

(19)



(11)

EP 3 105 141 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:
05.12.2018 Bulletin 2018/49

(51) Int Cl.:
B65D 75/14 (2006.01) **B65D 75/20** (2006.01)
B65D 85/60 (2006.01) **B65D 75/04** (2006.01)

(21) Application number: **15718639.6**

(86) International application number:
PCT/US2015/015584

(22) Date of filing: **12.02.2015**

(87) International publication number:
WO 2015/123404 (20.08.2015 Gazette 2015/33)

(54) **FLEXIBLE PACKAGE**

FLEXIBLE VERPACKUNG

EMBALLAGE SOUPLE

(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**

(30) Priority: **13.02.2014 US 201461939700 P**

(43) Date of publication of application:
21.12.2016 Bulletin 2016/51

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Description

TECHNICAL FIELD

[0001] This patent document generally relates to product packaging, and more particularly to reclosable flexible product packages configured to store and preserve consumable products.

BACKGROUND

[0002] Known product packages are often expensive to manufacture, requiring costly materials or complicated processes. Moreover, these known product packages often require or utilize bulky and/or inconveniently shaped configurations to protect one or more consumable products. As the consumer typically uses less than all of the products contained in the product packaging at a single time, it is desirable that the package be able to reclose to contain the remaining products therein. In order to maintain the cost effectiveness of this type of packaging, especially where a small number of products are desired to be housed and sold as a unit, the package should be capable of being efficiently and economically manufactured.

[0003] WO2012037473 discloses a package configured to contain a consumable product including a flexible substrate blank having a flap portion, a back portion and a front portion, wherein the flap portion, the back portion and the front portion are contiguously formed portions of the flexible substrate blank. The package further includes a pocket formed by the cooperation of an inner surface of the front portion and an inner surface of the back portion along a first fold line, and a tamper indicator formed by the cooperation of an inner surface of the flap portion and the outer surface of the front portion on the side of the pocket when the flap portion engages the pocket after being folded along a second fold line. The front portion does not define an opening at the top of the pocket, and a pocket is only formed when a part of the front portion is torn away on the first lifting of the flap portion. The package also does not disclose a heat seal for securing the flap portion to the front portion, but instead discloses an adhesive transfer tape on the closure area.

[0004] DE 20 2011 106909 discloses a closure for a film package, wherein a back sheet is longer than a front sheet so that the upper end of the back sheet forms a flap which is folded over the front sheet. The flap is then firmly connected to at least one underlying foil on the left and/or right sides of the film package.

[0005] It would be desirable to provide a product package that addresses the limitations of known product packages and provides additional advantageous features or elements.

SUMMARY

[0006] The disclosed reclosable package addresses

the limitations of the known product packages and advantageously provides mechanisms for usability to facilitate consumer satisfaction. According to an aspect of the invention, there is provided a reclosable package configured to contain a plurality of consumable products as recited in the appended independent claim 1. Further optional features are recited in the appended dependent claims.

[0007] A reclosable package configured to contain a plurality of consumable products includes a flexible film blank having a flap portion, a back portion, and a front portion, wherein the flap portion, the back portion and the front portion are contiguously formed portions of the flexible film blank. The package further includes a pocket formed by the cooperation of an inner surface of the front portion and an inner surface of the back portion along a first fold line, wherein the pocket has an opening at the top of the pocket and the flap portion is secured to the pocket on the outer surface of the front portion after being folded along a second fold line to cover the opening and the flap portion is reclosable over the opening.

[0008] Other embodiments are disclosed, and features of each of the embodiments can be used alone or together in combination. Additional features and advantages of the disclosed embodiments are described in, and will be apparent from, the following Detailed Description and the figures.

BRIEF DESCRIPTION OF THE FIGURES

[0009]

FIG. 1 illustrates a flexible film blank configured according to the disclosure provided herein;
 FIG. 2 illustrates a closed reclosable package;
 FIG. 3 illustrates an open reclosable package;
 FIG. 4 illustrates another embodiment of the invention with a longer tab portion;
 FIG. 5 illustrates a reclosable package with heat seal and pressure sensitive adhesive before a flap portion is secured to a front portion;
 FIG. 6 illustrates the embodiment of FIG. 5 with the flap portion secured to the front portion
 FIG. 7 illustrates the embodiment of FIG. 6 with the flap portion lifted from the front portion;
 FIG. 8 illustrates an outer surface of a flexible film blank; and
 FIG. 9 illustrates the embodiment of FIG. 8 with the inner surface of a flexible film blank.

DETAILED DESCRIPTION

[0010] The disclosed reclosable package advantageously provides mechanisms to facilitate consumer usability. The reclosable package may be folded and secured to provide a pocket to preserve and present consumable products, such as confectionaries, and particularly chewing gum. The disclosed reclosable package

provides a low-cost and compact package for handling, selling and accessing consumable products. Moreover, because the flexible package seals and protects consumable products without the need for additional packaging and wrapping, the disclosed flexible package results in little wasted material, thereby making it environmentally friendly compared to many traditional packages.

[0011] FIG. 1 illustrates a flexible film blank 100. The flexible film blank 100 may be a polypropylene film such as an oriented polypropylene (OPP) material. In another embodiment, the material may be metalized film, or any other suitable material such as paper, foil, and polyethylene terephthalate (PET) film. In an embodiment the flexible film may be a laminate of OPP/paper or OPP/paper/OPP wherein the OPP may be metalized. This type of laminate is beneficial because having a paper layer in the laminate can provide more stiffness so that the package can be more structured and prevent curling of the film and dead folds can be achieved when the film is folded but can protect the product and prevent contamination or alteration of consumable products. Additional layers to the film can include inks, lacquer, varnish, release coating, protective coatings, etc. The flexible film blank 100 may be printed with graphics, logos, health, ingredient and/or regulatory information as well as colors or patterns such as registration marks.

