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[Continued on next page]

- (54) Title: RESEALABLE LABEL WITH HINGE FOR USE WITH DISPENSER PACKAGE, AND PACKAGE HAVING SAME

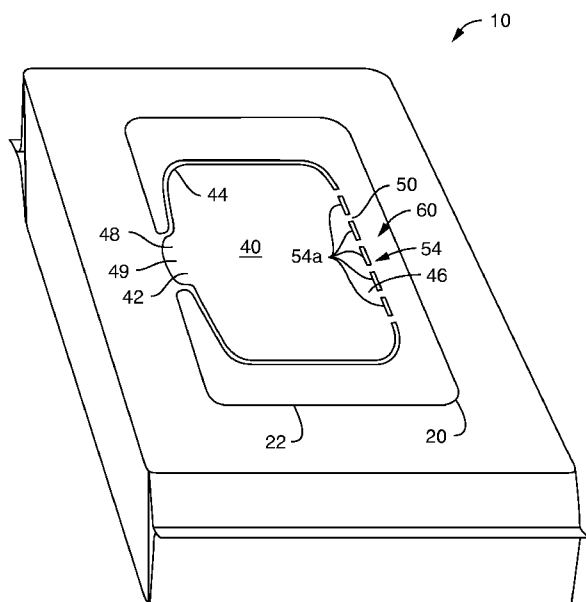


FIG. 1A

(57) Abstract: A flexible resealable label to cover a dispensing opening includes a polymeric sheet having flap and base portions. The flap portion has a hinge side and a lifting side. The hinge side is connected to the base portion along a hinge, such that the flap portion can pivot with respect to the base portion about an axis of rotation. In one embodiment, the hinge is defined by a straight line of intermittent cuts, and each cut extends all the way through the sheet thickness, and the line of cuts resides in the hinge axis of rotation. In another embodiment, the flap portion has a hinge side edge defined by a straight line of intermittent cuts. Connecting strips extend from the hinge side edge into the base portion. Each connecting strip terminates at the axis of rotation, and the line of intermittent cuts does not reside in the axis of rotation.



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG). **Published:**

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

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

**RESEALABLE LABEL WITH HINGE FOR USE WITH DISPENSER PACKAGE,
AND PACKAGE HAVING SAME**

This application claims priority to U.S. Provisional Application Serial No. 61/986,777, filed on April 30, 2014, entitled "RESEALABLE LABEL WITH HINGE FOR USE WITH DISPENSER PACKAGE, AND PACKAGE HAVING SAME". The entirety of the prior application is hereby incorporated by reference in this application.

10 BACKGROUND OF THE INVENTION

There are a variety of storing and dispensing containers in the market, particularly those for storing and dispensing wipe type products. Wipe type products or wipes have been made from a variety of materials which can be dry or wet when used. Wet wipes can be moistened with a variety of suitable wiping solutions. Typically, wet wipes have been stacked in a container in either a folded or unfolded configuration. For example, containers of wet wipes have been available wherein each of the wet wipes stacked in the container has been arranged in a folded configuration such as a c-folded, z-folded or quarter-folded configuration as are well known to those skilled in the art. Sometimes each folded wet wipe is interfolded with the wet wipes immediately above and below it in the stack of wipes. In an alternative configuration, the wet wipes have been placed in a container in the form of a continuous web of material that includes perforations adapted to allow for separation of individual wet wipes from the web upon the application of a pulling force. Such wet wipes have been used for baby wipes, hand wipes, personal care wipes, household cleaning wipes, industrial wipes and the like.

Conventional packages of wipes have typically been designed to be positioned on a flat surface such as a countertop, table or the like. Such conventional packages have often included a plastic container, tub or package which provides a sealed environment for the wet wipes to ensure that they do not become dirty or overly dry. Frequently, the package of wipes includes a dispensing opening through which wipes can be pulled from the otherwise sealed environment. The dispensing opening is typically covered by a lid or flap that can be repeatedly opened and closed – opened to dispense the wipes, and closed to keep the wipes clean and moist.

Ideally, when such a lid or flap is opened, the lid or flap stays open without the application of an external force. This is because if the lid or flap can stay open on its own, a user can more easily dispense a series of individual wet wipes using a single hand after the lid or flap has been opened. Such single-handed, one-at-a-time dispensing is particularly desirable because the other hand of the user or care giver is typically required to be simultaneously used for other functions. For example,

when changing a diaper product on an infant, the care giver typically uses one hand to hold and maintain the infant in a desired position while the other hand is used to dispense a baby wipe to clean the infant.

It is known to use flexible "peel and seal" label flaps on wipes dispensing packages to cover the dispensing opening. However, conventional "peel and seal" flap designs have proved to be either complex or expensive, such as requiring multiple layers of materials, or have been shown to not adequately stay open without the application of an external force. As a result, what is lacking in the art is a "peel and seal" label flap that offers a simplified construction, and that will better stay open during wipe dispensing to facilitate improved one-handed operation.

SUMMARY OF THE INVENTION

In one aspect, the invention pertains to an improved flexible resealable label adapted to cover a dispensing opening in a package. In another aspect, the invention, relates to a package employing such a label. In one embodiment, the label includes a polymeric sheet having a length extending in a length dimension, a width extending in a width dimension, a thickness, a bottom surface, and a top surface. The polymeric sheet has a flap portion and a base portion, and the flap portion and the base portion occupy the same plane when the flap portion is in a closed position. The base portion and the flap portion are adapted to be at least partially adhered to the package. The flap portion has a hinge side and a lifting side opposite the hinge side in the length dimension. The hinge side is connected to the base portion along a hinge, such that the flap portion can movably pivot with respect to the base portion at the hinge about an axis of rotation to assume an open position. The lifting side includes a starting tab. The hinge is defined by a straight line of intermittent cuts that extends in the width dimension. Each cut within the straight line of cuts extends all the way through the thickness of the sheet. The straight line of intermittent cuts resides in the axis of rotation of the hinge.

In another embodiment, the label includes a polymeric sheet having a length extending in a length dimension, a width extending in a width dimension, a thickness, a bottom surface, and a top surface. The polymeric sheet has a flap portion, a base portion, and a connecting strips portion, and the flap portion, the base portion, and the connecting strips portion occupy the same plane when the flap portion is in a closed position. The base portion and the flap portion are adapted to be at least partially adhered to the package. The flap portion has a hinge side and a lifting side opposite the hinge side in the length dimension. The hinge side is connected to the base portion along a hinge, such that the flap portion can movably pivot with respect to the base portion at the hinge about an axis of rotation to assume an open position. The lifting side includes a starting tab. The flap portion has a

hinge side edge defined by a straight line of intermittent cuts that extends in the width dimension. Each cut within the straight line of cuts extends all the way through the thickness of the sheet. The connecting strips portion includes at least two connecting strips. Each connecting strip extends from the hinge side edge of the flap portion into the base portion in the length dimension. Each connecting
5 strip terminates at the axis of rotation. The straight line of intermittent cuts does not reside in the axis of rotation.

