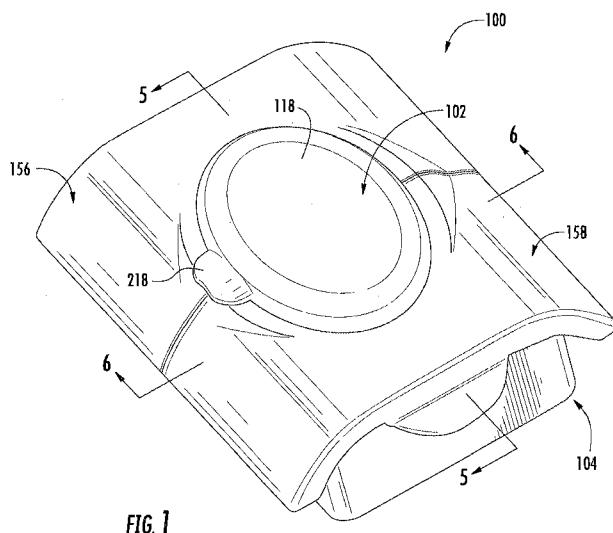




- (51) International Patent Classification:
B65H 3/02 (2006.01)
- (21) International Application Number:
PCT/BR2015/000005
- (22) International Filing Date:
20 January 2015 (20.01.2015)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/929,164 20 January 2014 (20.01.2014) US
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- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: SHEET MATERIAL DISPENSER



(57) Abstract: In one aspect, a sheet material dispenser may generally include a flexible pouch and a rigid container. The flexible pouch may generally be configured to receive a plurality of sheets and may include a dispenser opening. In addition, the flexible pouch may include a resealable cap for intermittently exposing and resealing the dispenser opening. The rigid container may generally include an interior region defined at least partially between a back wall and sidewalls extending outwardly from the back wall. The rigid container may also include first and second front plates configured to be slideably coupled to the sidewalls such that the front plates are movable relative to one another and relative to the sidewalls between an open position, wherein the front plates are positioned in a distal relationship relative to one another, and a closed position, wherein the front plates are positioned in an adjacent relationship relative to one another. Additionally, when the first and second front plates are moved to the closed position, a portion of the front plates may be configured to be positioned directly below a portion of the resealable cap.

Published:

- *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*

SHEET MATERIAL DISPENSER

FIELD OF THE INVENTION

The present subject matter relates generally to a sheet material dispenser and, more particularly, to a dispenser including a rigid outer container having slidable components movable between an opened position, wherein a flexible, sheet-containing pouch may be inserted within the container, and a closed position, wherein the slidable components engage a portion of the pouch in order to secure the pouch within the container.

BACKGROUND OF THE INVENTION

A wide variety of storing and dispensing containers exist in the market, particularly those for storing and dispensing sheet-like products, such as wet or dry wipes. For example, soft, flexible packages are commercially available that provide a compact and easily transportable means for storing and dispensing stacks of wipes. Typically, such flexible packages define an opening for dispensing the wipes contained therein and include a rigid flip top positioned above the opening that has a hinged lid for opening and closing the package. An example of such a flexible package is described in US Patent Publication Number 2005/0011906 (Buck et al.) entitled "Storing and Dispensing Container for Product" and filed on December 5, 2003, the disclosure of which is hereby incorporated by reference herein in its entirety for all purposes.

While the flexible packages currently available for storing and dispensing sheet-like products provide many advantages, the packages are not ideal for use in many applications in which rigid tubs or containers are typically used, such as when stationary dispensers are needed for countertops and other flat surfaces (e.g., wall-mounted dispensers). Specifically, the flexible packages typically do not provide the structural integrity required and/or the aesthetic look desired for such applications.

Accordingly, an improved sheet material dispenser that allows for a flexible sheet-containing pouch to be secured within a rigid container while still allowing sheets to be dispensed from the flexible pouch in the typical manner would be welcomed in the technology.

BRIEF DESCRIPTION OF THE INVENTION

Aspects and advantages of the invention will be set forth in part in the following description, or may be obvious from the description, or may be learned through practice of the invention.

5 In one aspect, the present subject matter is directed to a sheet material dispenser. The dispenser may generally include a rigid container having an interior region defined at least partially by a back wall and sidewalls extending outwardly from the back wall. The rigid container may also include first and second front plates configured to be slideably coupled to at least one of the sidewalls such that the front
10 plates are movable relative to one another between an opened position, wherein the front plates are positioned in a distal relationship relative to one another, and a closed position, wherein the front plates are positioned in an adjacent relationship relative to one another. The first and second front plates may each include a top surface, a bottom surface and inner and outer sides extending between the top and bottom
15 surfaces. The sheet material dispenser may also include a flexible pouch configured to contain a stack of sheets. The flexible pouch may be configured to be received within the interior region of the rigid container. In addition, the flexible pouch may define a dispenser opening and may include a resealable cap for intermittently exposing and resealing the dispenser opening. Moreover, a portion of the first and second front
20 plates may be configured to be positioned directly below a portion of the resealable cap when the front plates are moved to the closed position.

 In another aspect, the present subject matter is directed to a method for using a sheet material dispenser including a flexible pouch and a rigid container configured to receive the flexible pouch. The flexible pouch may define a dispenser
25 opening and may include a resealable cap for intermittently exposing and resealing the dispenser opening. The rigid container may include an interior region defined at least partially by a back wall and sidewalls extending outwardly from the back wall. The method may generally include positioning a first front plate of the rigid container around a portion of the flexible pouch such that a portion the first front plate is positioned
30 directly below a surface of the resealable cap and positioning a second front plate of the rigid container around a portion of the flexible pouch such that a portion of the second front plate is positioned directly below the surface of the resealable cap. The front plates may be disposed in a closed position relative to one another when the first and second front plates are engaged against the surface of the resealable cap. In

addition, the method includes slideably coupling the front plates to the sidewalls of the rigid container such that the front plates are movable relative to another between the closed position and an open position.

These and other features, aspects and advantages of the present invention will become better understood with reference to the following description and appended claims. The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

A full and enabling disclosure of the present invention, including the best mode thereof, directed to one of ordinary skill in the art, is set forth in the specification, which makes reference to the appended figures, in which:

FIG. 1 illustrates a perspective view of one embodiment of a sheet material dispenser in accordance with aspects of the present subject matter;

FIG. 2 illustrates an exploded, perspective view of the sheet material dispenser shown in FIG. 1, particularly illustrating a rigid container of the dispenser with its front plates moved to an open position and a flexible pouch of the dispenser exploded away from the rigid container;

FIG. 3 illustrates a front view of the rigid container shown in FIG. 1, particularly illustrating the front plates of the rigid container in an open position;

FIG. 4 illustrates another front view of the rigid container shown in FIG. 1, particularly illustrating the front plates of the rigid container moved to a closed position;

FIG. 5 illustrates a cross-sectional view of the sheet material dispenser shown in FIG. 1 taken about line 5-5;

FIG. 6 illustrates a cross-sectional view of the sheet material dispenser shown in FIG. 1 taken about line 6-6;

FIG. 7 illustrates a close-up view of a portion of the cross-section shown in FIG. 6;

FIG. 8 illustrates another exploded, perspective view of the sheet material dispenser shown in FIG. 1, particularly illustrating one embodiment of a method for assembling and/or using the dispenser; and

FIG. 9 illustrates a cross-sectional view of the sheet material dispenser shown in FIG. 1 similar to the cross-sectional view shown in FIG. 6, particularly

illustrating one embodiment of a method for coupling the front plates of the rigid container to sidewalls of the rigid container.

DETAILED DESCRIPTION OF THE INVENTION

5 Reference now will be made in detail to embodiments of the invention, one or more examples of which are illustrated in the drawings. Each example is provided by way of explanation of the invention, not limitation of the invention. In fact, it will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the scope or spirit of the
10 invention. For instance, features illustrated or described as part of one embodiment can be used with another embodiment to yield a still further embodiment. Thus, it is intended that the present invention covers such modifications and variations as come within the scope of the appended claims and their equivalents.

 In general, the present subject matter is directed to a sheet material
15 dispenser including both a flexible pouch and a rigid container configured to receive the flexible pouch. In several embodiments, the flexible pouch may define an enclosed volume for containing a stack of sheets and may include a resealable cap for providing access to the enclosed volume in order to allow sheets to be dispensed therefrom. Additionally, the rigid container may generally include a back wall, sidewalls and front
20 plates configured to define an interior region for receiving the flexible pouch. In several embodiments, the front plates may be configured to be slid or otherwise moved relative to the sidewalls between an open position and a closed position. For example, when the front plates are moved to the open position, the interior region defined by the rigid container may be accessible for inserting the flexible pouch within the container.
25 Moreover, when the flexible pouch is installed between the front plates, the plates may be moved to the closed position to secure the flexible pouch between the front plates. For instance, as will be described below, when the front plates are moved to the closed position, a cap opening may be defined between the front plates such that the plates are configured to extend around the flexible pouch at a location directly below the
30 resealable cap. As such, the resealable cap may be exposed along the exterior of the rigid container when the front plates are in the closed position to allow sheets to be dispensed from the flexible pouch.

 It should be appreciated that various positional terms may be used herein, such as front, back, top, bottom, inner, outer, side, etc.. Such terms are only used to

distinguish individual features of a given component (e.g., individual surfaces, walls, etc.) from other features of such component and/or to establish positioning of the various components of the disclosed sheet material dispenser relative to one another and, thus, should not otherwise be construed as limiting the scope of the present
5 subject matter.

