

(19)



(11)

EP 3 668 800 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

07.07.2021 Bulletin 2021/27

(51) Int Cl.:

B65D 75/58 (2006.01) **B65D 33/25** (2006.01)
B65D 1/32 (2006.01) **B65D 77/28** (2006.01)

(21) Application number: **18796150.3**

(86) International application number:

PCT/US2018/052101

(22) Date of filing: **21.09.2018**

(87) International publication number:

WO 2019/060648 (28.03.2019 Gazette 2019/13)

(54) **SELF-SEALING DOSEPACK**

SELBSTDICHTENDE DOSIERPACKUNG

EMBALLAGE DE DOSES AUTO-SCCELLANT

(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**

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(30) Priority: **25.09.2017 US 201762562688 P**

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(43) Date of publication of application:

24.06.2020 Bulletin 2020/26

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(56) References cited:

EP-A1- 1 832 522 WO-A1-98/01361

WO-A1-2014/012204 CH-A5- 682 741

US-B1- 8 381 948

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Description

BACKGROUND

[0001] A dose pack typically includes a bendable and/or deformable plastic body that defines an internal volume. A fluid may be disposed within the internal volume. A cap may be coupled to the body to seal the fluid therein, and the cap may be moved or removed to allow the fluid to be squeezed or poured out of the body. The cap, however, is typically made of a hard plastic that is expensive and not environmentally-friendly (i.e., does not degrade quickly). Some packs do not include a cap and instead include a portion (e.g., a corner) that is designed to be torn to open the pack. Such packs, however, are intended to have all of the fluid used at once or used as a refill for bottles, as the fluid may leak or be accidentally spilled after a first use due to the lack of a cap. It would therefore be desirable to have an improved dose pack that does not include a cap but is resistant to leaks and spills.

BRIEF SUMMARY

[0002] The present invention provides a dose pack including the features of claim 1. The dose pack includes a front panel and a back panel that define an internal volume therebetween. A portion of the front panel, the back panel, or both is configured to be torn, perforated, or cut to open the dose pack. A first guide is positioned in the internal volume. The first guide is coupled to or integral with a first edge of the dose pack and extends toward a second, opposing edge of the dose pack. The first guide is formed using an adhesive, heat sealing, or sonic welding. A second guide is positioned within the internal volume. The second guide is coupled to or integral with the second edge and extends toward the first edge. A third guide is positioned within the internal volume. The third guide is coupled to or integral with a third edge of the dose pack. The third guide is substantially perpendicular to the first and second guides. The first, second, and third guides define a tortuous path of fluid communication through which a fluid is configured to flow, after the dose pack has been opened, in response to the dose pack being exposed to a predetermined force.

[0003] In a comparative example, a dose pack includes a front panel and a back panel that define an internal volume therebetween. A portion of the front panel, the back panel, or both is configured to be torn, perforated, or cut to form an opening in the dose pack. First and second guides are positioned within the internal volume. The first and second guides are offset with respect to one another. The first and second guides define a tortuous path of fluid communication through which a fluid is configured to flow after the dose pack has been opened in response to the dose pack being exposed to a predetermined force. The path of fluid communication is not defined by one or more edges of the dose pack.

[0004] In another comparative example, a dose pack includes a front panel and a back panel that define an internal volume therebetween. An opening is formed through an upper edge of the dose pack. A width of the opening is from about 5% to about 50% of a width of a lower edge of the dose pack. A first side edge of the dose pack is substantially perpendicular to the upper edge. At least a portion of a second, opposing side edge of the dose pack is oriented at an angle from about 20° to about 90° with respect to the first side edge, and wherein the opening is sealed using a snap-lock feature or a sliding mechanism.

[0005] Further areas of applicability of the present invention will become apparent from the detailed description provided hereinafter. It should be understood that the detailed description and specific examples, while indicating the preferred embodiment of the invention, are intended for purposes of illustration only and are not intended to limit the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The present invention will become more fully understood from the detailed description and the accompanying drawing, wherein:

Figure 1 depicts a front view of a dose pack, according to a comparative example.

Figure 2 depicts a perspective view of another example of a dose pack.

Figure 3 depicts a front view of another example of the dose pack of Figure 2 with an additional guide.

Figure 4 depicts a front view of the dose pack of Figure 3 with an additional guide, according to an embodiment of the present invention.

Figure 5 depicts a front view of a dose pack, according to another comparative example.

Figure 6 depicts a front view of a dose pack, according to yet another comparative example.

Figure 7 depicts a front view of a dose pack, according to a further comparative example.

Figure 8 depicts a front view of a dose pack, according to another comparative example.

Figure 9 depicts a front view of another example of the dose pack of Figure 8.

DETAILED DESCRIPTION

[0007] The following description of the preferred embodiment(s) is merely exemplary in nature and is in no way intended to limit the invention, its application, or uses.

[0008] As used throughout, ranges are used as shorthand for describing each and every value that is within the range. Any value within the range can be selected as the terminus of the range.

[0009] Figure 1 depicts a perspective view of a dose pack 100, according to a comparative example. The dose

pack 100 may also or instead be referred to as a sachet, a pouch, a bag, or the like. The dose pack 100 may include a body 110. The body 110 may be made of a plastic.

[0010] In one example, the body 110 may include a front panel 112 and a back panel (not shown) that at least partially overlap one another. The front panel 112 and the back panel may be substantially identical. The front panel 112 is transparent in Figure 1 to show an internal volume 120. As shown, the front panel 112 and the back panel are substantially rectangular and include four outer edges 114-117. In other examples, the front panel 112 and the back panel may be other shapes, such as square, circular, ovalar, curvi-linear, etc. The front panel 112 and the back panel may be sealed together along one or more of the edges 114-117, such that the body 110 defines the internal volume 120, which is visible because the front panel 112 is transparent. A consumer product (e.g., a fluid) may be disposed in the internal volume. The fluid may be or include a liquid, a gel, a paste, a powder, or the like. For example, the fluid may be or include a toothpaste, a mouthwash, a food condiment (e.g., ketchup, mustard, mayonnaise, etc.), a pet snack, fabric conditioners, fabric detergents, all-purpose cleaners, hand or dish liquid cleaners, a body wash, a shower gel, a shampoo, a body cream, a lotion, a liquid hand soap, a concentrate, or the like.

