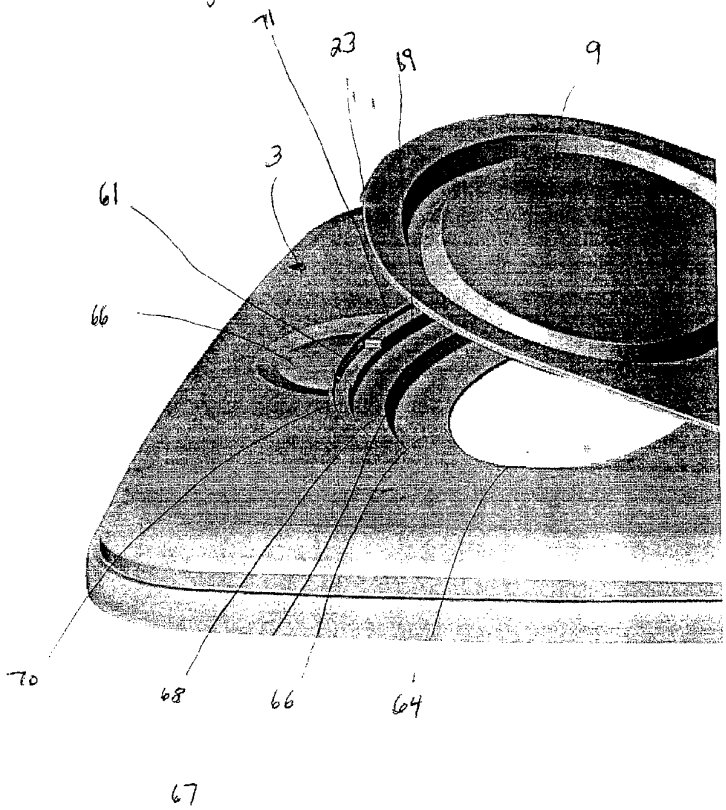


Fig.6

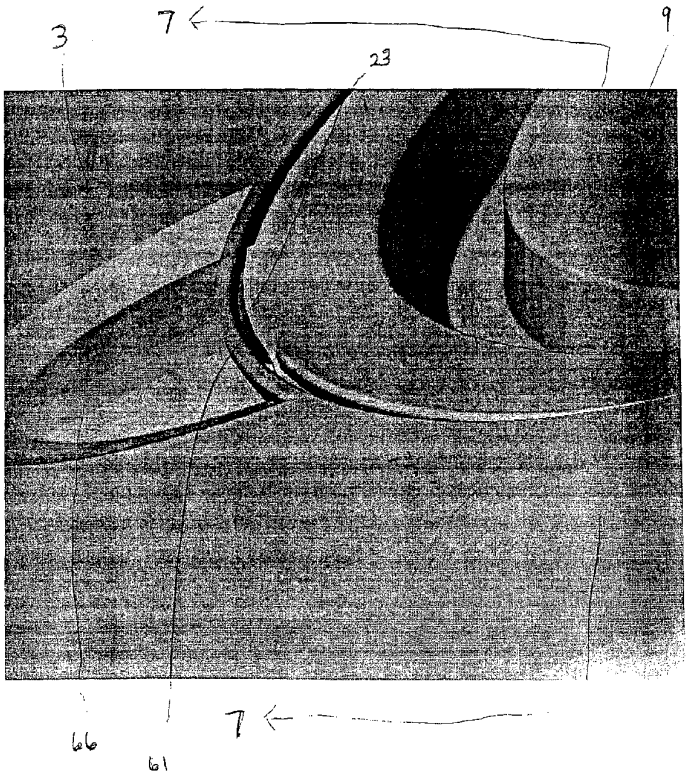
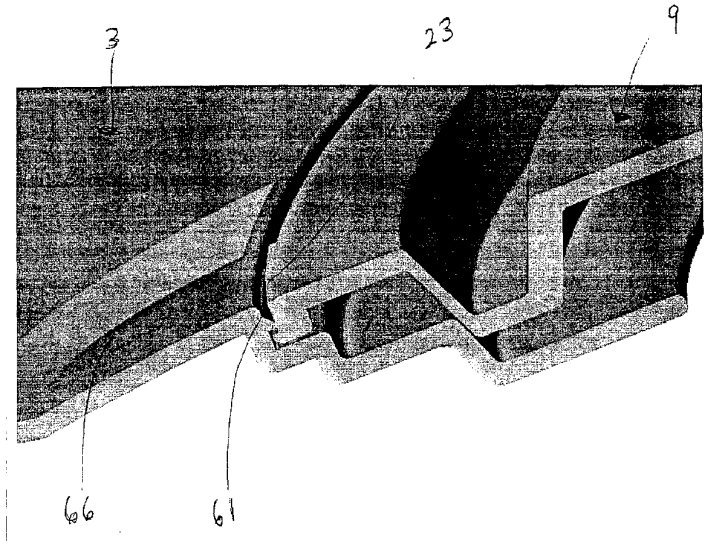


