US 20130270292A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2013/0270292 A1

(43) Pub. Date: Oct. 17, 2013

Sporre Thorburn et al.

(54) **DISPENSING SYSTEM COMPRISING HOLDER AND DISPENSING PACKAGE**

(75) Inventors: **Annie Sporre Thorburn**, Goteborg (SE); **Cecilia Nordlund**, Soraker (SE)

(73) Assignee: **SCA Hygiene Products AB**, Goteborg (SE)

(21) Appl. No.: **13/995,554**

(22) PCT Filed: **Dec. 21, 2010**

(86) PCT No.: **PCT/SE10/51448**

§ 371 (c)(1),
(2), (4) Date: **Jun. 19, 2013**

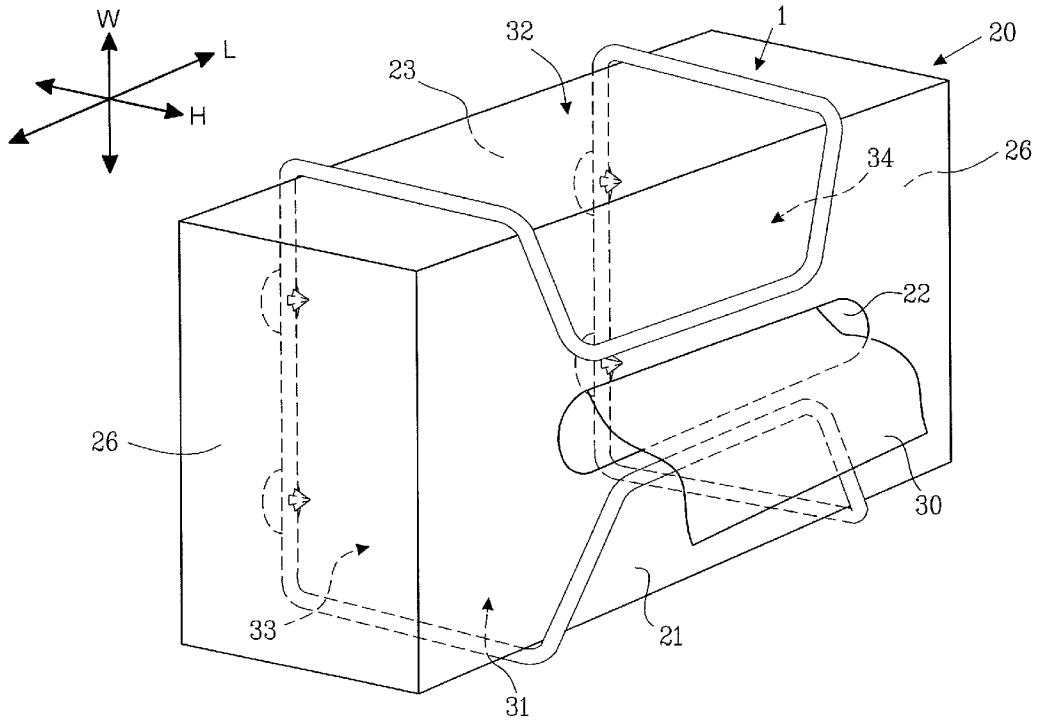
Publication Classification

(51) **Int. Cl.**
A47K 10/18 (2006.01)

(52) **U.S. Cl.**
CPC *A47K 10/185* (2013.01)
USPC **221/283**

(57) **ABSTRACT**

A dispensing system includes a holder adapted to hold the package of wipes. The holder has a front portion, a rear portion and side portions connecting the front and rear portions, and the package has a front wall with a dispensing opening, a rear wall opposite the front wall, two opposing side walls and two opposing end walls. The front portion of the holder includes first and second holder parts extending in a length direction of the holder and is spaced apart in a width direction of the holder with a gap between the holder parts. The holder parts are resiliently movable between a holding position and a loading position, and the gap is smaller in the holding position than in the loading position. The rear portion of the holder and the rear wall of the package include mating fasteners for attaching the package to the holder.