[0011] The internal volume 120 may initially be totally sealed (e.g., by the sealed edges 114-117). When the user is ready to use the fluid in the dose pack 100, the user may tear and/or remove a portion of the body 110 to form an opening (i.e., spout) 122 through one of the edges (e.g., edge 114). The internal volume 120 may include a path of fluid communication 124 that extends from a beginning 121 to an end (e.g., the opening) 122. The path of fluid communication 124 may have a length from about 5 mm to about 20 mm, about 10 mm to about 20 mm, or about 15 mm to about 20 mm. In another example, the path of fluid communication 124 may have a length up to two times (2X) or three times (3X) the length of the first edge 114 or the second edge 117. The path of fluid communication 124 may have a width from about 2 mm to about 80 mm, about 4 mm to about 60 mm, or about 6 mm to about 40 mm. The path of fluid communication 124 may include a cross-sectional area that is from about 25 mm² to about 50 mm², about 30 mm² to about 45 mm², or about 35 mm² to about 40 mm². The cross-sectional area may be within this range for the entire length of the path of fluid communication 124. In at least one example, the aforementioned ranges may apply to a dose pack with an internal volume of 400 ml and may be extrapolated for dose packs that are large or smaller in volume.

[0012] In addition, the path of fluid communication 124 may be tortuous. More particularly, the path of fluid communication 124 may include one or more bends or turns (e.g., two are shown: 126, 128). As shown, the first bend 126 may be 90°, and the second bend 128 may be 180°. The second bend 128 may also be viewed as two 90°

bends in close proximity. The bends 126, 128 may be sharp or curved.

[0013] The path of fluid communication 124 may be at least partially defined by one or more guides or barriers (two are shown: 130, 132). As shown, the first guide 130 may be coupled to or integral with the first edge 114 and extend toward the opposing (i.e., third) edge 116. The second guide 132 may be coupled to or integral with the third edge 116 and extend toward the opposing (i.e., first) edge 114. The first and second guides 130, 132 may be offset from one another (e.g., parallel to one another).

[0014] As shown, greater than about 20% (e.g., from about 20% to about 45%) of the total length of the path of fluid communication 124 (e.g., from 121 to 122) may be parallel to and between the guides 130, 132. In other examples, at least a portion of the path of fluid communication 124 may not be parallel to the guides 130, 132. The total length of the path of fluid communication 124 may be greater than a length 136 of one of the guides 130, 132. For example the total length of the path of fluid communication may be from about 101% to about 250% of the length 136 of the first guide 130, the second guide 132, or both. Greater than about 75% (e.g., from about 75% to about 95%) of the length 136 of the guide 132 may overlap with the length of the guide 130.

[0015] In one example, the first and second guides 130, 132 may be made from the same material as the front panel 112 and the back panel. In another example, the first and second guides 130, 132 may be or include an adhesive that causes the front panel 112 and the back panel to adhere together. In yet another example, the first and second guides 130, 132 may be or include heat-sealed striations that channel the fluid. The guides 130, 132 may be formed by heat sealing the front panel 112 and the back panel, which may be formed by a plastic sealing technology or adhesive that seals together to form the guides 130, 132. In yet another example, the first and second guides 130, 132 may be formed by sonic welding.

[0016] Figure 2 depicts a perspective view of another example of a dose pack 200. The dose pack 200 may be similar to the dose pack 100, and discussion of the similar features is omitted. In the dose pack 200, the path of fluid communication 224 may extend from a beginning 221 to an end (e.g., the opening) 222. The path of fluid communication 224 may include one or more bends or turns (e.g., one is shown: 226). As shown, the bend 226 may be a 90° turn. The path of fluid communication 224 may be at least partially defined by one or more guides or barriers (one is shown: 230). As shown, the guide 230 may be coupled to or integral with the edge through which the opening 222 is formed (i.e., the fourth edge 217) and extend toward the opposing (i.e., second) edge 215.

[0017] Figure 3 depicts a perspective view of another example of the dose pack 200 of Figure 2 with an additional guide 232. The second guide 232 may be coupled to or integral with the second edge 215 and extend toward the edge through which the opening 222 is formed (i.e.,

the fourth edge 217). The first and second guides 230, 232 may be parallel to one another. With the addition of the second guide 232, the path of fluid communication 224 may include two bends 226, 228). As shown, the first bend 226 may be 90°, and the second bend 228 may be 180°. The second bend 228 may also be viewed as two 90° bends in close proximity.

[0018] Figure 4 depicts a perspective view of the dose pack 200 of Figure 3 with an additional (e.g., third) guide 234, according to an embodiment of the invention. The third guide 234 may be coupled to or integral with the third edge 216 and extend toward the first edge 214. The third guide 234 may be perpendicular to the first and second guides 230, 232. A distance between the end of the third guide 234 and the second guide 232 may be from about 0.5 mm to about 2 mm, about 1 mm to about 5 mm, or about 2 mm to about 50 mm. Thus, the third guide 234 may at least partially separate the internal volume into first and second portions 220A, 220B. In at least one embodiment, the path of fluid communication 224 may begin at 223 instead of 221.

[0019] Figure 5 depicts a perspective view of a dose pack 500, according to a comparative example. The dose pack 500 may be similar to the dose packs 100, 200, and discussion of the similar features is omitted. The first and fourth edges 514, 517 may include first (e.g., large) recesses 540, 542, respectively, proximate to a corner 544 of the dose pack 500. The first and fourth edges 514, 517 may also include second (e.g., small) recesses 546, 548 that are at least partially within the first recesses 540, 542, respectively. The recesses 540, 542, 546, 548 may facilitate opening the dose pack 500 proximate to the corner 544. For example, a portion of the dose pack 500 may be torn, perforated, and/or cut along/between the recesses 546, 548 to form the opening 522 in the dose pack 500.