Referring now to the drawings, FIGS. 1-7 illustrate several views of one embodiment of a sheet material dispenser 100 in accordance with aspects of the present subject matter. In particular, FIG. 1 illustrates a perspective view of the sheet material dispenser 100 and FIG. 2 illustrates an exploded view of the sheet material
10 dispenser 100 shown in FIG. 1, particularly illustrating a flexible pouch 102 and a rigid container 104 of the dispenser 100. FIGS. 3 and 4 illustrate front views of the rigid container 104 shown in FIG. 2, particularly illustrating front plates 156, 158 of the rigid container 104 in an open position (FIG. 3) and a closed position (FIG. 4). Additionally, FIGS. 5 and 6 illustrate cross-sectional views of the sheet material dispenser 100
15 shown in FIG. 1 taken about lines 5-5 and 6-6, respectively. Moreover, FIG. 7 illustrates a close-up view of a portion of the cross-section shown in FIG. 6.

As shown in the illustrated embodiment, the sheet material dispenser 100 includes both a flexible pouch 102 and a rigid container 104 configured to receive the flexible pouch 102. In general, the flexible pouch 102 may be configured to contain a
20 plurality of sheets 106 (FIGS. 5-7), such as a stack of wipes, wet wipes and/or any other suitable sheet-like product(s). For instance, in several embodiments, the flexible pouch 102 may include a top wall 108, a bottom wall 110, and sidewalls 112 extending between the top and bottom walls 108, 110 so as to define an enclosed volume 114 (FIGS. 5-7) for containing sheets 106. As particularly shown in FIG. 2, the flexible
25 pouch 102 generally defines a rectangular shape, with the top and bottom walls 108, 110 extending substantially parallel to one another. However, in other embodiments, the flexible pouch 102 may be configured to define any other suitable shape that allows for a plurality of sheets 106 to be contained therein.

It should be appreciated that the term "flexible" is generally used herein to
30 refer to the pouch 102 being formed from a material that is capable of being folded or flexed. For instance, in several embodiments, the flexible pouch 102 may be formed using a thin-walled film, such as a foamed polymeric containing film or a non-foamed polymeric containing film. In such an embodiment, the thin-walled film may, for

example, have a wall thickness of less than about 2000 micrometers, such as less than about 1000 micrometers or less than about 500 micrometers.

Similarly, it should be appreciated that the term “rigid” is generally used to herein to refer to one or more of the components of the container 104 being formed from a relatively stiff or rigid material, such as a material(s) having a level of stiffness commonly associated with the material(s) used to manufacture sheet material tubs and/or parts thereof. For instance, suitable materials may include, but are not limited to, rigid plastics and other polymeric containing materials. Such materials may, for example, typically have a flexural modulus (as measured in accordance with ASTM D790 “Standard Test Method for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials”) of greater than about 100 Newtons per square millimeter, such as greater than about 500 Newtons per square millimeter or greater than about 1000 Newtons per square millimeter (e.g. in a range from about 1100 to about 1500 Newtons per square millimeter). For instance, in a particular embodiment of the present subject matter, the various components of the rigid container 104 may be formed from a thermoplastic polymer, such as polypropylene, and may have a wall thickness ranging from about 0.5 millimeter to about 3.0 millimeters, such as from about 1.0 millimeter to about 2.5 millimeters or from about 1.5 millimeters to about 2.0 millimeters and any other subranges therebetween.

In several embodiments, the flexible pouch 102 may define a dispenser opening 116 through one of its walls for providing access to the sheets 106 contained therein. For instance, as shown in the illustrated embodiment, the dispenser opening 116 is defined through the top wall 108 of the flexible pouch 102. In one embodiment, a removable cover (not shown) may be configured to be positioned directly over the dispenser opening 116 prior to initial use of the flexible pouch 102, such as by removably sealing the cover around the outer perimeter of the opening 116. In such an embodiment, the removable cover may be pulled or peeled away from the dispenser opening 116 to allow initial access to the sheets 106 contained within the flexible pouch 102 via the opening 116.

In addition, a resealable cap 118 may be affixed to the flexible pouch 102 around the outer perimeter of the dispenser opening 116. For example, as particularly shown in FIGS. 5-7, a bottom surface 120 of the resealable cap 118 may be coupled to an outer surface of the top wall 108 of the flexible pouch 102 around the perimeter of the dispenser opening 116. In such an embodiment, the resealable cap 118 may be

configured to be coupled to the top wall 108 using any suitable attachment means known in the art, such as by adhering the bottom surface 120 of the cap 118 to the wall 108 of the flexible pouch 102 using a suitable adhesive or by coupling such components together using any other suitable attachment means (e.g., heat welding).

5 In general, the resealable cap 118 may be configured to be opened and closed for intermittently exposing and subsequently resealing the dispenser opening 116. As such, the resealable cap 118 may be particularly advantageous for retaining moisture within the flexible pouch 102 when wet wipes and/or other moisture-retaining sheets are contained therein. As particularly shown in FIG. 2, the resealable cap 118
10 may generally include a bottom cap portion 122 coupled to the flexible pouch 102 (e.g. at the interface defined between the bottom surface 120 of the cap 118 and the top wall 108) and a top cap portion 124 pivotally coupled to the bottom cap portion 122 via a hinge 126. Thus, to dispense sheets from the flexible pouch 102, the top cap portion 124 may be pivoted away from the bottom cap portion 122 to expose the dispenser
15 opening 116 (e.g., as shown in FIG. 2). Thereafter, the top cap portion 124 may be pivoted back into its closed position so that the top cap portion 124 is engaged with and/or sealed against the bottom cap portion 122.

The bottom and top cap portions 122, 124 may generally be configured to be engaged with and/or sealed against one another using any suitable configuration
20 known in the art. For example, as particularly shown in FIGS. 5-7, the bottom cap portion 122 may include a seal rib 128 projecting outwardly from a top surface 130 (FIG. 7) of the bottom cap portion 122 so as to extend around the inner perimeter of the bottom cap portion 122. In addition, the top cap portion 124 may include first and second seal lips 132, 134 projecting outwardly from a bottom surface 136 (FIG. 7) of
25 the top cap portion 124 so as to define a recess 138 (FIG. 7) extending around that top cap portion 124 that is configured to receive the seal rib 128. Thus, when the top cap portion 124 is pushed or pressed downward onto the bottom cap portion 122, the seal rib 128 may be received within the recess 138 and engaged and/or sealed against one or both of the seal lips 132, 134, thereby closing the resealable cap 116 and sealing or
30 otherwise preventing access to the dispenser opening 116.

It should be appreciated that the hinge 126 (FIG. 2) used to provide the pivotal connection between the bottom and top cap portions 122, 124 may generally have any suitable hinge configuration known in the art. For instance, if the resealable cap 118 is manufactured as a single integral component (e.g., by injection molding the

bottom and top cap portions 122, 124 together), the hinge 128 may correspond to a living hinge defined between the bottom and top cap portions 122, 124. Alternatively, if the bottom and top cap portions 122, 124 are configured as separate components, the hinge 128 may be formed using one or more suitable hinge components, such as by providing a hinge pin (not shown) inserted through corresponding hinge openings (not shown) defined through portions of the both the bottom and top cap portions 122, 124.

It should also be appreciated that that the resealable cap may generally be formed from any suitable material. However, in several embodiments, the resealable cap may be formed from a rigid material, such as a rigid plastic or other polymeric containing material.

Referring still to FIGS. 1-7, as indicated above, the rigid container 104 of the sheet material dispenser 100 may generally be configured to receive the flexible pouch 102. For example, as particularly shown in FIG. 1, the rigid container 104 may include a back wall 140 and sidewalls 142, 144, 146, 148 extending outwardly from the back wall 140 so as to define an interior region 150 (FIGS. 2 and 3) for receiving the flexible pouch 102. As shown, the sidewalls 142, 144, 146, 148 may generally include a pair of sidewalls 142, 144 extending laterally between a first lateral end 152 (FIG. 2) and a second lateral end 154 (FIG. 2) of the rigid container 106 (hereinafter referred to as first and second sidewalls 142, 144) and a pair of sidewalls 146, 148 extending between the first and second sidewalls 142, 144 at the first and second lateral ends 152, 154 (hereinafter referred to as first and second endwalls 146, 148). In the illustrated embodiment, the interior region 150 of the rigid container 104 generally defines a rectangular shape that is complimentary to the rectangular shape of the flexible pouch 102. However, in other embodiments, the rigid container 104 may be configured to define an interior region 150 having any other suitable shape that allows for the flexible pouch 102 to be received therein.

The rigid container 104 may also include a first front plate 156 and a second front plate 158 configured to be positioned on the container 104 over the open end of the interior region 150. In general, each of the front plates 156, 158 may define a top surface 160 and a bottom surface 162. In addition, as shown in FIGS. 2-4, each front plate 156, 158 may include an inner side 164, an outer side 166 and first and second lateral sides 168, 170 extending laterally between the inner and outer sides 164, 166.