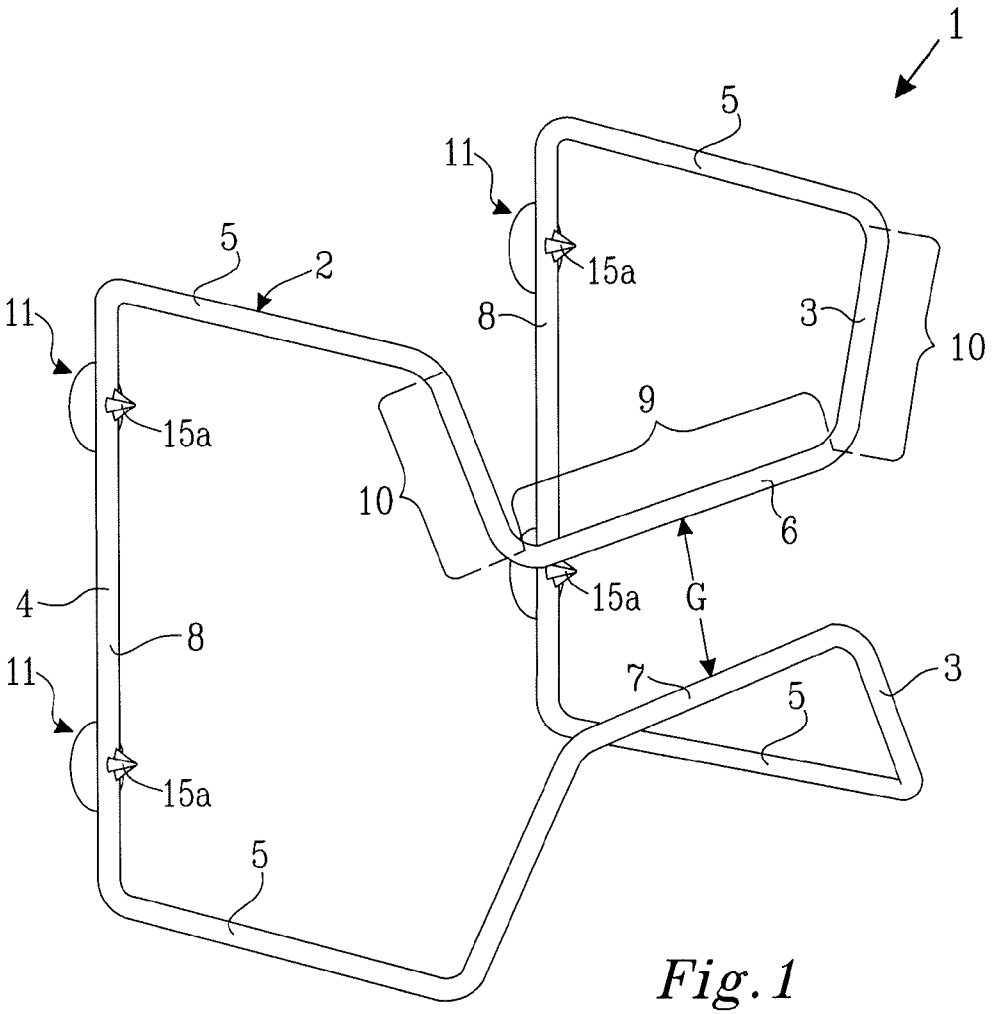


Fig. 1

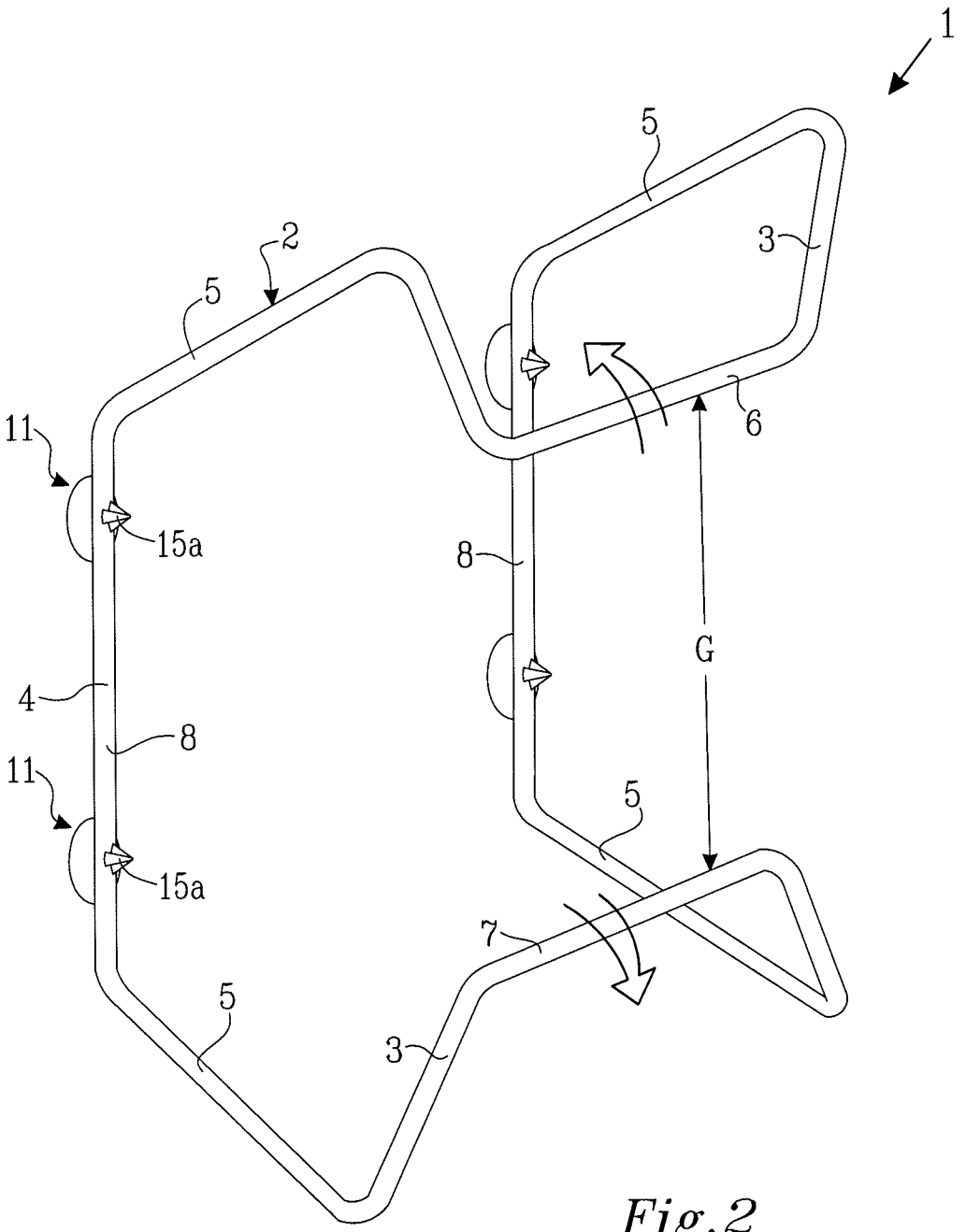


Fig.2

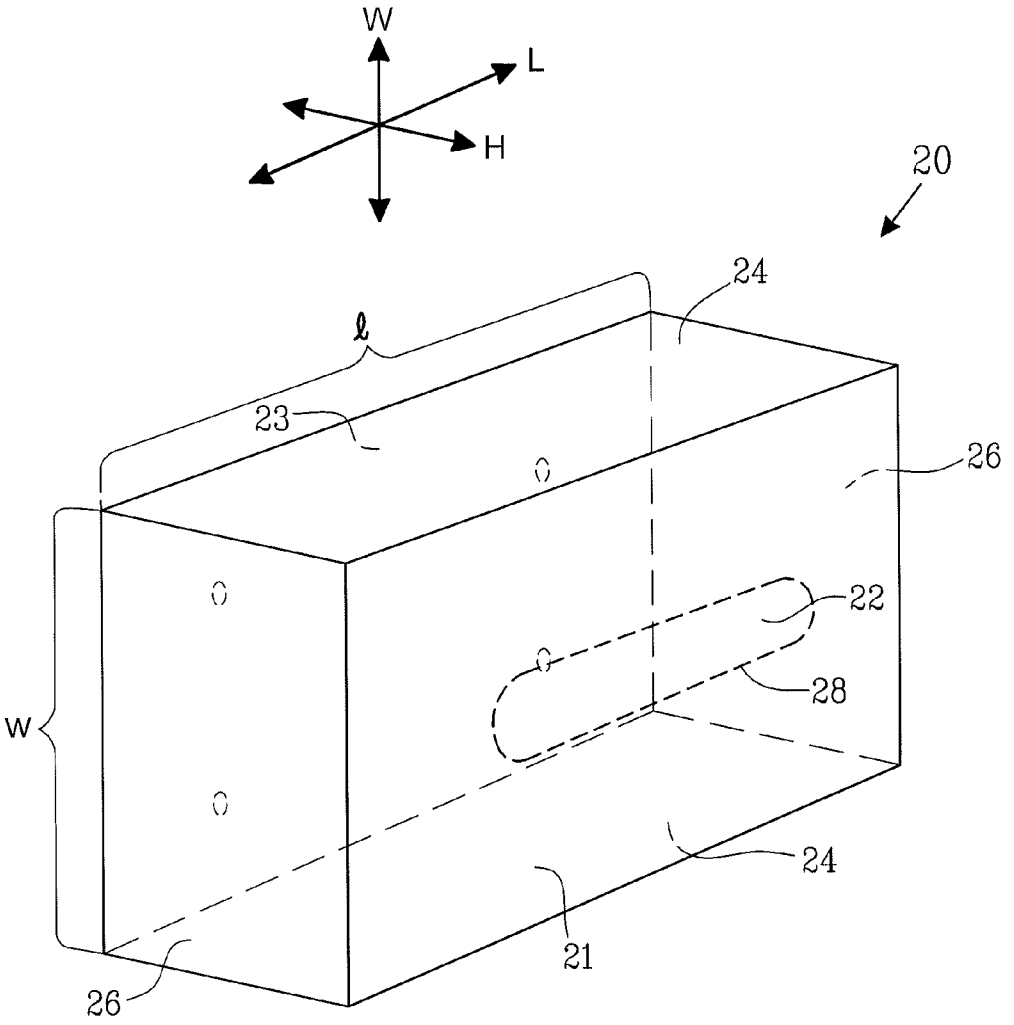


Fig. 3

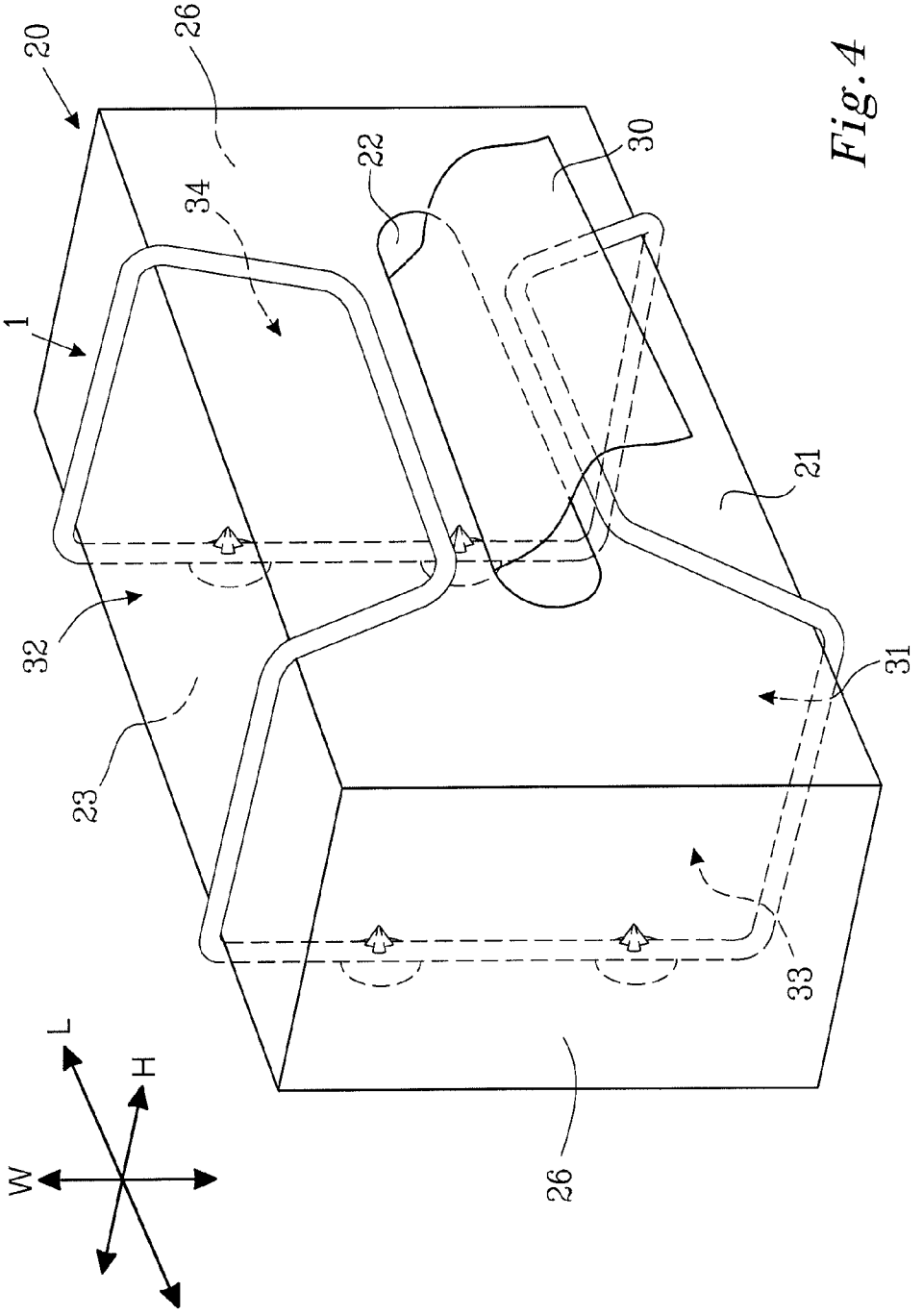


Fig. 4