[0012] The flexible film blank 100 includes a flap portion 106 connected to a back portion 110 along a fold line 108. The back portion 110, in turn, connects to a front portion 114 along a fold line 112. The flap portion 106, back portion 110, and front portion 114 are contiguously formed portions of the flexible film blank. The flap portion 106 may also include a tab portion 116 so that a consumer can open the package by grasping the tab 116 and lifting the flap portion 106 away from the outer surface of the front portion 114. The inner surface of the tab portion 116 may not be secured to the outer surface of the front portion 114 but the rest of the flap portion 106 is secured to the outer surface of the front portion 114.

[0013] FIGS. 2 and 3 illustrate a reclosable package 200 in a closed and open position. A pocket 208 is formed by the cooperation of an inner surface of the front portion 114 and an inner surface of the back portion 110 along a first fold line 112. The cooperation of the front portion 114 and the back portion 110 may be at the side edges 210 of the flexible film blank 100. The cooperation of the front portion 114 and the back portion 110 may be through a number of sealing methods such as heat sealing, ultrasonic sealing, or cold seals. Further, the pocket also has an opening 202 starting at the top edge 204 of the front portion 114. The pocket opening 202 may be configured to fully expose the top and a portion of the front of a plurality of consumable products 206. In a further embodiment, the plurality of consumable products 206 may be secured in the pocket 208 with wax or adhesive or via friction.

[0014] The flap portion 106 is secured to the pocket 208 on the outer surface of the front portion 114 after

being folded along a second fold line 108 to cover the opening 202. The flap portion 106 may be secured to the front portion 114 through heat sealing, ultrasonic sealing, cold seals, glue, or other sealing means. The flap portion 106 may be secured near the top edge 204 of the front portion 114 from one side edge 210 to the other side edge 210. In one embodiment, the outer surface of the front portion 114 may have a heat seal. In another embodiment, the inner surface of the flap portion 106 may have a heat seal. The heat seal in both embodiments may be patterned or be fully laid onto the flexible film blank 100.

[0015] Additionally, the flap portion 106 may fully extend longitudinally across the front portion 114. In one embodiment, the flap portion 106 may partially overlap the front portion 114 (as shown in FIG. 2) or can fully cover the front portion and have a tab portion 116 that goes past the first fold line 112 (as shown in FIG. 4) to facilitate even easier grasping of the tab portion 116 for the consumer.

[0016] The flap portion 106 is reclosable over the opening. The reclose can be achieved through a number of methods including pressure sensitive adhesive, wax, tape, glue, sticker, and cold seals. In a preferred embodiment, the reclose may be achieved by either pressure sensitive adhesive or glue. The reclose feature may be on the inner surface of the flap portion 106 that overlaps the outer surface of the front portion 114. In the reverse, the reclose feature may be disposed on the outer surface of the front portion 114.

[0017] FIGS. 5 to 7 illustrate an embodiment of a reclosable package 300 as described above that show the configuration of the flap portion 306 being secured to the front portion 314 with heat seal 302 and pressure sensitive adhesive 304 for the reclose. When forming the reclosable package 300, the pressure sensitive adhesive 304 is placed on the outer surface of the front portion 314. On top of the pressure sensitive adhesive 304 is the heat seal 302. The heat seal 302 may fully enclose the pressure sensitive adhesive 304 underneath it. Then the flap portion 306 is folded over to overlap with the front portion 314 and heat 316 is applied to the outer surface of the flap portion 306 securing the package 300 closed. Once a consumer opens the package 300 for the first time by lifting the flap portion 306 away from the front portion 314, the heat seal 302 sticks to the inner surface of the flap portion 306 and exposes the pressure sensitive adhesive 304 so that the flap portion 306 may be reclosed to the front portion 314. One advantage of initially "hiding" the pressure sensitive adhesive 304 under the heat seal 302 is that when the flexible film blank is unwound from a roll of material and cut to form the blank, the pressure sensitive adhesive will not interfere with the unwinding of the material.

[0018] Referring to FIGS. 8 and 9, a further embodiment of the present invention is shown. In this embodiment, FIG. 8 illustrates an outer surface of a flexible film blank 400 includes a flap portion 406 connected to a back

portion 410 along a fold line 412. The back portion 410, in turn, connects to a front portion 414 along a fold line 408. The flap portion 406 may also include a tab portion 416. In this embodiment, a heat seal 402 may be placed on the front portion 414 to secure the flap portion 406 to the front portion 414 to protect any consumable product that may be inside the package 400. At the same time in FIG. 9, an inner surface of the flexible film blank 400 is shown with glue 404 on the flap portion 406 for a reclose. The placement of the heat seal 402 and the glue 404 are configured so that they do not interfere with one another when the flap portion 406 is secured to the front portion 414. There are various ways and patterns to place the heat seal and glue and FIGS. 8 and 9 show one way for the heat seal and glue to be placed.

[0019] Further embodiments of the invention may include tamper indicators on the package. Tamper indicators can be shown in a variety of ways including, ink destruction or frangible portions when the flap portion lifts away from the front portion, or general weakened areas when the flap portion is lifted away from the front portion. Tamper indicators are helpful for consumers to know whether a product has been tampered with for safety reasons.

Claims

1. A reclosable package (200, 300) configured to contain a plurality of consumable products (206), the package comprising:

a) a flexible film blank (100, 400) having a flap portion (106, 306, 406), a back portion (110, 410) and a front portion (114, 314, 414), wherein the flap portion, the back portion and the front portion are contiguously formed portions of the flexible film blank;

b) a pocket (208) formed by the cooperation of an inner surface of the front portion and an inner surface of the back portion along a first fold line (112), wherein a top edge (204) of the front portion of the pocket defines an opening (202) at the top of the pocket;

c) the flap portion secured to the pocket on the outer surface of the front portion after being folded along a second fold line (108) to cover the opening;

d) a heat seal (302, 402) disposed on the package below the top edge (204) of the front portion and configured to secure the flap portion to the outer surface of the front portion, wherein the heat seal allows the flap portion to be manually uncoupled from the front portion; and

e) a reclose feature (304, 404) disposed on the package and configured to selectively recouple the flap portion to the outer surface of the front portion.