[0020] The dose pack 500 may also include one or more guides (two are shown: 530, 532) that at least partially define the path of fluid communication 524 from a beginning 521 to an end (e.g., the opening) 522. The guides 530, 532 may be formed of the same material and/or in the same manner as the guides 130, 132, 230, 232, 234 described above. The guides 530, 532 may also or instead be made from the same material, have an additional/different material adhered to the walls of the front panel 112 and the back panel, or be heat-sealed to create the path of fluid communication 524. In at least one example, a portion of the guides 530, 532 may be torn away when the opening 522 is formed.

[0021] As shown, the guides 530, 532 may be parallel to one another and separate from the sides from the dose pack 500. The guides 530, 532 and the path of fluid communication 524 may include one or more bends or turns (e.g., two are shown: 526, 528). In contrast to the bends 126, 128, 226, 228 in Figures 1-4, the bends 526, 528 in Figure 5 may be or include a curvature, rather than a sharp angle. As shown, the bends 526, 528 may be opposed to one another, forming a substantially curvi-linear

"S-shape".

[0022] Figure 6 depicts a perspective view of a dose pack 600, according to a comparative example. The dose pack 600 may be similar to the dose packs 100, 200, and/or 500, and discussion of the similar features is omitted. The guides 630, 632 and the path of fluid communication 624 may include one or more bends or turns. As shown, the bends may be substantially spiral-shaped and extend through more than 180°, more than 270°, or more than 360°. In addition, the width of the path of fluid communication 624 may vary along the length of the path of fluid communication 624.

[0023] The guides 130, 132, 230, 232, 234, 530, 532, 630, 632 in Figures 1-6 may at least partially define the tortuous paths of fluid communication 124, 224, 524, 624, which may increase the force and/or pressure needed to cause the fluid to flow out of the dose packs 100, 200, 500, 600. As will be appreciated, the force and/or pressure may at least partially depend upon the properties of the fluid (e.g., viscosity). In one example, the viscosity of the fluid may be from about 8.90×10^{-4} Pa*s to about 0.0398 Pa*s or about 0 Pa*s to about 700 Pa*s. As a result, the fluid may not spill or leak out of the dose packs 100, 200, 500, 600, even if the dose packs 100, 200, 500, 600 accidentally tip over, without the application of an external force (e.g., squeezing) by a user that increases the pressure.

[0024] As will be appreciated, the viscosity of the fluid, the lengths of the paths of fluid communication 124, 224, 524, 624 the cross-sectional areas of the paths of fluid communication 124, 224, 524, 624, and the number and/or shape of the bends or turns 126, 128, 226, 228, 526, 528 in the paths of fluid communication 124, 224, 524, 624 may be result-effective variables that affect the amount of force and/or pressure required to cause the fluid to flow out of the dose packs 100, 200, 500, 600.

[0025] Figure 7 depicts a perspective view of a dose pack 700, according to a comparative example. The dose pack 700 may include a body 710. In one example, the body 710 may include a front panel 712 and a back panel (not shown) that at least partially overlap one another. The front panel 712 and the back panel may be substantially identical. The body 710 may also include a base 716 on which the dose pack 700 is designed to sit, such that the dose pack 700 is configured to stand up on the base 716.

[0026] The dose pack 700 may initially be totally sealed. When the user is ready to use the fluid in the dose pack 700, the user may tear and/or remove a portion of the body 710 to form an opening 722. A path of fluid communication 724 may lead to the opening 722. The path of fluid communication 724 may be defined, at least in part, by one or more guides 730, 732. The guides 730, 732 may cause the path of fluid communication 724 to be tortuous (e.g., include one or more bends). Thus, the path of fluid communication 724 may have many of the same properties (e.g., length, cross-sectional width, number and shape of bends) as described above to pre-

vent the fluid inside the dose pack 700 from leaking or spilling without the application of an external force (e.g., squeezing) by a user.

[0027] Figure 8 depicts a perspective view of a dose pack 800, according to a comparative example. The dose pack 800 may include a body 810. The body 810 may be made of a plastic. In one example, the body 810 may include a front panel 812 and a back panel (not shown) that at least partially overlap one another. The front panel 812 and the back panel may be substantially identical.

[0028] The body 810 may include a lower edge 815 and an upper edge 817. As shown, a width 840 of the lower edge 815 may be less than a width 842 of the upper edge 817. For example, the width 842 may be from about 5% to about 50%, from about 5% to about 40%, from about 5% to about 30%, or from about 5% to about 20% of the width 840. Thus, the dose pack 800 may include a nozzle or spout near the upper edge 817 to facilitate pouring. As shown, a first side edge 814 may be substantially perpendicular to the upper edge 817, and a second, opposing side edge 816 may be oriented at an angle α with respect to the upper edge 817 that is from about 10° to about 80°, about 20° to about 70°, or about 30° to about 60°.

[0029] The upper edge 817 may have an opening formed therethrough. As shown in Figure 8, the opening may be sealed by a snap-lock feature. As shown in Figure 9, the opening may be sealed by a slide-lock mechanism (e.g., a zipper) 844.

[0030] In at least one example, a dose pack may include a front panel and a back panel that define an internal volume therebetween. A portion of the front panel, the back panel, or both is configured to be torn, perforated, or cut to open the dose pack. A first guide may be positioned in the internal volume. The first guide is coupled to or integral with a first edge of the dose pack and extends toward a second, opposing edge of the dose pack. A second guide may be positioned within the internal volume. The second guide is coupled to or integral with the second edge and extends toward the first edge. A third guide may be positioned within the internal volume. The third guide is coupled to or integral with a third edge of the dose pack. The third guide is substantially perpendicular to the first and second guides. The first, second, and third guides define a tortuous path of fluid communication through which a fluid is configured to flow, after the dose pack has been opened, in response to the dose pack being exposed to a predetermined force.