Fig. 6A



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(74) Agents: REED, T., David et al.; The Procter & Gamble Company, 6110 Center Hill Drive, Cincinnati, OH 45224 (US).

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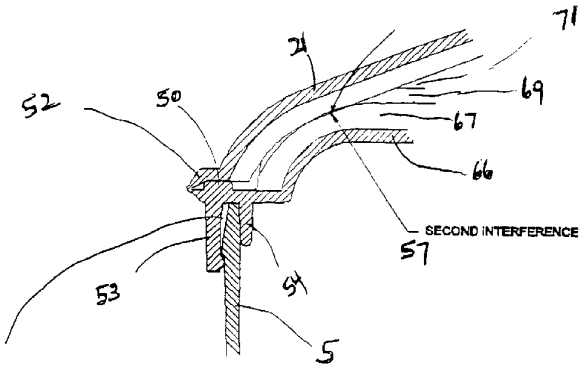
[Continued on next page]

(54) Title: DISPENSER FOR WIPES



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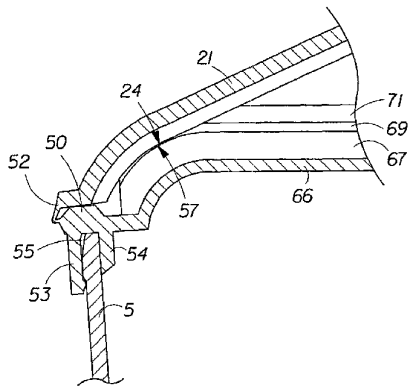
[Continued on next page]

(54) Title: DISPENSER FOR WIPES



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DISPENSER FOR WIPES

CROSS REFERENCE TO RELATED APPLICATION

This application claims the benefit of U.S. Provisional Application No. 60/302,265 filed June 29, 2001.

FIELD OF THE INVENTION

This invention relates to a dispenser for wipes which features a pop-up cover and pop-up wipes capability.

BACKGROUND OF THE INVENTION

One of the limitations of prior art wipe dispensers is that a single dispenser requires several different materials to construct the dispenser. For instance, the body of the dispenser may be made of one material, the lid of a second different material, and the hinge connecting the dispenser body to the lid of yet a third material. This adds complexity to the dispenser manufacturing process.

Furthermore, the hinge is commonly comprised of some type of mechanical device such as a spring, a strap, or other like elastic material. Such devices are disclosed in EP 0952088 published on October 27, 1999 and in U.S. 5,699,912 issued to Ishikawa et al. on December 23, 1997. The drawback of these types of mechanical hinging devices is that they are subject to mechanical failure. Additionally, these types of mechanical hinging devices add further complexity to the dispenser manufacturing.

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The present invention overcomes these limitations. The dispenser comprises only two parts-- a body for containing the wipes and a lid that covers

the wipes dispensing aperture. There are no mechanical parts. A living hinge, which is part of the lid construction, is used for the purpose of opening and shutting the lid. Hence, the dispenser manufacturing process is greatly simplified. Additionally, the dispenser includes a sealing means for preventing evaporation of liquid from the wipes when the lid is in the closed position. Yet further, the lid is designed with a pop-up cover allowing for easy one-handed wipes dispensing without requiring the user to hold the cover in an open position while dispensing a wipe.