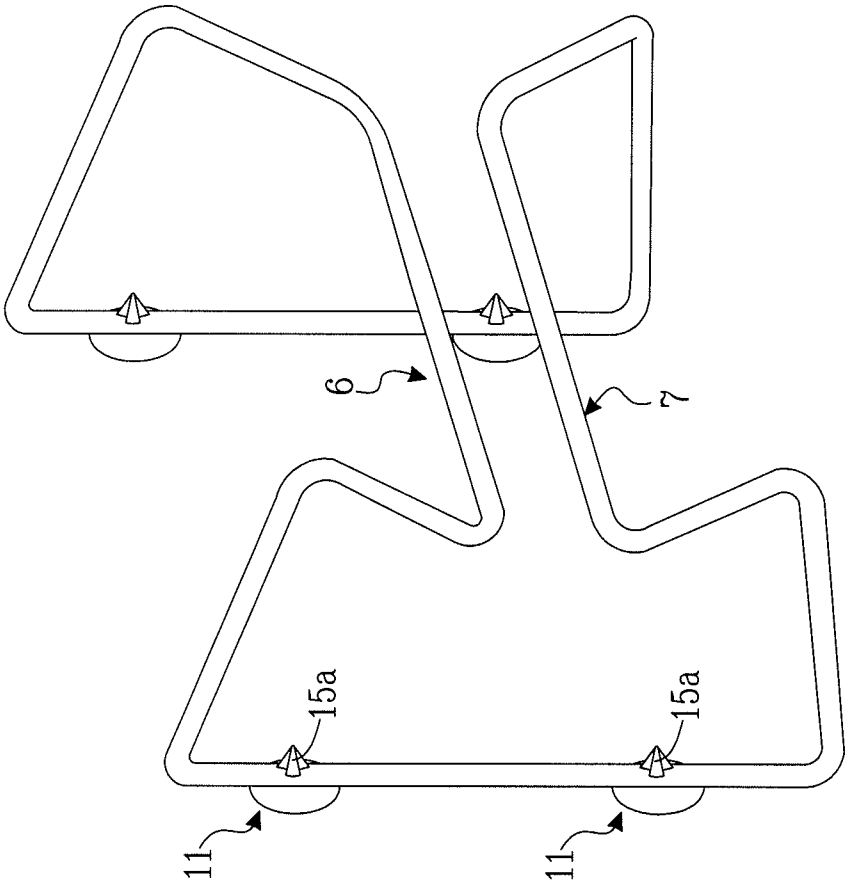


Fig. 5

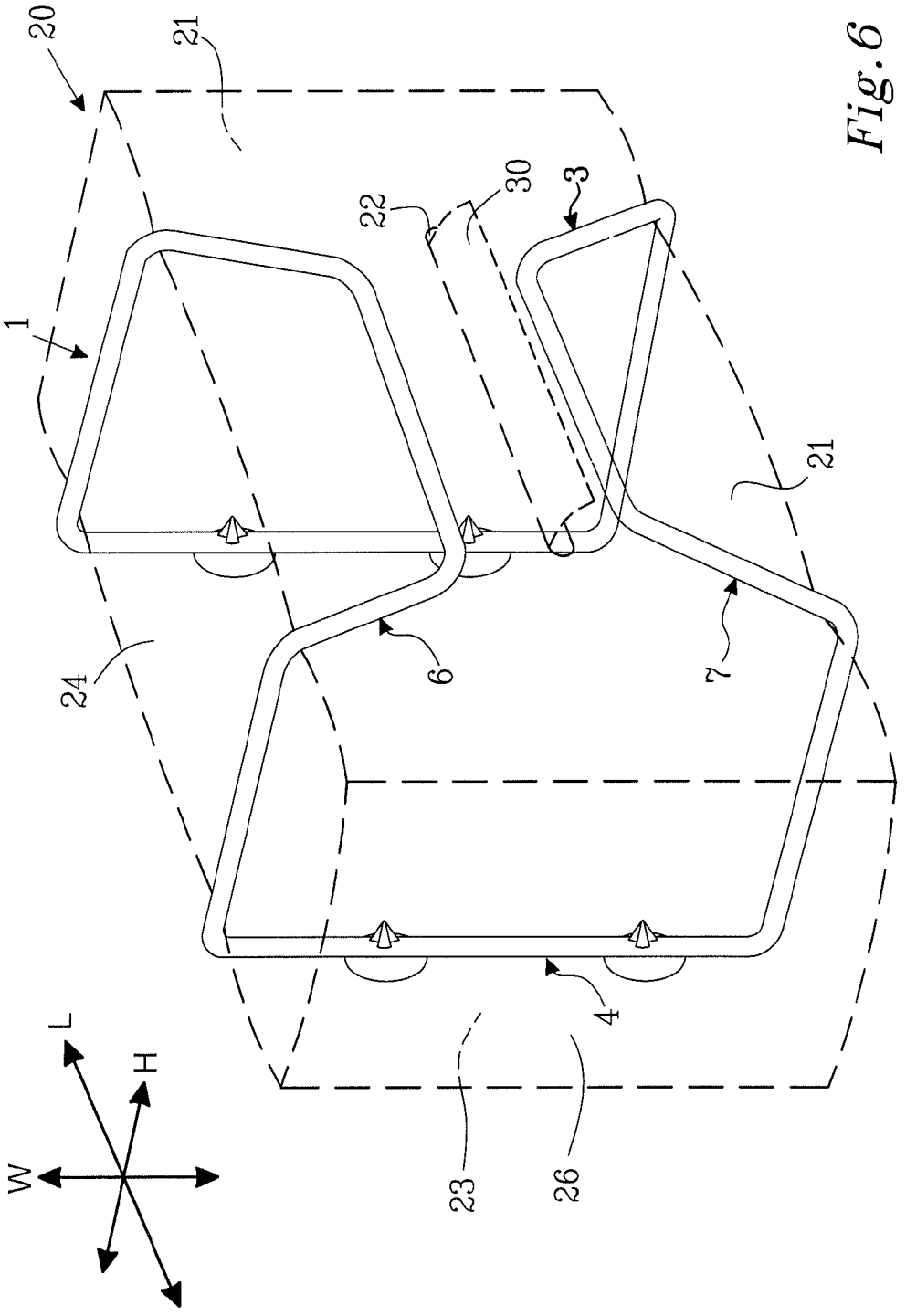


Fig. 6

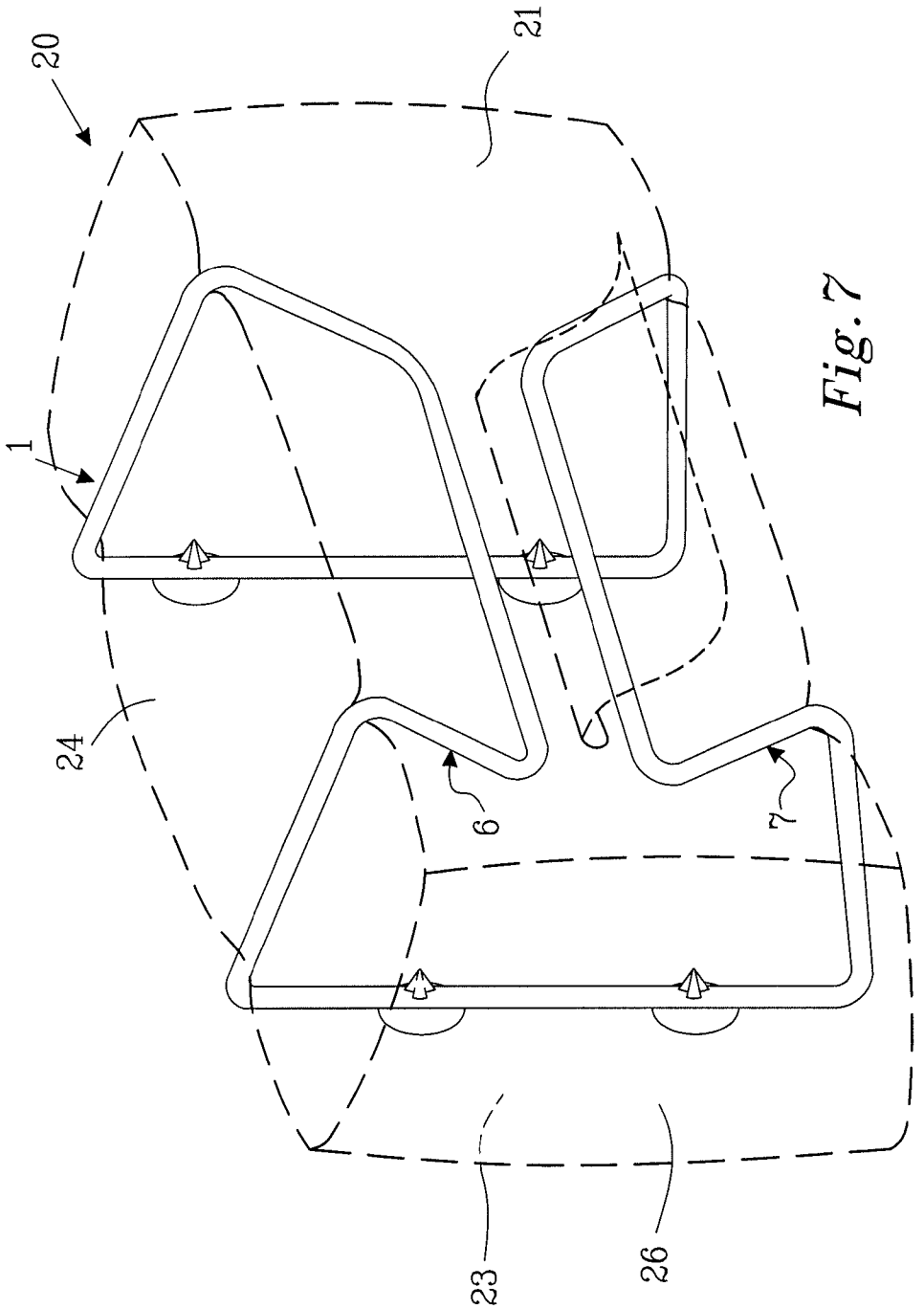


Fig. 7

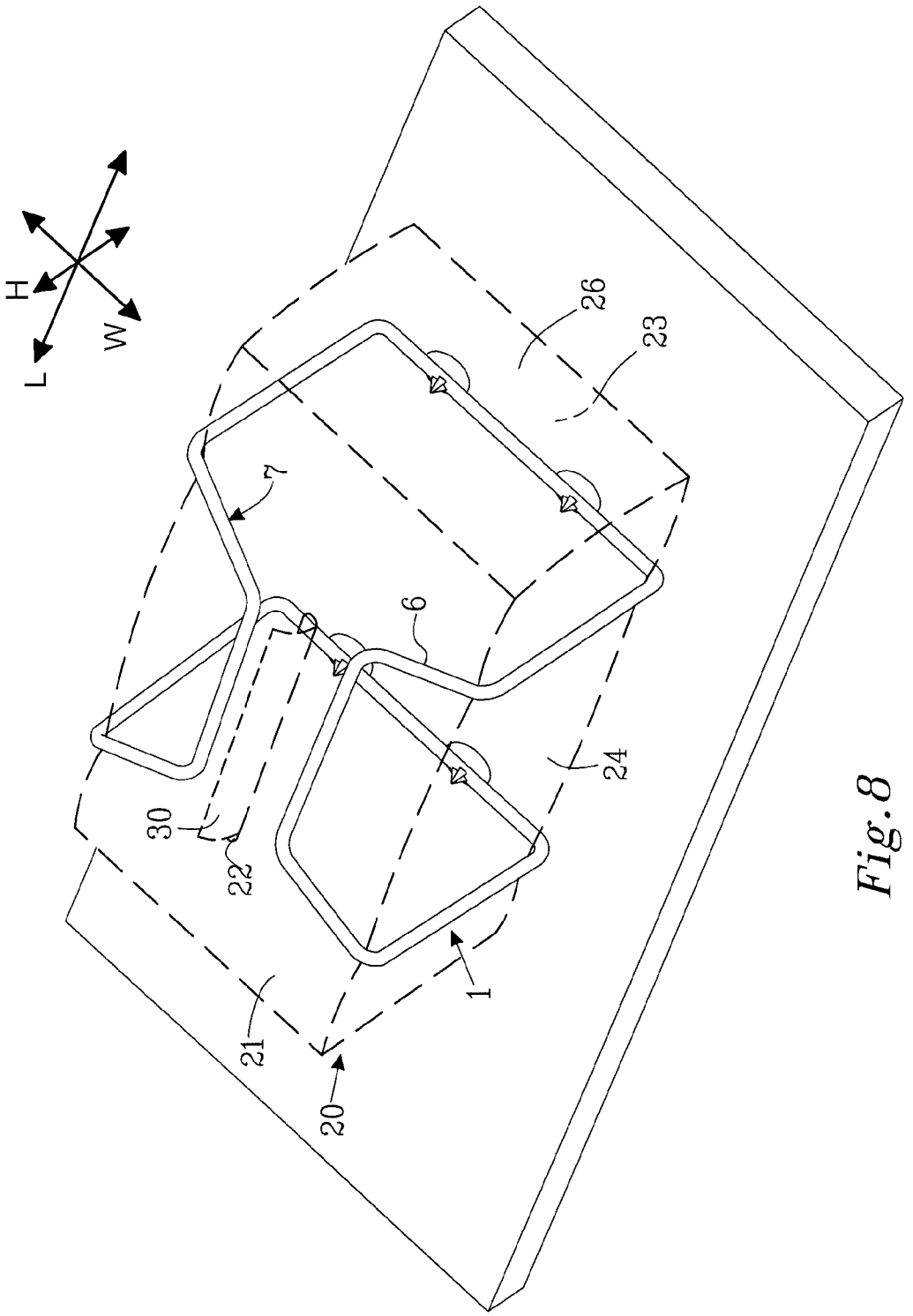


Fig. 8

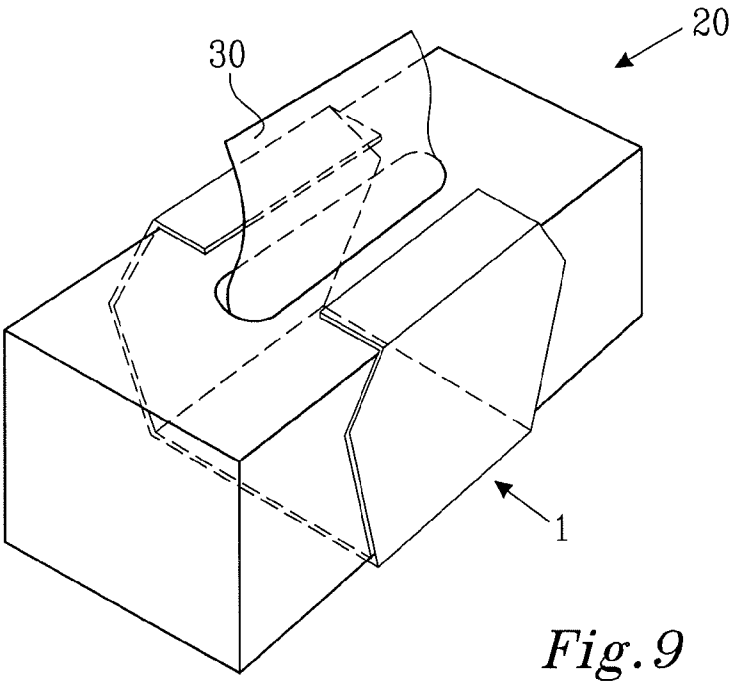