2. A package as claimed in claim 1, further comprising a tab (116, 416) on the flap portion (106, 306, 406) that can be grasped to open the flap.

3. A package as claimed in either of claims 1 or 2, wherein the pocket (208) is formed by heat sealing the inner surface of the front portion (114, 314, 414) and an inner surface of the back portion along a first fold line (112).

4. A package as claimed in any preceding claim, wherein the reclose feature is selected from the group consisting of a pressure sensitive adhesive, wax, tape, glue, sticker, and cold seal.

5. A package as claimed in any preceding claim, wherein the flap portion (106, 306, 406) fully extends longitudinally across the front portion (114, 314, 414).

6. A package as claimed in any preceding claim, wherein the flexible film blank is a film laminate.

7. A package as claimed in claim 6, wherein the film laminate comprises oriented polypropylene.

8. A package as claimed in either of claims 6 or 7, wherein the film laminate comprises paper.

9. A package as claimed in any preceding claim, wherein the opening (202) of the pocket (208) is configured to fully expose the top and a portion of the front of a plurality of consumable products.

10. A package as claimed in any preceding claim, wherein the reclose feature (304, 404) is placed on the inner surface of the flap portion (106, 306, 406).

11. A package as claimed in any of claims 1 to 9, wherein the reclose feature (304, 404) is placed on the outer surface of the front portion (114, 314, 414).

12. A package as claimed in any preceding claim, wherein the heat seal (302, 402) is disposed on the inner surface of the flap portion (106, 306, 406) and the outer surface of the front portion (114, 314, 414).

13. A package as claimed in claim 12, wherein the reclose feature is a pressure sensitive adhesive (304) placed underneath the heat seal (302, 402) and upon opening the flap portion (106, 306, 406) the pressure sensitive adhesive (304) is exposed so that the flap portion (106, 306, 406) is reclosable.

14. A package as claimed in any preceding claim, further comprising a tamper indicator.

15. A package as claimed in any preceding claim, wherein the cooperation of the front portion (114, 314, 414)

and the back portion (110, 410) is at side edges (210) of the flexible film blank.

ständig längs über den Vorderteil (114, 314, 414) verläuft.

Patentansprüche

1. Wiederverschließbare Verpackung (200, 300), gestaltet zum Enthalten einer Vielzahl von Verbrauchsprodukten (206), wobei die Verpackung umfasst:

a) ein flexibles Folienstück (100, 400) mit einem Klappenteil (106, 306, 406), einem Rückteil (110, 410) und einem Vorderteil (114, 314, 414), wobei der Klappenteil, der Rückteil und der Vorderteil zusammenhängend gebildete Teile des flexiblen Folienstücks sind;

b) eine Tasche (208), die entlang einer ersten Faltlinie (112) durch das Zusammenwirken einer Innenoberfläche des Vorderteils und einer Innenoberfläche des Rückteils gebildet ist, wobei ein oberer Rand (204) des Vorderteils der Tasche eine Öffnung (202) an der Oberseite der Tasche definiert;

c) wobei der Klappenteil nach seinem Falten entlang einer zweiten Faltlinie (108) an der Außenoberfläche des Vorderteils an der Tasche befestigt ist, um die Öffnung zu bedecken;

d) eine Heißsiegelung (302, 402), die an der Verpackung unterhalb des oberen Rands (204) des Vorderteils angeordnet ist und dafür gestaltet ist, den Klappenteil an der Außenoberfläche des Vorderteils zu befestigen, wobei die Heißsiegelung erlaubt, dass der Klappenteil manuell von dem Vorderteil abgelöst werden kann; und

e) ein Wiederverschließelement (304, 404), das an der Verpackung angeordnet ist und dafür gestaltet ist, den Klappenteil selektiv wieder an die Außenoberfläche des Vorderteils zu koppeln.

2. Verpackung gemäß Anspruch 1, ferner umfassend eine Lasche (116, 416) an dem Klappenteil (106, 306, 406), die gegriffen werden kann, um die Klappe zu öffnen.

3. Verpackung gemäß einem der Ansprüche 1 oder 2, wobei die Tasche (208) durch Heißsiegeln der Innenoberfläche des Vorderteils (114, 314, 414) und einer Innenoberfläche des Rückteils entlang einer ersten Faltlinie (112) gebildet ist.

4. Verpackung gemäß einem der vorstehenden Ansprüche, wobei das Wiederverschließelement ausgewählt ist aus der Gruppe bestehend aus einem Haftklebstoff, Wachs, Klebeband, Klebstoff, Aufkleber und einer Kaltsiegelung.

5. Verpackung gemäß einem der vorstehenden Ansprüche, wobei der Klappenteil (106, 306, 406) voll-

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6. Verpackung gemäß einem der vorstehenden Ansprüche, wobei das flexible Folienstück ein Filmlaminat ist.

7. Verpackung gemäß Anspruch 6, wobei das Filmlaminat orientiertes Polypropylen umfasst.

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8. Verpackung gemäß einem der Ansprüche 6 oder 7, wobei das Filmlaminat Papier umfasst.

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9. Verpackung gemäß einem der vorstehenden Ansprüche, wobei die Öffnung (202) der Tasche (208) dafür gestaltet ist, die Oberseite und einen Teil der Vorderseite einer Vielzahl von Verbrauchsprodukten vollständig freizugeben.

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10. Verpackung gemäß einem der vorstehenden Ansprüche, wobei das Wiederverschließelement (304, 404) an der Innenoberfläche des Klappenteils (106, 306, 406) angeordnet ist.

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11. Verpackung gemäß einem der Ansprüche 1 bis 9, wobei das Wiederverschließelement (304, 404) an der Außenoberfläche des Vorderteils (114, 314, 414) angeordnet ist.

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12. Verpackung gemäß einem der vorstehenden Ansprüche, wobei die Heißsiegelung (302, 402) an der Innenoberfläche des Klappenteils (106, 306, 406) und der Außenoberfläche des Vorderteils (114, 314, 414) angeordnet ist.