[0031] The fluid may include a toothpaste, a mouthwash, a food condiment, a pet snack, a fabric conditioner, a fabric detergent, an all-purpose cleaner, a hand or dish liquid cleaner, a body wash, a body cream, a lotion, a liquid hand soap, or a concentrate. A viscosity of the fluid in the internal volume is from about 0 Pa*s to about 700 Pa*s. The path of fluid communication has a length from about 5 mm to about 3 times a length of the first edge or the second edge. The path of fluid communication has a cross-sectional area from about 2 mm to about 80 mm

throughout the length. The path of fluid communication comprises a bend that is about 90°. The path of fluid communication comprises a bend that is about 180°. The first guide is made of a same material as the front panel and the back panel. The first guide is formed using an adhesive, heat sealing, or sonic welding. The third guide separates the internal volume into two portions. A distance between an end of the third guide and the second guide is from about 0.5 mm to about 50 mm.

[0032] In another example, the dose pack includes a front panel and a back panel that define an internal volume therebetween. A portion of the front panel, the back panel, or both is configured to be torn, perforated, or cut to form an opening in the dose pack. First and second guides are positioned within the internal volume. The first and second guides are offset with respect to one another. The first and second guides define a tortuous path of fluid communication through which a fluid is configured to flow after the dose pack has been opened in response to the dose pack being exposed to a predetermined force. The path of fluid communication is not defined by one or more edges of the dose pack.

[0033] The path of fluid communication includes a curvi-linear bend. The opening is formed proximate to a corner of the dose pack, the corner being at an intersection of two edges of the dose pack. One or both of the two sides comprises a recess. The first guide is shaped to conform to the recess. The path of fluid communication comprises a spiral-shaped bend. A width of the path of fluid communication varies proceeding along a central axis through the path of fluid communication. The first and second guides are configured to be inserted into the internal volume of the dose pack through the opening after the front panel, the back panel, or both is torn to form the opening.

[0034] In yet another example, the dose pack includes a front panel and a back panel that define an internal volume therebetween. An opening is formed through an upper edge of the dose pack. A width of the opening is from about 5% to about 50% of a width of a lower edge of the dose pack. A first side edge of the dose pack is substantially perpendicular to the upper edge. At least a portion of a second, opposing side edge of the dose pack is oriented at an angle from about 20° to about 90° with respect to the first side edge, and wherein the opening is sealed using a snap-lock feature or a sliding mechanism.

Claims

1. A dose pack (200), comprising:

a front panel (112) and a back panel that define an internal volume (120) therebetween, wherein a portion of the front panel (112), the back panel, or both is configured to be torn, perforated, or cut to open the dose pack (200);

- a first guide (230) positioned in the internal volume (120), wherein the first guide (230) is coupled to or integral with a first edge (217) of the dose pack (200) and extends toward a second, opposing edge (215) of the dose pack (200); and a second guide (232) positioned within the internal volume (120), wherein the second guide (232) is coupled to or integral with the second edge (215) and extends toward the first edge (217);
 wherein the first guide (230) is formed using an adhesive, heat sealing, or sonic welding,
characterized in that a third guide (234) is positioned within the internal volume (120), wherein the third guide (234) is coupled to or integral with a third edge (216) of the dose pack (200), wherein the third guide (234) is substantially perpendicular to the first and second guides (230, 232), and wherein the first, second, and third guides (230, 232, 234) define a tortuous path of fluid communication (224) through which a fluid is configured to flow, after the dose pack (200) has been opened, in response to the dose pack (200) being exposed to a predetermined force.
2. The dose pack (200) of claim 1, wherein the fluid comprises a toothpaste, a mouthwash, a food condiment, a pet snack, a fabric conditioner, a fabric detergent, an all-purpose cleaner, a hand or dish liquid cleaner, a body wash, a body cream, a lotion, a liquid hand soap, or a concentrate.
 3. The dose pack (200) of any of the preceding claims, wherein a viscosity of the fluid in the internal volume is from about 0 Pa*s to about 700 Pa*s.
 4. The dose pack (200) of any of the preceding claims, wherein the path of fluid communication (224) has a length from about 5 mm to about 3 times a length of the first edge (217) or the second edge (215).
 5. The dose pack (200) of any of the preceding claims, wherein the path of fluid communication (224) has a cross-sectional area from about 2 mm to about 80 mm throughout the length.
 6. The dose pack (200) of any of the preceding claims, wherein the path of fluid communication (224) comprises a bend that is about 90°.
 7. The dose pack (200) of any of the preceding claims, wherein the path of fluid communication (224) comprises a bend that is about 180°.
 8. The dose pack (200) of any of the preceding claims, wherein the first guide (230) is made of a same material as the front panel (112) and the back panel.

9. The dose pack (200) of any of the preceding claims, wherein the third guide (234) separates the internal volume (120) into two portions.

10. The dose pack (200) of any of the preceding claims, wherein a distance between an end of the third guide (234) and the second guide (232) is from about 0.5 mm to about 50 mm.

Patentansprüche

1. Dosierpackung (200), die umfasst:

ein vordere Platte (112) und eine hintere Platte, die dazwischen ein inneres Volumen (120) definieren, wobei ein Abschnitt der vorderen Platte (112), der hinteren Platte oder beider so konfiguriert ist, dass er zerrissen, perforiert oder geschnitten werden kann, um die Dosierpackung (200) zu öffnen;

eine erste Führung (230), die in dem inneren Volumen (120) positioniert ist, wobei die erste Führung (230) mit einem ersten Rand (217) der Dosierpackung (200) gekoppelt oder einstückig damit ausgebildet ist und sich in Richtung eines zweiten, gegenüberliegenden Rands (215) der Dosierpackung (200) erstreckt; und
 eine zweite Führung (232), die in dem inneren Volumen (120) positioniert ist, wobei die zweite Führung (232) mit dem zweiten Rand (215) gekoppelt oder einstückig damit ausgebildet ist und sich in Richtung des ersten Rands (217) erstreckt;

wobei die erste Führung (230) durch Kleben, Heißversiegeln oder Ultraschallschweißen geformt ist,

dadurch gekennzeichnet, dass eine dritte Führung (234) in dem inneren Volumen (120) positioniert ist, wobei die dritte Führung (234) mit einem dritten Rand (216) der Dosierpackung (200) gekoppelt oder einstückig damit ausgebildet ist, wobei die dritte Führung (234) im Wesentlichen senkrecht zu der ersten und zweiten Führung (230, 232) ist, und wobei die erste, die zweite und die dritte Führung (230, 232, 234) einen gewundenen Fluidverbindungs Pfad (224) definieren, durch den ein Fluid nach dem Öffnen der Dosierpackung (200) in Reaktion darauf, dass die Dosierpackung (200) einer vorbestimmten Kraft ausgesetzt wird, zu fließen vermag.