When assembled over the open end of the interior region 150, the front plates 156, 158 may, in several embodiments, be configured to be moved relative to both one another and the remainder of the rigid container 104 in a direction substantially parallel the back wall 140 (e.g., as indicated by arrows 171 in FIG. 2)

5 between an open position (FIGS. 1 and 2) and a closed position (FIG. 3), thereby providing a means for inserting and/or securing the flexible pouch 102 within the interior region 150. Specifically, as shown in FIGS. 1 and 2, when in the open position, the first and second front plates 156, 158 may be spaced apart so as to be positioned in a distal relationship relative to one another. As such, a lateral distance 172 (FIG. 2) may be
10 defined between the inner sides 164 of the front plates 156, 158 to allow for the flexible pouch 102 to be inserted within the interior region 140. Thereafter, the front plates 156, 158 may be moved towards one another to the closed position to allow the flexible pouch 102 to be secured within the interior region 150. For instance, as shown in FIG. 4, when in the closed position, the front plates may be positioned in an adjacent
15 relationship relative to another such that portions of the inner sides 164 of the front plates 156, 158 are directly adjacent to and/or contacting one another. Moreover, as will be described below, a cap opening 174 (FIG. 4) may also be defined between portions of the inner sides 164 when the front plates 156, 158 are moved to the closed position, thereby allowing the resealable cap 118 to be accessible along the exterior of
20 the rigid container 102 for gaining access to the dispenser opening 116 of the flexible pouch 102

To allow for such relative movement of the first and second front plates 156, 158, the front plates 156, 158 may, in several embodiments, be slideably coupled to or otherwise slideably engaged with the first and second sidewalls 142, 144. In
25 general, the sliding connection between the front plates 156, 158 and the sidewalls 142, 144 may be achieved using any suitable configuration known in the art that allows the front plates 156, 158 to be slid or otherwise moved relative to the sidewalls 142, 144 between the open and closed positions. As shown in the illustrated embodiment, each front plate 156, 158 may include retention arms 176, 178 (FIGS. 6 and 7) extending
30 from its bottom surface 162, with each retention arm 176, 178 being configured to engage a corresponding outwardly projecting retention lip 180, 182 extending laterally along each sidewall 142, 144 between the first and second lateral ends 152, 154 of the rigid container 104.

For example, as shown in FIGS. 6 and 7, each front plate 156, 158 may include a first retention arm 176 extending from its bottom surface 162 at a location adjacent to the first sidewall 142 and a second retention arm 178 extending from its bottom surface 162 at a location adjacent to the second sidewall 144. As particularly shown in FIG. 7, each retention arm 176, 178 may include an upper portion 184 configured to extend from the bottom surface 162 in the direction of the back wall 140 and a lower portion 186 configured to extend from the upper portion 184 in a direction towards the adjacent sidewall 142, 144 such that the lower portion 186 is positioned directly below the corresponding retention lip 180, 182. Such an overlapped configuration may generally allow for the retention lips 180, 182 to maintain the positioning of the front plates 156, 158 relative to the back wall 140 in a heightwise direction of the rigid container 104 (e.g., a direction perpendicular to the back wall 140 as indicated by arrow 188 in FIGS. 6 and 7) while still allowing the front plates 156, 158 to be moved or slid relative to the sidewalls 142, 144 in a direction substantially parallel to the back wall 140. Specifically, as shown in FIGS. 6 and 7, when the front plates 156, 158 are moved relative to one another between the open and closed positions, a sliding interface(s) may be defined at a first location 190 between the bottom surface 162 of each front plate 156, 158 and a top end of each sidewall 142, 144 and/or at a second location 191 between the adjacent surfaces of each pair of corresponding retention arms/lips 176, 178, 180, 182, depending on the orientation of the sheet material dispenser 100 during use (e.g., horizontal placement versus vertical mounting of the dispenser 100) and/or the tolerances or spacing defined between the retention arms and lips 176, 178, 180, 182 when the bottom surface 162 of each front plate 156, 158 is contacting or otherwise engaged against the top end of each sidewall 142, 144.

It should be appreciated that, by slidably coupling the front plates 156, 158 to the sidewalls 142, 144, the front plates 156, 158 may, in certain embodiments, be configured to be removed from the rigid container 104. For instance, as will be described below with reference to FIG. 8, the front plates 156, 158 may be slid relative to the sidewalls 142, 144 in the direction of the lateral ends 152, 154 until the retention arms 176, 178 are no longer engaged below the retention lips 180, 182, thereby allowing the front plates 156, 158 to be removed from the rigid container 104.

It should be appreciated that, in alternative embodiments, any other suitable attachment configuration may be provided between the front plates 156, 158 and the sidewalls 142, 144 to allow for the sliding movement described herein. For

instance, in another embodiment, a tongue and groove type arrangement may be provided between the front plates 156, 158 and the sidewall 142, 144, such as by configuring each sidewall 142, 144 to include a second retention lip (not shown) positioned below the illustrated retention lip 180, 182 so that the lower portion 186 of each retention arm 176, 178 is received within a laterally extending channel defined between the adjacent retention lips.

Additionally, in several embodiments, the front plates 156, 158 may include one or more features for assisting a user in moving the plates 156, 158 between the open and closed positions. For example, as shown in FIGS. 2-5, in one embodiment, the outer side 166 of each front plate 156, 158 may include a curved projection extending therefrom so as to define a gripper tab 192 for gripping the front plates 156, 158. Specifically, the gripper tab 192s may be configured such that a user may place one or more fingertips along a back surface 194 (FIG. 5) of each tab 192 to obtain a finger grip on the front plates 156, 158. For example, as shown in FIG. 5, the gripper tabs 192 may be configured to project outwardly from the endwalls 146, 148 of the rigid container 104 so that suitable spacing is provided between the gripper tabs 192 and the endwalls 146, 148 when the front plates 156, 158 are in the closed position to allow the user to place at least one fingertip along the back surface 194 of each gripper tabs 192. Thus, when it is desired to slide the front plates 156, 158 to the open position, a user may simply grasp each gripper tab 192 and subsequently pull the front plates 156, 158 away from another.

As indicated above, when the front plates 156, 158 are moved to the closed position, a portion(s) of the inner side 164 of each plate 156, 158 may be configured to be disposed directly adjacent to and/or be in contact with a corresponding portion(s) of the inner side 164 of the adjacent plate 156, 158 while other portions of the inner sides 164 of the plates 156, 158 may be configured to be spaced apart from one another in order to allow a user access to the resealable cap 118 along the exterior of the rigid container 104. For example, as particularly shown in FIGS. 3 and 4, each inner side 165 may include first and second side portions 196, 198 defining straight or linear profiles extending generally perpendicularly from the lateral sides 168, 170 of the front plates 156, 158. In such embodiments, given the configuration of the first and second side portions 196, 198, the inner sides 164 of the front plates 156, 158 may be positioned directly adjacent to one another and/or may be in contact with one another

along such side portions 196, 198 when the front plates 156, 158 are moved to the closed position.

It should be appreciated that, in several embodiments, the first and second side portions 196, 198 of the inner sides 164 may include mating features configured to engage one another when the front plates 156, 158 are moved to the closed position. For instance, as shown in FIG. 3, in one embodiment, the first side portion 196 of the second front plate 158 and the second side portion 198 of the first front plate 158 each include one or more alignment tabs 200 extending outwardly therefrom in the direction of the other front plate 156, 158. In such an embodiment, the first side portion 196 of the first front plate 156 and the second side portion 198 of the second front plate 158 may define a corresponding slot(s) 202 for receiving the alignment tab(s) 200 when the front plates 156, 158 are moved to the closed position. Of course, in an alternative embodiment, the alignment tabs 200 and corresponding slots 202 may be arranged and/or positioned in any other suitable manner in and/or along the inner sides 164 of the front plates 156, 158. Moreover, in further embodiments, any other suitable mating features may be provided in and/or along the side portions 196, 198 of the inner sides 164 for interlocking the front plates 156, 158 and/or for properly aligning the front plates 156, 158 when the plates 156, 158 are moved to the closed position.

In addition, each inner side 164 may also include a central portion 204 defining a non-straight or non-linear profile extending between the first and second side portions 196, 198. For instance, as shown in FIGS. 3 and 4, the central portion 204 of each inner side 164 may be configured to define a curved profile extending outwardly from the first and second side portions 196, 198 towards the outer side 166 of each corresponding front plate 156, 158. Thus, when the front plates 156, 158 are moved to the closed position, the central portions 204 of the inner sides 164 may be spaced apart from another so as to define a cap opening 174 (FIG. 4) between the front plates 156, 158. Such cap opening 174 may generally allow for the front plates 156, 158 to be engaged around a portion of the flexible pouch 102 while still allowing the top cap portion 124 of the resealable cap 118 to be accessible for intermittently exposing and subsequently resealing the dispenser opening 116 when dispensing sheets 106 from the flexible pouch 102.

In several embodiments, the central portions 204 of the inner sides 164 may be configured such that the cap opening 174 generally defines a shape

corresponding to the shape of the bottom cap portion 122 of the resealable cap 118. For instance, FIG. 4 illustrates a dashed circle 206 generally defining the outer footprint of the bottom cap portion 122 along the front plates 156, 158 when the sheet material dispenser 100 is fully assembled. As shown in FIG. 4, the cap opening 174 defines an oval shape generally corresponding to the oval shape of the outer footprint 206 of the bottom cap portion 122.