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13. Verpackung gemäß Anspruch 12, wobei das Wiederverschließelement ein Haftklebstoff (304) ist, der unterhalb der Heißsiegelung (302, 402) angeordnet ist, und nach Öffnen des Klappenteils (106, 306, 406) der Haftklebstoff (304) freiliegt, so dass der Klappenteil (106, 306, 406) wiederverschließbar ist.

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14. Verpackung gemäß einem der vorstehenden Ansprüche, ferner umfassend einen Manipulationsindikator.

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15. Verpackung gemäß einem der vorstehenden Ansprüche, wobei das Zusammenwirken des Vorderteils (114, 314, 414) und des Rückteils (110, 410) an Seitenkanten (210) des flexiblen Folienstücks erfolgt.

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Revendications

1. Emballage refermable (200, 300) configuré de manière à contenir une pluralité de produits consommables (206), l'emballage comprenant:

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- a) une ébauche de film souple (100, 400) présentant une partie de rabat (106, 306, 406), une partie arrière (110, 410) et une partie avant (114, 314, 414), dans lequel la partie de rabat, la partie arrière et la partie avant sont des parties formées de façon contiguë de l'ébauche de film souple;
- b) une poche (208) formée par la coopération d'une surface intérieure de la partie avant et d'une surface intérieure de la partie arrière le long d'une première ligne de pli (112), dans lequel un bord supérieur (204) de la partie avant de la poche définit une ouverture (202) au sommet de la poche;
- c) la partie de rabat fixée à la poche sur la surface extérieure de la partie avant après avoir été pliée le long d'une seconde ligne de pli (108) afin de couvrir l'ouverture;
- d) un thermoscellage (302, 402) disposé sur l'emballage en dessous du bord supérieur (204) de la partie avant et configuré de manière à fixer la partie de rabat à la surface extérieure de la partie avant, dans lequel le thermoscellage permet à la partie de rabat d'être découpée manuellement de la partie avant; et
- e) une caractéristique de refermeture (304, 404) disposée sur l'emballage et configurée de manière à recoupler sélectivement la partie de rabat à la surface extérieure de la partie avant.
2. Emballage selon la revendication 1, comprenant en outre une languette (116, 416) sur la partie de rabat (106, 306, 406) qui peut être saisie pour ouvrir le rabat.
 3. Emballage selon l'une des revendications 1 ou 2, dans lequel la poche (208) est formée par le thermoscellage de la surface intérieure de la partie avant (114, 314, 414) et d'une surface intérieure de la partie arrière le long d'une première ligne de pli (112) .
 4. Emballage selon l'une quelconque des revendications précédentes, dans lequel la caractéristique de refermeture est sélectionnée dans le groupe comprenant un adhésif sensible à la pression, de la cire, un ruban, de la colle, un autocollant et un scellage à froid.
 5. Emballage selon l'une quelconque des revendications précédentes, dans lequel la partie de rabat (106, 306, 406) s'étend complètement longitudinalement en travers de la partie avant (114, 314, 414).
 6. Emballage selon l'une quelconque des revendications précédentes, dans lequel l'ébauche de film souple est un film stratifié.
 7. Emballage selon la revendication 6, dans lequel le film stratifié comprend du polypropylène orienté.
 8. Emballage selon l'une des revendications 6 ou 7, dans lequel le film stratifié comprend du papier.
 9. Emballage selon l'une quelconque des revendications précédentes, dans lequel l'ouverture (202) de la poche (208) est configurée de manière à exposer complètement le sommet ainsi qu'une partie de l'avant d'une pluralité de produits consommables.
 10. Emballage selon l'une quelconque des revendications précédentes, dans lequel la caractéristique de refermeture (304, 404) est placée sur la surface intérieure de la partie de rabat (106, 306, 406) .
 11. Emballage selon l'une quelconque des revendications 1 à 9, dans lequel la caractéristique de refermeture (304, 404) est placée sur la surface extérieure de la partie avant (114, 314, 414).
 12. Emballage selon l'une quelconque des revendications précédentes, dans lequel le thermoscellage (302, 402) est disposé sur la surface intérieure de la partie de rabat (106, 306, 406) et sur la surface extérieure de la partie avant (114, 314, 414) .
 13. Emballage selon la revendication 12, dans lequel la caractéristique de refermeture est un adhésif sensible à la pression (304) qui est placé en dessous du thermoscellage (302, 402) et, lors de l'ouverture de la partie de rabat (106, 306, 406), l'adhésif sensible à la pression (304) est exposé de telle sorte que la partie de rabat (106, 306, 406) soit refermable.
 14. Emballage selon l'une quelconque des revendications précédentes, comprenant en outre un indicateur de violation.
 15. Emballage selon l'une quelconque des revendications précédentes, dans lequel la coopération de la partie avant (114, 314, 414) et de la partie arrière (110, 410) est réalisée au niveau des bords latéraux (210) de l'ébauche de film souple.