BRIEF DESCRIPTION OF THE DRAWINGS

10 The present invention will be more fully understood and further features will become apparent when reference is made to the following detailed description of the invention and the accompanying drawings. The drawings are merely representative and are not intended to limit the scope of the claims. Like parts of the labels and packages depicted in the drawings are referred to by the same reference numerals.

15 Fig. 1A representatively illustrates a perspective view of one embodiment of the package of the present invention, with the flap portion shown in a closed position.

Fig. 1B representatively illustrates the embodiment of Fig. 1A, with the flap portion shown in an open position.

20 Fig. 2A representatively illustrates a perspective view of one embodiment of the label of the present invention, with the flap portion shown in a closed position.

Fig. 2B representatively illustrates the embodiment of Fig. 2A, with the flap portion shown in an open position.

Fig. 2C representatively illustrates an end view of the label of Fig. 2A, taken along line 2C-2C.

25 Figs. 3A-3C representatively illustrate top plan views of three different embodiments of resealable labels of the present invention.

Fig. 3D is an enlarged version of Fig. 3A.

Fig. 3E is cross-sectional view taken along line 3E-3E in Fig. 3D.

Figs. 4A-4C representatively illustrate top plan views of three different embodiments of resealable labels of the present invention.

30 Fig. 4D is an enlarged view of Fig. 4A.

Figs. 5A-5C representatively illustrate top plan views of three different embodiments of resealable labels of the present invention.

Figs. 6A-6C representatively illustrate top plan views of three different embodiments of resealable labels of the present invention.

Figs. 7A-7C representatively illustrate top plan views of three different embodiments of resealable labels of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

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Referring to the embodiment of Figs. 1A and 1B, the present invention is directed in one aspect to a package having a resealable label. Referring to Figs. 1-7, the present invention is directed in another aspect to a resealable label. A flexible resealable label 20 is adapted to cover a dispensing opening 12 in a package 10. The package can contain wipe or tissue type materials that can suitably be dispensed through the dispensing opening 12, such as a stack or roll of baby wipes, moist wipes, cleaning wipes, facial tissue, or the like. The label 20 can be constructed of any suitable material offering a suitable amount of bending stiffness – such as suitable to allow the hinge, described below, to function. In one example, the label 20 is constructed of a polyolefinic material, such as polypropylene or polyethylene. “Resealable” as used herein means capable of being adhered to a package 10, capable of being at least partially peelably removable from the package 10, and capable of being thereafter re-adhered to the package 10. The use of releasable and resealable adhesives to join polymeric materials is known in the art.

The label 20 includes a polymeric sheet 22. The polymeric sheet 22 has a length 24 extending in a length dimension 25, a width 26 extending in a width dimension 27, a thickness 28, a bottom surface 30, and a top surface 32. The polymeric sheet 22 has a flap portion 40 and a base portion 60. The flap portion can assume a closed position 42 and an open position 43. The flap portion 40 and the base portion 60 generally occupy the same plane when the flap portion 40 is in the closed position 42. When the flap portion 40 is in the closed position 42, the flap portion 40 covers the dispensing opening 12 (when the label is affixed to a package 10). When the flap portion is in the open position 43, the dispensing opening 12 is exposed to allow wipes or other items within the package to be withdrawn through the dispensing opening 12.

The base portion 60 and the flap portion 40 are adapted to be at least partially adhered to a package 10. In one example, the base portion 60 and the flap portion 40 are both adapted to be releasably adhered to a package 10. In another example, the base portion 60 is adapted to be permanently adhered to a package 10, and the flap portion 40 is adapted to be releasably adhered to the package 10. In one embodiment of the package aspect of the present invention, both the flap portion 40 and the base portion 60 of the label 20 are releasably adhered to a package 10. Referring to Fig. 2C, in particular embodiments, adhesive 62 at least partially covers the bottom surface 30 of the

polymeric sheet. The adhesive 62 is adapted to adhere the polymeric sheet as just described to a polymeric flexible package, such as a flexible package of baby diapering or toileting wipes.

The flap portion 40 has a hinge side 46 and a lifting side 48 opposite the hinge side 46 in the length dimension 25. The hinge side 46 of the flap portion 40 is connected to the base portion 60 along a hinge 50, such that the flap portion 40 can movably pivot with respect to the base portion 60 at the hinge 50 about an axis of rotation 52. The flap portion 40 can pivot about the hinge 50 from the closed position 42 to the open position 43. In particular embodiments, the lifting side 48 includes a starting tab 49. The starting tab 49 allows a user of a package 10 to more easily grasp the lifting side 48 of the flap portion 40, particularly when attempting to move the flap portion 40 from the closed position 42 to the open position 43. In particular embodiments, the starting tab 49 is releasably and resealably adhesively adhered to the package 10. In other embodiments, the starting tab 49 is not adhesively adhered to the package 10.

Referring to Figs. 1A-1B and 3A-3E, in particular embodiments, the hinge 50 is defined by a straight line of intermittent cuts 54 that extends in the width dimension 27. Each cut 54a extends all the way through the thickness 28 of the polymeric sheet 22. In particular embodiments, such as those shown in Figs. 1A-1B and 3A-3E, the line of intermittent cuts 54 resides in the axis of rotation 52 of the hinge 50. The line of cuts 54 serves to relieve bending stress along the axis of rotation 52, thus allowing the flap portion 40 to more efficiently pivot relative to the base portion 60 and to stay open. In particular embodiments, the straight line of intermittent cuts 54 includes at least two distinct cut segments (Fig. 3C), more particularly at least three distinct cut segments, still more particularly at least four distinct cut segments (Figs. 3A, 3B, and 3D), and still more particularly at least five distinct cut segments (Figs. 1A and 1B).

The hinge 50 has a hinge length 51. As representatively illustrated in Figs. 3D and 4D, the "hinge length" as used herein is the distance along the axis of rotation 52 between the two points most distal from each other at which the flap portion 40 is integrally connected to the base portion 60. In particular embodiments, the distinct intermittent cuts 54a together define at least 50%, more particularly at least 75%, and still more particularly at least 80% of the hinge length 51. In particular embodiments, the flap portion 40 is connected to the base portion 60 along no more than 50%, more particularly along no more than 30%, still more particularly along no more than 25%, and still more particularly along no more than 20% of the hinge length 51.

