



- (51) **International Patent Classification:**
A47F 9/04 (2006.01) B65D 33/14 (2006.01)
A47F 13/08 (2006.01)
- (21) **International Application Number:**
PCT/US2011/059310
- (22) **International Filing Date:**
4 November 2011 (04.11.2011)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
12/958,518 2 December 2010 (02.12.2010) US
- (71) **Applicant (for all designated States except US):** MEAD-WESTVACO CORPORATION [US/US]; 501 South 5th Street, Richmond, Virginia 23219-0501 (US).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only):** GELARDI, John A. [US/US]; 3019 Hedgeway Place, Midlothian, Virginia 23113 (US).
- (74) **Agents:** SRISIRI-SISSON, Warunee et al.; MeadWestvaco Corporation, 501 South 5th Street, Richmond, Virginia 23219-0501 (US).

- (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, 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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

(54) **Title:** PRODUCT DISPENSER AND SYSTEM

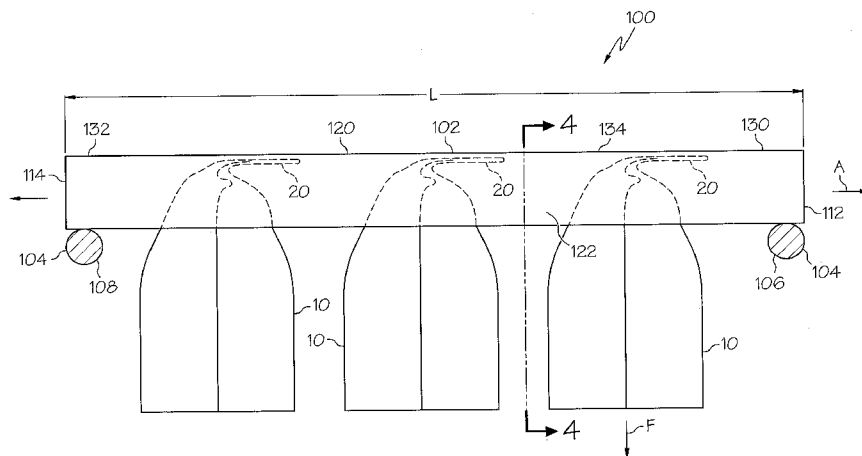


FIG. 3

(57) **Abstract:** A product dispensing system including a support structure, a dispenser mounted on the support structure, the dispenser including a first rail member and a second rail member, and a product releasably engaged with the first rail member and the second rail member such that the product is suspended from the dispenser.

WO 2012/074671 A1

PRODUCT DISPENSER AND SYSTEM

FIELD

[0001] This application relates to apparatus and systems for displaying and dispensing products and, more particularly, to apparatus and systems for displaying products in a suspended configuration and dispensing such suspended products.

BACKGROUND

[0002] Many products are now being packaged in sealed pouches. For example, it is now quite common for foodstuffs, such as cheeses, dried foods, wet foods, snacks, beverages and pet treats, to be packaged in sealed pouches. In response to the demand for pouches as packaging containers, pouches of various sizes, shapes and configurations have been developed and are now readily available to manufacturers.

[0003] An example of a typical sealed pouch is illustrated in Figs. 1A and 1B and generally designated 10. The pouch 10 includes a first panel 12 sealingly connect to a second panel 14 along an outer seam 16 to form a pouch body 18 that defines an internal volume and an opening into the internal volume. After the internal volume of the pouch 10 has been filled with product, a second, sealing seam 20, such as a fin-shaped seam, is formed across the top of the pouch body 18 to seal the opening. A slot 22 (Fig. 1A), hole or the like may be formed in the sealing seam 20 such that the pouch 10 may be hung from a rod.

[0004] Pouches are typically shipped to retailers in bulk by enclosing multiple individual pouches in a shipping container. Then, a stock clerk typically removes the individual pouches from the shipping container and places them onto a display unit, thereby making the pouches available to consumers. As one example, free-standing pouches may be stacked onto a shelf. As another example, pouches having a slot or the like, such as the slot 22 of pouch 10, may be individually hung from a rod.

[0005] The process of removing pouches from a shipping container and stacking the pouches on a shelf or hanging the pouches on a rod can be quite time consuming, thereby significantly increasing a stores overall operating expenses. Furthermore, pouches are often damaged, such as with box cutters, during the traditional stocking process.

[0006] Accordingly, those skilled in the art continue with research and development efforts in the field of product display and dispensing.

SUMMARY

[0007] In one aspect, the disclosed product dispenser may include a body panel, a first rail member connected to the body panel to define a first gap between the body panel and the first rail member to receive a first portion of a product therein, the first rail member defining a first sliding surface to be engaged by the first portion of the product, and a second rail member connected to the body panel to define a second gap between the body panel and the second rail member to receive a second portion of the product therein, the second rail member defining a second sliding surface to be engaged by the second portion of the product. Therefore, a product, such as a pouch, may be suspended from the first and second rail members such that the product is slidably and releasably engaged with the dispenser.

[0008] In another aspect, the disclosed product dispensing system may include a dispenser mounted on the support structure, the dispenser including a first rail member and a second rail member, and a product releasably engaged with the first rail member and the second rail member such that the product is suspended from the dispenser.

[0009] In another aspect, the disclosed product dispensing system may include a support structure, a dispenser mounted on the support structure, the dispenser including a body panel, a first rail member connected to the body panel and a second rail member connected to the body panel, and a product releasably engaged with the first rail member and the second rail member such that the product is suspended from the dispenser. A first portion of the product may be positioned between the body panel and the first rail member and a second portion of the product may be positioned between the body panel and the second rail member.

[0010] In another aspect, the disclosed product dispensing system may include a dispenser defining a longitudinal axis and including a body panel having a front end portion and a rear end portion longitudinally opposed from the front end portion, a first rail member connected to the body panel and extending from proximate the front end portion to proximate the rear end portion, the first rail member defining a first sliding surface, and a

second rail member connected to the body panel and extending from proximate the front end portion to proximate the rear end portion, the second rail member being laterally opposed from the first rail member and defining a second sliding surface, and a product extending between the first and second rail members and including a first portion positioned between the body panel and the first sliding surface and a second portion positioned between the body panel and the second sliding surface.

[0011] In yet another aspect, the disclosed product dispensing system may include a dispenser having a body panel, a first rail member connected to the body panel and a second rail member connected to the body panel, a pouch including a pouch body and a seam, the pouch body extending between the first rail member and the second rail member, the seam including a first portion positioned between the body panel and the first rail member and a second portion positioned between the body panel and the second rail member, and a support structure, wherein the dispenser is mounted on the support structure such that the pouch hangs from the dispenser.

[0012] Other aspects of the disclosed product dispenser and system will become apparent from the following description, the accompanying drawings and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] Fig. 1A is a front elevational view a pouch useful in the disclosed product dispensing system;

[0014] Fig. 1B is a side elevational view of the pouch of Fig. 1A;

[0015] Fig. 2 is a front perspective view of one aspect of the disclosed product dispensing system;

[0016] Fig. 3 is a side elevational view of the product dispensing system of Fig. 2;

[0017] Fig. 4 is a front elevational view, in section, of the product dispensing system of Fig. 3;

[0018] Fig. 5 is a bottom perspective view of the dispenser of the product dispensing system of Fig. 2;

[0019] Fig. 6 is a top plan view of a blank used to form the dispenser of Fig. 5;

[0020] Fig. 7 is a bottom perspective view of the dispenser of Fig. 5 shown in a partially assembled, loading configuration;

[0021] Fig. 8 is a front perspective view of another aspect of the disclosed product dispensing system;

[0022] Fig. 9 is a front elevational view, in section, of the dispenser of the product dispensing system of Fig. 8;

[0023] Fig. 10 is a bottom perspective view of the dispenser of Fig. 9 shown in a partially assembled, loading configuration;

[0024] Fig. 11 is a front perspective view of one alternative aspect of the disclosed product dispensing system;

[0025] Fig. 12 is a front perspective view of another alternative aspect of the disclosed product dispensing system; and

[0026] Figs. 13A, 13B and 13C are perspective views of a standard pouch being configured for use in the disclosed product dispensing system.

DETAILED DESCRIPTION

[0027] Referring to Figs. 2 and 3, one aspect of the disclosed product dispensing system, generally designated 100, may include a dispenser 102 and a support structure 104. The dispenser 102 may be loaded with one or more product units, such as pouches 10, and may be mounted on the support structure 104 such that the pouches 10 are suspended from the dispenser 102. A pulling force applied to a suspended pouch 10 by the hand of a human of ordinary strength in the direction of arrow **F** (Fig. 3) may be sufficient to separate the pouch 10 from the dispenser 102.

[0028] The support structure 104 may be any structure capable of supporting the dispenser 102 in a configuration such that the pouches 10 hang from the dispenser 102. As shown in Fig. 3, the support structure 104 may support the dispenser 102 in a generally horizontal configuration (relative to the surface of the earth). Alternatively, the support structure 104 may support the dispenser 102 at an angle, such as 15 to 90 degrees, relative to horizontal.

[0029] As a first specific, non-limiting example, the support structure 104 may include a first rod 106 and a second rod 108. A cross-bar 110 may connect the first rod 106 to the second rod 108. The rods 106, 108 of the support structure 104 may be generally parallel, but spaced from each other by a distance closely corresponding to the longitudinal length L (Fig. 3) of the dispenser 102. Therefore, the front end 112 of the dispenser 102 may rest on the first rod 106 of the support structure 104 and the rear end 114 of the dispenser 102 may rest on the second rod 108 of the support structure 104.

[0030] Referring to Fig. 11, as a second specific, non-limiting example, the support structure 104' may include first and second longitudinal brackets 302, 304 extending from a wall 306, such as the back wall of a shelf or display. Therefore, the first longitudinal edge 134 of the dispenser 102 may rest on the first longitudinal bracket 302 of the support structure 104' and the second longitudinal edge 136 of the dispenser 102 may rest on the second longitudinal bracket 302 of the support structure 104'.