SUMMARY OF THE INVENTION

The present invention relates to a dispenser for dispensing wipes. The dispenser comprises a lid which is attached to a body. The lid is constructed of a single unitary piece of material. The lid includes a dispensing aperture and a cover. The cover includes an exterior seal, an inner seal, a perimeter seal comprising a backside perimeter seal, and a locking mechanism. The lid also includes a hinge which connects the cover to the lid. The hinge includes a step, a hinge step contacting member, and a deflection member. The lid also includes an inner ring adjacent to the dispensing aperture. A middle ring is adjacent to the inner ring. An outer ring is adjacent to the middle ring. A lower lid is adjacent to the outer ring. The lower lid includes a depression member. The hinge step contacting member contacts the step creating a first interference resulting in the outward deflection of the deflection member and creating a first storage energy. The backside perimeter seal of the cover contacts the wall formed by the middle ring and the outer ring thereby creating a second interference resulting in additional storage energy. The exterior seal contacts the wall formed by the outer ring and the lid surface. The latch catch engages the locking mechanism.

The dispenser may have an inner ring which includes an outer tapered surface leading to the middle ring. The dispenser may also have an inner seal with a tapered surface. The dispenser may optionally include support ribs.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is an isometric view of one embodiment of the dispenser of this invention.

Fig. 2 is a side view of the dispenser of Fig. 1 showing the cover in an open position.

Fig. 2A is a cross-sectional view taken along line 4 - 4 of Fig. 2.

Fig. 2B is a cross-sectional view taken along line 4 - 4 of Fig. 2.

Fig. 2C is a cross-sectional view taken along line 4 - 4 of Fig. 2.

Fig. 3 is a side view of the dispenser of Fig. 1 showing the dispenser cover in a closed position.

Fig. 3A is a cross-sectional view taken along line 6 - 6 of Fig. 3.

Fig. 4 is a partial top isometric view of the dispenser of Fig. 1.

Fig. 5 is a partial side isometric view of the dispenser of Fig. 1.

Fig. 6 is a partial top isometric view of the dispenser of Fig. 1 showing the cover in a closed position.

Fig. 6A is a cross-sectional view taken along line 7 - 7 of Fig. 5.

DETAILED DESCRIPTION OF THE INVENTION

This invention relates to a dispenser for dispensing wipes. Referring to Fig. 1, the dispenser 1 comprises a lid 3 which is attached to the body 5. The lid 3 comprises a dispensing aperture 64 and a cover 9 which is connected to the lid 3 by a hinge 51. The lid 3 and all its components are constructed from a single unitary piece of material. The lid 3 also includes an inner ring 66 adjacent to the dispensing aperture 64, a middle ring 68 adjacent to the inner ring 66, and an outer ring 70 adjacent to the middle ring 68. The inner ring 66 preferably has an outer tapered surface leading to the middle ring 68.

The lower lid 72 is adjacent to the outer ring 70. The lower lid 72 also includes a depression member 62. When the cover 9 is in a closed position such as shown in Fig. 6, the user may release the cover 9 into an open position such as shown in Figs. 1, 2, 4, and 5, by depressing the depression member 62. This then allows the cover 9 to pop-up.

Referring to Fig. 1, the cover 9 is comprised of a hinge 51. The hinge 51 includes a step 50 and a hinge step contacting member 52. The cover 9 also includes a perimeter seal 20 which comprises a backside perimeter seal 24. The cover 9 further includes an exterior seal 21 and an inner seal 22. Preferably the inner seal 22 has a tapered surface. The cover 9 also includes a locking mechanism 23. Optionally, the cover 9 may include one or more support ribs 45.