Fig. 9

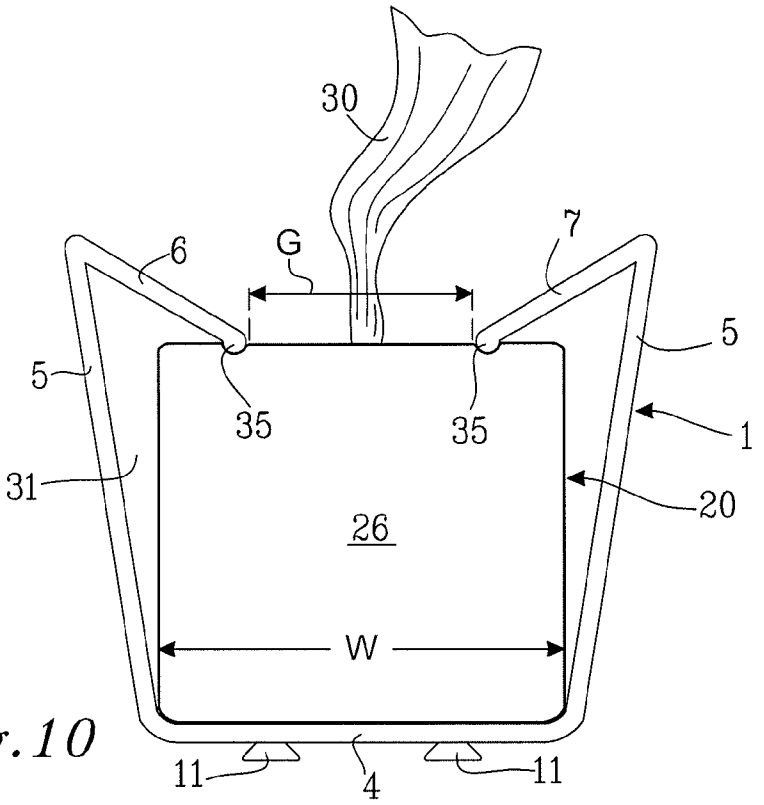


Fig. 10

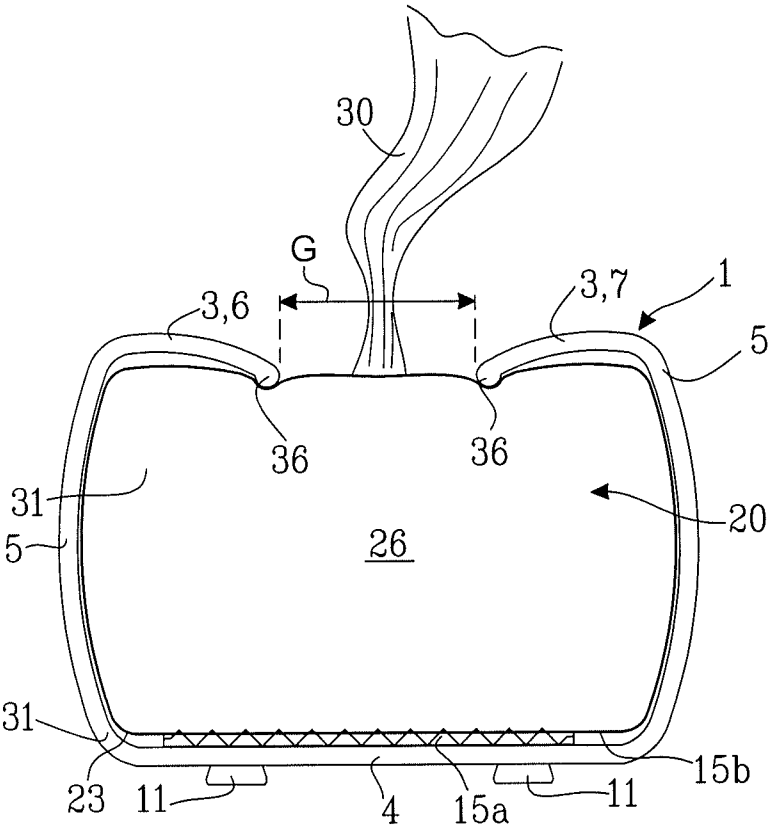


Fig. 11

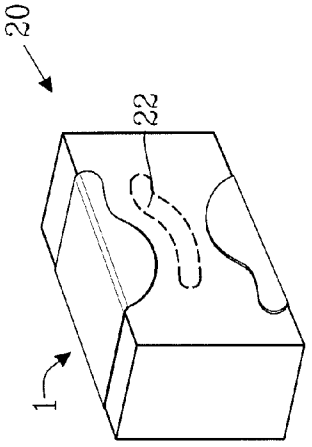
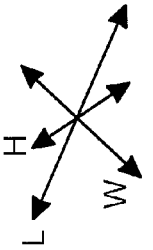