Additionally, in several embodiments, the curved profiles of the central portions 204 may be selected such that the cap opening 174 defines a cross-wise dimension(s) that is smaller than a corresponding cross-wise dimension(s) of the bottom cap portion 22. For example, as shown in FIG. 4, the cap opening 174 may be configured to define both a lateral width 208 and a transverse width 210. In addition, as shown in FIGS. 5 and 6, the bottom cap portion 122 may also be configured to define a corresponding lateral width 212 and transverse width 214. In such an embodiment, by selecting the cross-wise widths 208, 210 of the cap opening 174 to be less than the corresponding cross-wise widths 212, 214 of the bottom cap portion 122, a portion of each front plate 156, 158 may be configured to be received underneath the bottom cap portion 122 when the plates 156, 158 are moved to the closed position, thereby allowing such portions of the front plates 156, 158 to be engaged against the bottom surface 120 of the bottom cap portion 122. For example, as shown in FIGS. 5-7, due to the differences between the cross-wise widths 208, 210, 212, 214, the front plates 156, 158 may be configured to define an overhanging portion 216 along which the bottom surface 120 of the bottom cap portion 122 is engaged against and supported by the front plates 156, 158. As particularly shown in FIG. 5, this overhanging portion 216 may be configured to extend completely around the footprint 206 of the bottom cap portion 122 such that the front plates 156, 158 are engaged against and support the bottom surface 120 of the bottom cap portion 122 along the entire outer perimeter of the cap opening 174 when the plates 156, 158 are moved to the closed position.

As indicated above, by configuring the front plates 156, 158 to engage the bottom cap portion 122 of the resealable cap 118, the top cap portion 124 may be accessible along the exterior of the rigid container 104 for opening and closing the cap 118. Thus, when it is desirable to dispense sheets 106 from the sheet material dispenser 100, a user may simply pivot the top cap portion 124 away from the bottom cap portion 122 (e.g., by gripping an opening tab 218 (FIGS. 1 and 2) projecting outwardly from the top cap portion 124) to expose the dispenser opening 116. After

one or more sheets 106 are dispensed from the sheet material dispenser 100 via the dispenser opening 116, the top cap portion 124 may then be pivoted back onto the bottom cap portion 122 in order to seal or otherwise close the dispenser opening 116.

It should be appreciated that the present subject matter is also directed to methods for assembling and/or using the disclosed sheet material dispenser 100. For example, in several embodiments, the sheet material dispenser 100 may be assembled and/or used in a similar manner to that shown and described above with reference to FIGS. 1-7. Specifically, assuming that a used flexible pouch 102 is installed within the dispenser 100, the front plates 156, 158 may be initially moved to the open position to allow the used flexible pouch 102 to be removed from the interior region 150 defined by the rigid container 104. As indicated above, since the front plates 156, 158 are not configured to engage the flexible pouch 102 when in the open position, the used pouch 102 may simply be pulled outwardly through the gap defined between the front plates 156, 158. Thereafter, a new flexible pouch 102 may be inserted between the front plates 156, 158 and into the interior region 150 such that the bottom wall 110 of the flexible pouch 102 is positioned adjacent to the back wall 140 of the rigid container 104 and the resealable cap 118 is facing towards the open end of the interior region 150. The front plates 156, 158 may then be slid inwardly relative to the sidewalls 142, 144 so that the inner side 164 of each front plate 156, 158 is engaged around the flexible pouch 102 directly below the resealable cap 118 and the top surface 160 of each front plate 156, 158 is engaged against the bottom surface 120 of the bottom cap portion 122 along the overhanging portions 216.

Alternatively, the disclosed sheet material dispenser 100 may be assembled in a similar manner to that shown in FIGS. 8 and 9. Specifically, assuming that a used flexible pouch 102 is installed within the dispenser 100, the front plates 156, 158 may be initially moved away from another relative to the sidewalls 142, 144 to allow the used flexible pouch 102 to be removed from the interior region 150 defined by the rigid container 104. For instance, as shown in FIG. 8, the front plates 156, 158 may be completely removed from the rigid container 104, such as by sliding the front plates 156, 158 laterally along the sidewalls 142, 144 towards the lateral ends 152, 154 of the rigid container 104 until the front plates 156, 158 are no longer engaged with the sidewalls 142, 144. Once removed, the front plates 156, 158 may then be installed onto a new flexible pouch 102 so as to be disposed in the closed position relative to one another. For instance, as particularly shown in FIG. 8, each front plate 56, 158

may be individually installed onto the flexible pouch 102 so that the central portion 204 of the inner side 164 of each plate 156, 158 is engaged around the flexible pouch 102 directly below the resealable cap 118 and the top surface 160 of each front plate 156, 158 is engaged against the bottom surface 122 of the bottom cap portion 122 along the overhanging portions 216. Thereafter, the assembled front plates 156, 158 and flexible pouch 102 may then be installed onto and/or within the remainder of the rigid container 104. For example, in a particular embodiment of the present subject matter, the retention arms 176, 178 of the front plates 156, 158 may be configured to be hooked around and/or snapped onto the retention lips 180, 182 extending from the sidewalls 142, 144 in order to slideably couple the front plates 156, 158 to the sidewalls 142, 144. Specifically, as shown in the cross-sectional view of FIG. 9, the assembled front plates 156, 158 and flexible pouch 102 may be angled relative to the sidewalls 142, 144 such that the retention arms (e.g., the second retention arms 178) extending along one of the sidewalls (e.g., the second sidewall 144) may be engaged below the corresponding retention lip (e.g., the second retention lip 182). The front plates 156, 158 may then be pressed downward relative to the opposing sidewall (e.g., the first sidewall 142) until the adjacent retention arms (e.g., the first retention arms 176) snap underneath the corresponding retention lip (e.g., the first retention lip 180). For example, as shown in the illustrated embodiment, a top surface 220 of the retention lips 180, 182 may be angled downwardly as each lip 180, 182 extends outwardly from the adjacent sidewall 142, 144. Thus, when the retention arms 176 are pressed downward against the top surface 220 of the retention lip 180, the retention arms 176 may be configured to bow slightly outwardly as the lower portion 186 of each arm 176 slides along the top surface 220 until the retention arms 176 snap underneath the retention lip 180, thereby coupling the first and second front plates 156, 158 to the sidewalls 142, 144.

Of course, in other embodiments, any other suitable methodology may be used for assembling and/or using the disclosed sheet material dispenser 100.

This written description uses examples to disclose the invention, including the best mode, and also to enable any person skilled in the art to practice the invention, including making and using any devices or systems and performing any incorporated methods. The patentable scope of the invention is defined by the claims, and may include other examples that occur to those skilled in the art. Such other examples are intended to be within the scope of the claims if they include structural elements that do

not differ from the literal language of the claims, or if they include equivalent structural elements with insubstantial differences from the literal languages of the claims.

WHAT IS CLAIMED IS:

1. A sheet material dispenser comprising:

a rigid container including an interior region defined at least partially by a back wall and sidewalls extending outwardly from the back wall, the rigid container further including first and second front plates configured to be slideably coupled to at least one of the sidewalls such that the first and second front plates are movable relative to one another between an opened position, wherein the first and second front plates are positioned in a distal relationship relative to one another, and a closed position, wherein the first and second front plates are positioned in an adjacent relationship relative to one another, the first and second front plates each including a top surface, a bottom surface and inner and outer sides extending between the top and bottom surfaces; and

a flexible pouch configured to contain a stack of sheets, the flexible pouch being configured to be received within the interior region of the rigid container, the flexible pouch defining a dispenser opening and including a resealable cap for intermittently exposing and resealing the dispenser opening,

wherein portions of the first and second front plates are configured to be positioned directly below a portion of the resealable cap when the first and second front plates are moved to the closed position.

2. The sheet material dispenser of claim 1, wherein the first and second front plates are movable relative to one another in a direction substantially parallel to the back wall.

3. The sheet material dispenser of claim 1, wherein the flexible pouch is configured to be inserted within the interior region when the first and second front plates are moved to the closed position.

4. The sheet material dispenser of claim 1, wherein the inner sides of the first and second front plates each include a first side portion, a second side portion and a central portion extending between the first and second side portions.

5. The sheet material dispenser of claim 4, wherein the first and second side portions of the inner side of the first front plate are configured to contact the adjacent first and second side portions of the inner side of the second front plate when the first and second front plates are moved to the closed position.

6. The sheet material dispenser of claim 5, wherein an alignment tab extends outwardly from at least one of the first side portion or the second side portion of the inner side of the first front plate, the alignment tab being configured to be received

5 within a corresponding slot defined in at least one of the first side portion or the second side portion of the inner side of the second front plate when the first and second front plates are moved to the closed position.

7. The sheet material dispenser of claim 4, wherein the central portion of the inner side of each of the first and second front plates has a non-linear configuration such that a cap opening is defined between the central portions of the inner sides when the first and second front plates are moved to the closed position.

8. The sheet material dispenser of claim 7, wherein the non-linear configuration corresponds to a curved profile extending between the first and second side portions of each respective front plate.

9. The sheet material dispenser of claim 7, wherein a shape of the cap opening generally corresponds to a shape of a portion of the resealable cap.

10. The sheet material dispenser of claim 7, wherein the cap opening defines a cross-wise dimension that is less than a cross-wise dimension defined by the portion of the resealable cap.