Referring to Figs. 2A-2C and Figs. 4A-7C, in alternative embodiments, the polymeric sheet 22 includes not only a flap portion 40 and a base portion 60 but also a connecting strips portion 70. The connecting strips portion 70 connects the hinge side 46 of the flap portion 40 to the base portion 60. The flap portion 40, the base portion 60, and the connecting strips portion 70 occupy the same plane

when the flap portion 40 is in a closed position 42. The flap portion 40 has a hinge side edge 47 defined by a straight line of intermittent cuts 54 extending in the width dimension 27. Each cut 54a extends all the way through the thickness 28 of the sheet 22. The connecting strips portion 70 comprises at least one distinct connecting strip 72 (Figs. 6A-7C), more particularly at least two distinct connecting strips 72 (Figs. 5A-5C), still more particularly at least three distinct connecting strips 72 (Fig. 4C), still more particularly at least four distinct connecting strips 72, and still more particularly at least five distinct connecting strips 72 (Figs. 2A-2B and 4A-4B). Each connecting strip 72 extends from the hinge side edge 47 of the flap portion 40 into the base portion 60 in the length dimension 25. Each connecting strip 72 terminates at the axis of rotation 52. The line of intermittent cuts 54 does not reside in the axis of rotation 52.

Referring to Fig. 4D, the flap portion 40 has a flap portion width 41, and each connecting strap 72 has a respective connecting strap width 73. In particular embodiments, the sum of the respective connecting strap widths 73 is less than 20% and more particularly less than 10% of the flap portion width 41. In particular embodiments, each connecting strap 72 has a connecting strap width of at most 3 millimeters and more particularly at most 2 millimeters. In particular embodiments, the sum of the respective connecting strap widths is less than 30% and more particularly less than 20% of the hinge length 51.

Referring to Figs 2A-2C and 4A-5C, in particular embodiments, the straight line of intermittent cuts 54 includes at least one distinct cut segment (Figs. 5A-5C), more particularly at least two distinct cut segments (Fig. 4C), still more particularly at least three distinct cut segments, still more particularly at least four distinct cut segments (Figs. 2A-2B and 4A-4B), and still more particularly at least five distinct cut segments.

In particular embodiments and as shown in the Figures, the base portion 60 extends at least partially around the flap portion 40 in the length dimension 25 and in the width dimension 27, so as to frame at least 75% and more particularly at least about 90% of a periphery 44 of the flap portion 40. Preferably, the flap portion 40 is unconnected to the base portion 60 other than along the hinge 50.

In particular embodiments, when the label 20 is adhered to a package 10, the flap portion 40 can be resealably peeled away from the surface of the package 10 to an open position so as to reveal the dispensing opening 12 while the base portion 60 remains adhered to the package 10, and the flap portion 40 can assume a fully open position and remain in such fully open position without application of an external force. "Fully open position" means a position that is between about 100 degrees and about 190 degrees of the closed position. In this way, a user can extract wipes through the dispensing opening with one hand, leaving the other hand free to tend to the baby or other activity, since, in

accordance with particular embodiments of the present invention, the flap portion has been constructed to stay open without being forcibly held in the fully open position by the user.

What is claimed is:

1. A flexible resealable label adapted to cover a dispensing opening in a package, the label comprising:
 - 5 a polymeric sheet having a length extending in a length dimension, a width extending in a width dimension, a thickness, a bottom surface, and a top surface, the polymeric sheet having a flap portion and a base portion, the flap portion and the base portion occupying the same plane when the flap portion is in a closed position;
the base portion and the flap portion adapted to be at least partially adhered to said package;
 - 10 the flap portion having a hinge side and a lifting side opposite the hinge side in the length dimension, the hinge side being connected to the base portion along a hinge, such that the flap portion can movably pivot with respect to the base portion at the hinge about an axis of rotation to assume an open position, the lifting side including a starting tab;
the hinge defined by a straight line of intermittent cuts that extends in the width dimension,
 - 15 each of said cuts extending all the way through the thickness of the sheet;
wherein the line of intermittent cuts resides in the axis of rotation of the hinge.
2. The label of claim 1 wherein the straight line of intermittent cuts includes at least three distinct cut segments.
- 20 3. The label of claim 2 wherein the straight line of intermittent cuts includes at least five distinct cut segments.
4. The label of claim 1 wherein the hinge has a hinge length, and wherein the intermittent cuts
25 define at least 50% of the hinge length.
5. The label of claim 4 wherein the intermittent cuts define at least 75% of the hinge length.
6. The label of claim 1 wherein the hinge has a hinge length, and wherein the flap portion is
30 connected to the base portion along no more than 25% of the hinge length.
7. The label of claim 1 wherein the base portion extends at least partially around the flap portion in the width and length dimensions, so as to frame at least 75% of a periphery of the flap portion, the flap portion being unconnected to the base portion other than along the hinge.

8. The label of claim 1 wherein adhesive at least partially covers the bottom surface, the adhesive adapted to releasably adhere the polymeric sheet to a polymeric flexible package.

5 9. The label of claim 1 wherein, when the label is adhered to said package, the flap portion can be resealably peeled away from the package to the open position so as to reveal the dispensing opening while the base portion remains adhered to said package, and wherein the flap portion can assume a fully open position and remain in said fully open position without application of an external force.

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10. A package comprising the label of claim 1.