2. Dosierpackung (200) nach Anspruch 1, wobei das Fluid eine Zahnpasta, ein Mundwasser, ein Lebensmittelgewürz, einen Haustiernack, einen Weichspüler, ein Textilwaschmittel, einen Allzweckreiniger, einen flüssigen Hand- oder Geschirreiniger, ein

Körperwaschmittel, eine Körpercreme, eine Lotion, eine flüssige Handseife oder ein Konzentrat umfasst.

3. Dosierpackung (200) nach einem der vorhergehenden Ansprüche, wobei eine Viskosität des Fluids in dem inneren Volumen etwa 0 Pa*s bis etwa 700 Pa*s beträgt. 5
4. Dosierpackung (200) nach einem der vorangehenden Ansprüche, wobei der Fluidverbindungspfad (224) eine Länge von etwa 5 mm bis zum etwa 3-fachen einer Länge des ersten Rands (217) oder des zweiten Rands (215) aufweist. 10
5. Dosierpackung (200) nach einem der vorhergehenden Ansprüche, wobei der Fluidverbindungspfad (224) über die gesamte Länge eine Querschnittsfläche von etwa 2 mm bis etwa 80 mm aufweist. 15
6. Dosierpackung (200) nach einem der vorhergehenden Ansprüche, wobei der Fluidverbindungspfad (224) eine Biegung von etwa 90° aufweist. 20
7. Dosierpackung (200) nach einem der vorhergehenden Ansprüche, wobei der Fluidverbindungspfad (224) eine Biegung von etwa 180° aufweist. 25
8. Dosierpackung (200) nach einem der vorhergehenden Ansprüche, wobei die erste Führung (230) aus dem gleichen Material besteht wie die vordere Platte (112) und die hintere Platte. 30
9. Dosierpackung (200) nach einem der vorhergehenden Ansprüche, wobei die dritte Führung (234) das innere Volumen (120) in zwei Abschnitte unterteilt. 35
10. Dosierpackung (200) nach einem der vorhergehenden Ansprüche, wobei ein Abstand zwischen einem Ende der dritten Führung (234) und der zweiten Führung (232) von etwa 0,5 mm bis etwa 50 mm beträgt. 40

Revendications

1. Emballage (200) de dose, comprenant : 45
 - un panneau avant (112) et un panneau arrière qui définissent un volume interne (120) entre ceux-ci, dans lequel une partie du panneau avant (112), du panneau arrière, ou des deux est configurée pour être déchirée, perforée, ou découpée pour ouvrir l'emballage (200) de dose ; 50
 - un premier guide (230) positionné dans le volume interne (120), dans lequel le premier guide (230) est couplé ou intégré à un premier bord (217) de l'emballage (200) de dose et s'étend 55

vers un deuxième bord (215) opposé de l'emballage (200) de dose ; et
 un deuxième guide (232) positionné à l'intérieur du volume interne (120), dans lequel le deuxième guide (232) est couplé ou intégré au deuxième bord (215) et s'étend vers le premier bord (217) ;
 dans lequel le premier guide (230) est formé en utilisant un adhésif, un thermoscellage, ou un soudage par ultrasons et vibration,
caractérisé en ce qu'un troisième guide (234) est positionné à l'intérieur du volume interne (120), dans lequel le troisième guide (234) est couplé ou intégré à un troisième bord (216) de l'emballage (200) de dose, dans lequel le troisième guide (234) est sensiblement perpendiculaire aux premier et deuxième guides (230, 232), et dans lequel les premier, deuxième et troisième guides (230, 232, 234) définissent un chemin tortueux de communication de fluide (224) à travers lequel un fluide est configuré pour s'écouler, après que l'emballage (200) de dose a été ouvert, en réponse à l'emballage (200) de dose étant exposé à une force prédéterminée.

2. Emballage (200) de dose selon la revendication 1, dans lequel le fluide comprend un dentifrice, un bain de bouche, un condiment alimentaire, une friandise pour animal de compagnie, un conditionneur pour tissus, un détergent pour tissus, un nettoyeur tous usages, un nettoyeur liquide pour les mains ou la vaisselle, un savon liquide pour le corps, une crème pour le corps, une lotion, un savon liquide pour les mains, ou un concentré.
3. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel une viscosité du fluide dans le volume interne est d'environ 0 Pa*s à environ 700 Pa*s.
4. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel le chemin de communication de fluide (224) a une longueur d'environ 5 mm à environ 3 fois une longueur du premier bord (217) ou du deuxième bord (215). 45
5. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel le chemin de communication de fluide (224) a une taille en coupe transversale d'environ 2 mm à environ 80 mm sur toute la longueur.
6. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel le chemin de communication de fluide (224) comprend un coude qui est environ 90°.

7. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel le chemin de communication de fluide (224) comprend un coude qui est environ 180°.

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8. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel le premier guide (230) est constitué d'un même matériau que le panneau avant (112) et le panneau arrière.

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9. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel le troisième guide (234) sépare le volume interne (120) en deux parties.

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10. Emballage (200) de dose selon l'une quelconque des revendications précédentes, dans lequel une distance entre une extrémité du troisième guide (234) et du deuxième guide (232) est d'environ 0,5 mm à environ 50 mm.