11. The sheet material dispenser of claim 10, wherein the cross-wise dimension of the cap opening is selected such that an overhanging portion is defined around an outer perimeter of the cap opening along which a top surface of the first and second front plates is configured to engage a bottom surface of the resealable cap.

12. The sheet material dispenser of claim 1, wherein the resealable cap includes a bottom cap portion coupled to a wall of the flexible pouch and a top cap portion pivotally coupled to the bottom cap portion, the first and second front plates being configured to be engaged against the bottom cap portion when in the closed position.

13. The sheet material dispenser of claim 1, wherein the sidewalls include a first sidewall having a first retention lip extending outwardly therefrom and a second sidewall having a second retention lip extending outwardly therefrom.

14. The sheet material dispenser of claim 13, wherein the first and second front plates each include a first retention arm and a second retention arm, the first retention arm extending outwardly from the bottom side of the respective front plate to a location adjacent to the first sidewall such that a portion of the first retention arm is positioned behind the first retention lip, the second retention arm extending outwardly from the bottom side of the respective front plate to a location adjacent to the second

sidewall such that a portion of the second retention arm is positioned behind the second retention lip.

15. The sheet material dispenser of claim 14, wherein the first and second retention arms are configured to be engaged behind the first and second retention lips in order to limit movement of the first and second front plates in a direction perpendicular to the back wall.

16. The sheet material dispenser of claim 1, wherein a gripper tab is defined along the outer side of each of the first and second front plates.

17. A method for using a sheet material dispenser including a flexible pouch and a rigid container configured to receive the flexible pouch, the flexible pouch defining a dispenser opening and including a resealable cap for intermittently exposing and resealing the dispenser opening, the rigid container including an interior region defined
5 at least partially by a back wall and sidewalls extending outwardly from the back wall, the method comprising:

positioning a first front plate of the rigid container around a portion of the flexible pouch such that a portion of the first front plate is positioned directly below a portion of the resealable cap;

10 positioning a second front plate of the rigid container around a portion of the flexible pouch such that a portion of the second front plate is positioned directly below the portion of the resealable cap, the first and second front plates being disposed in a closed position relative to one another when the first and second front plates are engaged against the resealable cap; and

15 slideably coupling the first and second front plates to the sidewalls of the rigid container such that the first and second front plates are movable relative to another between the closed position and an open position.

18. The method of claim 17, further comprising sliding the first and second front plates relative to the sidewalls from the closed position to the open position, the first and second front plates being disposed in a distal relationship relative to one another when in the open position.

19. The method of claim 18, further comprising removing the flexible pouch from between the first and second front plates when the first and second front plates are in the open position.

20. The method of claim 17, further comprising inserting the flexible pouch within the interior region of the rigid container before or after the first and second front plates are moved to the closed position.