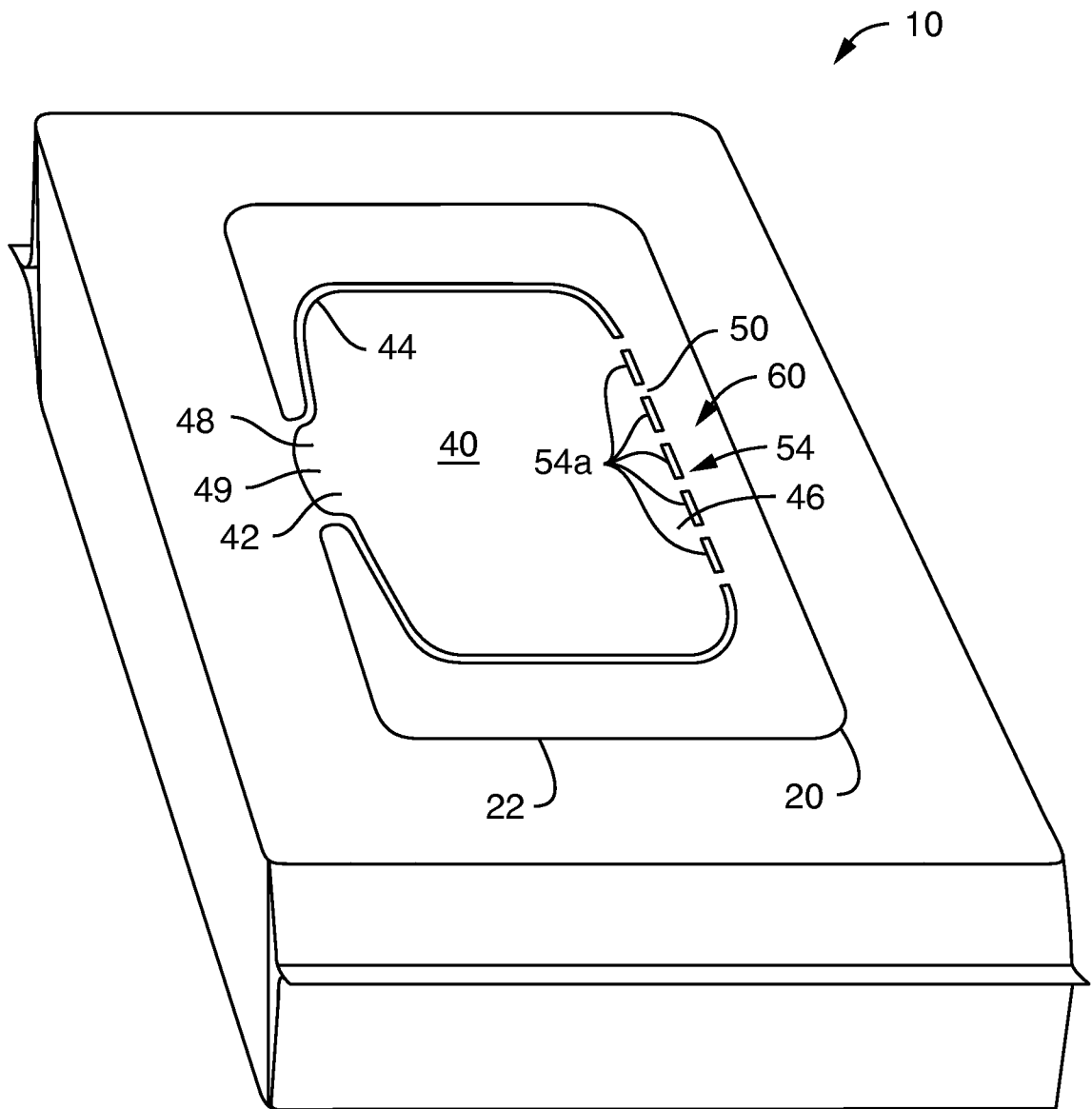


FIG. 1A

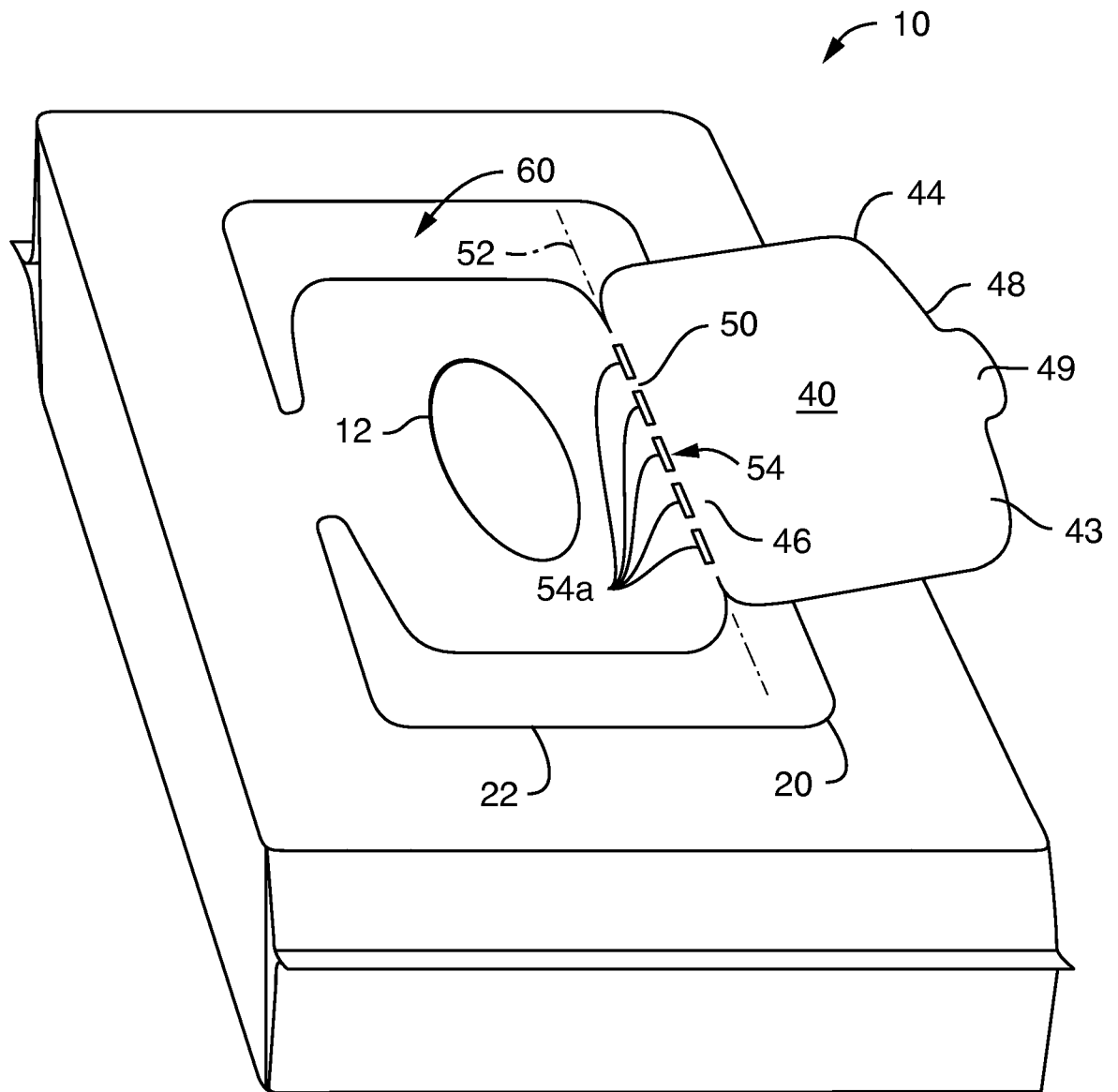


FIG. 1B

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