[0031] Referring to Fig. 12, as a third specific, non-limiting example, the support structure 104'' may include a rod 402 extending from a wall 404, such as the back wall of a shelf or display. The dispenser 102 may include tabs 406 connected thereto, wherein the tabs 406 define openings 408, such as slots or holes. Therefore, the dispenser 102 may be mounted on the support structure 104'' by passing the rod 402 through the openings 408 in the tabs 406 such that the dispenser 102 is suspended from the rod 402 of the support structure 104''.

[0032] As shown in Fig. 5, the dispenser 102 may include an elongated body panel 120, a first rail member 122 and a second rail member 124. A front wall panel 126 may optionally enclose the front end 112 of the dispenser 102 and a rear wall panel 128 may optionally enclose the rear end 114 of the dispenser 102.

[0033] As shown in Fig. 4 and described in greater detail below, the body 18 of a pouch 10 may be positioned between the first and second rail members 122, 124 of the dispenser 102, a first portion 24 of the sealing seam 20 of the pouch 10 may be positioned between the body panel 120 of the dispenser 102 and the first rail member 122, and a second portion 26 of the sealing seam 20 of the pouch 10 may be positioned between the body panel 120 and the second rail member 124. Therefore, the pouch 10 may be releasably engaged with

the dispenser 102 and may be slideable relative to the dispenser 102 along the first and second rail members 122, 124.

[0034] As shown in Fig. 5, the body panel 120 of the dispenser 102 may be formed as a generally planar sheet, such as a generally flat, rectangular sheet, and may include a front end portion 130 extending proximate the front end 112 of the dispenser 102 and a rear end portion 132 extending proximate the rear end 114 of the dispenser 102. The front end portion 130 of the body panel 120 may be longitudinally opposed from the rear end portion 132 relative to the longitudinal axis **A** of the dispenser 102.

[0035] As shown in Fig. 4, the body panel 120 of the dispenser 102 may further include laterally opposed first and second longitudinal edges 134, 136. As shown in Figs. 2, 3 and 5, the longitudinal edges 134, 136 of the body panel 120 may extend from the front end portion 130 of the body panel 120 to the rear end portion 132.

[0036] Referring to Figs. 4 and 5, the first rail member 122 may be connected to the first longitudinal edge 134 of the body panel 120 and may extend along the first longitudinal edge 134 from proximate the front end 112 of the dispenser 102 to proximate the rear end 114 of the dispenser 102. As shown in Fig. 4, the first rail member 122 may define a first sliding surface 140, which may be in generally co-planar (e.g., face-to-face) alignment with the body panel 120. A gap 142 may be defined between the first sliding surface 140 and the body panel 120 to closely receive the first portion 24 of the sealing seam 20 of the pouch 10.

[0037] In one particular construction, the first rail member 122 may be provided with a generally square or rectangular cross-section to structurally reinforce the first sliding surface 140. Specifically, the first rail member 122 may include a first strut member 144, a tie member 146, a second strut member 148 and a support member 150. The first sliding surface 140 may be defined by the support member 150. The second strut member 148 may vertically position the support member 150 relative to the body panel 120. The tie member 146 may connect the second strut member 148 to the first strut member 144. The first strut member 144 may be connected to the body panel 120 and may define a first longitudinal side wall of the dispenser 102. Furthermore, the first strut member 144 may vertically space the tie member 146 from the body panel 120.

[0038] The second rail member 124 may be generally structurally similar to the first rail member 122, but may be connected to the second longitudinal edge 136 of the body panel 120 and may extend along the second longitudinal edge 136 from proximate the front end 112 of the dispenser 102 to proximate the rear end 114 of the dispenser 102. As shown in Fig. 4, the second rail member 124 may define a second sliding surface 152, which may be in generally co-planar (e.g., face-to-face) alignment with the body panel 120. A gap 154 may be defined between the second sliding surface 152 and the body panel 120 to closely receive the second portion 26 of the sealing seam 20 of the pouch 10.

[0039] The dispenser 102 may be formed from a pre-cut blank, such as the blank 160 shown in Fig. 6. The blank 160 may be cut from a sheet of stock material to define an outer periphery 162 of the blank 160. In one particular aspect, the stock material may be a paperboard-based material, such as C1S paperboard, which may have a coating (e.g., clay) on a first major surface thereof and an uncoated second major surface, or C2S paperboard, which may have a coating (e.g., clay) on both major surfaces thereof. Optionally, at least one major surface of the blank 160, such as the coated external surface, may be marked with various indicia, such as printed text and graphics.

[0040] The blank 160 may include a plurality of longitudinal pre-formed fold lines 164, 166, 168, 170, 172, 174, 176, 178 and a plurality of lateral pre-formed fold lines 180, 182, 184, 186, 188, 190 that define the various components of the dispenser 102. Specifically, the periphery 162 and fold lines 170, 172, 184, 186 may define the body panel 120, the periphery 162 and fold line 170 may define the first rail member 122, the periphery 162 and fold line 172 may define the second rail member 124, the periphery 162 and fold lines 182, 184 may define the front wall panel 126, the periphery 162 and fold lines 180, 182 may define front sealing panels 192, 194, the periphery 162 and fold lines 186, 188 may define the rear wall panel 128, and the periphery 162 and fold lines 188, 190 may define the rear sealing panels 196, 198. Furthermore, the periphery 162 and fold lines 164, 166, 168, 170 may define the first strut member 144, the tie member 146, the second strut member 148 and the support member 150 of the first rail member 122 and the periphery 162 and fold lines 172, 174, 176, 178 may define corresponding structure of the second rail member 124.

[0041] Thus, referring to Figs. 5-7, the dispenser 102 may be formed by:

- (1) folding the blank 160 along the longitudinal fold lines 164, 166, 168, 170, 172, 174, 176, 178 to assemble the first and second rail members 122, 124 along the longitudinal edges 134, 136 of the body panel 120;
- (2) folding the blank 160 along lateral fold lines 186, 188, 190 such that the rear wall panel 128 encloses the rear end 114 of the dispenser 102;
- (3) sealing (e.g., with heat and/or adhesives) the rear sealing panel 196 to the rear ends of the first and second rail members 122, 124 (sealing panel 198 may extend between the first and second rail members 122, 124);
- (4) folding the blank 160 along lateral fold lines 180, 182, 184 such that the front wall panel 126 encloses the front end 112 of the dispenser 102; and
- (5) sealing the front sealing panel 194 to the first and second rail members 122, 124 (sealing panel 192 may extend between the first and second rail members 122, 124).

[0042] Referring to Fig. 7, the dispenser 102 may be loaded with product (e.g., pouches 10) prior to enclosing and sealing the front end 112 with the front wall panel 126.

Optionally, the front ends of the first and second rail members 122, 124 may be cut at an angle such that the front ends of the first and second rail members 122, 124 guide product to the gaps 142, 154 (Fig. 4) between the body panel 120 and the first and second sliding surfaces 140, 152 (Fig. 4).

[0043] A product, such as a pouch 10, may be loaded in the dispenser 102 by introducing the sealing seam 20 of the pouch 10 into the gaps 142, 154 between the body panel 120 and the first and second rail members 122, 124. As the body 18 of the pouch 10 moves from a longitudinal (horizontal) configuration to a perpendicular (vertical) configuration (Fig. 3) relative to the dispenser 102, the sealing seam 20 of the pouch 10 may remain in a longitudinal (horizontal) configuration (i.e., at an angle relative to the vertical axis of the pouch 10) due to restriction within the narrow gaps 142, 154, as shown in Fig. 3.

[0044] As shown in Fig. 4, the sealing seam 20 may protrude laterally outward from the body 18 of the pouch 10 in front view such that the body 18 of the pouch 10 is positioned between the first and second rail members 122, 124, while a first portion 24 of the sealing seam 20 is positioned between the body panel 120 and the first sliding surface 140 of the

first rail member 122 and a second portion 26 of the sealing seam 20 is positioned between the body panel 120 and the second sliding surface 152 of the second rail member 124.

Therefore, the pouch 10 may be releasably engaged with the dispenser 102 and the first portion 24 of the pouch 10 may be slidable along the sliding surface 140 of the first rail member 122 and the second portion 26 of the pouch 10 may be slidable along the sliding surface 152 of the second rail member 124.

[0045] Various products may be loaded into the dispenser 102, provided that the products have a generally T-shaped profile in front view. A product may have a generally T-shaped profile in front view if the product includes an end portion (e.g., sealing seam 20) and a body (e.g., body 18), wherein the body is slightly more narrow than the end portion such that the end portion may be received in the gaps 142, 154 between the body panel 120 and the first and second rail members 122, 124, while the body may be positioned between the first and second rail members 122, 124.

[0046] For example, Figs. 13A, 13B and 13C illustrate a standard, commercially available pouch 10' being configured for use in the disclosed dispenser 102. Specifically, the pouch 10' shown in Fig. 13A, which may be the same as or similar to the pouch 10 shown in Fig. 1A, may be folded such that the sealing seam 20' of the pouch 10' is positioned at an angle (e.g., 90 degrees) relative to the body 18' of the pouch 10', as shown in Fig. 13B. Then, as shown in Fig. 13C, the sides 30, 32 of the pouch 10' may be urged inward to define pleats 34, 36. Therefore, a standard pouch 10' may be pleated such that the body 18' of the pouch 10' is more narrow than the sealing seam 20' of the pouch 10', thereby enabling use of the pouch 10' in the disclosed dispenser 102.

[0047] At this point, those skilled in the art will appreciate that the pouch 10, particularly the sealing seam 20 of the pouch 10, may have a stiffness sufficient such that the weight of the pouch 10 may be supported by engaging the first 24 and second 26 portions (Fig. 4) of the pouch 10. For example, the pouch 10 may be formed from a polymeric material having sufficient stiffness and/or the sealing seam 20 may be reinforced, such as with a sealing mechanism (e.g., a zip-type sealing mechanism).