While not wishing to be limited by theory, it is believed that the pop-up feature of the cover 9 works by the following mechanism. Referring to Figs. 2, 2A, 2B, and 2C, as a user begins to close cover 9 the hinge step contacting member 52 contacts the step 50. Referring to Fig. 2B, this creates a first interference 56 which results in the outward deflection of the deflection member 53. This first interference 56 creates a first storage energy. Referring to Fig. 2C, as the user continues to close the cover 9, a second interference 57 is created when the backside perimeter seal 24 of the cover 9 comes into contact with the wall 69 formed by the middle ring 68 and outer ring 70. This second interference 57 creates additional storage energy. As shown in Figs. 3A, 6, and 6A, the cover 9 is fully closed and sealed when the exterior seal 21 contacts the wall 71 formed by the outer ring 70 and lid surface 72 and the latch catch 61 engages the locking mechanism 23. This creates a seal around the dispensing aperture 64 thereby preventing the loss of moisture from the wipes.

Optionally, one or more ribs 45 may be used as structural support for the cover 9 as shown in Fig. 1. As a user depresses the depression member 62, the storage energy is released thereby permitting the cover 9 to pop-up.

A suitable dispenser 1 for the present invention can be produced by injection molding or any other suitable technique familiar to those of ordinary skill in the art. A non-limiting suitable material of construction for the dispenser includes a plastic such as polypropylene. A suitable polypropylene includes a polypropylene having a melt flow rate of 1.9. One such polypropylene is sold as PP TR375 and commercially available from Equistar Chemicals LP of Houston, Texas.

While particular embodiments of the invention have been illustrated and described, it would be obvious to those skilled in the art that various changes and modifications can be made without departing from the scope and spirit of the invention.

WHAT IS CLAIMED IS:

1. A dispenser for dispensing wipes said dispenser comprising,
a lid which is attached to a body, said lid constructed of a single unitary piece of material said lid comprising:
a) a dispensing aperture;
b) a cover, said cover including an exterior seal, an inner seal, a perimeter seal comprising a backside perimeter seal, and a locking mechanism;
c) a hinge which connects said cover to said lid, said hinge including a step, a hinge step contacting member, and a deflection member,
d) an inner ring adjacent said dispensing aperture;
e) a middle ring adjacent said inner ring;
f) an outer ring adjacent said middle ring;
g) a lower lid adjacent to said outer ring, said lower lid including a depression member;
whereby said hinge step contacting member contacts said step creating a first interference resulting in the outward deflection of said deflection member and creating a first storage energy, said backside perimeter seal of said cover contacting said wall formed by said middle ring and said outer ring thereby creating a second interference resulting in additional storage energy, said exterior seal contacting said wall formed by said outer ring and said lid surface, and said latch catch engages said locking mechanism.