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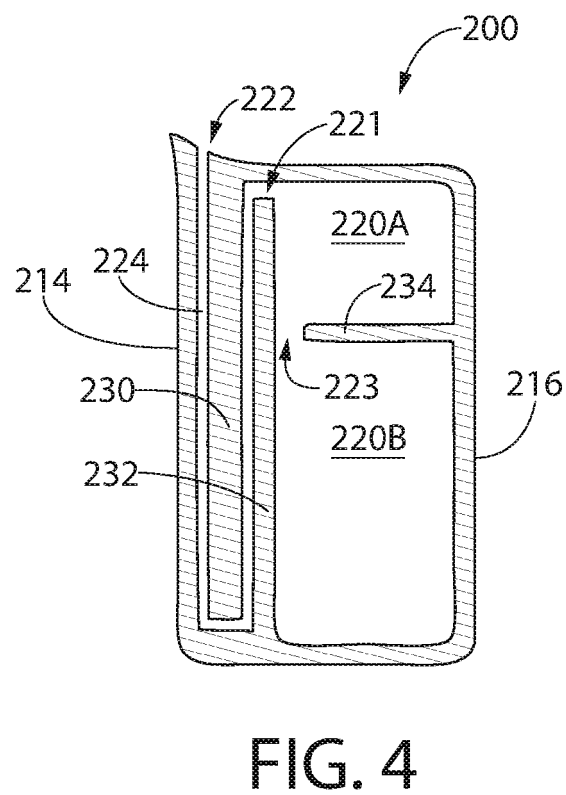
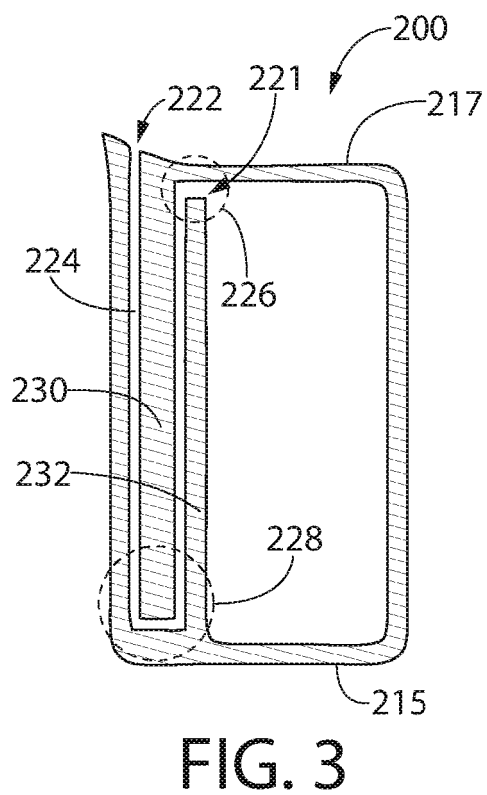
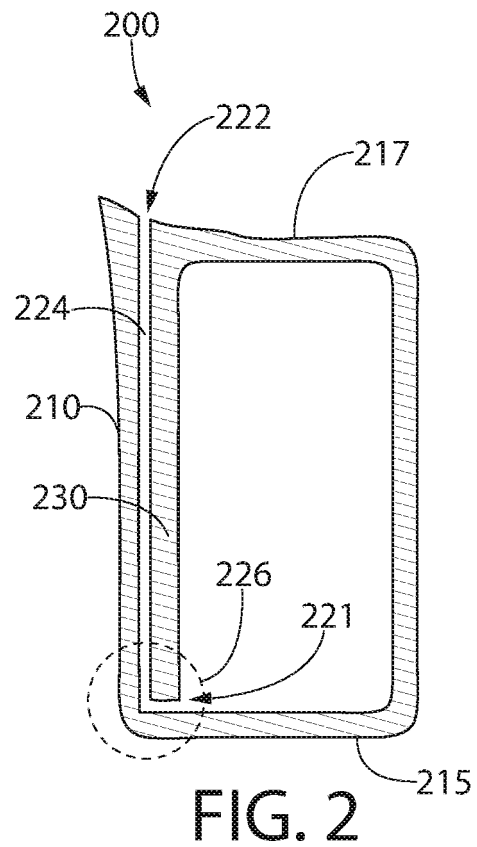