[0048] Accordingly, the dispenser 102 may be loaded with a product 10 by positioning the product 10 between the first and second rail members 122, 124 such that a first portion 24

of the product 10 is positioned between the body panel 120 and the first rail member 122 and a second portion 26 of the product 10 is positioned between the body panel 120 and the second rail member 124. The loaded dispenser 102 may be mounted on the support structure 104 such that the product 10 is suspended from the dispenser 102 and longitudinally slidable relative to the dispenser 102 along the first and second rail members 122, 124. A pulling force applied to the product 10 by the hand of a human of ordinary strength in the direction of arrow F (Fig. 4) may be sufficient to separate the product 10 from the dispenser 102.

[0049] An optional biasing assembly, such as the biasing assembly disclosed in U.S. Ser. No. 12/897,098 (“Product Dispensing System with Biasing Assembly”) filed October 4, 2010, the entire contents of which are incorporated herein by reference, may be employed to urge the product 10 to the front end 112 of the dispenser 102.

[0050] Referring to Fig. 8, another aspect of the disclosed product dispensing system, generally designated 200, may include a dispenser 202 and a support structure 204. The dispenser 202 may be loaded with one or more product units, such as pouches 10 (Figs. 1A and 1B), and may be mounted on the support structure 204 such that the pouches 10 are suspended from the dispenser 202.

[0051] As shown in Figs. 9 and 10, the dispenser 202 may include an elongated body panel 220, a first rail member 222 and a second rail member 224. An optional front wall panel 226 may be connected to the front end 212 of the dispenser 202 and may be marked with various indicia 227, such as advertising text and graphics.

[0052] The body 18 of a pouch 10 may be positioned between the first and second rail members 222, 224 of the dispenser 202, a first portion 24 of the sealing seam 20 of the pouch 10 may be positioned between the body panel 220 of the dispenser 202 and the first rail member 222, and a second portion 26 of the sealing seam 20 of the pouch 10 may be positioned between the body panel 220 and the second rail member 224. Therefore, the pouch 10 may be releasably engaged with the dispenser 202 and may be slidable relative to the dispenser 102 along the first and second rail members 222, 224.

[0053] As shown in Fig. 8, the body panel 220 of the dispenser 102 may be formed as a generally planar sheet, such as a generally flat, rectangular sheet, and may include a front

end portion 230 extending proximate the front end 212 of the dispenser 202 and a rear end portion 232 extending proximate the rear end 214 of the dispenser 202. The front end portion 230 of the body panel 220 may be longitudinally opposed from the rear end portion 232 relative to the longitudinal axis **A** of the dispenser 202.

[0054] The body panel 220 of the dispenser 202 may further include laterally opposed first and second longitudinal edges 234, 236. The longitudinal edges 234, 236 of the body panel 220 may extend from the front end portion 230 of the body panel 220 to the rear end portion 232.

[0055] Referring to Figs. 8-10, the first rail member 222 may be connected to the first longitudinal edge 234 of the body panel 220 and may extend along the first longitudinal edge 234 from proximate the front end 212 of the dispenser 202 to proximate the rear end 214 of the dispenser 202. As shown in Fig. 9, the first rail member 222 may define a first sliding surface 240, which may be in generally co-planar (e.g., face-to-face) alignment with the body panel 220. A gap 242 may be defined between the first sliding surface 240 and the body panel 220 to closely receive the first portion 24 of the sealing seam 20 of the pouch 10.

[0056] In one particular construction, the first rail member 222 may be provided with a generally Z-shaped cross-section to structurally reinforce the first sliding surface 240 and form a sealing surface 241. Specifically, the first rail member 222 may include a support member 244 and a sealing member 246. The support member 244 of the first rail member 222 may be connected to the first longitudinal edge 234 and may extend laterally inward from the edge 234 to define the first sliding surface 240. The sealing member 246 of the first rail member 222 may be connected to the support member 244 and may extend laterally outward from support member 244 to define the sealing surface 241.

[0057] The second rail member 224 may be generally structurally similar to the first rail member 222, but may be connected to the second longitudinal edge 236 of the body panel 220 and may extend along the second longitudinal edge 236 from proximate the front end 212 of the dispenser 202 to proximate the rear end 214 of the dispenser 202. As shown in Fig. 9, the second rail member 224 may define a second sliding surface 252, which may be in generally co-planar (e.g., face-to-face) alignment with the body panel 220. A gap 254 may

be defined between the second sliding surface 252 and the body panel 220 to closely receive the second portion 26 of the sealing seam 20 of the pouch 10.

[0058] As shown in Fig. 10, products 10 may be loaded into the dispenser 202 by positioning the products 10 between the first and second rail members 222, 224 such that a first portion 24 of the sealing seam 20 of the product 10 is positioned between the body panel 220 and the sliding surface 240 of the first rail member 220 and a second portion 26 of the sealing seam 20 of the product 10 is positioned between the body panel 220 and the sliding surface 252 of the second rail member 224.

[0059] Once the products 10 have been loaded into the dispenser 202 by way of the front end 212 of the dispenser 202, the front end 212 may be sealed to enclose the products 10 in the dispenser. In one particular construction, the front end 212 of the dispenser 202 may be sealed by folding a sealing flap 233 extending from the front end portion 230 of the body panel 220 over the front end 212 of the dispenser 202 and sealing (e.g., with heat and/or adhesives) the sealing flap 233 to the sealing surfaces 241 of the first and second rail members 222, 224. The rear end 214 of the dispenser 202 may be sealed in a similar manner.

[0060] Accordingly, the dispenser 202 may be loaded with a product 10 by positioning the product 10 between the first and second rail members 222, 224 such that a first portion 24 of the product 10 is positioned between the body panel 220 and the first rail member 222 and a second portion 26 of the product 10 is positioned between the body panel 220 and the second rail member 224. The loaded dispenser 202 may be mounted on the support structure 204 such that the product 10 is suspended from the dispenser 202 between the first and second rail members 222, 224 and longitudinally slidable relative to the dispenser 202 along the sliding surfaces 240, 252 of the first and second rail members 222, 224. A pulling force applied to the product 10 by the hand of a human of ordinary strength in the direction of arrow **F** (Fig. 9) may be sufficient to separate the product 10 from the dispenser 202.

[0061] Although various aspects of the disclosed product dispenser and system have been shown and described, modifications may occur to those skilled in the art upon reading the

specification. The present application includes such modifications and is limited only by the scope of the claims.

[0062] What is claimed is:

1. A product dispensing system comprising:
 - a dispenser comprising a first rail member and a second rail member; and
 - a product releasably engaged with said first rail member and said second rail member such that said product is suspended from said dispenser.
2. The product dispensing system of claim 1 further comprising a support structure, wherein said dispenser is mounted on said support structure.
3. The product dispensing system of claim 1 wherein said product comprises a pouch, and said pouch is releasably engaged with said first rail member and said second rail member.
4. The product dispensing system of claim 1 wherein said first rail member defines a first sliding surface and said second rail member defines a second sliding surface, and wherein said product is in sliding engagement with said first sliding surface and said second sliding surface.
5. The product dispensing system of claim 1 wherein said dispenser comprises paperboard.
6. The product dispensing system of claim 1 wherein said dispenser further comprises a body panel that connects said first rail member to said second rail member.
7. A product dispensing system comprising:
 - (1) a dispenser defining a longitudinal axis and comprising:
 - a body panel having a front end portion and a rear end portion longitudinally opposed from said front end portion;
 - a first rail member connected to said body panel and extending from proximate said front end portion to proximate said rear end portion, said first rail member defining a first sliding surface; and
 - a second rail member connected to said body panel and extending from proximate said front end portion to proximate said rear end portion, said second rail member being laterally opposed from said first rail member and defining a second sliding surface; and

(2) a product extending between said first rail member and said second rail member and including a first portion positioned between said body panel and said first sliding surface and a second portion positioned between said body panel and said second sliding surface.

8. The product dispensing system of claim 7 further comprising a support structure, wherein said dispenser is mounted on said support structure such that said product is suspended from said dispenser.

9. The product dispensing system of claim 8 wherein said support structure is configured to support said dispenser such that said longitudinal axis is generally horizontal.

10. The product dispensing system of claim 7 wherein said first portion of said product is in sliding engagement with said first sliding surface, and wherein said second portion of said product is in sliding engagement with said second sliding surface.

11. The product dispensing system of claim 7 wherein said body panel comprises a first longitudinal edge and a second longitudinal edge, said second longitudinal edge being laterally opposed from said first longitudinal edge, and wherein said first rail member is connected to said first longitudinal edge and said second rail member is connected to said second longitudinal edge.

12. The product dispensing system of claim 7 wherein said body panel comprises a first major surface that defines a first plane and said first sliding surface defines a second plane, and wherein said first plane is generally parallel with said second plane.

13. The product dispensing system of claim 7 wherein said body panel, said first rail member and said second rail member are formed as a single monolithic body.

14. The product dispensing system of claim 7 wherein said dispenser comprises paperboard.

15. The product dispensing system of claim 7 wherein said product is biased toward said front end portion.
16. The product dispensing system of claim 7 wherein said dispenser further comprises a sealing panel extending from said body panel, and wherein said sealing panel is connected to said first and said second rail members.
17. The product dispensing system of claim 7 wherein said first rail member is generally rectangular in cross-section.
18. The product dispensing system of claim 7 wherein said first rail member is generally Z-shaped in cross-section.
19. The product dispensing system of claim 7 wherein said product is a flexible pouch.
20. A product dispensing system comprising:
 - a dispenser comprising:
 - a body panel;
 - a first rail member connected to said body panel; and
 - a second rail member connected to said body panel;
 - a pouch including a pouch body and a seam, said pouch body extending between said first rail member and said second rail member, said seam comprising a first portion positioned between said body panel and said first rail member and a second portion positioned between said body panel and said second rail member; and
 - a support structure, wherein said dispenser is mounted on said support structure such that said pouch hangs from said dispenser.