Fig.12c



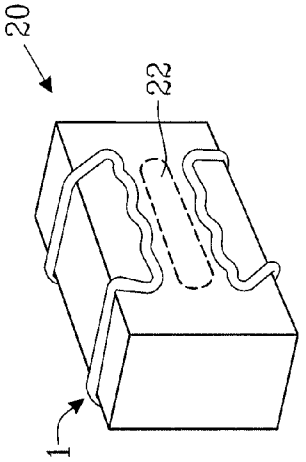


Fig.12b

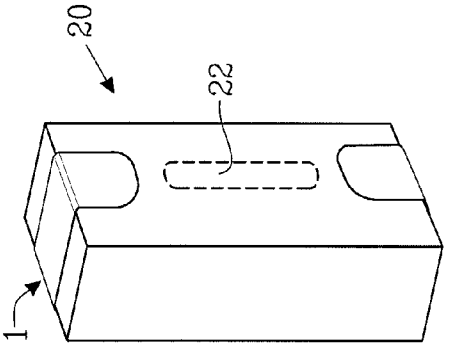


Fig.12d

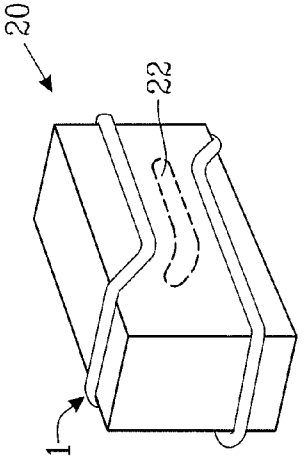


Fig.12a

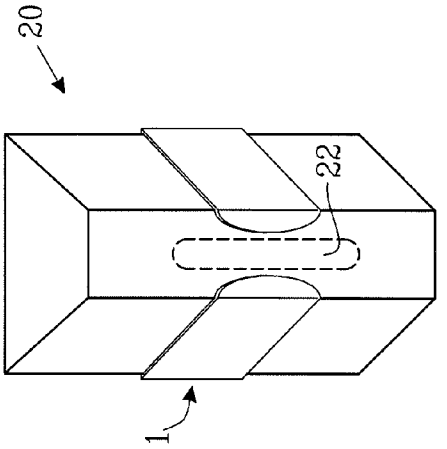


Fig.12e

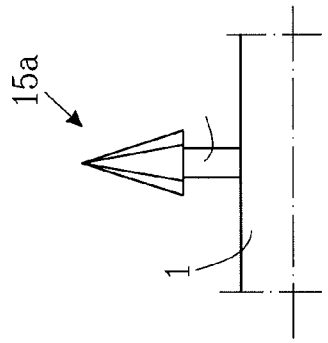


Fig.13d

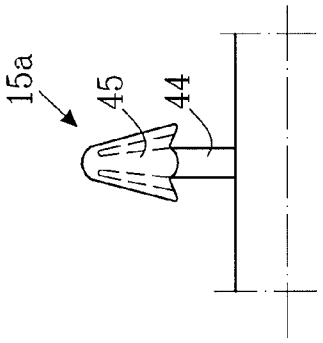


Fig.13c

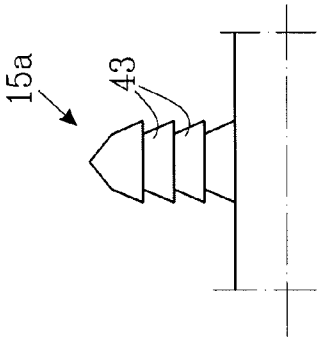


Fig.13b

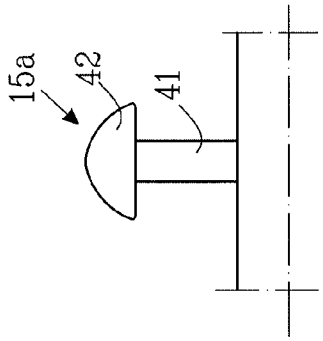


Fig.13a

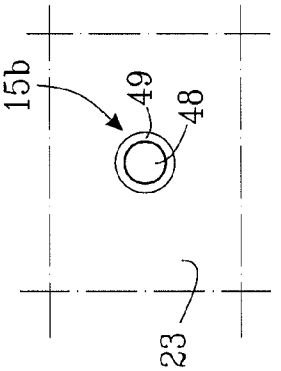


Fig.14ca

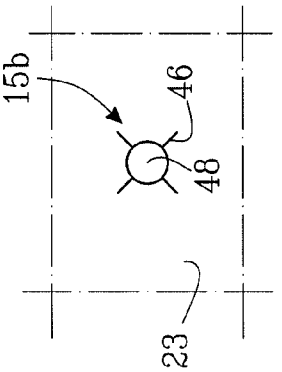


Fig.14b

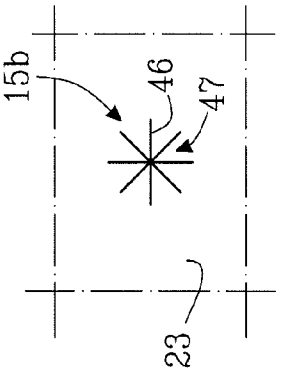


Fig.14a

DISPENSING SYSTEM COMPRISING HOLDER AND DISPENSING PACKAGE

TECHNICAL FIELD

[0001] The invention relates to a dispensing system comprising a holder and a package of wipes. The holder is adapted to hold the package and comprises means for attaching the holder to a surface such as a wall, a counter top a cupboard, a table, etc. The package has front and rear surfaces with an opening for dispensing of the wipes being arranged in the front surface of the package. The wipes may be wet or dry soft tissue sheets such as paper napkins or may be any other type of wet or dry wiping material such as household paper, toilet paper, facial tissue, handkerchiefs, napkins, industrial wipes, etc.

BACKGROUND

[0002] Wipes in the form of sheets of material intended for wiping and for hygienic purposes are common household items that may be provided in the form of stacks or rolls of wipes from which individual wipes can be readily removed when needed. A dispensing system for the wipes should be inexpensive and easy to handle.

[0003] A common type of combined package and dispenser for wipes such as paper napkins is a rectangular cardboard box in which the wipes are arranged in a stack of interfolded sheets which can be removed from the box through a dispensing opening provided in the top surface of the box. The dispensing opening is usually created just before the first wipe is to be removed from the box by tearing away a seal or removing a part of the top wall of the box along a prefabricated perforation line.

[0004] Interfolded wipes are sheets of material arranged in a stack of superposed sheets which are each folded at least once. The sheets are interlinked in such a way that the separate folded sheets of material form a chain of sheets where each sheet has a leading panel and a trailing panel, the trailing panel being at least partly overlapped with the leading panel of the subsequent sheet in the stack. In this manner, the individual sheets are held loosely together by means of frictional forces arising between the overlapping parts. The sheets may be dispensed from an opening in a container by pulling at the leading panel of the first sheet in the stack. In this manner, the first sheet is extracted at the same time as a predetermined part of the leading panel of a subsequent sheet is pulled through the dispensing opening into a dispensing position where it may subsequently be gripped and removed from the dispenser.

[0005] Holders for such packages are often outer containers or covers with a primary function of concealing the packaging box and enhancing its appearance. Another purpose of such containers is to add weight to the packaging box. When the container is stood on a horizontal surface, wipes may be removed from the box, without at the same time lifting the box from the surface. However, such containers are generally made from relatively expensive materials and can only be used for one size of packaging box.

[0006] One object of the present disclosure is to provide a dispensing system comprising a holder that can be made at low cost and offer reliable retention of a package of wipes during dispensing of the wipes from any position such as when the dispensing system is arranged hanging on a horizontal or vertical surface or standing on a horizontal surface.

SUMMARY

[0007] In accordance with the present disclosure, there is provided a dispensing system having considerably improved versatility.

[0008] The dispensing system according to the present disclosure comprises a holder and a package of wipes, the holder being adapted to hold the package and comprising means for attaching the holder to a surface and having a front portion and a rear portion and side portions connecting the front and rear portions. The package has a front wall with a dispensing opening, a rear wall opposite the front wall, two opposing side walls and two opposing end walls, wherein the side walls and the end walls connect the front and rear walls. The front and rear walls have a length in a direction parallel with the side walls and a width in a direction perpendicular to the side walls. The front portion of the holder comprises first and second holder parts which extend in a length direction of the holder and are spaced apart in a width direction of the holder so that a gap is formed between the holder parts. The holder parts are resiliently movable between a holding position and a loading position, the gap being greater when the holder is in the loading position than when the holder is in the holding position. The rear portion of the holder and the rear wall of the package comprise mating fastener means for attaching the package to the holder when the package is inserted in the holder between the holder parts and is arranged with the rear wall of the package in direct contact with the rear portion of the holder. When the package is inserted in the holder and the holder parts are in the holding position, the dispensing opening is at least partially in register with the gap, allowing wipes to be removed from the package through the dispensing opening and the gap in the holder.

[0009] When the package is secured in the holder, the wipes can be easily taken out of the holder using only one hand which is a great advantage as there is often a need to have a hand free for other purposes.

[0010] When loading a dispensing package into the holder, the holder parts are manually moved apart to the loading position so that the package can be inserted into the holder through the widened gap between the holder parts. When the holder parts are released by the person loading the package into the holder, the resiliency in the holder parts will cause the holder parts to spring back to the holding position. A rigid package may be manipulated into the gap with the rear wall first and pushed in towards the rear portion of the holder until the mating fastening means on the holder and the package engage with each other. Another way of inserting the package which may be useful when the package has a relatively large width but smaller depth is to widen the gap enough to allow one side wall to be inserted into the gap and to be pushed beneath one of the holder parts as far towards the side portion of the holder as possible whereafter the gap is widened sufficiently to allow the opposite side wall to be slid down through the gap and into position in the holder.

[0011] The size of the gap is defined as the smallest distance between the opposing edges of holder parts.

[0012] The package may be made from any suitable material such as paper, plastic, cardboard, etc. The physical form of the container may be a more or less rigid box or may be in the form of a flexible bag or wrapping.

[0013] The dispensing system according to the present disclosure may be used in any position such as on a table, on a countertop, on or in a cupboard, on a wall, or hanging from a horizontal surface such as a ceiling or the underside of a

cupboard or shelf. A problem with many previously known holders is that the package may fall or slide out of the holder when it is turned upside-down or placed in a vertical position. This problem is solved by the holder of the present disclosure by the mating fastener means that prevent the package from sliding in the holder and the resiliently flexible holder parts that extend in over the front wall of the package when the holder is in the holding position and cooperate with the mating fastener means to prevent the package from falling out of the holder.

[0014] The simple snap-in mechanism of the holder allows a package to be quickly and easily inserted into the holder through the gap between the holder parts and removed again through the gap when the package is empty or when the user wishes to shift the package to a different location. As the packages in the dispensing system of the present disclosure are provided with a dispensing opening, they may be used in the conventional way as free-standing dispensers. Accordingly, the dispensing system of the present disclosure allows a package to be moved between differently placed holders or to be used both with and without the holder during the useful life of the package. Hence, a user may choose to leave the holder in place and only move the package.