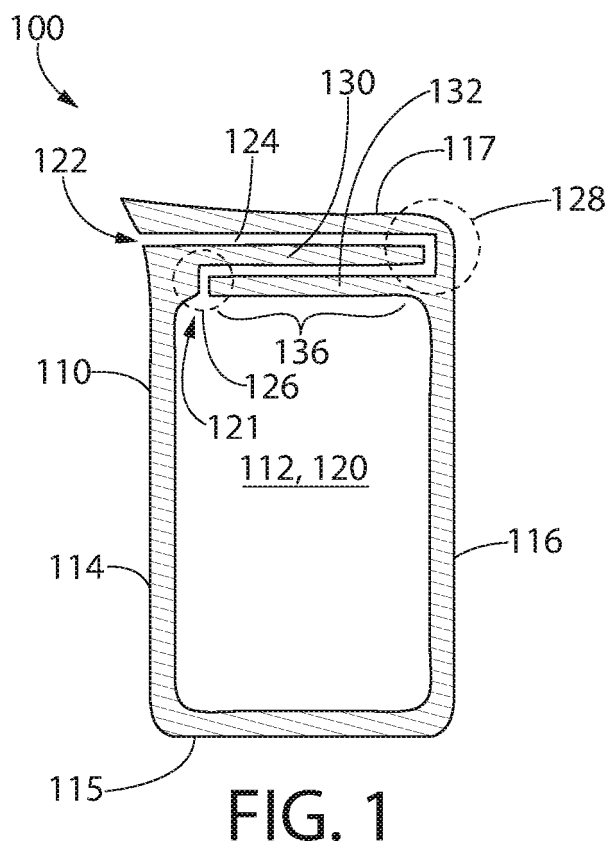
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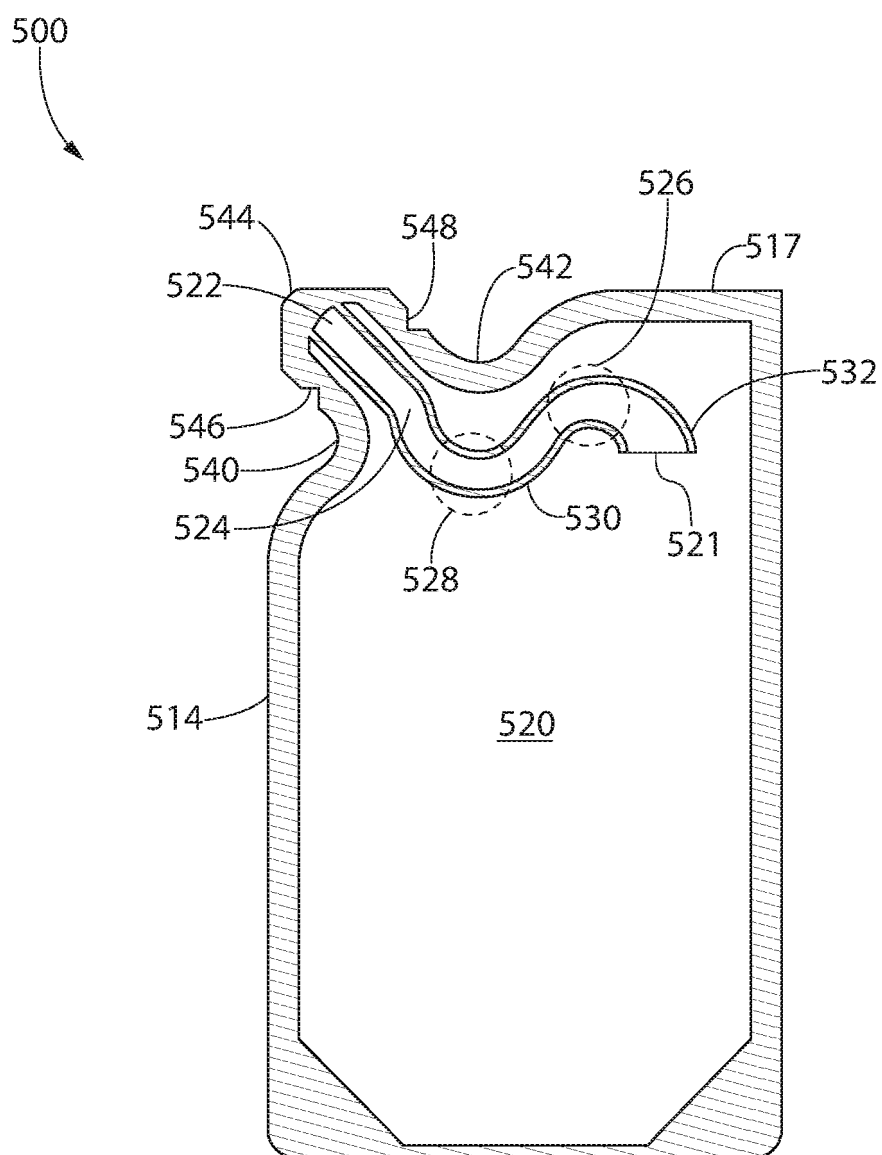