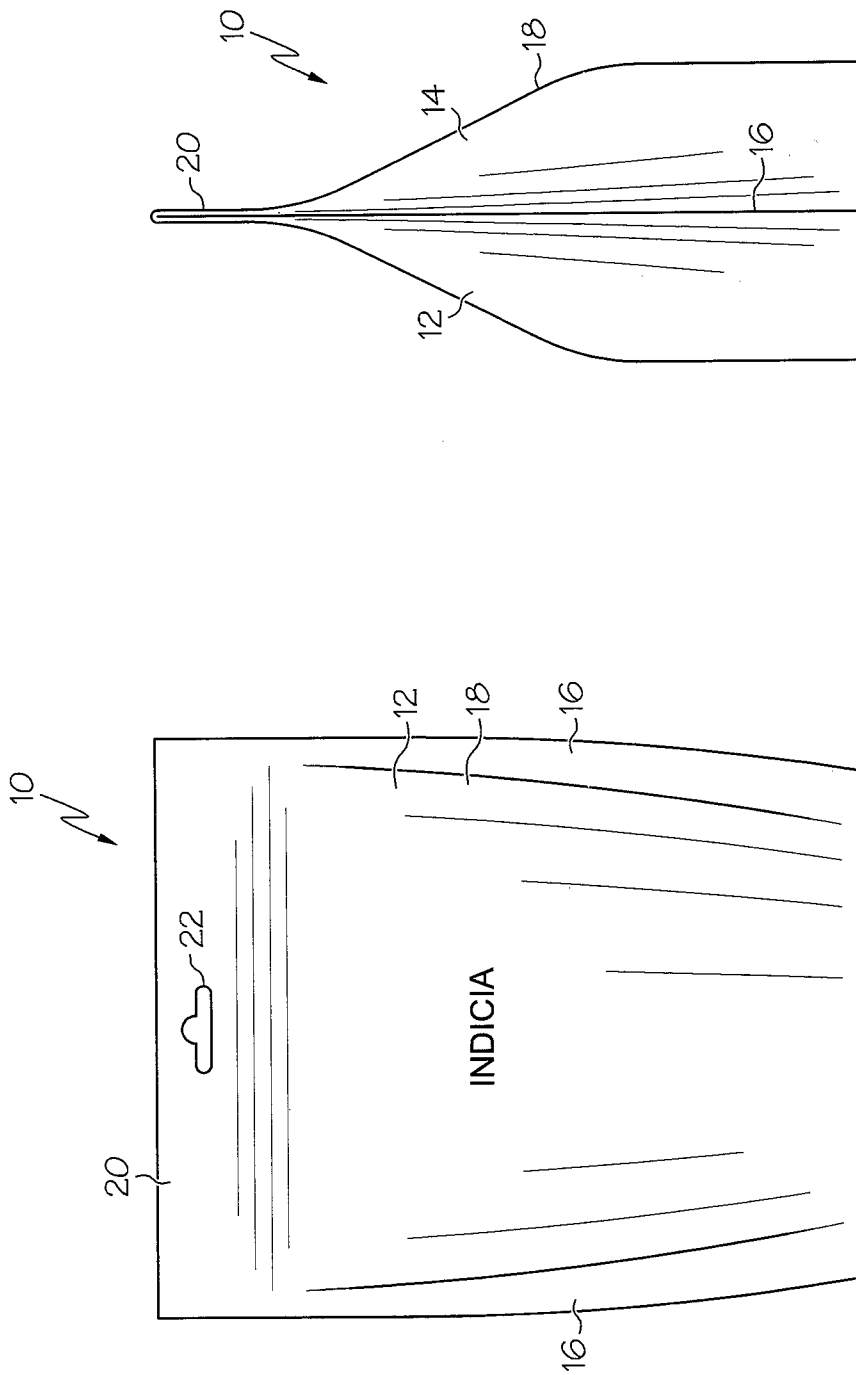


FIG. 1B
(PRIOR ART)

FIG. 1A
(PRIOR ART)