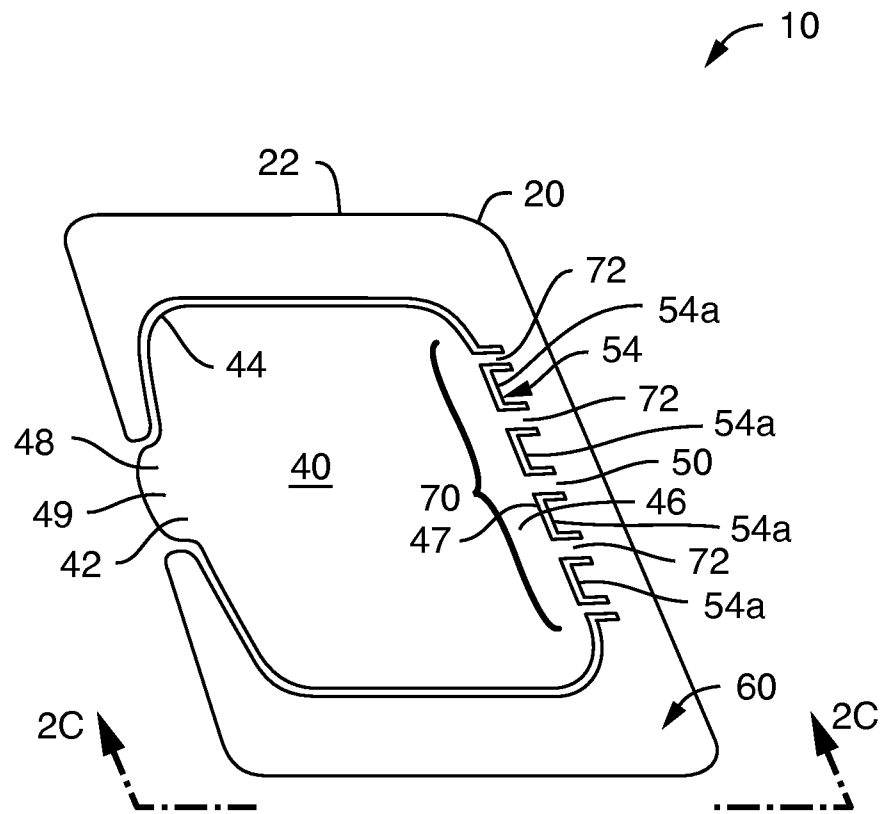


FIG. 2A

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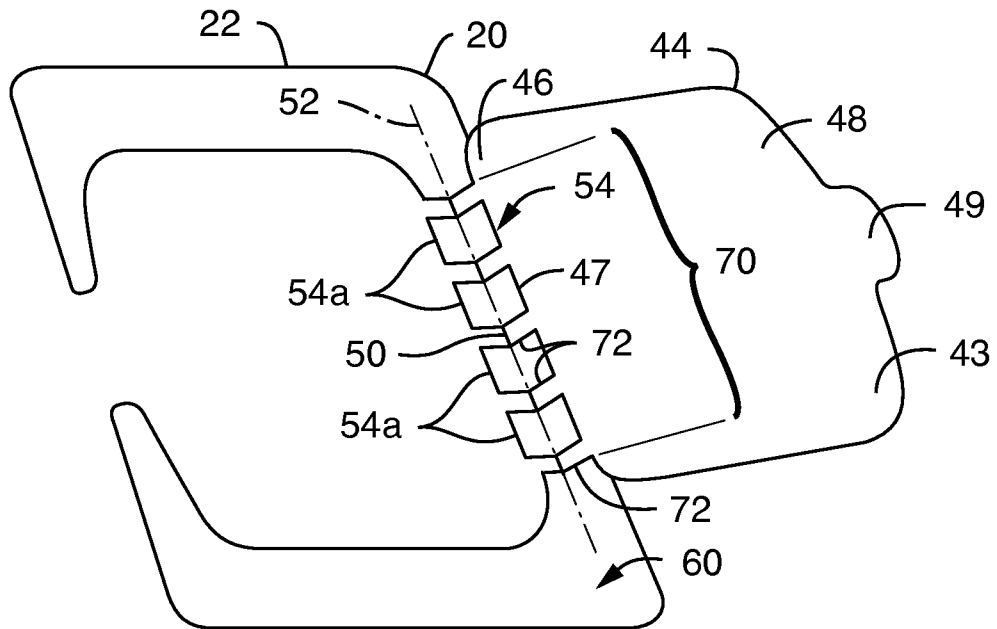