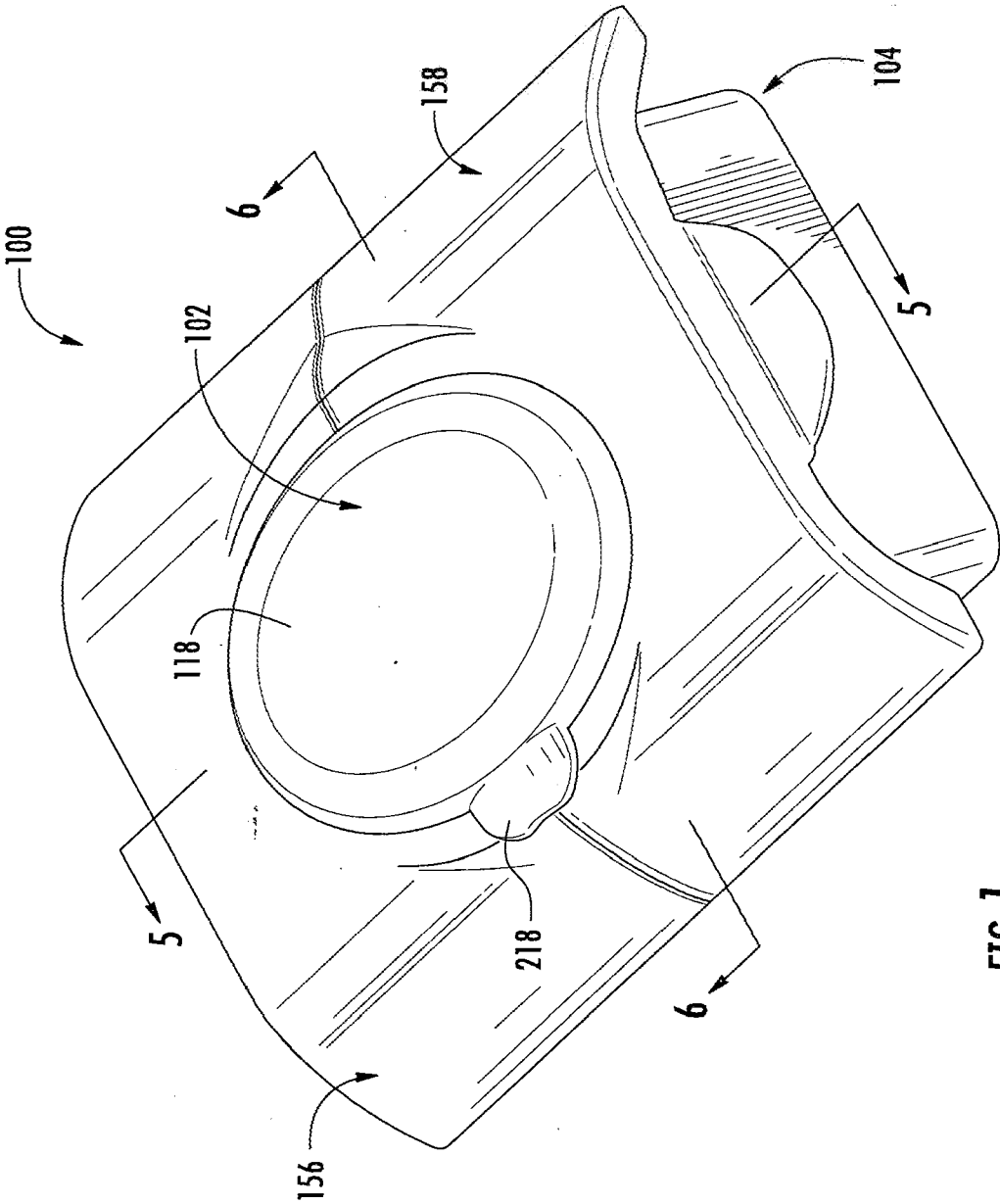


FIG. 1

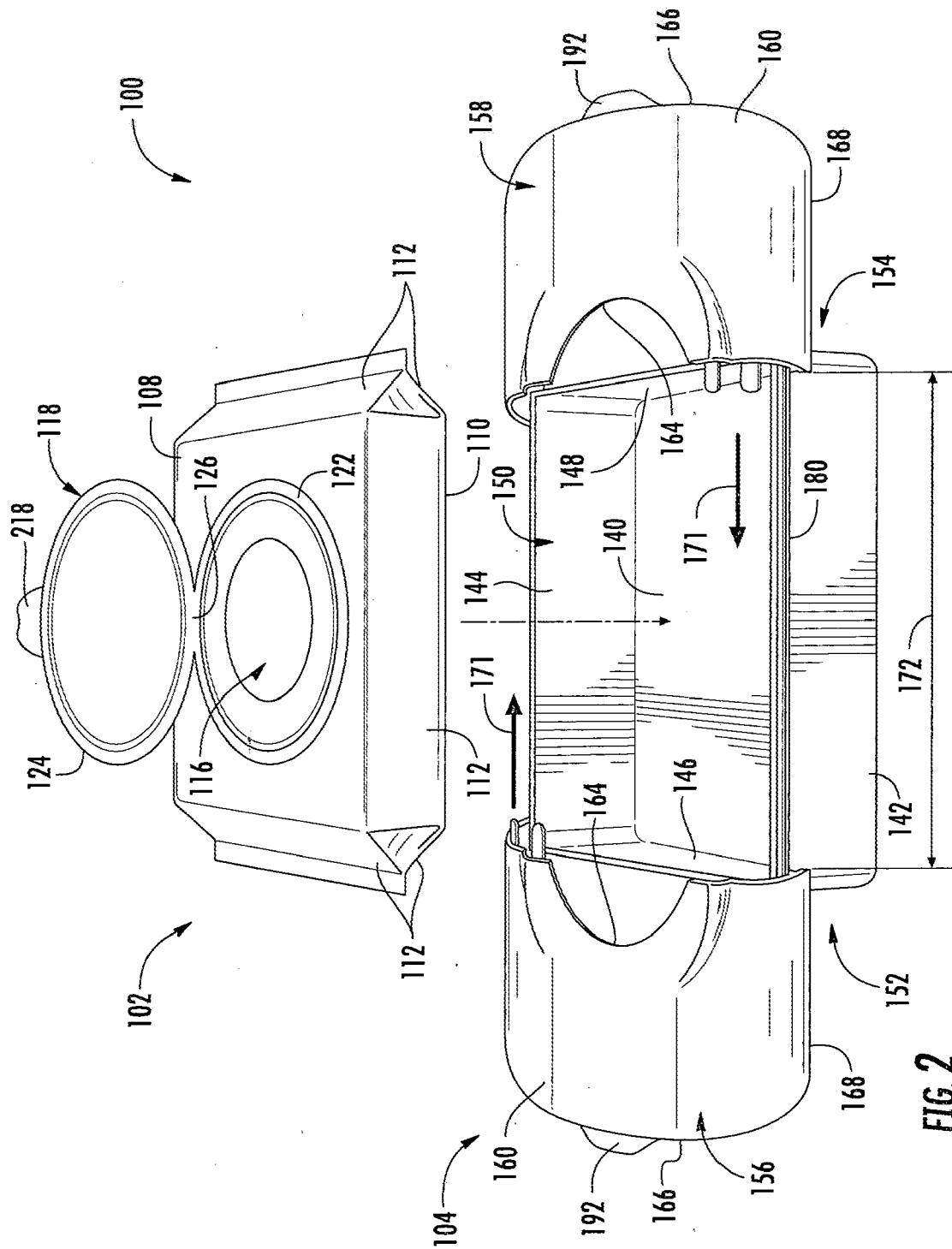
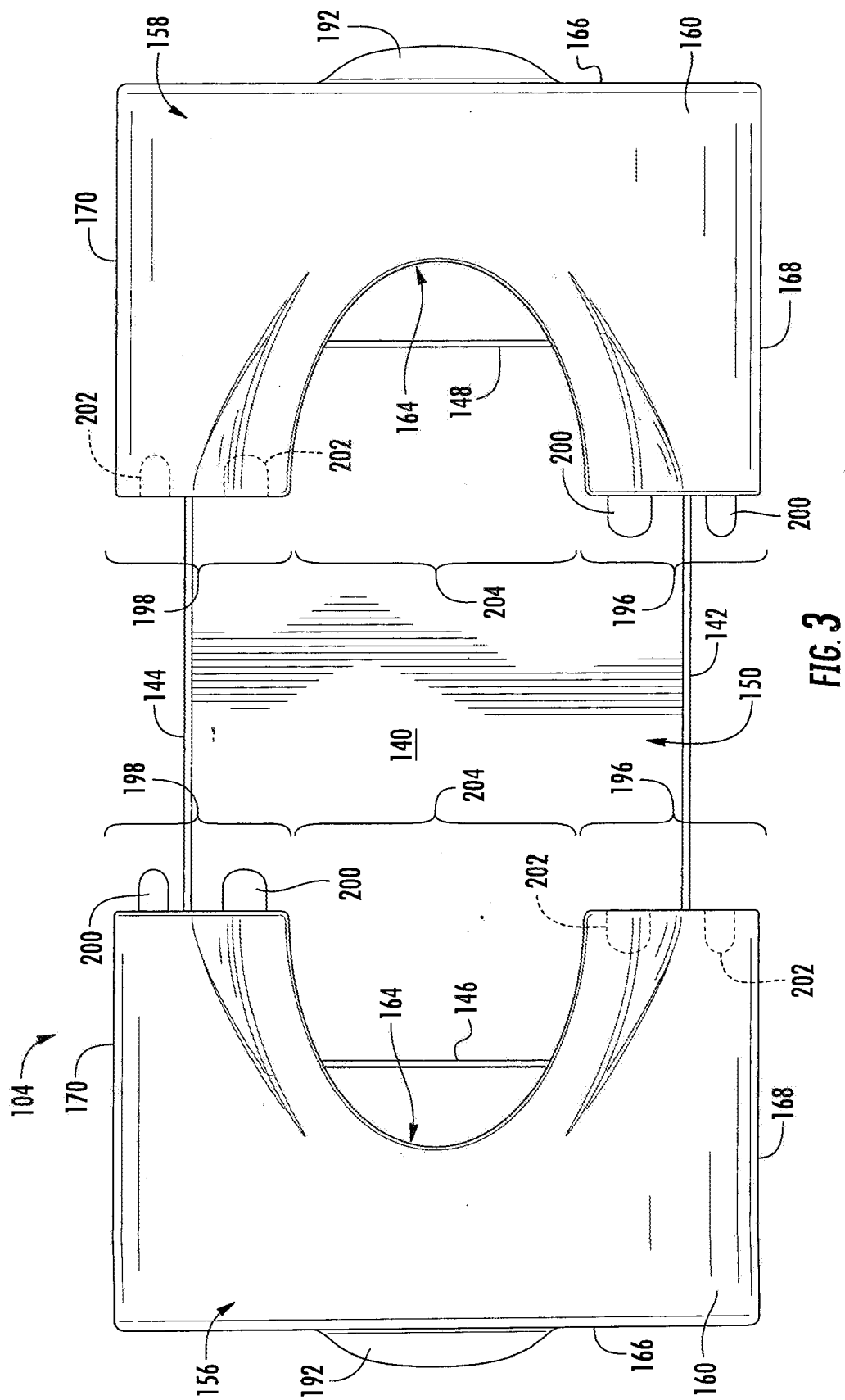