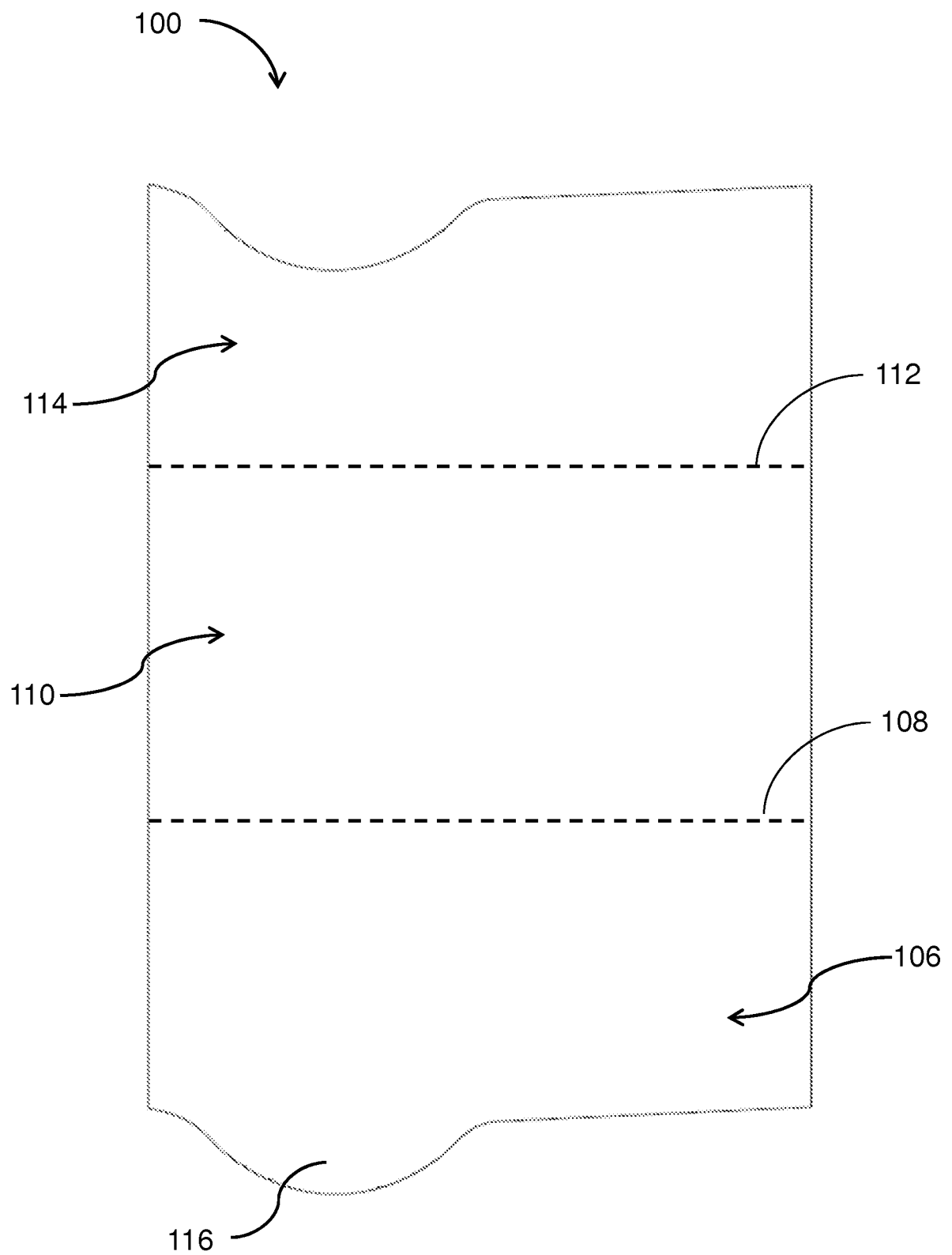


FIG. 1