[0015] The means for attaching the holder to a surface may be any type of attachment means such as hooks, screws, nails, suction caps, magnets, adhesive, etc. However, the attachment means is preferably easy to attach, detach and reattach in a new location. Accordingly, suction caps, magnets or reusable adhesive may be preferred attachment means when it is desirable that the holder can be easily shifted between different locations. In many environments, such as bathrooms, the surface available for placing dispensers for wipes is very limited. Moreover, there is often a resistance to permanently mounting appliances on bathroom walls because of the damage caused to the walls and particularly to the moisture barrier properties of the walls.

[0016] By placing the package in a holder according to the present disclosure, a distance is created between the package and the surface on which the holder is mounted. This is advantageous particularly in dirty and wet environments, such as workshops, kitchens, bathrooms, etc.

[0017] The holder may have open end portions and a length that is smaller than the length of the package. When the package is inserted and fastened in the holder, the end portions of the package protrude beyond the end portions of the holder such that the end walls of the package are located outside of the holder. In this way, the holder may be used with packages of different length.

[0018] The package may have any useful shape as known in the art such as pillow-shaped or cylindrical with an oval or circular cross-section. A cylindrical package or a package having a polygonal cross-section other than rectangular or square cross-section has front and rear walls and side walls that lack clear demarcations implying that the rear wall will change into a side wall and then into the front wall when moving along the periphery of the package wall from the rear to the front of the package. The side walls and/or the end walls may be completely degenerated such that they are constituted by a fold line or a join between the front wall and the rear wall. Such degenerated end walls and/or side walls may be found in packages of envelope type and in pillow-shaped packages. The front wall of a package of the present disclosure comprises the area of the package where the dispensing opening is arranged. The rear wall is opposite the front wall and the side walls and end walls are those portions of the package that connect the front wall with the rear wall.

[0019] The package may have a generally rectangular parallelepiped shape at least when in a fully loaded state. For non-rigid packages, such as flexible packages made from plastic film, nonwoven webs, or paper, the package will generally collapse and deform from the shape that it has when it is fully loaded. A box made of a more rigid material such as cardboard or a less flexible plastic material will generally retain its shape even when it is completely empty unless it is exposed to excessive force such as when it is purposefully crushed to facilitate disposal.

[0020] The package may be a cardboard box. The cardboard box may have any suitable shape that will fit in the holder. As stacks of sheet material for manufacturing reasons usually have rectangular shape, it may be preferred that at least the rear wall of the cardboard box that forms the base for the bottom surface of the stack has a rectangular shape to match the shape of the stack. The package of the present disclosure may have a width that is smaller than the width of the rear portion of the holder, as long as the width of the front wall is greater than the width of the gap between the holder parts when the holder is in the holding position so that the package cannot fall out through the gap.

[0021] The package may be a soft package that is made from a flexible material such as plastic film, paper, nonwoven or a laminate of flexible material. The package may be in the form of a bag or a wrapper enclosing the stack of wipes. A soft package is compressible and will collapse and alter its shape as a result of wipes being removed from the package.

[0022] In a dispensing system according to the present disclosure, the holder may have a configuration when it is in a non-loaded rest position, the gap between the side portions of the holder having a smaller width in the rest position than in the holding position. When loading the package into the holder, the holder parts are manually moved apart to the loading position so that the package can be inserted in the holder through the gap between the holder parts. When the holder parts are released by the person loading the package into the holder, the holder parts will spring back to the holding position. In the holding position, the holder parts are still somewhat tensioned as they are hindered by the package from fully returning to the rest position. This implies that the holder parts will exert pressure on the package such that the package will be clamped in the width direction between the holder parts.

[0023] The side portions of the holder may be inwardly inclined from the rear portion of the holder towards the front portion of the holder in the rest position. However, embodiments wherein the side portions of the holder are outwardly inclined from the rear portion of the holder towards the front portion of the holder in the rest position may also be used in a holder according to the present disclosure providing that the gap between the holder parts is smaller than the width of the package when the holder is in the holding position.

[0024] In the dispensing system according to the present disclosure, the mating fasteners may comprise at least one male part protruding on the inside of the holder from the rear portion of the holder toward the front portion of the holder and a corresponding female part arranged in the rear wall of the package. The male part may be a spike, a needle, or similar having a pointed end that may penetrate the rear wall of the package when the package is pressed against the rear portion of the holder. Male parts such as plugs or mushroom-shaped

elements having a stem and an enlarged head portion are also conceivable. The female part in the package may be a prefabricated hole or a weakening in the wall material such as a cut, a perforation or a thinned portion of the wall that will facilitate penetration of the package wall by the male fastener part on the holder. A prefabricated female part may be preferred for ascertaining correct positioning of the package in the holder.

[0025] When using mating fasteners including a male part and a female part, the fasteners may be configured to form a dust-tight seal between the male part and the female part. This may be accomplished, for instance, by making the female part in the package in the form of a precut opening comprising cuts radiating out from the centre of the opening and forming petals that will close the opening around the male part once the male part has been pressed through the opening. Another way of obtaining a seal between the male part and the female part is by arranging a flexibly expandable cap on the male part. When the male part is inserted through the wall in the package, the flexible cap will expand and cover the hole in the package wall. By choosing liquid impermeable materials for the package and the sealing portions of the mating fasteners, the seal between the mating fasteners may be made not only dust-tight but also liquid tight or at least resistant to liquid penetration. This may be an advantage if the dispensing system of the present disclosure is being used in a wet environment such as a kitchen or a bathroom where it may be exposed to inadvertent wetting.

[0026] It may further be preferred to arrange at least two spaced-apart mating fasteners on holder and two corresponding fasteners on the package. Three or more fasteners as well as adhesive or hook-and-loop fasteners being applied in the shape of one or more bands or mating fastening areas on the package and the holder are also contemplated within the scope of the present disclosure. The mating fasteners may be adhesive or hook-and-loop fasteners. When adhesive fasteners are being used, the adhesive part will generally be on the package and the receiving surface for the adhesive will be on the holder. When hook-and-loop fasteners are used it will generally be preferred that the loop material such as nonwoven is arranged on the package and the hook material on holder.

[0027] When loading the package into the holder, the package is inserted into the holder perpendicular or generally perpendicular to the rear part of the holder, whereby the mating fasteners are pressed together, without the need for extensive manipulation or sideways sliding of the package in order to fasten the package in the holder.

[0028] The holder may comprise a bent metal wire. The metal wire is preferably coated with a plastic or rubber coating. Apart from providing the holder with a tactilely and visually pleasing finish, a plastic or rubber coating may also be used to increase friction between the holder and the package. The metal wire may form the complete holder including the rear portion, the front portion and connecting side portions. The holder may alternatively be made from plastic material, for instance by moulding or from metal or combinations of plastic and metal such as a plastic frame comprising spring wire. The holder of the present disclosure is lightweight and takes up a minimum of space. It can be easily manufactured by conventional methods and at a low cost.

[0029] In a dispensing system according to the present disclosure the first and second parts of the front portion of the holder are inwardly inclined along the gap between the first and second parts. The inwardly inclined first and second parts of the front portion of the holder may be arranged to exert pressure on the front wall of the package when the package is inserted in the holder and the holder is in the holding position. In this manner the friction between the package and the holder is increased, as well as the clamping function of the holder.

[0030] In order to increase the frictional forces between the holder and the package, a friction material may be applied to a surface of the holder. The friction material may be applied as a coating on a holder frame such as a wire frame or may be one or more separate elements fastened to the holder, such as friction tape, protrusions, hook material, rubber sleeves, etc.

[0031] In the dispensing system according to the present disclosure, the first and second parts of the front portion of the holder may have edge parts extending along the gap between the first and second parts, wherein the edge parts comprise abutment means arranged to contact the front wall of the package when the package is inserted in the holder and the holder is in the holding position.

[0032] The abutment means may be a ridge extending along each the edge part. The ridge may be formed integrally with the holder or may be a separate element that is attached to a holder frame. By way of example, an integral ridge may be formed in a molding process, at the same time as forming the rest of the holder, while a ridge formed by a separate element may be attached to a preformed holder frame, such as a holder frame made from a bent metal wire or a bent metal plate.

DEFINITIONS

[0033] When referring to the holder material being resilient or flexibly resilient it is implied that the holder parts can be moved by hand at least from the holding position to the loading position and that the holder parts will spring back at least to the holding position when they are released after a package has been inserted between the holder parts. The holder may have a rest position when no package is in the holder. The rest position may be different from the holding position. The holding position may differ for the same holder depending on the size and shape of the package and the holding position may change when the holder is used for holding a flexible package as the package collapses during emptying.

[0034] The inside of a holder in accordance with the present disclosure is the side of the holder that will be facing the package when the package is inserted into the holder and the outside of the holder is the side of the holder that is facing away from the package when the package is inserted into the holder.

[0035] A holder frame as used herein is a holder blank to which fastening elements, coatings, etc. may be added.

[0036] The wipes may be any kind of wet or dry wipe such as household paper, napkins, disposable handkerchiefs, facial tissue, industrial wipes, toilet paper, etc. The material may be a fibrous material of any suitable kind such as cellulose based paper material, with or without admixture of man-made fibres, binders and fillers. The wipes may comprise only man-made fibres. However, it is usually desired that a wipe has some degree of absorbency or that it at least is wettable. If the fibrous material contains a large proportion of fibres of a hydrophobic character implying that the fibres are non-wettable by aqueous fluids, it may be suitable for wiping oily or greasy surfaces. A hydrophobic material may be treated with a wetting agent in order to make it more hydrophilic. The wipes may have any suitable shape and/or size and may be

embossed, perforated, printed and dyed if desired. The wipes may be single-ply sheets of material or may comprise two or more plies of the same or different materials. The wipes may contain additives such as lotions, perfumes, detergents, liquids, etc. as known in the art. Furthermore, the wipes may be in the form of a stack or a roll and may be discrete sheets of wiping material or a continuous web from which individual wipes may be separated. A stack of wipes may consist of discrete sheets or of a continuous folded web, such as a zigzag folded web. Discrete sheets of wiping material may be interlinked to form a continuous chain of wipes being held together by frictional forces. Such interlinked sheets are available in roll form or as a stack of interfolded sheets.