FIG. 2B

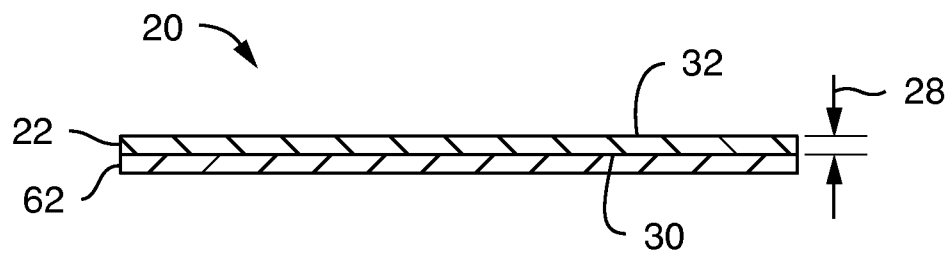


FIG. 2C

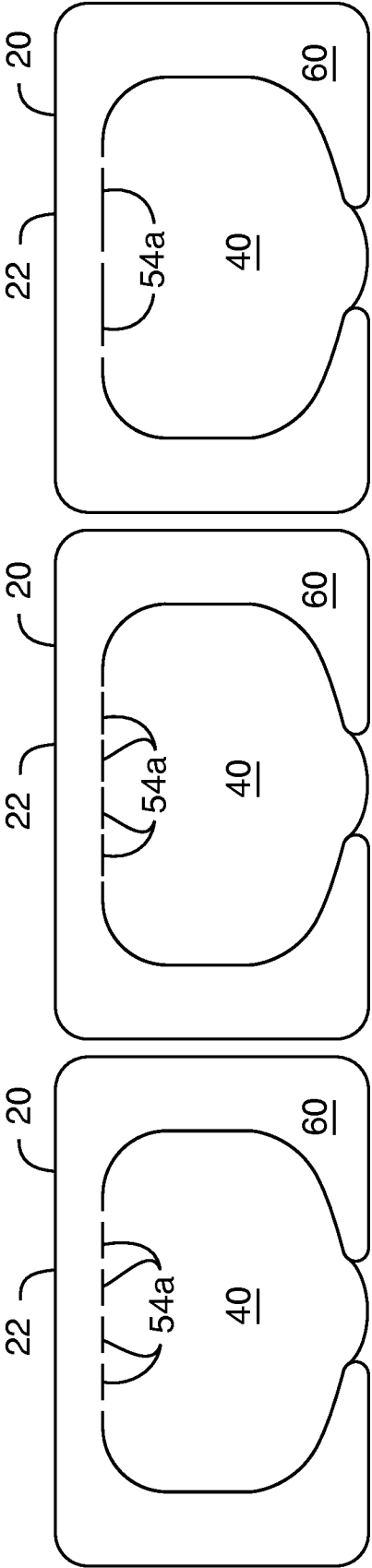
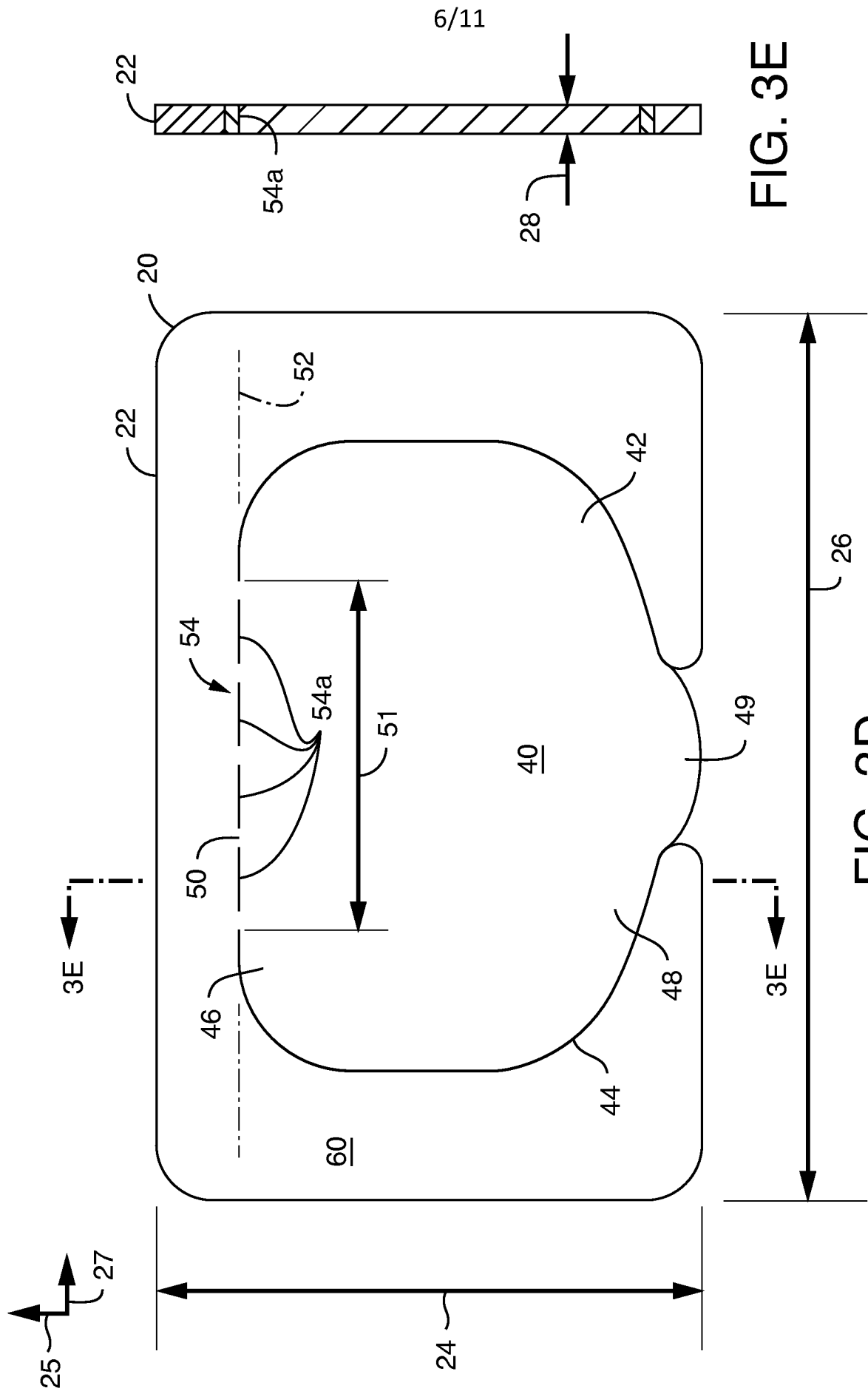