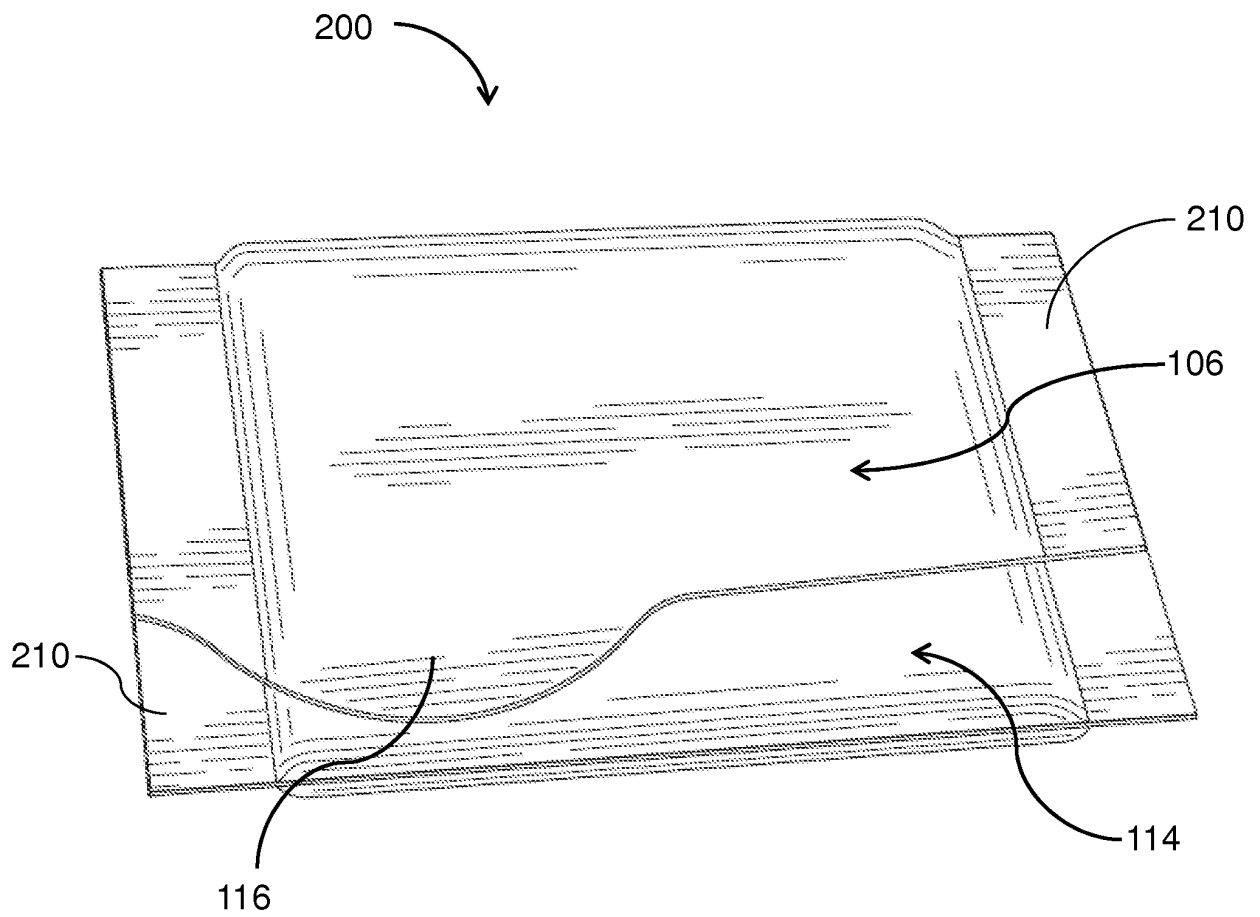
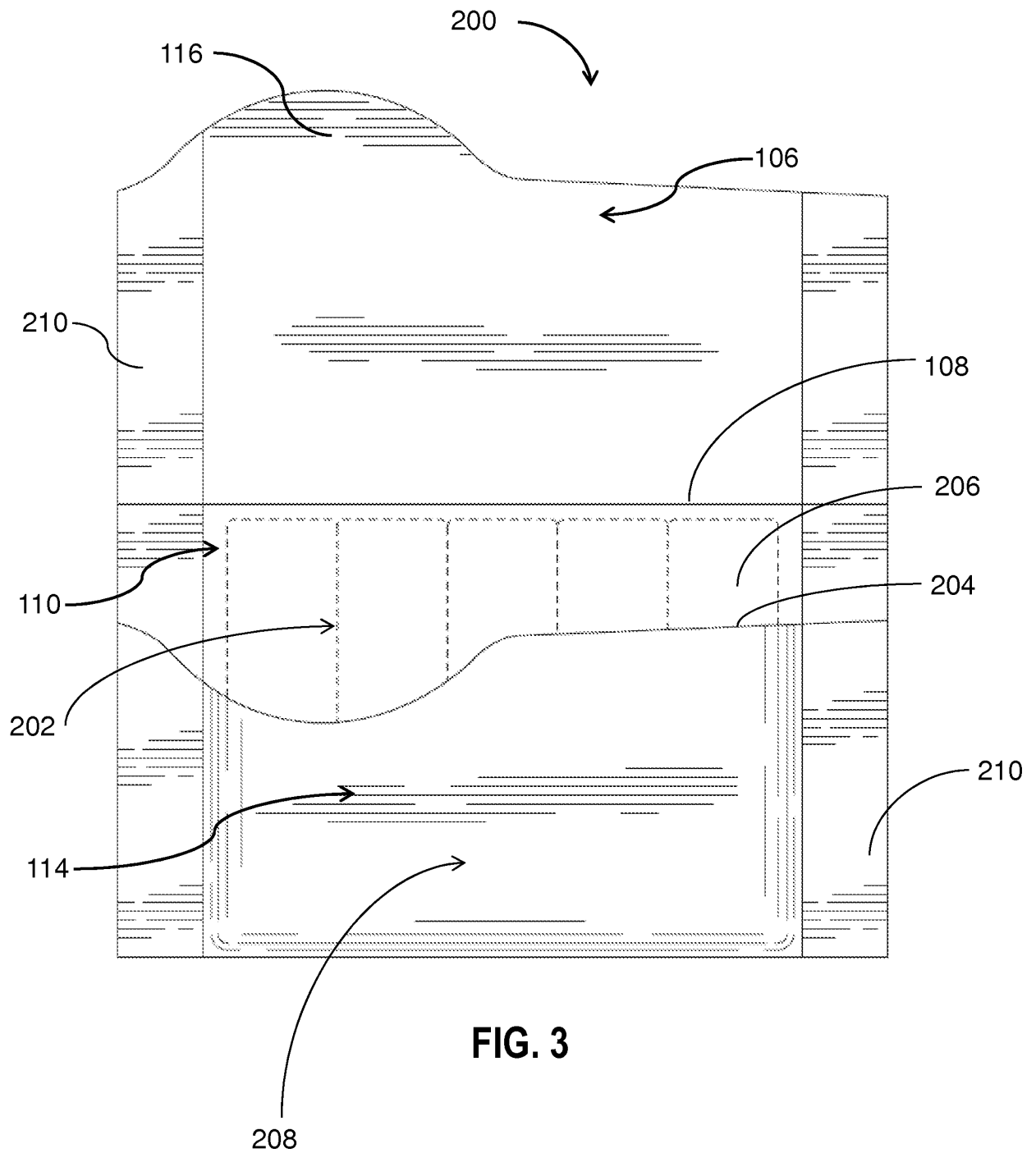