[0037] As used herein, interfolded wipes are sheets of material arranged in a stack of superposed sheets. The interfolded wipes are folded at least once in a first direction which is the interfolding direction to provide each wipe at least with a leading panel and a trailing panel. When more complicated folding arrangements are used, the leading and trailing panels may be separated by one or more intermediate panels. In a simple folding arrangement, the leading panel and the trailing panel will be contiguous with the trailing panel following directly after the leading panel. In the stack, the wipes are arranged as a linked chain where each trailing panel of each napkin is connected by interfolding to the leading panel of the next napkin in the stack. The only exceptions from this arrangement are found at the first and last wipe in the chain, the first wipe being positioned at the top of the stack and having a free leading panel and the last wipe being at the bottom of the stack and being placed in the package with the trailing panel on the rear wall of the package. The wipes are interlinked by means of each trailing panel being at least partly overlapped with the leading panel of the subsequent wipe in the stack. In this manner, the individual sheets are held loosely together by means of frictional forces arising between the overlapping parts. The wipes may be single ply or multi ply wipes and may be folded one or more times in a second direction perpendicular to the first, interfolding direction.

BRIEF DESCRIPTION OF THE DRAWINGS

[0038] The present disclosure will be described in greater detail below with reference to the figures shown in the appended drawings.

[0039] FIG. **1** shows a holder of the present disclosure in a rest position;

[0040] FIG. **2** shows the holder in FIG. **1** in a loading position;

[0041] FIG. **3** shows a package in the form of a rigid box for insertion into the holder of FIGS. **1** and **2**;

[0042] FIG. **4** shows the package in FIG. **3** inserted into the holder in FIGS. **1** and **2**;

[0043] FIG. **5** shows a holder of the present disclosure in a rest position;

[0044] FIG. **6** shows a full package in the form of a soft wrapper inserted into the holder in FIG. **5** and placed on a vertical surface;

[0045] FIG. **7** shows the holder and package of FIG. **6** with the package in a partly emptied state;

[0046] FIG. **8** shows a full package in the form of a soft wrapper inserted into the holder in FIG. **5** and placed on a horizontal surface;

[0047] FIG. **9** shows a holder of the present disclosure in the holding position;

[0048] FIG. **10** shows a side view of a holder and rigid package of the present disclosure;

[0049] FIG. **11** shows a side view of a holder and soft package of the present disclosure;

[0050] FIGS. **12** *a-e* show different configurations of the front portion of a holder according to the present disclosure; and

[0051] FIGS. **13** *a-d* show different configurations for male fasteners; and

[0052] FIGS. **14***a-c* show different configurations for female fasteners.

DETAILED DESCRIPTION OF EMBODIMENTS

[0053] With reference to FIGS. **1** and **2**, the holder **1** shown in the Figs. comprises a holder frame **2**, which is made from a bent, flexible metal wire. The flexible metal wire preferably has a sleeve or outer coating made from a plastic or rubber material.

[0054] The holder has a front portion **3**, a rear portion **4** and side portions **5** connecting said front and rear portions **3**,**4** in a height direction, H of the holder **1**. The front portion **3** of the holder **1** consists of first and second holder parts **6**,**7** extending in a length direction, L, of the holder **1** and being spaced apart in a width direction, W, of the holder **1** with a gap, G, extending generally in the length direction, L, between the holder parts **6**,**7**.

[0055] The rear portion **4** is formed by two segments **8** of the holder frame that extend generally in the width direction, W, at a distance from each other in the length direction, L.

[0056] As used herein, an element that extends generally in a particular direction may deviate somewhat from a completely straight line within at least a portion of the element or may be inclined by up to 40° from the general direction within all or a portion of the element. This is illustrated in the holder in FIG. **1** by the first and second holder parts **6**,**7** that have slightly curved shape with front edge segments **9** extending generally in the length direction, L, and defining the width of the gap, G, and end edge segments **10** extending generally in the width direction, W, and being contiguous with the side portions **5** of the holder **1**.

[0057] The holder, **1** further comprises attachment means **11** for attaching the holder **1** to a surface such as a work bench, a wall, etc. The attachment means **11** are provided on the outside of the rear portion **4** of the holder **1** and are shown in the form of four suction cups. Other types of attachment means may be used within the scope of the present disclosure, as set out herein. Two attachment means **11** are shown on each segment **8** of the rear portion **4** of the holder **1**. The number of attachment means may be fewer or more than those shown in the Figures.

[0058] Four male parts **15***a* of mating fastener means are arranged on the inside of the rear portion **4** and protrude from the rear portion **4** of the holder **1** toward the front portion of the holder **1**. In FIGS. **1** and **2**, the fasteners are shown as spikes, having pointed ends designed to be inserted in prefabricated openings in a packaging wall or to create openings in the packaging wall when a package is placed in the holder. However, other types or configurations of fasteners may be used for the holder in FIGS. **1** and **2**, as disclosed herein.

[0059] The holder **1** in FIG. **1** is shown in a rest position which means that no package is inserted in the holder and no forces except gravity act on the holder. For the holder shown

in Figs. **1** and **2** the rest position is the same as the holding position, at least when the holder **1** is used for holding a rigid package.

[0060] When loading a package **20** such as shown in FIG. **3** into the holder **1**, the holder parts **6**,**7** are manually moved apart to the loading position shown in FIG. **2**. so that the package **20** can be inserted into the holder through the widened gap, G, between the holder parts **6**,**7**. When the holder parts are released by the person loading the package into the holder, the resiliency in the holder parts **6**,**7** will cause the holder parts **6**,**7** to spring back to the holding position as is shown in FIG. **4**.

[0061] The package **20** that is shown in FIGS. **3** and **4** has rectangular parallelepiped shape with a front wall **21** having a dispensing opening **22**, a rear wall **23** opposite the front wall **21**, two opposing side walls **24** and two opposing end walls **26**. The side walls **24** and the end walls **26** connect the front and rear walls **21**,**23** with each other to form the package **3**. The front and rear walls **21**,**23** have a length, I, in a direction parallel with the side walls **24** and a width, w, in a direction perpendicular to the side walls **24**. The package **20** in FIG. **3** is made of a relatively rigid material such as cardboard or plastic. Accordingly, the package **20** is intended to maintain its parallelepiped shape throughout its useful life.

[0062] In FIG. **3** the package **20** is shown with the dispensing opening **22** covered by packaging material. The contour of the opening **22** is marked by a perforation **28** in the front wall **21** of the package **20**. When the package is to be made ready for dispensing of the wipes **30** that are contained in the package **20** the opening is uncovered by tearing away the packaging material inside the perforation **28** allowing a wipe **30** to be pulled out through the opening as is shown in FIG. **4**. Other means of protecting the wipes before dispensing may be employed such as a removable protective wrapping enclosing the whole package or a protective tape that is removed to expose the opening. Furthermore the package of the present disclosure does not have to have a dispensing opening that is covered before use of the wipes in the package.

[0063] The package is further provided with four female parts **15***b* of a mating fastener element. The female parts **15***b* of the fastener are arranged in the rear wall of the package **20** in locations corresponding to the locations of the male fastener parts **15***a* on the holder **1**. The female fastener parts **15***b* are shown in FIG. **3** in the form of X-shaped cuts that will allow the male fastener parts **15***a* to penetrate the package wall **23**. Other kinds of female fastener parts such as precut openings, etc. are also conceivable within the scope of the present disclosure, as disclosed herein.

[0064] In order to be able to insert the package **20** into the holder, the first and second parts of the front portion of the holder **1** are resiliently movable to a loading position wherein the gap, G, is greater than the width, w, of the front and rear walls **21**,**23**, i.e. greater than the width, w, of the package **20**. In cases where the front and rear walls of the package have different widths or the with of the package is greater in a location between the front and rear walls, the expanded gap needs to be greater than the largest width of the package in order to allow the package to be inserted between the first and second holder parts.

[0065] After the package **20** has been inserted into the holder **1** and the holder parts **6**,**7** have been allowed to return to the holding position, the gap, G, between the holder parts **6**,**7** is smaller than the width of the front wall **21** of the package **20** in order for the package to be securely held inside the holder **1**.

[0066] The package **20** is inserted between the holder parts **6**,**7**, by moving the package generally perpendicular to the rear portion **4** of the holder **1** and pressing the rear wall **23** of the package **20** against the rear portion **4** of the holder **1** until the rear wall **23** of the package **20** is in direct contact with the rear portion **4** of the holder **1**. Insertion of the package in the holder **1** in this manner will automatically result in the mating fastener means **15***a*, **15***b* on the holder **1** and the package **20** engaging with each other so that the package becomes fastened inside the holder **1** and is prevented from sliding sideways in the length direction, L, of the holder.

[0067] When the package **20** is fully inserted in the holder **1** and the holder parts **6**,**7** have returned to the holding position, the dispensing opening **22** is at least partially in register with the gap, G, between the holder parts **6**, **7**, so that a wipe **30** may be pulled out through the dispensing opening **22** in the gap, G.

[0068] As the holder has an extension in the length direction, L, that is smaller than the length, t, of the package **20** and the holder **1** has open ends **31**, **32**, end portions **33**,**34** of the package **20** protrude beyond the ends **31**,**32** of the holder **1** when the package **20** is inserted in the holder **1**, as is shown in FIG. **4**. By providing the holder **1** with open ends **31**,**32**, the holder **1** may be used with packages **20** of different lengths.

[0069] FIGS. **5**-**8** show a dispensing system comprising a holder **1** and a package **20** that are slightly different from the holder **1** and package **20** of the dispensing system shown in FIGS. **1**-**4**. However, as the elements of the dispensing components **1**, **20** are the same in both systems, the same reference numbers have been used for the dispensing system in FIGS. **5**-**7**.