FIG. 2



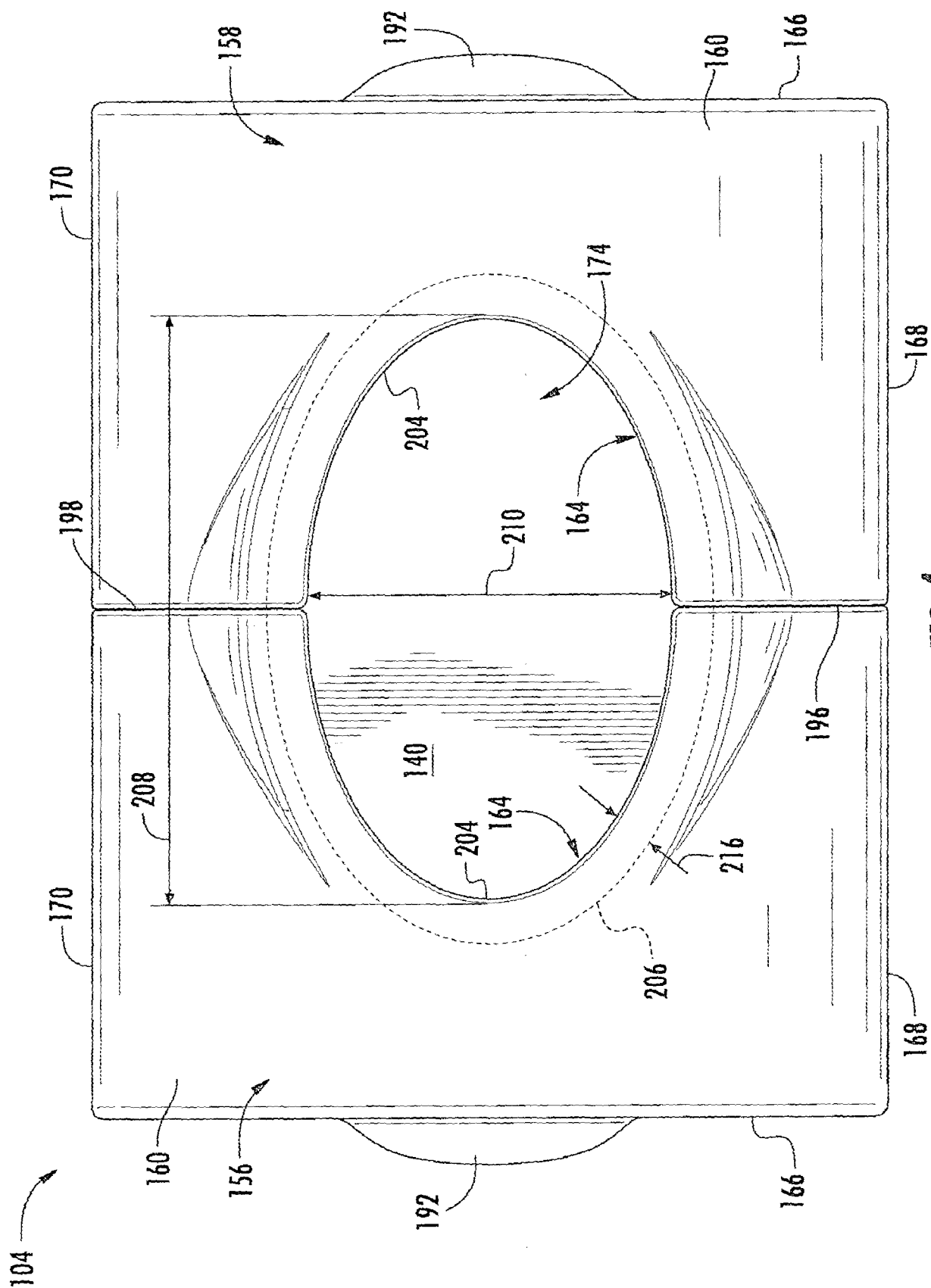


FIG. 4

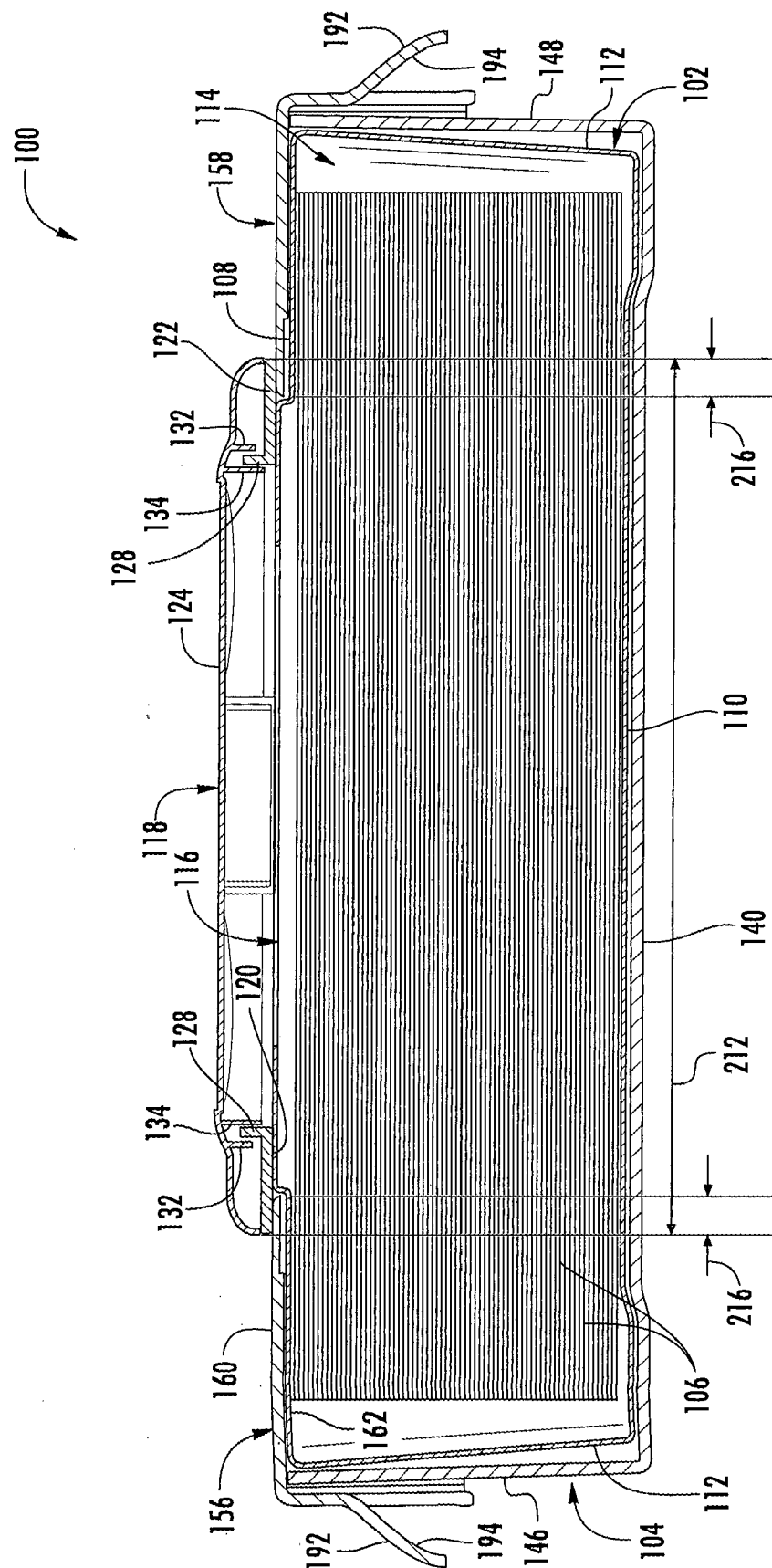
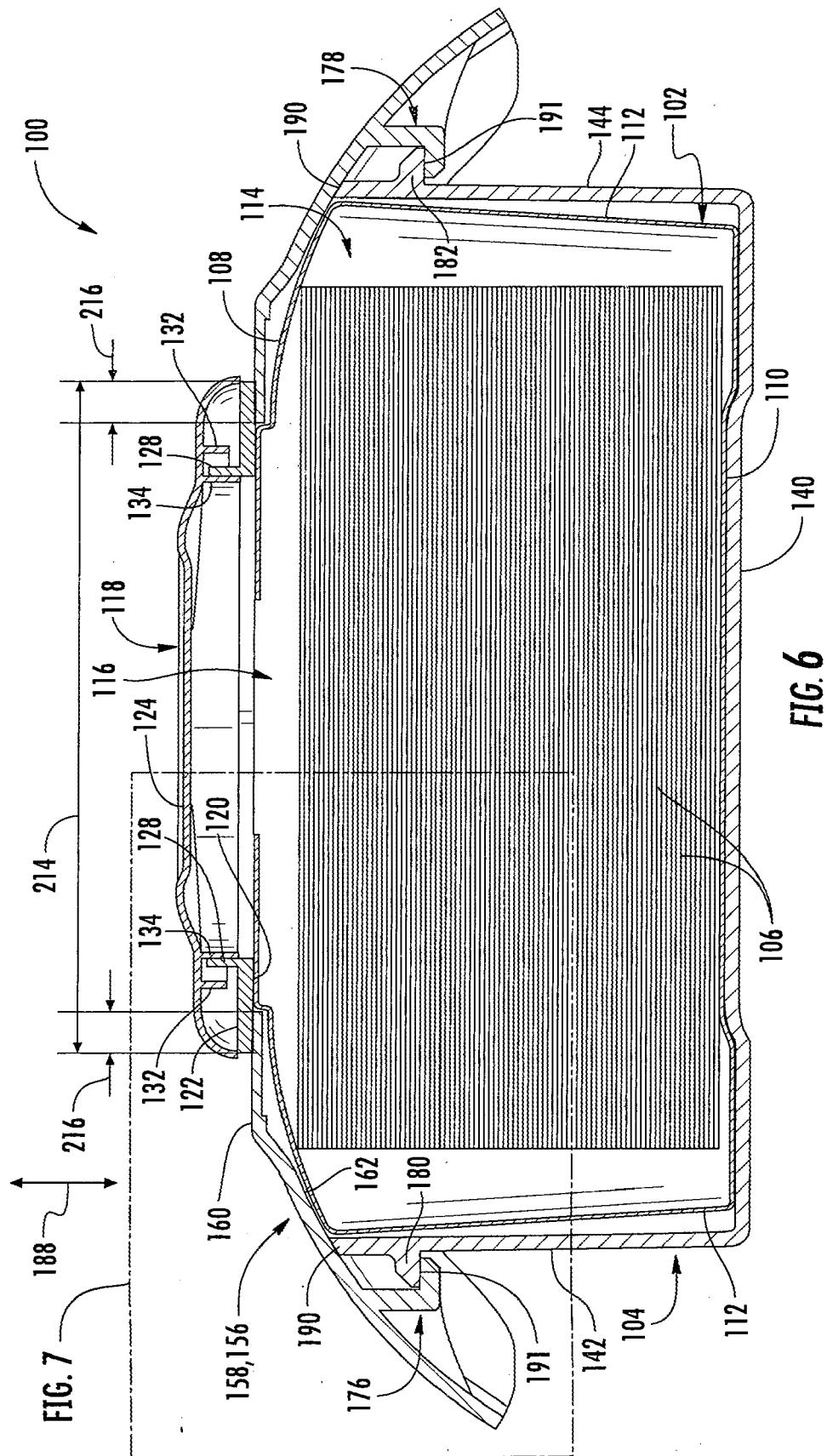
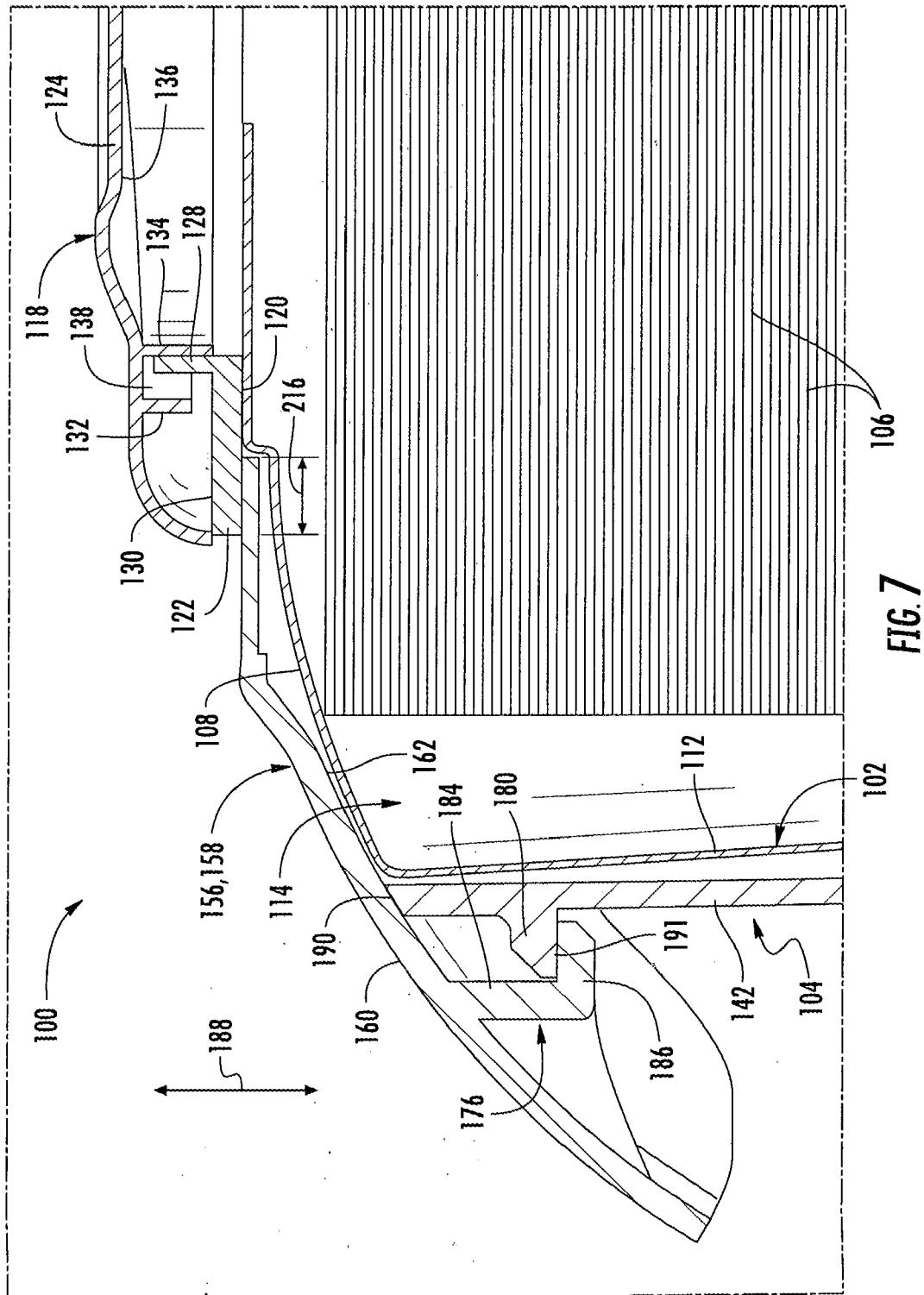