FIG. 2



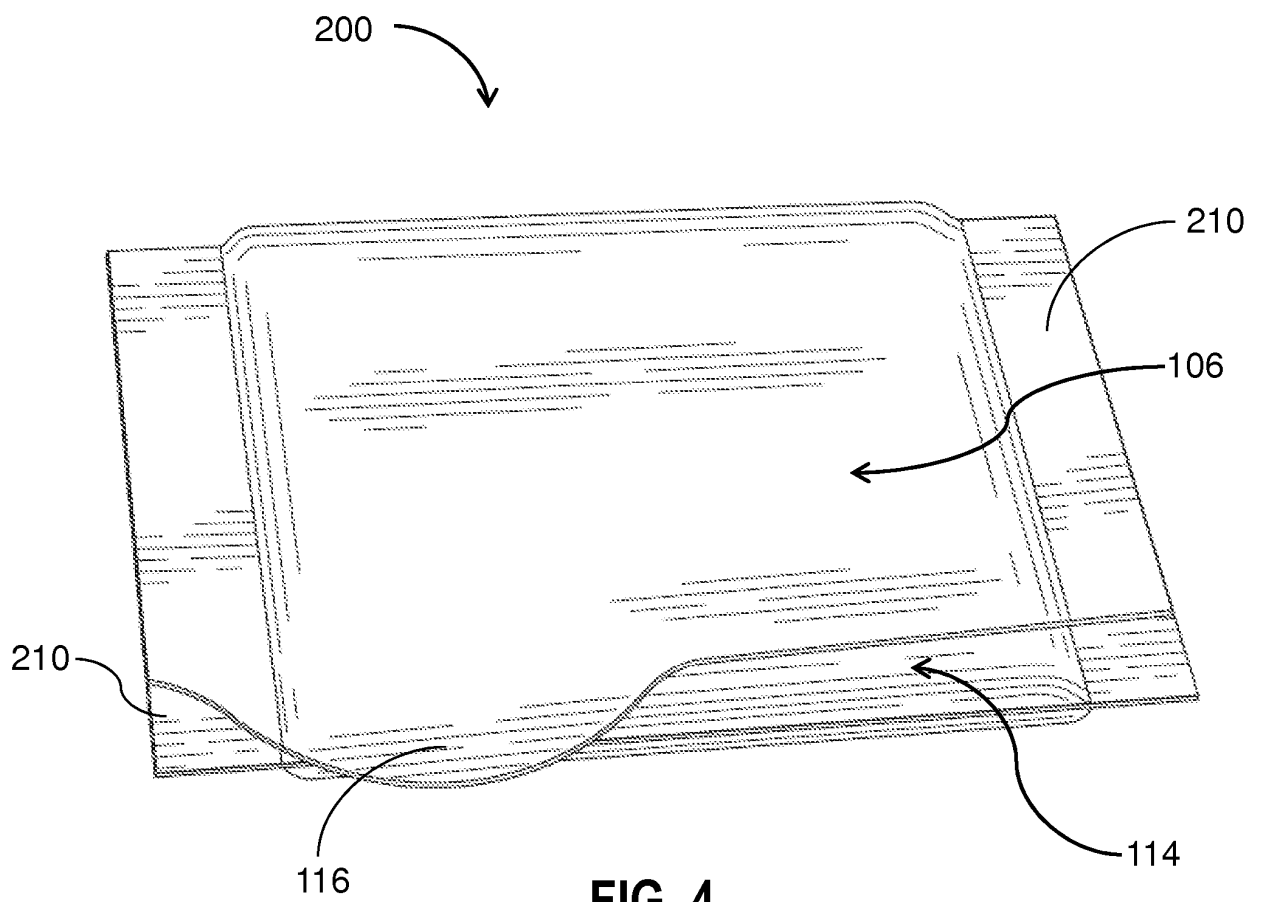


FIG. 4

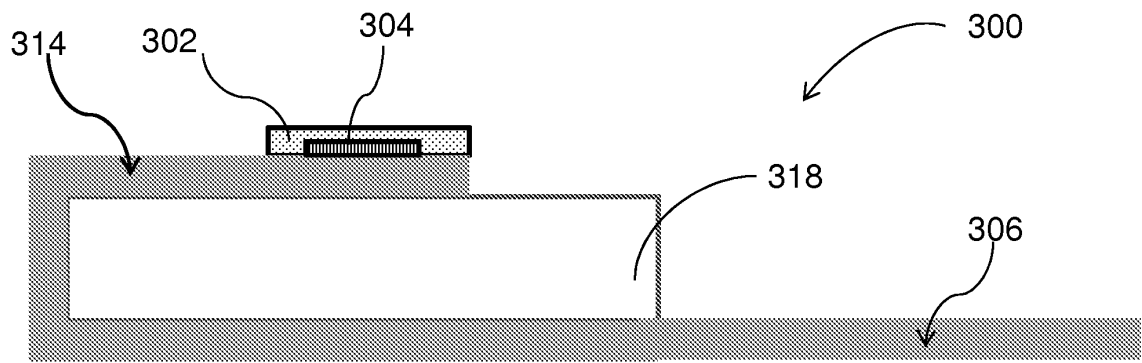


FIG. 5

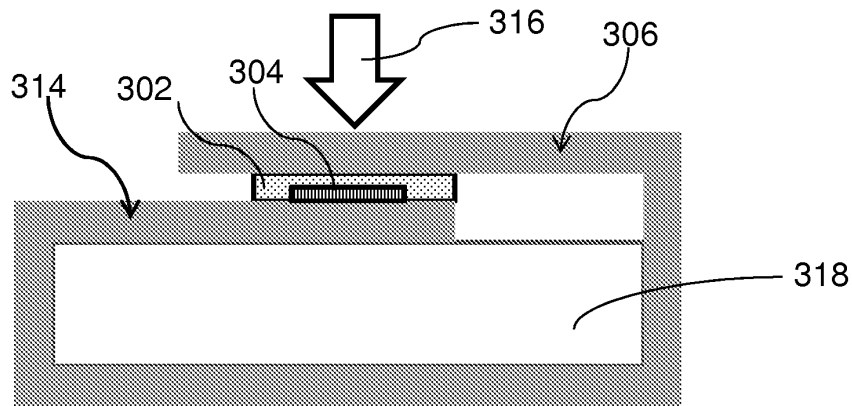


FIG. 6

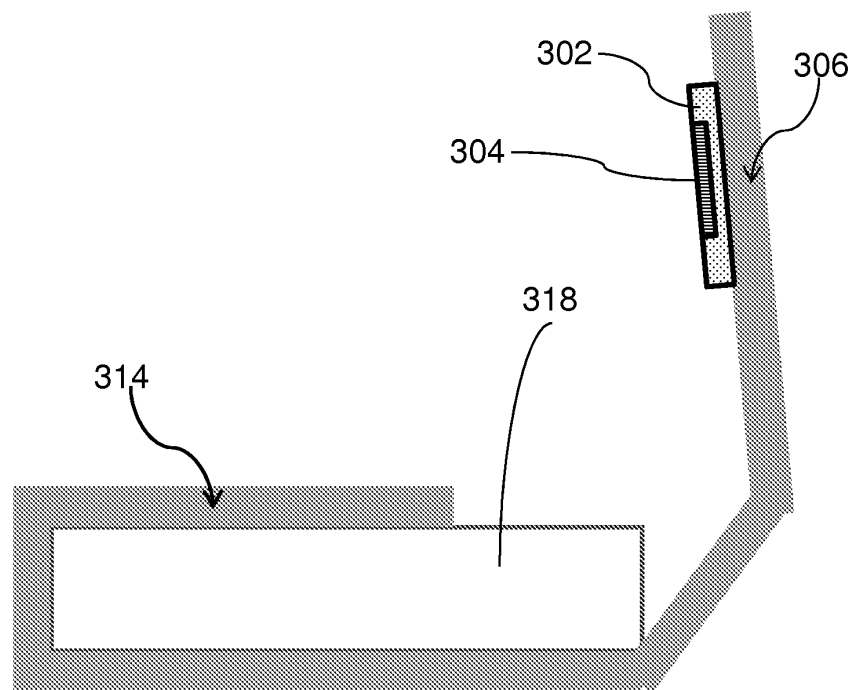