2. The dispenser of Claim 1 wherein said inner ring has an outer tapered surface leading to said middle ring.

3. The dispenser of Claim 1 wherein said inner seal has a tapered surface.

4. The dispenser of Claim 1 wherein said dispenser is injection molded.

5. The dispenser of Claim 4 wherein said dispenser comprises polypropylene.

6. The dispenser of Claim 5 wherein said polypropylene has a melt flow rate of 1.9

7. The dispenser of Claim 1 further comprising support ribs.

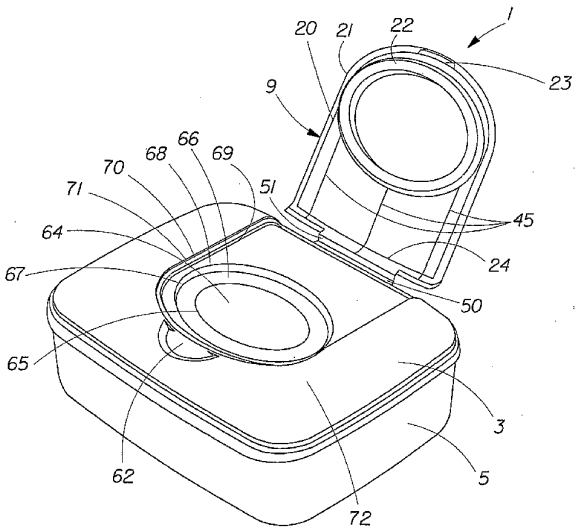

Fig. 1

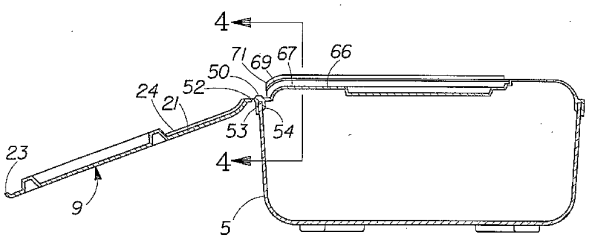

Fig. 2

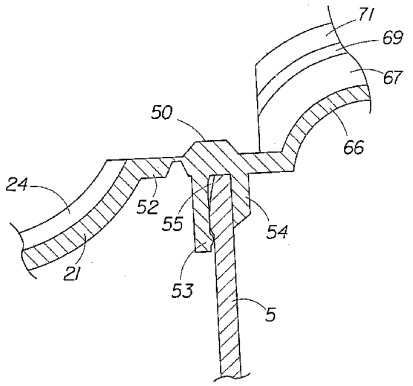

Fig. 2A

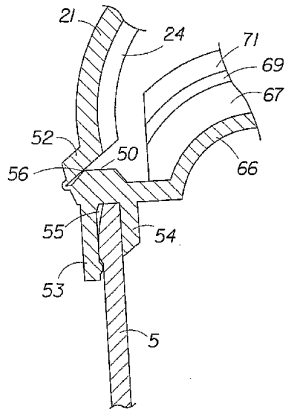

Fig. 2B

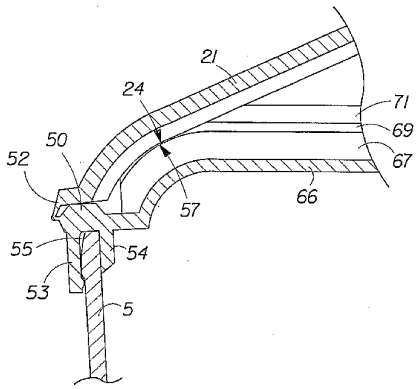

Fig. 2C

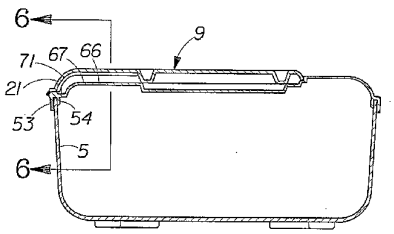

Fig. 3

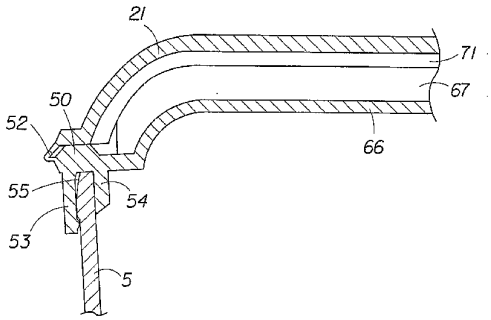

Fig. 3A

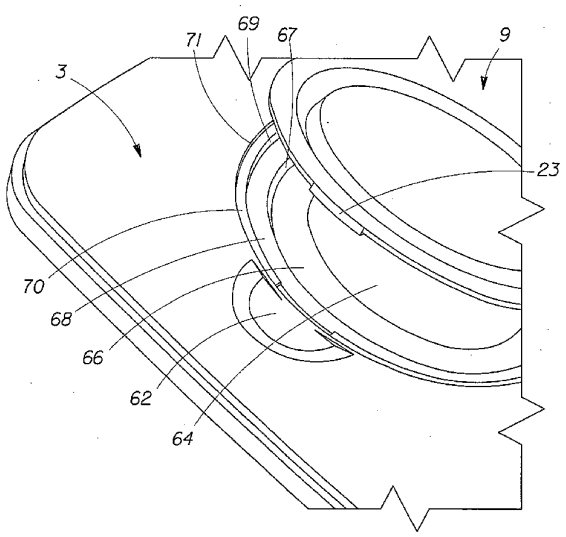

Fig. 4

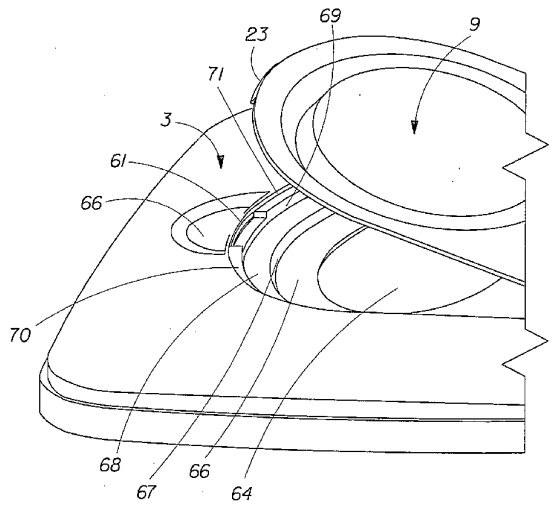

Fig. 5

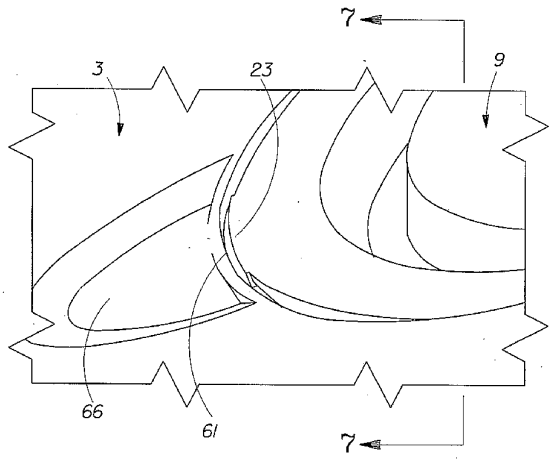

Fig. 6

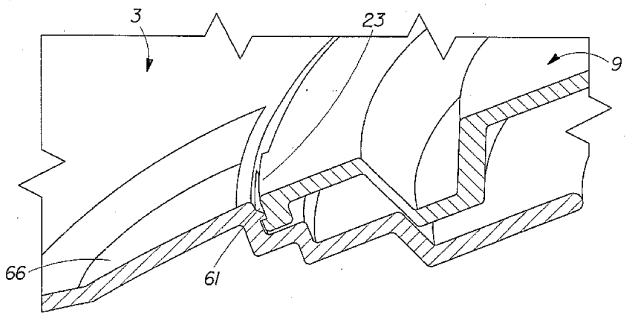

Fig. 6A

【国際調査報告】

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 02/20800

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: B65D 83/08, B65D 43/16, A47K 10/42
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)

IPC7: B65D, A47K

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

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

WPI, EPODOC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	EP 0955247 A1 (NICE-PAK INTERNATIONAL LTD.), 10 November 1999 (10.11.99), figures 1-3 --	1-7
A	PATENT ABSTRACTS OF JAPAN 02 Augusti 2000 (2000-08-02) & JP 2000-211680 A (NAKAMURA KENJI NAKAMURA KOJI abstract --	1-7

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents:
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"E" earlier application or patent but published on or after the international filing date
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"O" document referring to an oral disclosure, use, exhibition or other means
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 October 2002	12 12 2002

Name and mailing address of the International Searching Authority	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	ANNA AHLANDER/Els Telephone No.

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INTERNATIONAL SEARCH REPORT

Int onal application No.
PCT/US 02/20800

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	US 5582294 A (KIKUO YAMADA), 10 December 1996 (10.12.96), figures 3,4	1-7
A	US 5699912 A (HIROKI ISHIKAWA ET AL), 23 December 1997 (23.12.97), figure 1	1-7
A	US 6152322 A (MICHAEL MARINO), 28 November 2000 (28.11.00), figures 1-4	1-7
A	WO 9819934 A1 (THE PROCTER & GAMBLE COMPANY), 14 May 1998 (14.05.98), figures 4,5	1-7

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Information on patent family members

30/09/02

International application No.
PCT/US 02/20800

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		ES 1035581 U,Y	16/05/97

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