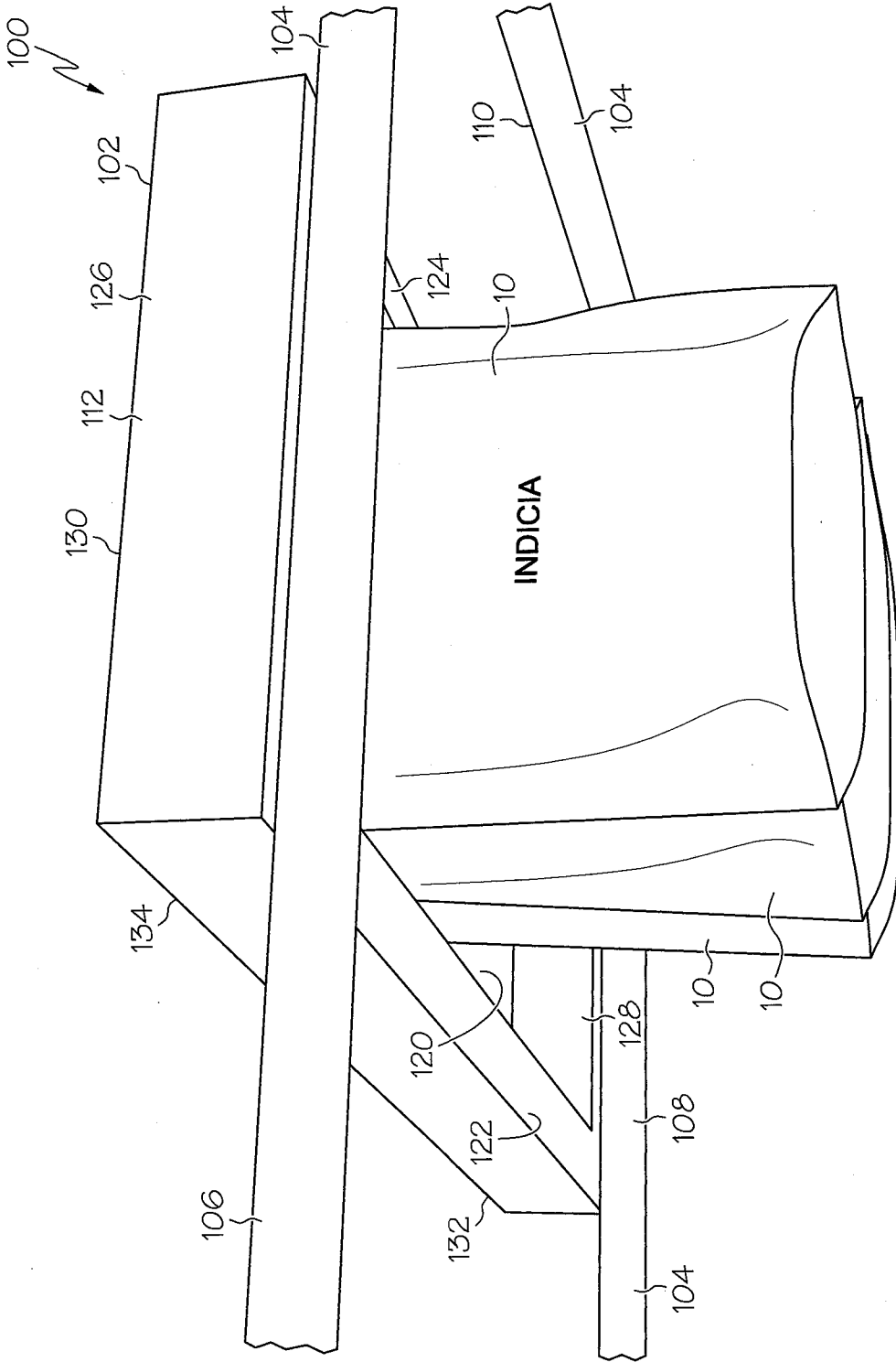


FIG. 2

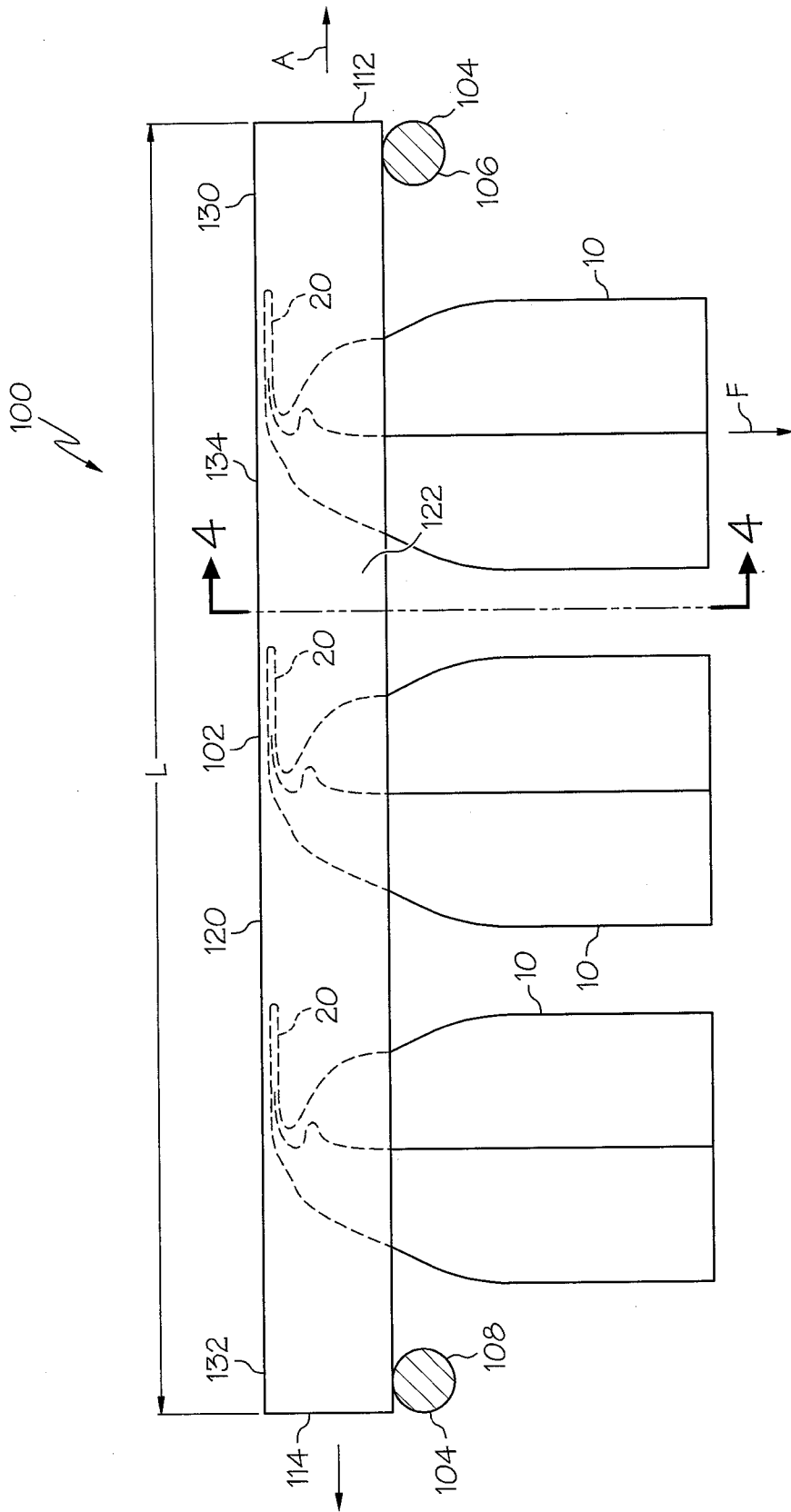


FIG. 3

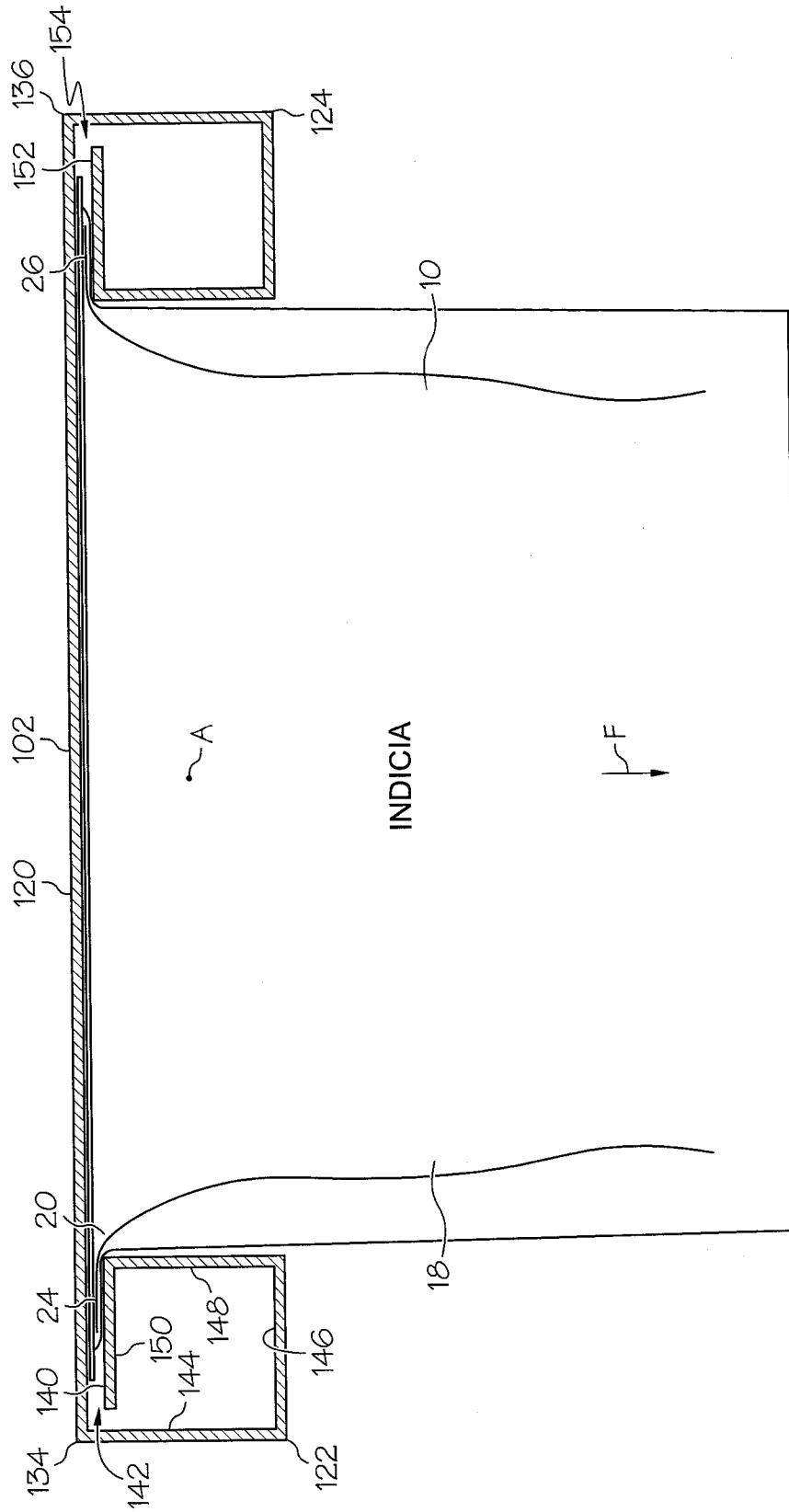
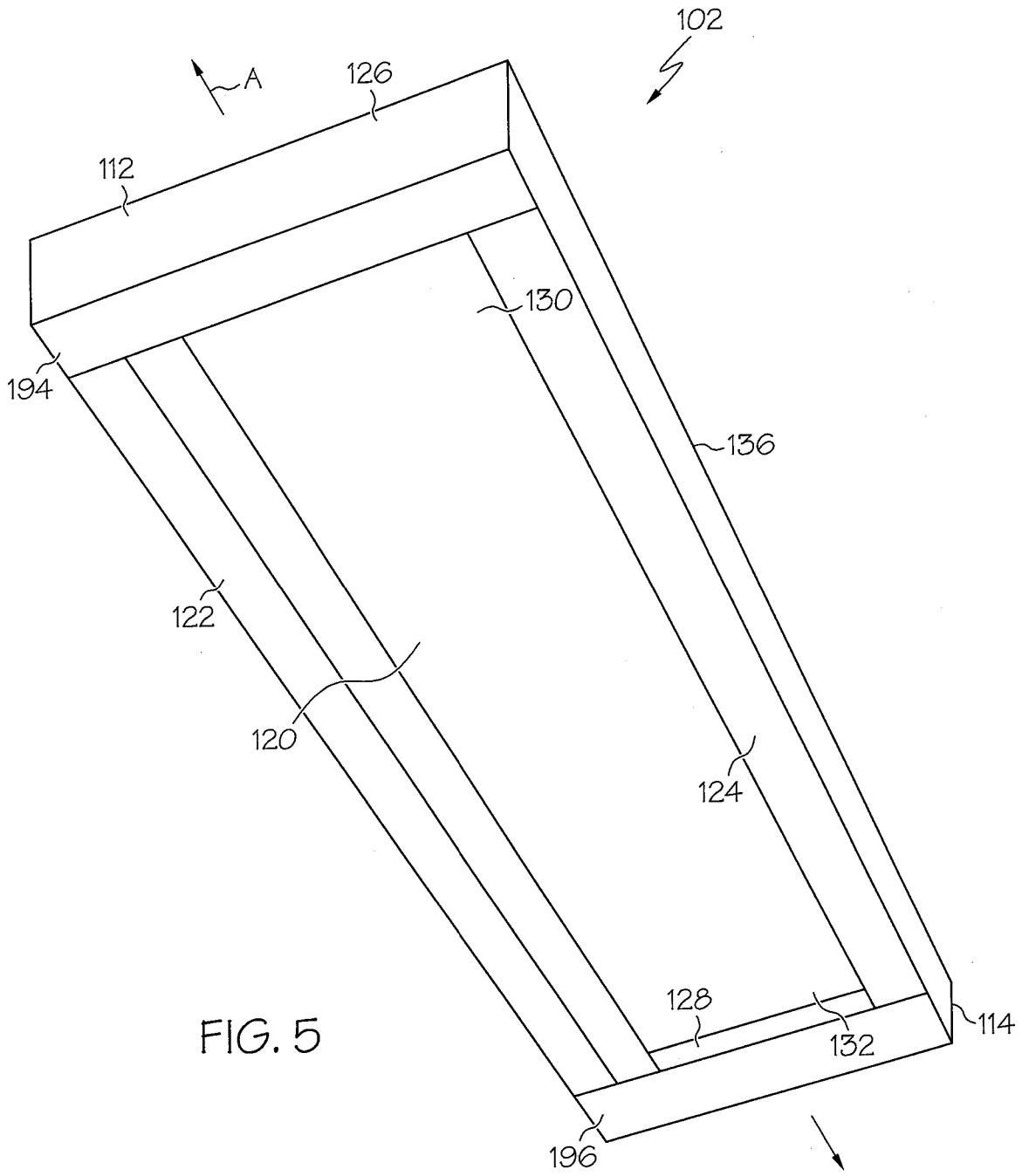