FIG. 3A

FIG. 3B

FIG. 3C



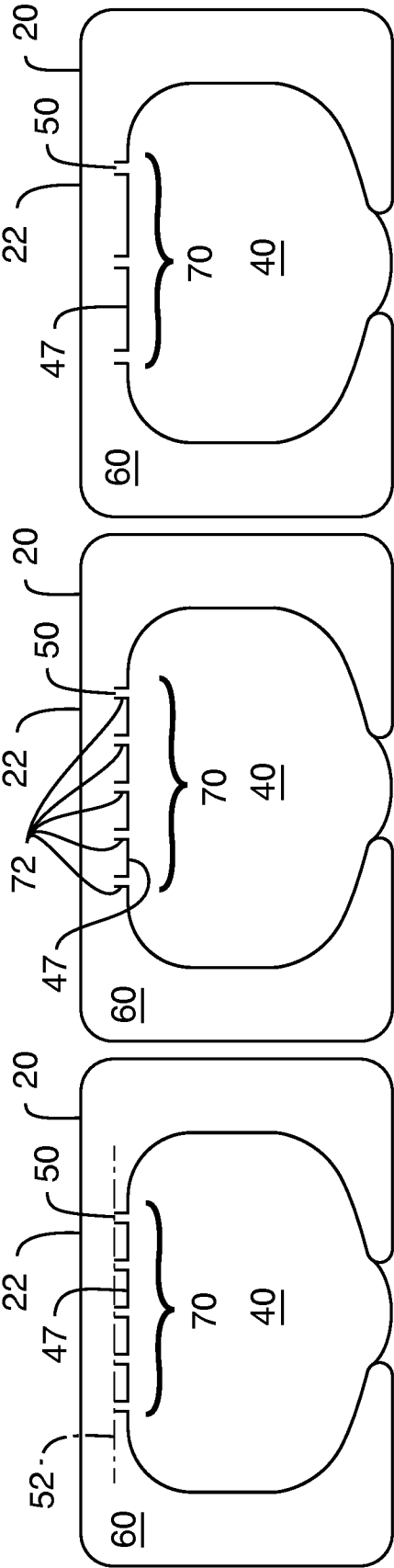
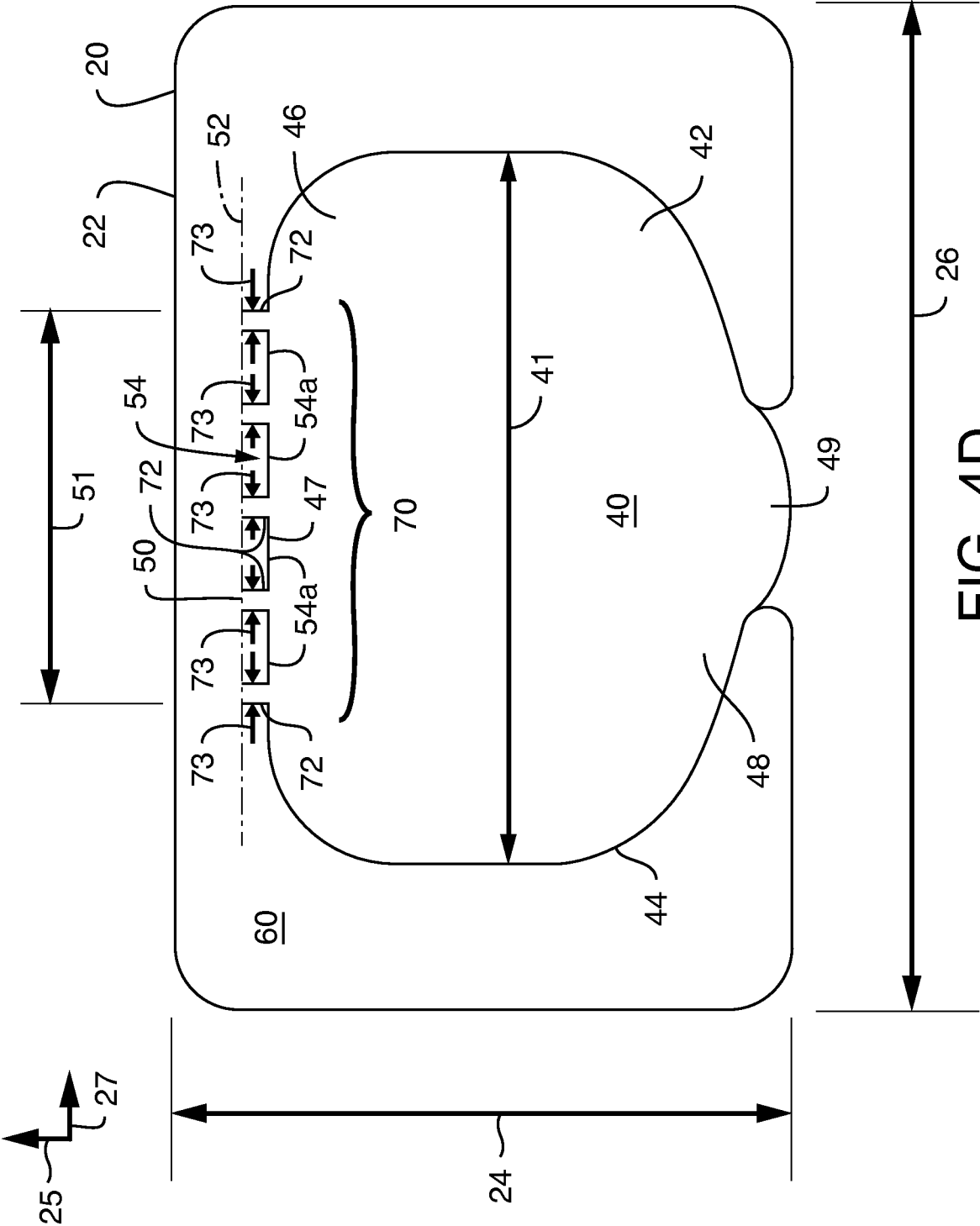