FIG. 5

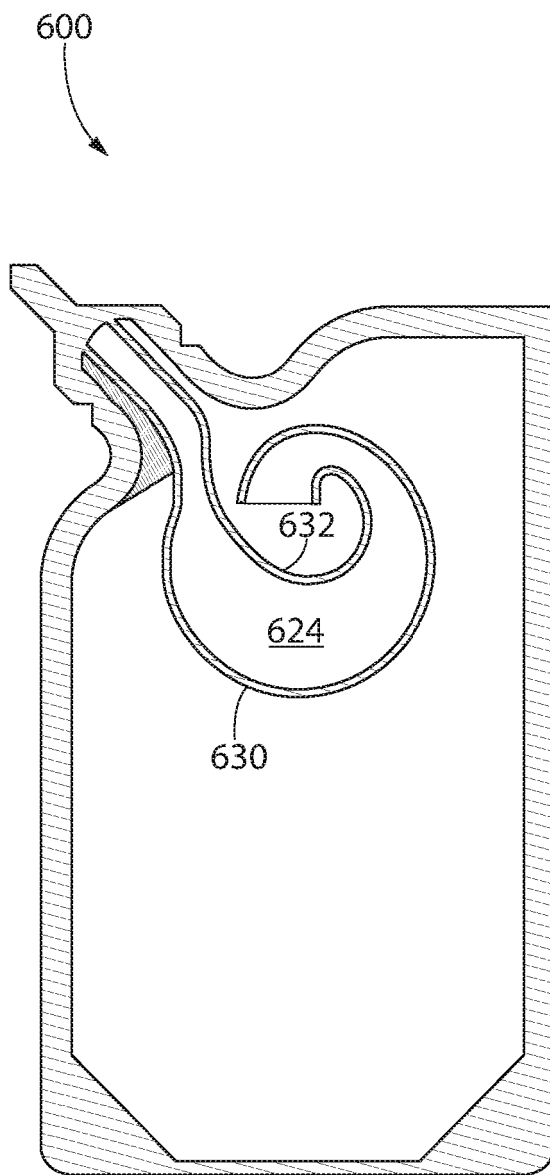


FIG. 6

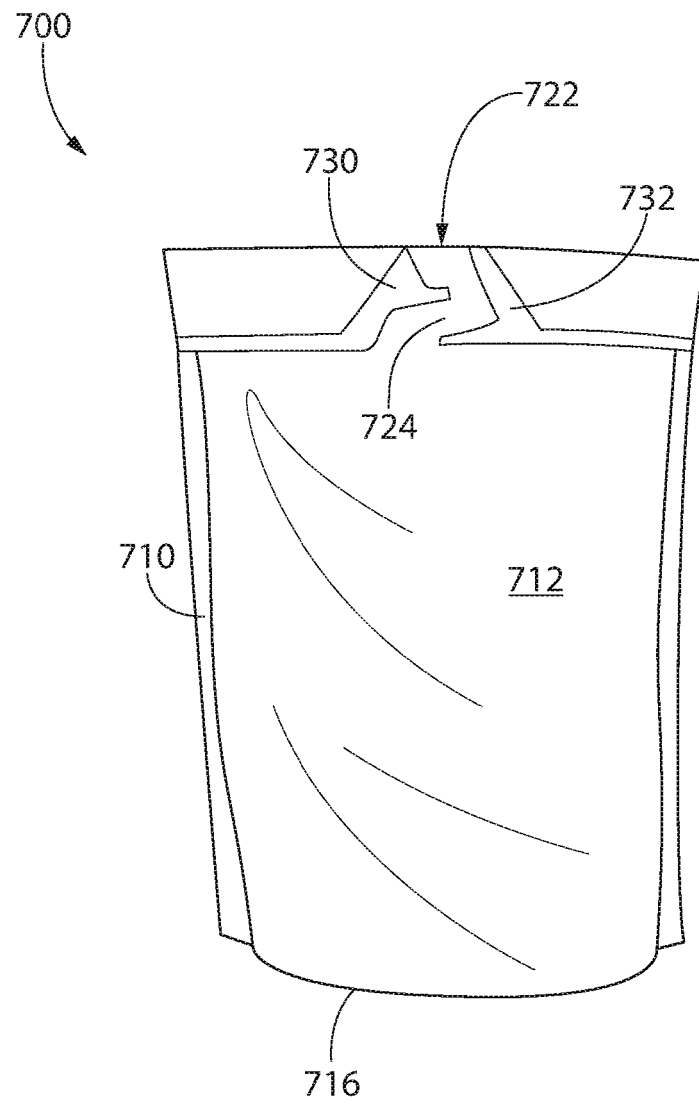


FIG. 7

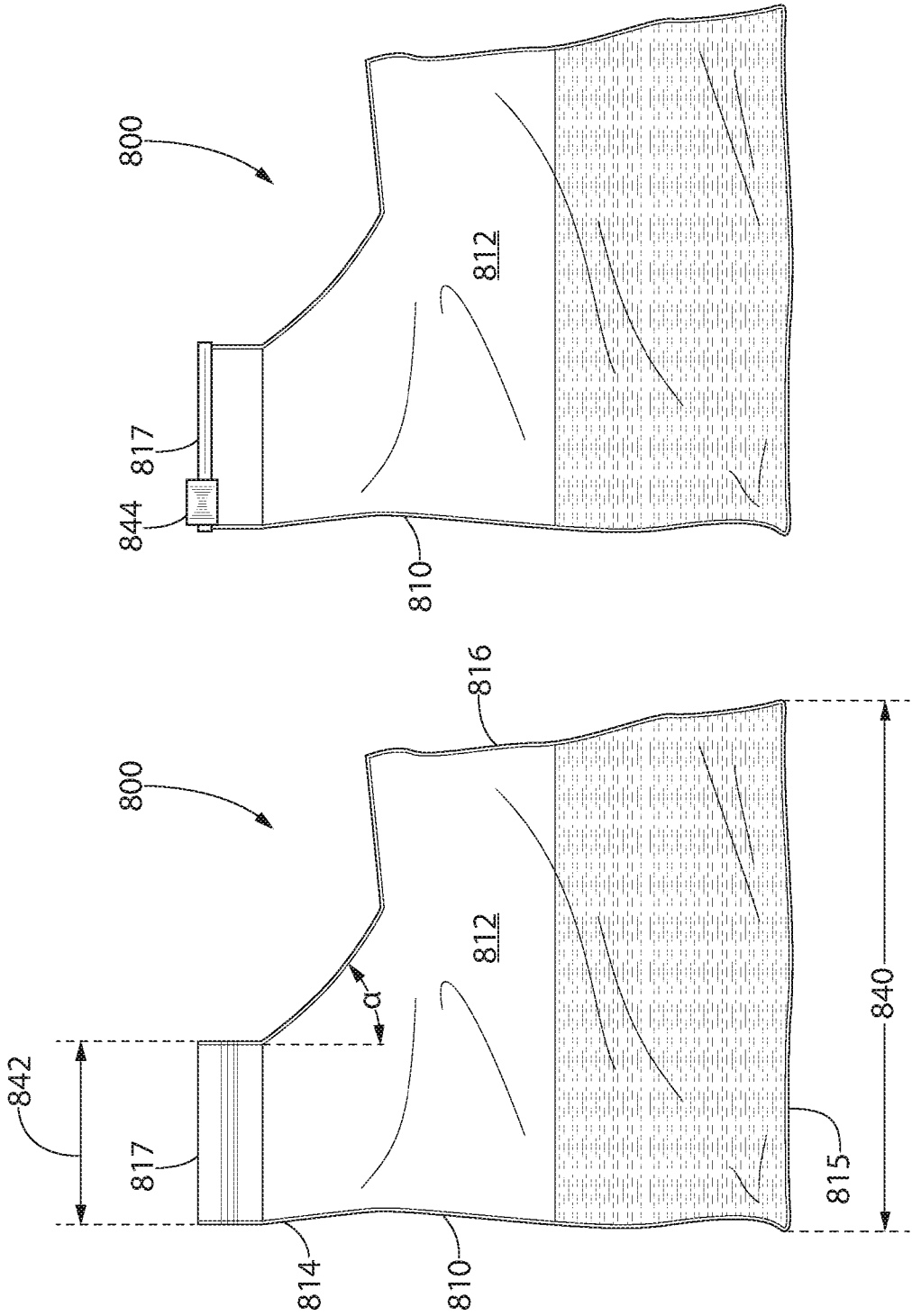


FIG. 9

FIG. 8