FIG. 4



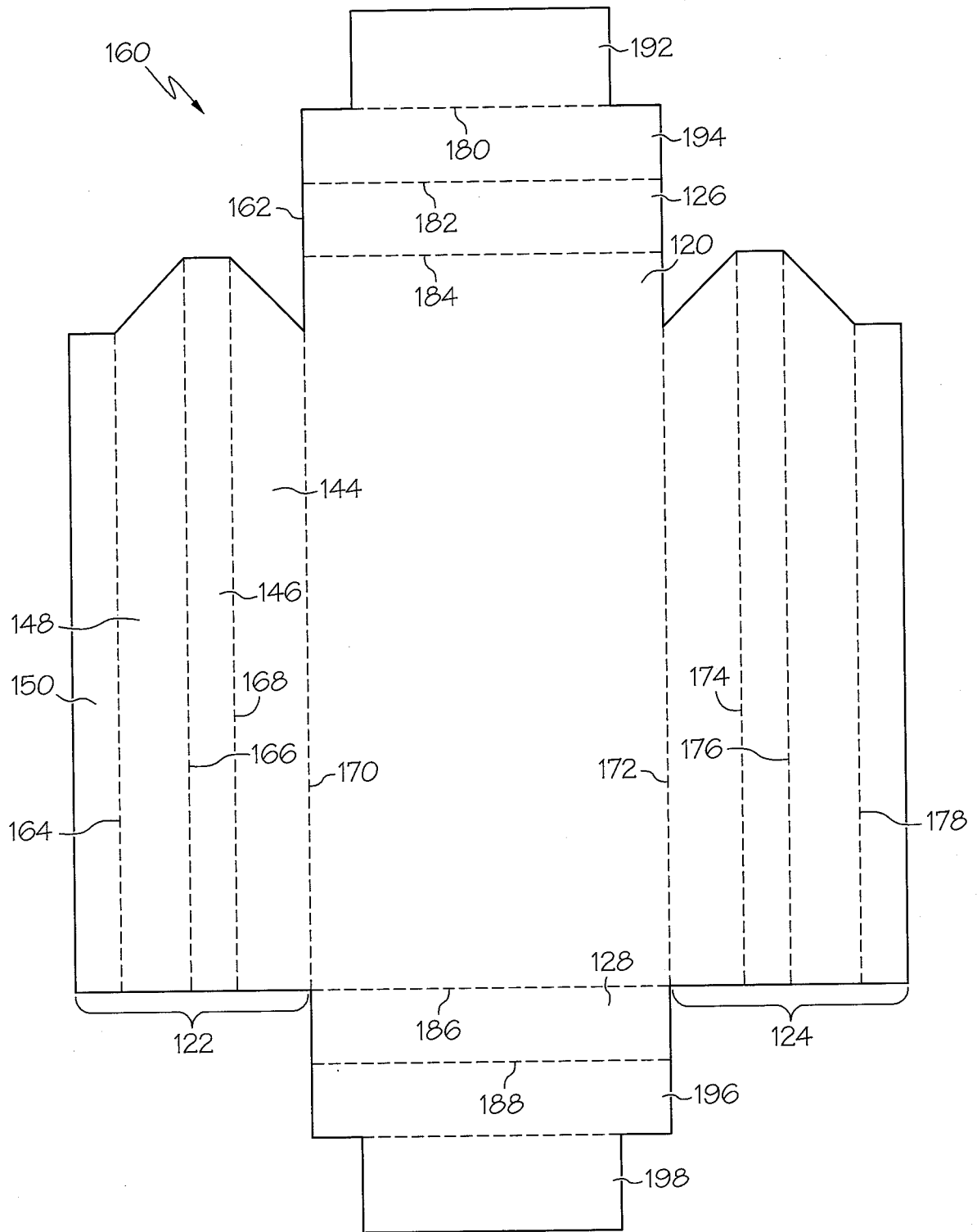
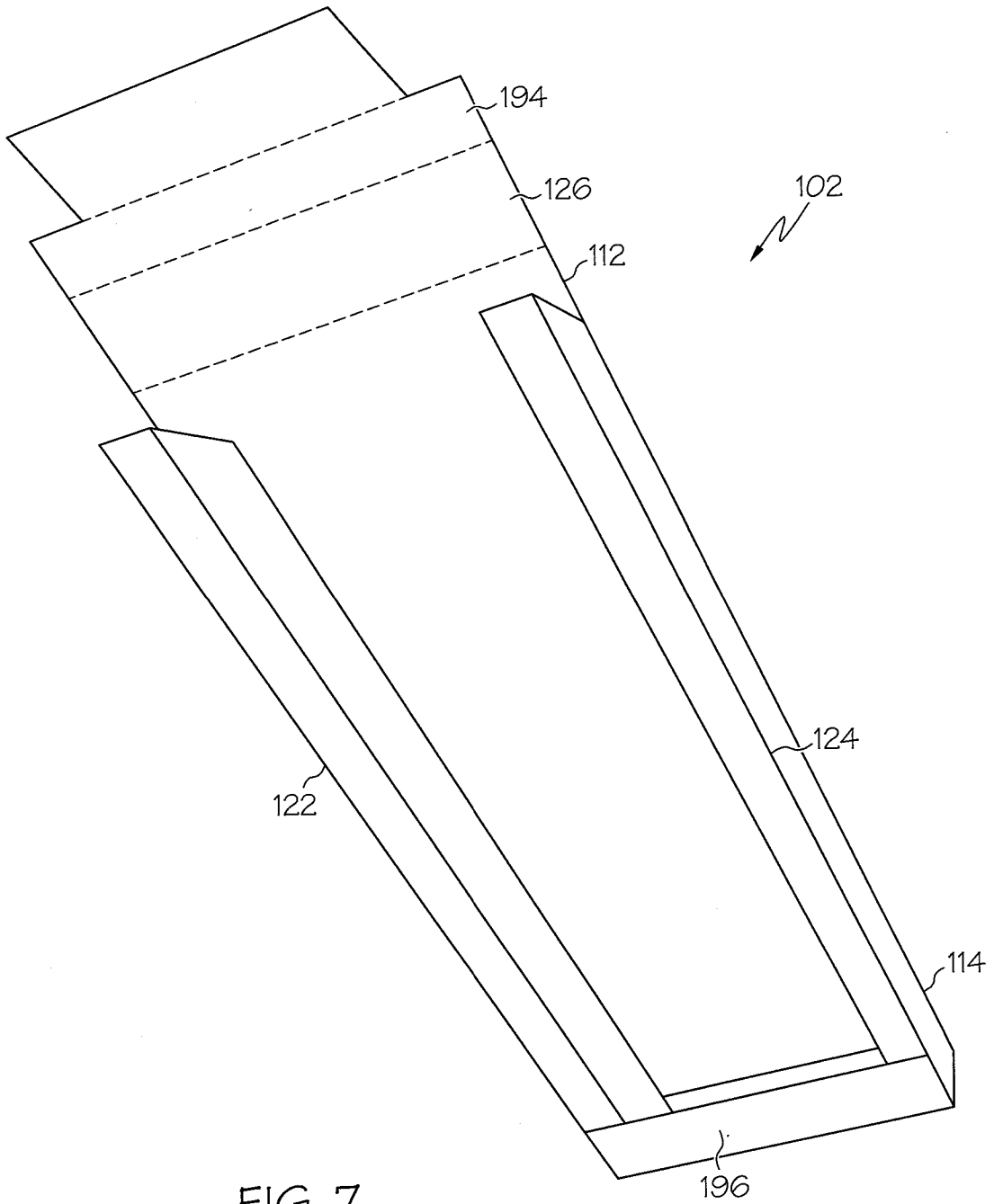