FIG. 5





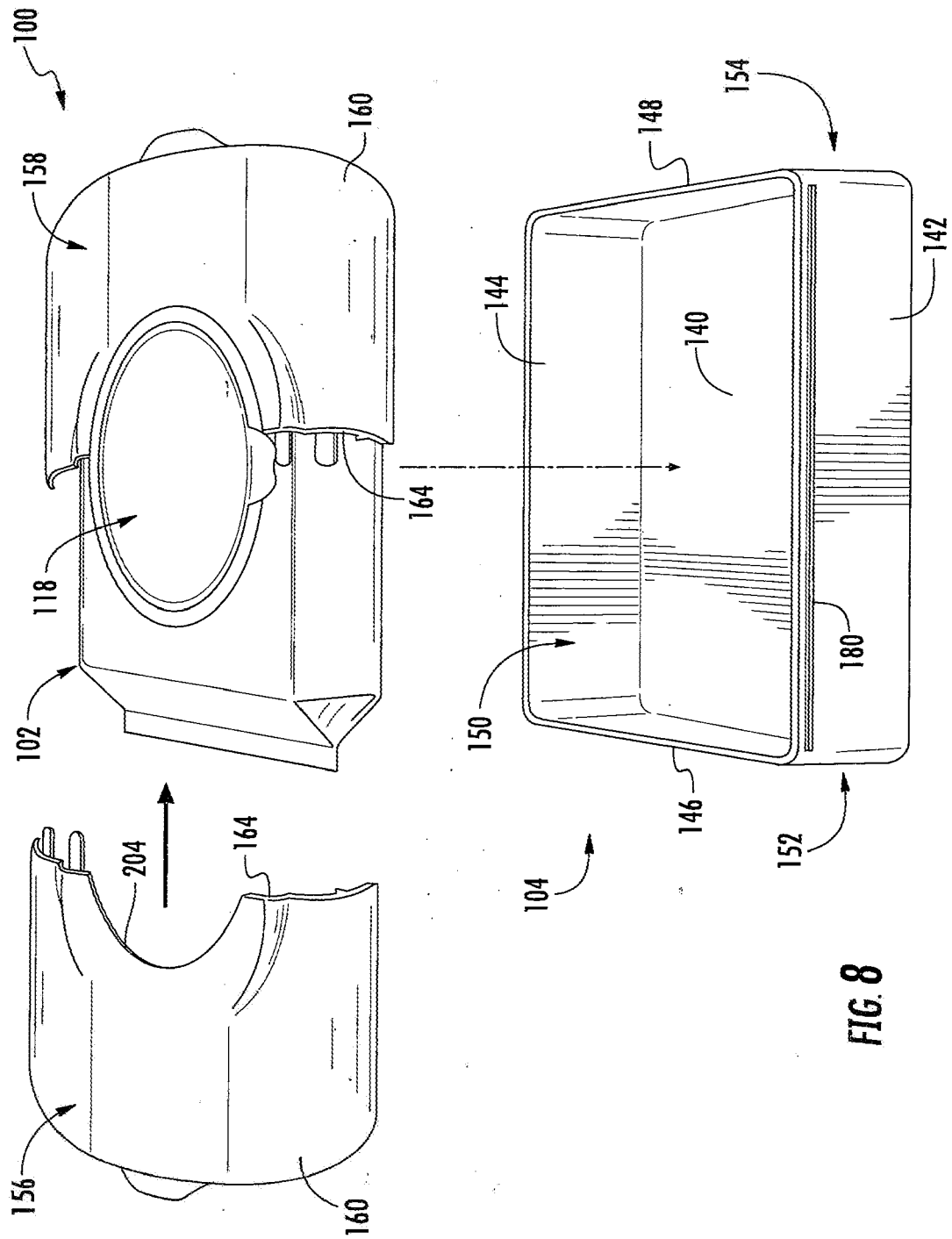


FIG. 8

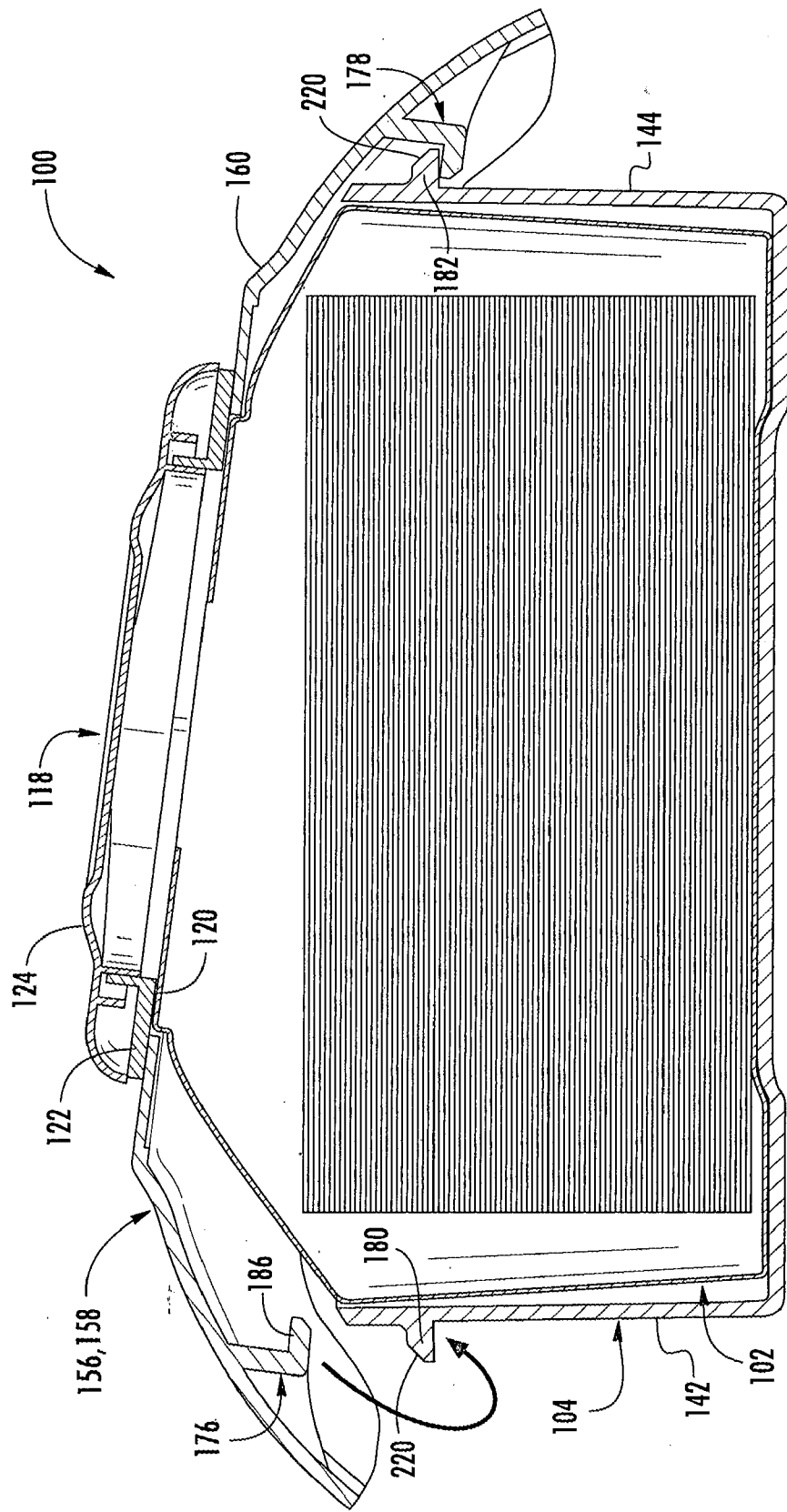


FIG. 9