[0070] FIG. **5** shows the empty holder **1** in a rest position with the first and second parts **6**,**7** of the front portion **3** of the holder **1** inwardly inclined along the gap, G, between the first and second parts **6**,**7**.

[0071] The inwardly inclined first and second parts of the front portion of the holder are arranged to exert pressure on the front wall **21** of the package **20** when the package **20** is inserted in the holder **1** and the holder **1** is in a holding position, as shown in FIGS. **6**-**8**. The package **20** that is shown in FIGS. **6**-**8** is a soft package made of a flexible wrapper as herein disclosed. FIG. **6** shows the package **20** when it is filled with wipes **30** and placed in the holder **1** with the male parts **15***a* of the mating fastener engaged with corresponding female parts (not shown) in the rear wall **23** of the package **20**.

[0072] When filled with wipes **30**, the package **20** has a generally rectangular parallelepiped shape. However, when the package **20** is inserted into the holder **1**, the first and second parts **6**,**7** of the front portion **3** of the holder **1** are raised to a holding position where they lie generally in the same plane as the front wall **21** of the full package **20**. As an effect of the holder **1** striving to return to the rest position shown in FIG. **5**, the first and second parts **6**,**7** of the front portion **3** of the holder are pressing down on the front wall **21** of the package **20**, causing the soft package **20** to be squeezed and slightly deformed by the holder **1**.

[0073] FIG. **7** shows the holder **1** and package **20** in FIG. **6** after most of the wipes **30** have been removed from the package **20** through the dispensing opening **22** in the front wall **21** of the package **20**. The holder **1** has assumed a new holding position with the first and second parts **6**,**7** having

returned to the rest position and the package **20** being collapsed towards the rear portion **4** of the holder **1**. At the same time as the package **20** is successively emptied, the first and second parts **6**,**7** move from the holding position in FIG. **6** to the holding position in FIG. **7**.

[0074] In FIGS. **4**, **6** and **7**, the holder **1** with the package **20** is shown mounted on a vertical surface such as a wall. FIG. **8** shows the holder **1** with the package **20** mounted on a horizontal surface. It is to be understood that the holder/package may be mounted on a surface in other ways than those shown in the Figs. By way of example a wall mounted holder may be arranged such that the dispensing opening extends vertically or at an angle to the vertical direction of the wall.

[0075] Although elongate dispensing openings are usually preferred in packages for stacked wipes such as interfolded wipes, the present disclosure is not limited to packages having such dispensing openings. Accordingly, shapes such as circular, oval, square, triangular, rectangular, etc. may be used without departing from the present disclosure.

[0076] FIG. **9** shows a package **20** which is inserted into a holder **1** that is made from a bent metal plate or molded plastic material. The package may be a rigid package or a soft, flexible package, as disclosed herein.

[0077] FIG. **10** shows a package **20** inserted into a holder **1**, seen from an end **31** of the holder and with an end wall **26** of the package **20** facing the viewer. The holder **1** is provided with attachment means **11** for attaching the holder to a surface. The attachment means are exemplified in FIG. **10** by magnets. FIG. **10** illustrates that the holder **1** may have inclined side portions **5** and that the width of the holder **1** may be greater than the width, w, of the package **20** as long as the gap, G, between the first and second parts **6**,**7** of the front portion **3** of the holder **1** is smaller than the width of the package **20** when the holder is in a holding position.

[0078] The holder in FIG. **10** is further shown to have inwardly inclined first and second parts **6**,**7** of the front portion **3** and having friction means **35** arranged at the inner edges, of the first and second parts **6**,**7**. The inner edges of the first and second parts **6**,**7** are the edges extending along the gap, G. The friction means may be an added friction material such as rubber, friction adhesive nonwoven, etc. or may be a surface on the holder frame that has been modified to increase friction, for instance by roughening the surface.

[0079] FIG. **11** is a similar view to that in FIG. **10** and shows a holder **1**, having abutment means **36** in the form of raised ridges arranged at the inner edges of the first and second parts **6**,**7** of the front portion **3**. Such raised ridges may be formed by an added material or may be an integrally formed part of the holder **1**. The abutment means **36** need not be a continuous ridge, but may be in the form of one or more discrete protrusions at the inner edges of the first and second parts **6**,**7** of the front portion **2** of the holder **1**. The abutment means **36** may have friction enhancing properties.

[0080] FIG. **11** further illustrates that the mating fasteners of the dispensing system according to the present disclosure may be different from those shown in FIGS. **1**-**8**. In the holder **1** in FIG. **11**, the mating fastener is a hook-and-loop fastener with a male part **15***a* in the form of a hook material arranged on the rear portion **4** of the holder **1** and a female part **15***b* in the form of loop material, such as nonwoven, arranged on the rear wall **23** of the package **20**.

[0081] FIGS. **12***a*-**12***e* show different holder/package configurations and are intended to illustrate that the shape of the front portion **3** of the holder **1** as well as the shape of the dispensing opening **22** and the package **20** may be varied within the scope of the present disclosure.

[0082] FIGS. **13***a*-**13***d* show different configurations for male parts **15***a* of a mating fastener and FIGS. **14***a*-**14***b* show different configurations for female parts **15***b* of a mating fastener.

[0083] FIG. **13***a* shows a mushroom-shaped male part **15***a* with a stem **41** and an enlarged head portion **42**. When the mushroom-shaped male part **15***a* is inserted into a female part **15***b* such as those shown in FIGS. **14***a*-c, the enlarged head portion will temporarily widen the opening in the female fastener part **15***b* as it passes through the package wall but will then act as a retaining means once the head portion **42** is inside of the package wall **23**.

[0084] The male part **15***a* that is shown in FIG. **13***b* has the shape of a plug with retaining ridges **43**. The male part **15***a* in FIG. **13***c* has a rigid inner spike **44** and an outer flexible shroud **45** that can fall back on the inside of the package wall **23** and aid in creating a dust-tight seal around the male part **15***a*. FIG. **13***d* illustrates that the male fastener part **15***a* may have a sharp pointed end. If the male part **15***a* in FIG. **13***d* is made in a hard material such as metal, it may be used to create the female fastener part **15***b* in the package wall **23**.

[0085] The male parts may be made from metal, plastic, rubber or combinations of such materials. By way of example, the male part may have an inner metal core and an outer plastic or rubber coating. At least a part of the male part needs to have sufficient rigidity to allow the male fastener part to be inserted in a corresponding female fastener part.

[0086] The female part **15***b* that is shown in FIG. **14***a* is made up of crossing slits **46** forming flaps **47** between them. When a male part **15***a* is inserted into the female part **15***b*, the flaps **47** will bend out of the plane of the package wall **23** and allow the male part **15***a* to be inserted through the wall **23**. The flaps **47** will then fall back into a sealing position against the male part **15***a*. FIG. **14***b* shows a female part **15***b* comprising an opening **48** and peripheral slits **46** radiating from the opening. FIG. **14***c* shows a female part **15***b* comprising a central opening **48** and a peripheral weakened area **49** surrounding the opening **48**.

1. A dispensing system comprising:

a holder and a package of wipes,

said holder being adapted to hold said package and comprising a device adapted to attach said holder to a surface, and said holder having a front portion, a rear portion and side portions connecting said front and rear portions; and

said package having a front wall with a dispensing opening, a rear wall opposite said front wall, two opposing side walls and two opposing end walls, said side walls and said end walls connecting said front and rear walls, said front and rear walls having a length in a direction parallel with said side walls and a width in a direction perpendicular to said side walls, wherein

said front portion of said holder comprises first and second holder parts extending in a length direction of said holder and being spaced apart in a width direction of said holder with a gap between said holder parts, said holder parts being resiliently movable between a holding position and a loading position, wherein said gap is greater when said holder is in said loading position than when said holder is in said holding position,

said rear wall of said package and said rear portion of said holder comprise mating fasteners adapted to attach said

package to said holder when said package is inserted in said holder between said holder parts and is arranged with said rear wall of said package in direct contact with said rear portion of said holder, and

said dispensing opening is at least partially in register with said gap when said package is inserted in said holder with said holder parts in said holding position.

2. A dispensing system according to claim **1**, wherein said holder has an extension in said length direction that is smaller than said length of said package, said holder has open ends, and wherein end portions of said package protrude beyond said open ends of said holder when said package is inserted in said holder.

3. A dispensing system according to claim **1**, wherein said package has a generally rectangular parallelepiped shape at least when in a fully loaded state.

4. A dispensing system according to claim **1**, wherein said package is a cardboard box.

5. A dispensing system according to claim **1**, wherein said package is made from a flexible plastic film.

6. A dispensing system according to claim **1**, wherein said holder has a non-loaded rest position, and the gap between said first and second parts of said holder is smaller in said rest position than in said holding position, said first and second parts of said holder being resiliently movable between said rest position and said loading position.

7. A dispensing system according to claim **1**, wherein said mating fasteners comprise at least one male part protruding from said rear portion of said holder toward said front portion of said holder and a corresponding female part arranged in said rear wall of said package.

8. A dispensing system according to claim **7**, wherein said mating fasteners are configured to form a dust-tight seal between said male part and said female part.

9. A dispensing system according to claim **1**, wherein said holder comprises a bent metal wire.

10. A dispensing system according to claim **1**, wherein said first and second parts of said front portion of said holder are inwardly inclined along said gap between said first and second parts.

11. A dispensing system according to claim **10**, wherein said inwardly inclined first and second parts of said front portion of said holder are arranged to exert pressure on said front wall of said package when said package is inserted in said holder and said holder is in said holding position.

12. A dispensing system according to claim **1**, wherein a friction material is applied to a surface of said holder.

13. A dispensing system according to claim **1**, wherein said first and second parts of said front portion of said holder have edge parts extending along said gap between said first and second parts and wherein said edge parts comprise an abutment arranged to contact said front wall of said package when said package is inserted in said holder with said holder in said holding position.

14. A dispensing system according to claim **13**, wherein said abutment means is a ridge extending along each said edge part.

15. A dispensing system according to claim **1**, wherein said wipes are interfolded wipes.

* * * * *