FIG. 6



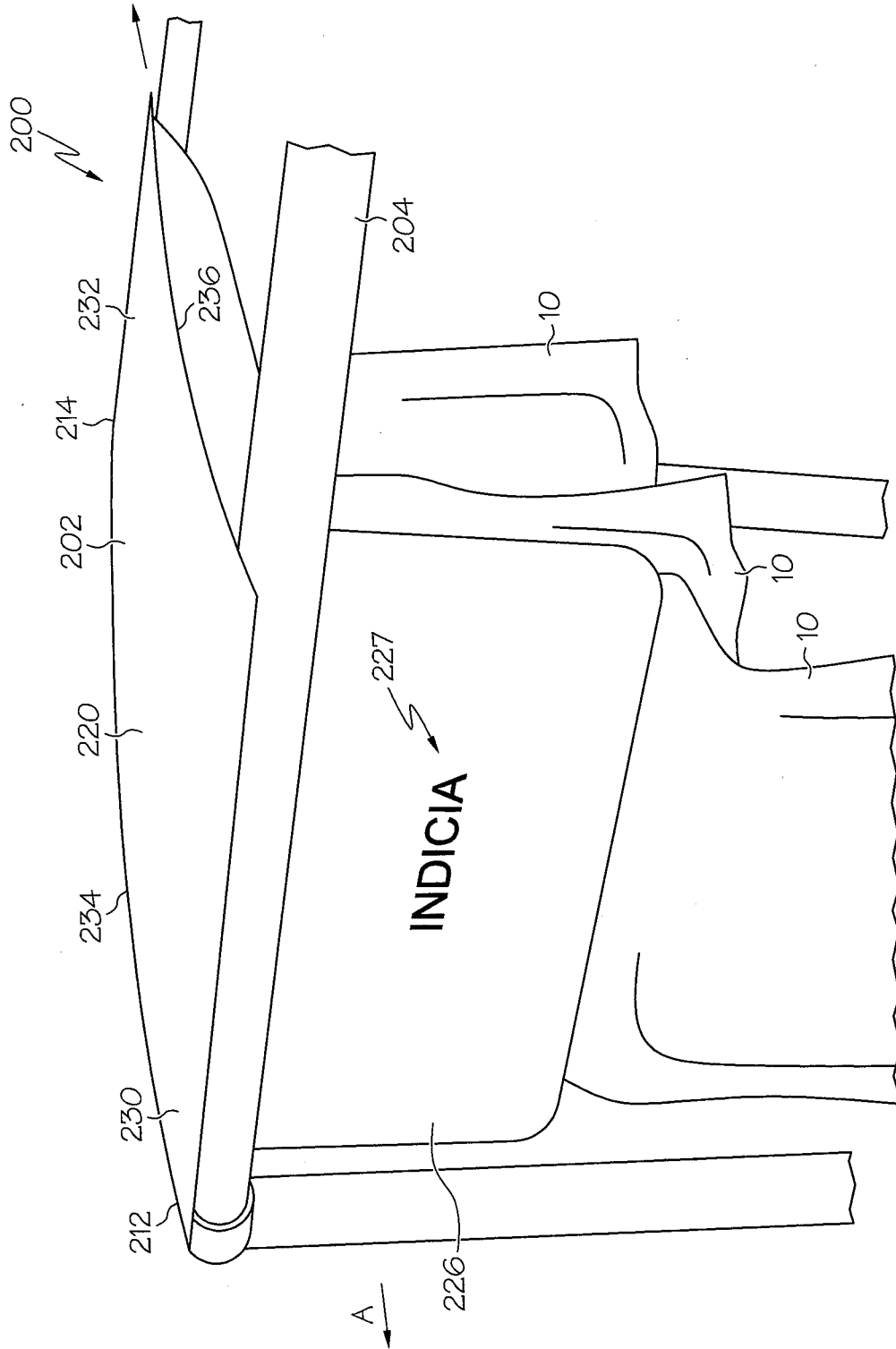


FIG. 8

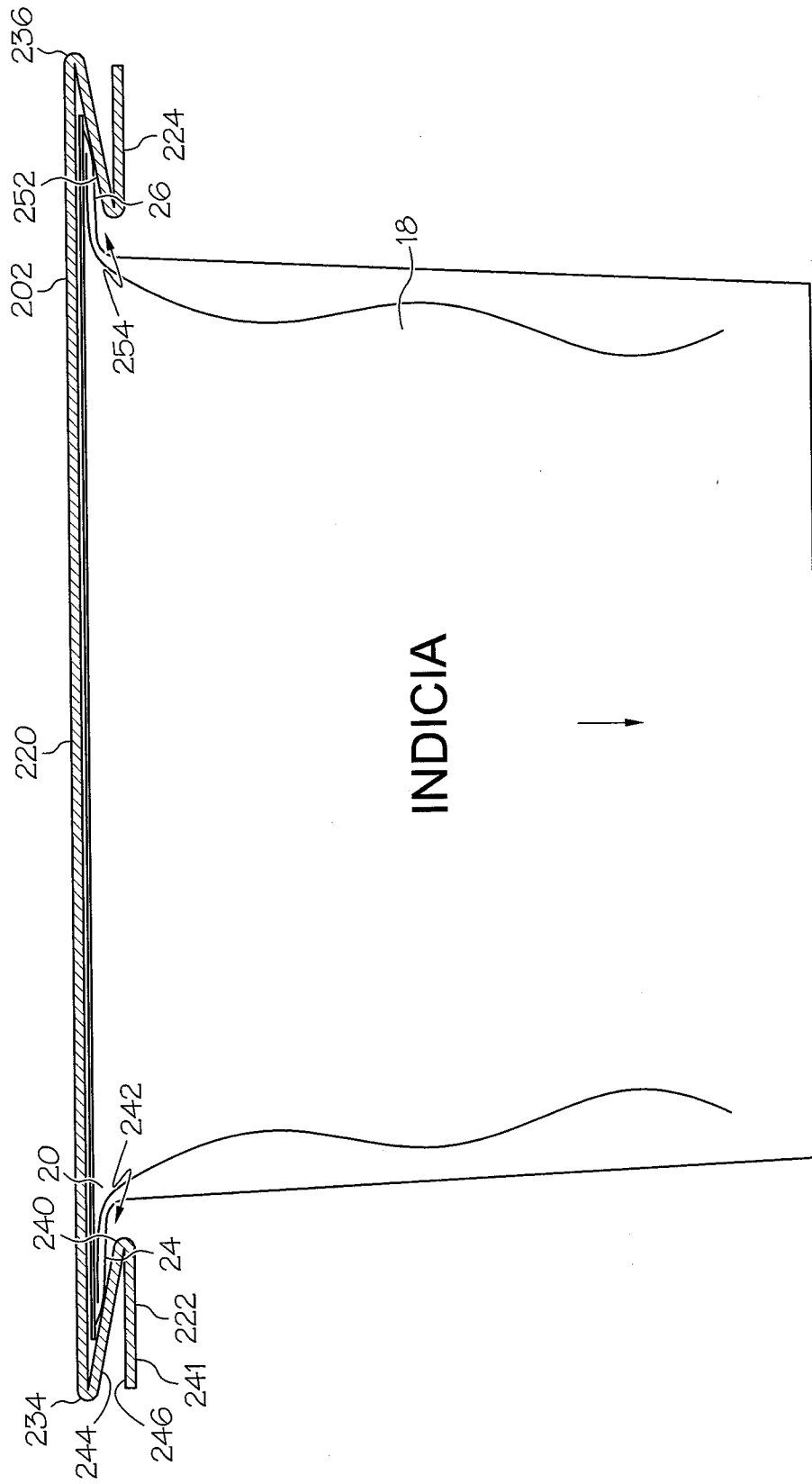


FIG. 9

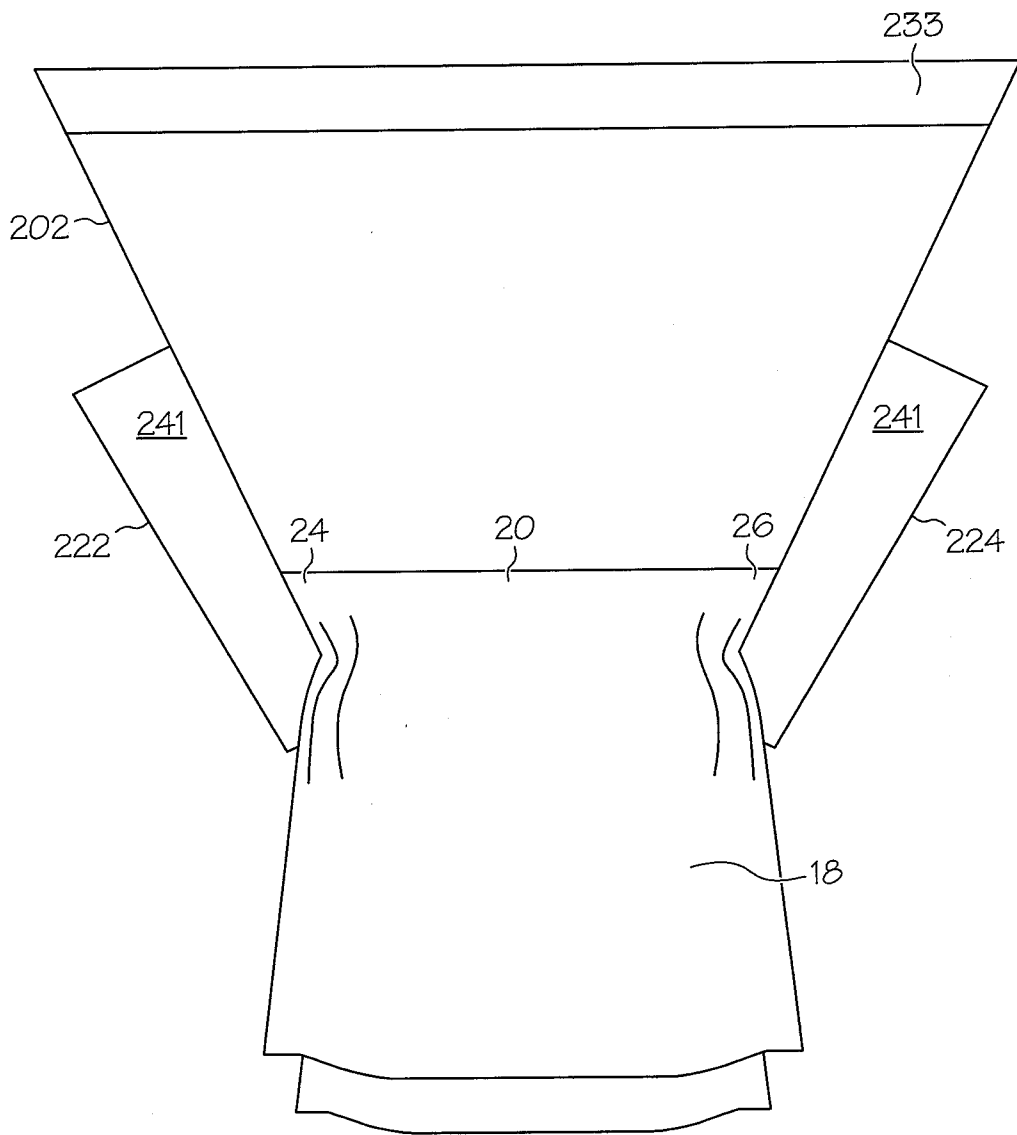


FIG. 10

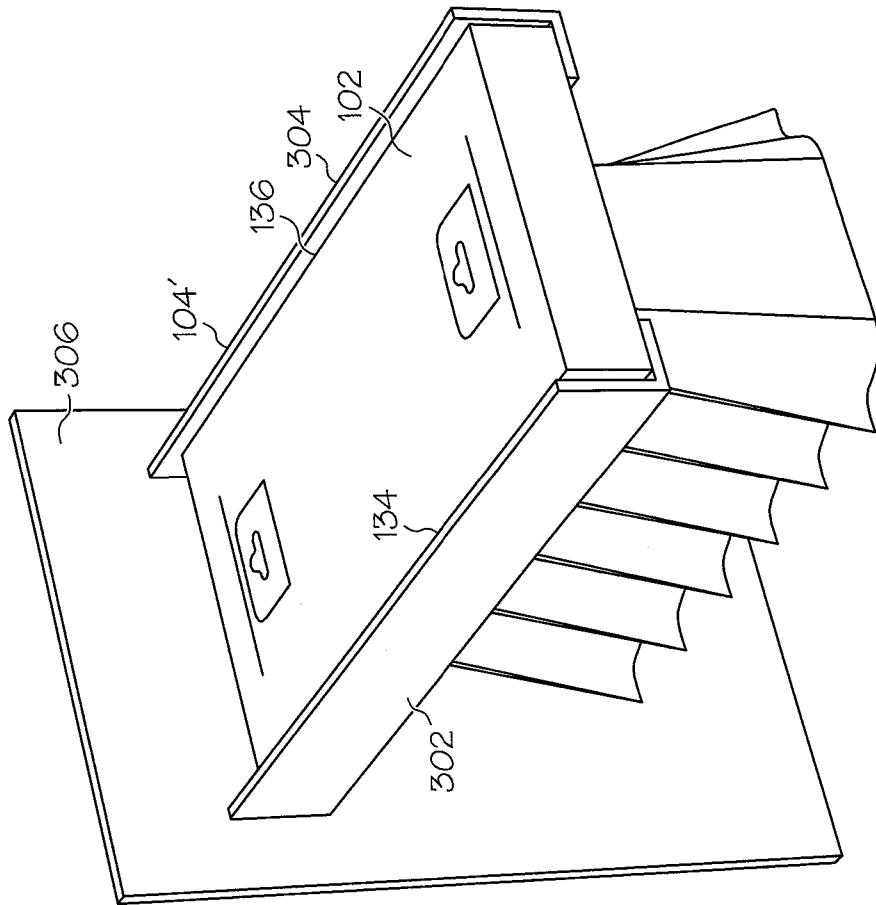


FIG. 11

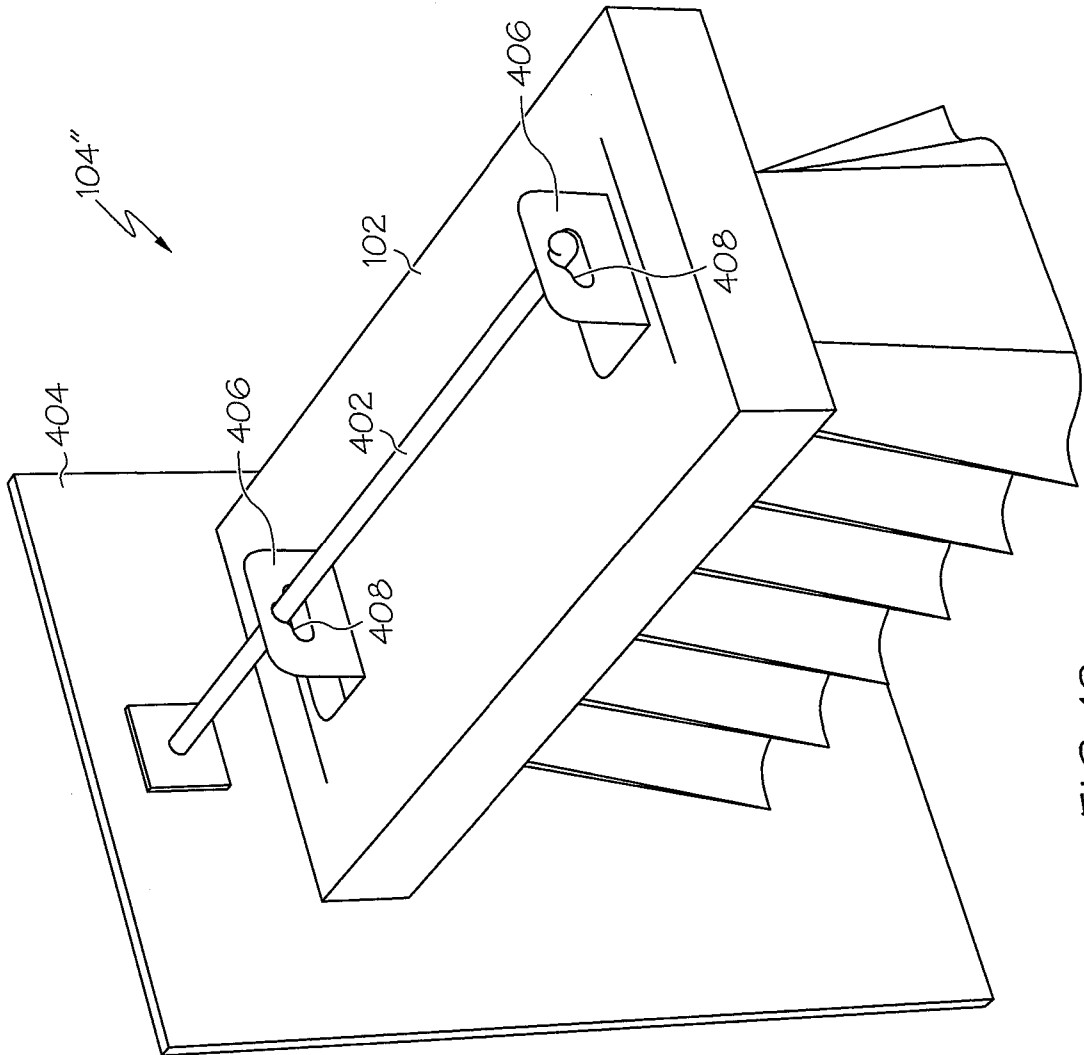


FIG. 12

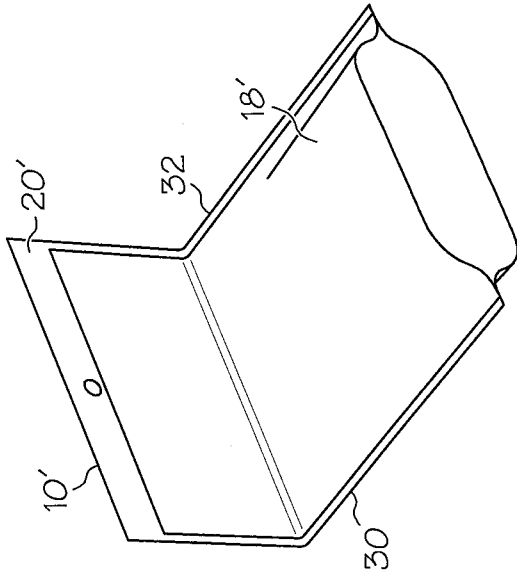


FIG. 13B

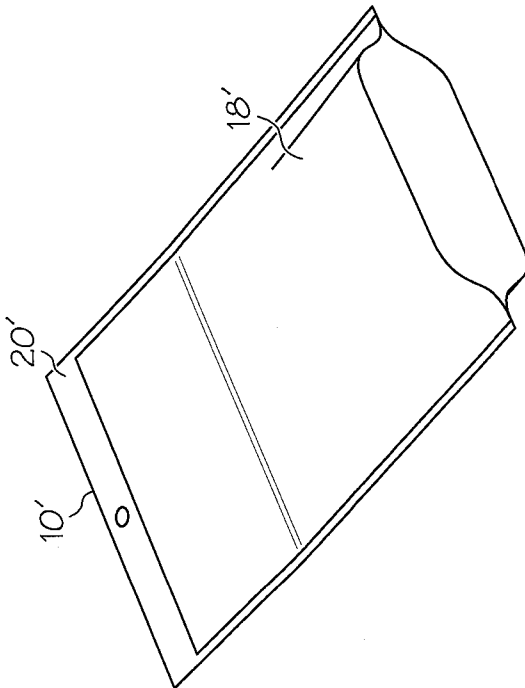


FIG. 13A

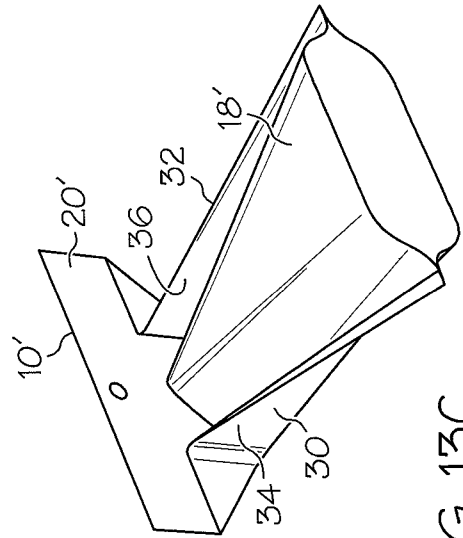


FIG. 13C

INTERNATIONAL SEARCH REPORT

International application No PCT/US2011/059310

A. CLASSIFICATION OF SUBJECT MATTER INV. A47F9/04 A47F13/08 B65D33/14 ADD.				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) A47F B65D				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 5 924 573 A (PIRANEO CARMELO [US] ET AL) 20 July 1999 (1999-07-20) abstract; figures 1-15 -----	1-4, 6-12, 19, 20		
X	US 2004/079760 A1 (RINK JOSEPH BERNARD [US] RINK JR JOSEPH BERNARD [US]) 29 April 2004 (2004-04-29) claim 1; figures 1-15b -----	1-6		
X	US 4 318 485 A (CLEMENT JOSEPH) 9 March 1982 (1982-03-09) the whole document -----	1, 2, 4, 6-12, 15, 17, 18		
X	DE 201 11 307 U1 (RADEMACHER HERBERT [DE]) 11 October 2001 (2001-10-11) abstract; figures 1-2 -----	1-3, 6-9, 11, 19		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.				
* Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none; vertical-align: top;"> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family			
Date of the actual completion of the international search	Date of mailing of the international search report			
8 February 2012	16/02/2012			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Vehrer, Zsolt			

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/059310

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/ US2011/ 059310

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6

Product dispensing system

1.1. claims: 7-19

Product dispensing system

1.2. claim: 20

Product dispensing system

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2011/059310

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 5924573	A	20-07-1999	US 5924573 A	20-07-1999
			US 5979841 A	09-11-1999
			US 6264035 B1	24-07-2001

US 2004079760	A1	29-04-2004	NONE	

US 4318485	A	09-03-1982	JP 56149691 A	19-11-1981
			US 4318485 A	09-03-1982

DE 20111307	U1	11-10-2001	NONE	