FIG. 7

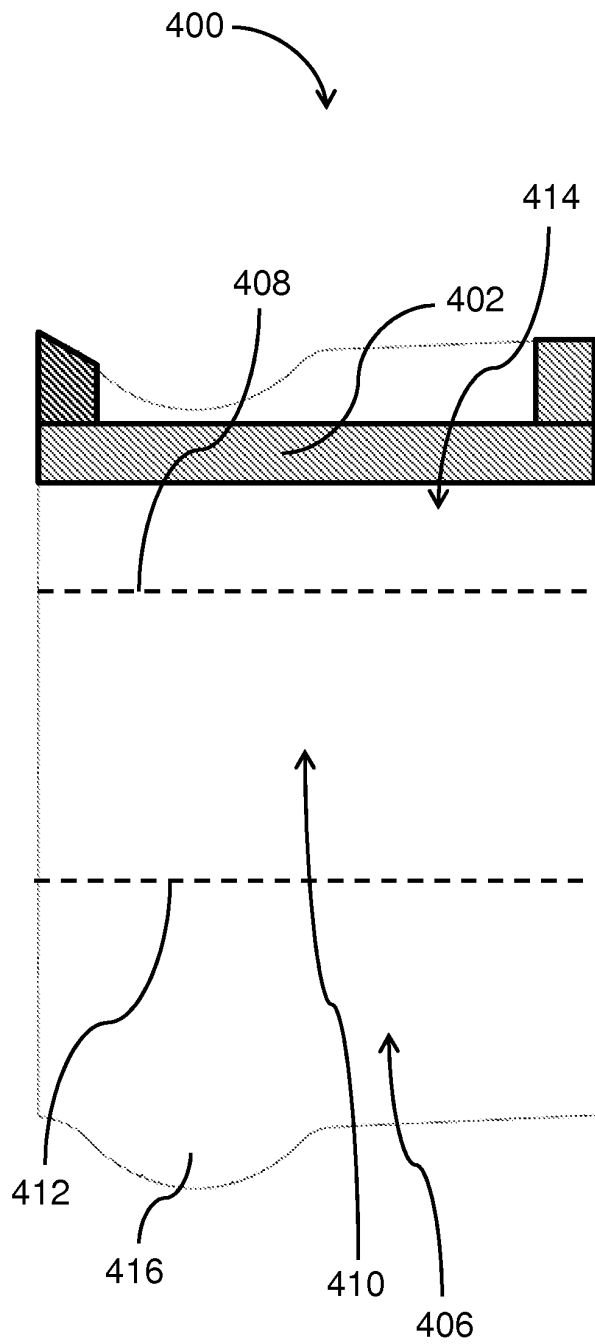


FIG. 8

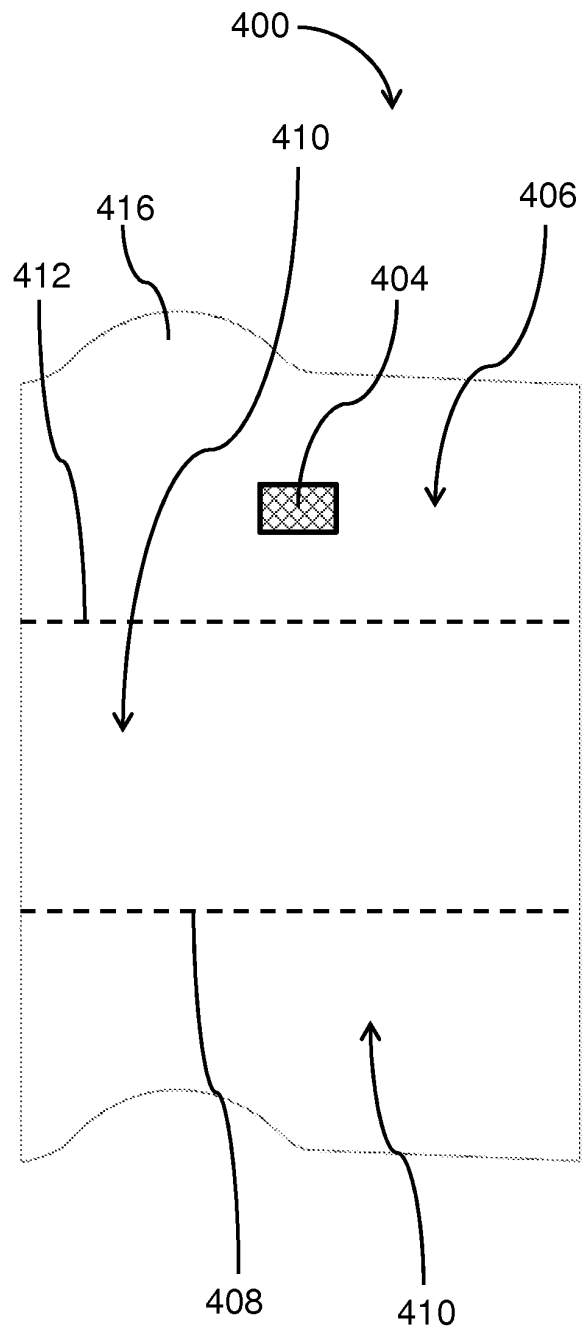


FIG. 9

REFERENCES CITED IN THE DESCRIPTION

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