FIG. 4A

FIG. 4B

FIG. 4C



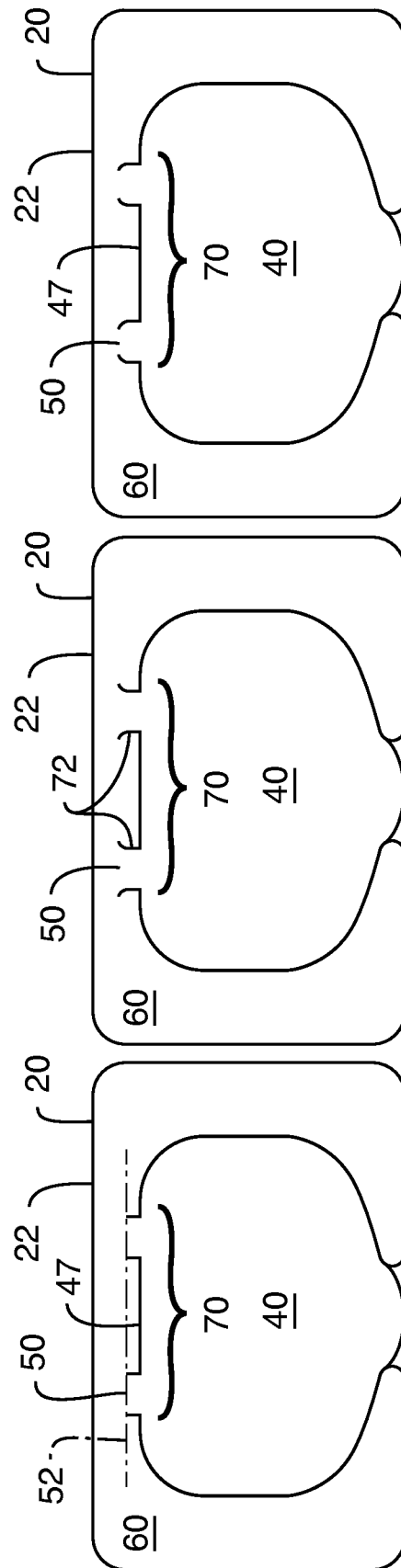


FIG. 5A

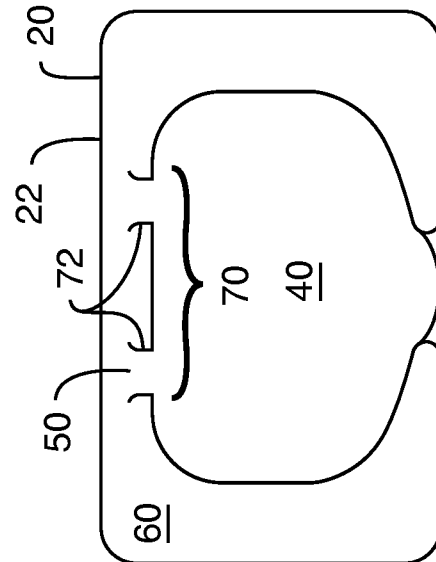


FIG. 5B

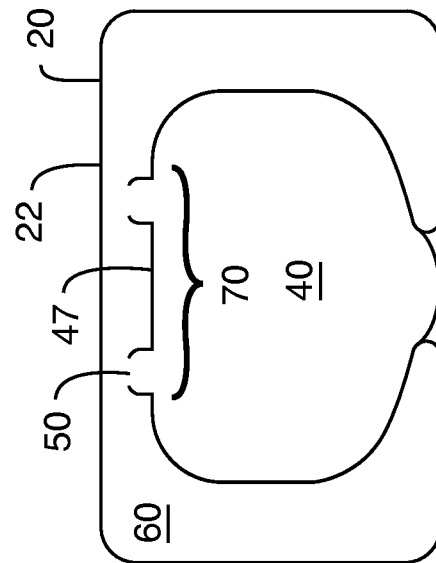


FIG. 5C

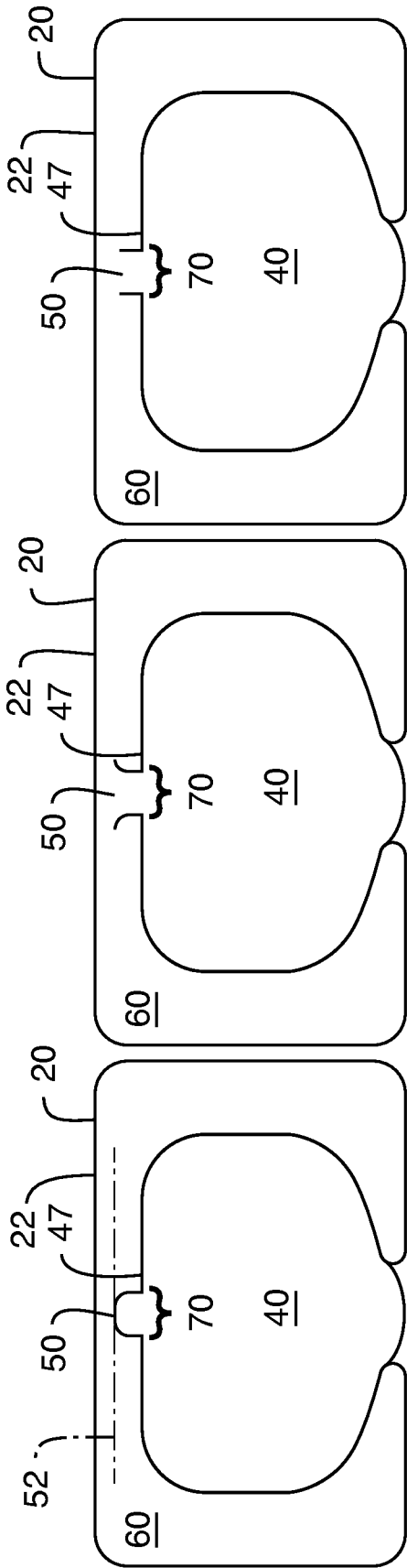


FIG. 6A

FIG. 6B

FIG. 6C

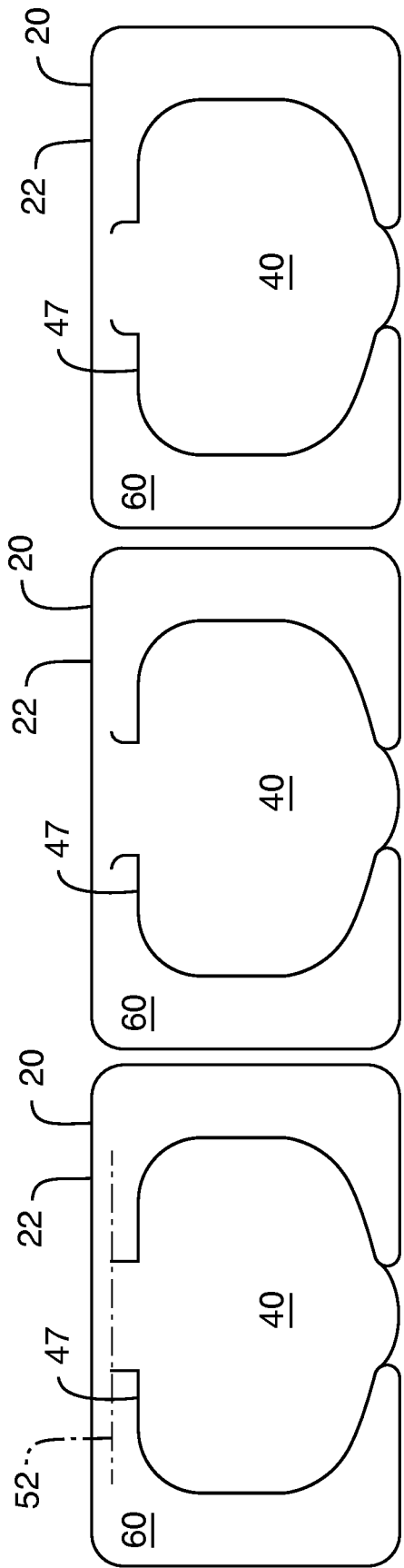


FIG. 7A

FIG. 7B

FIG. 7C

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2014/063285**A. CLASSIFICATION OF SUBJECT MATTER****B65D 65/14(2006.01)i, B65D 83/08(2006.01)i**

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)

B65D 65/14; B65D 33/25; B65D 75/00; B65D 81/24; B65D 53/00; B65D 73/00; B65D 69/00; B65H 1/00; B65D 83/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: wet wipe, label, opening, polymer, hinge, cut

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 7699166 B2 (GAUGER et al.) 20 April 2010 See column 4, line 41 - column 5, line 4 and figures 2, 3C.	1-10
Y	US 2011-0155738 A1 (MIYAKE et al.) 30 June 2011 See paragraphs [0047]-[0058] and figures 1-3.	1-10
A	US 2007-0012715 A1 (DUBREUIL et al.) 18 January 2007 See paragraphs [0013]-[0014] and figure 1.	1-10
A	EP 1355557 B1 (KIMBERLY-CLARK WORLDWIDE, INC.) 02 August 2006 See paragraphs [0014]-[0018] and figures 3-5.	1-10
A	US 2003-0038041 A1 (STULENS et al.) 27 February 2003 See paragraph [0014] and figure 1.	1-10



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent 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

13 February 2015 (13.02.2015)

Date of mailing of the international search report

16 February 2015 (16.02.2015)

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2014/063285

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 7699166 B2	20/04/2010	AU 2007-290048 A1	06/03/2008
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