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(54) **CHILD-RESISTANT CONTAINER**

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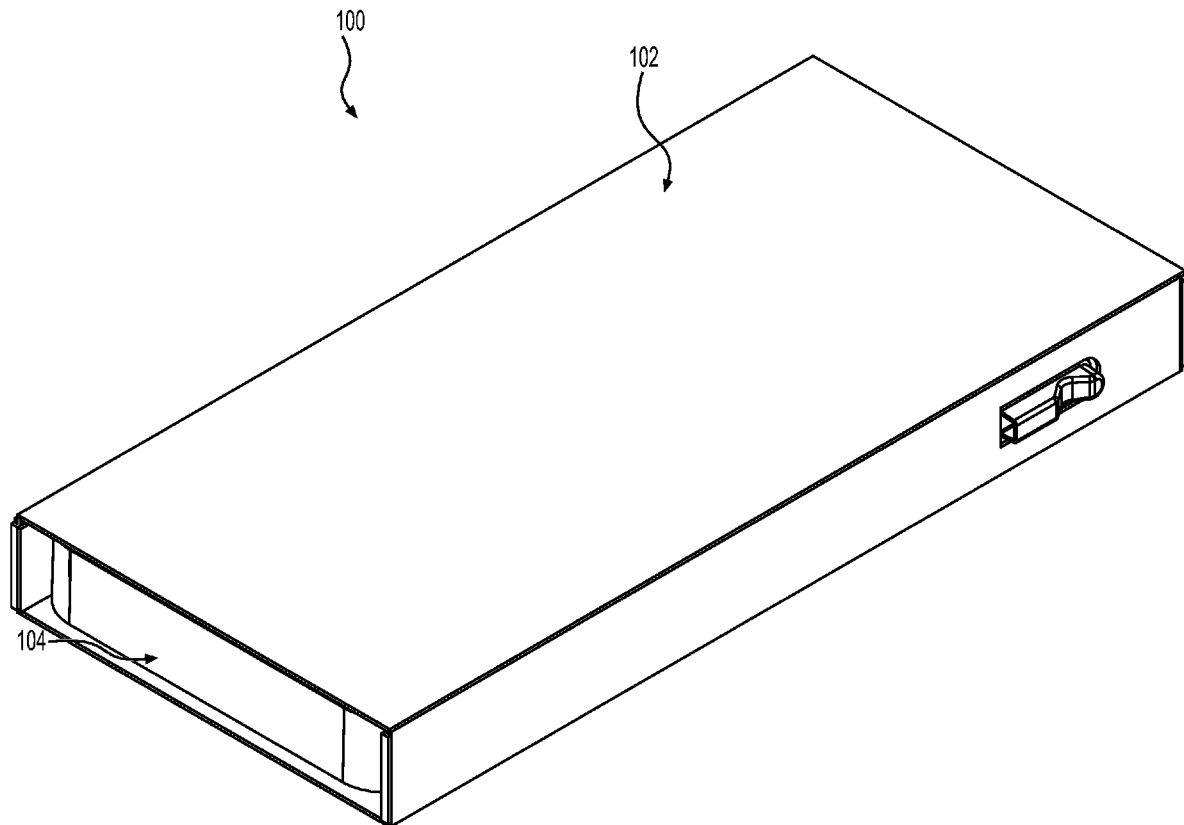
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(57) **ABSTRACT**

A child-resistant container may include an inner tray including a first side, a second side opposite the first side, a first locking mechanism on the first side, and a second locking mechanism on the second side; and an outer sleeve including a first sleeve side, a second sleeve side opposite the first sleeve side, a first locking port on the first sleeve side, a second locking port on the second sleeve side, an open end, and one or more catches. The inner tray may be slidably inserted into the outer sleeve through the open end such that each of the locking mechanisms releasably engages at least one of the locking ports. At least one of the locking mechanisms may engage with the one or more catches to prevent the inner tray from being fully withdrawn from the outer sleeve.



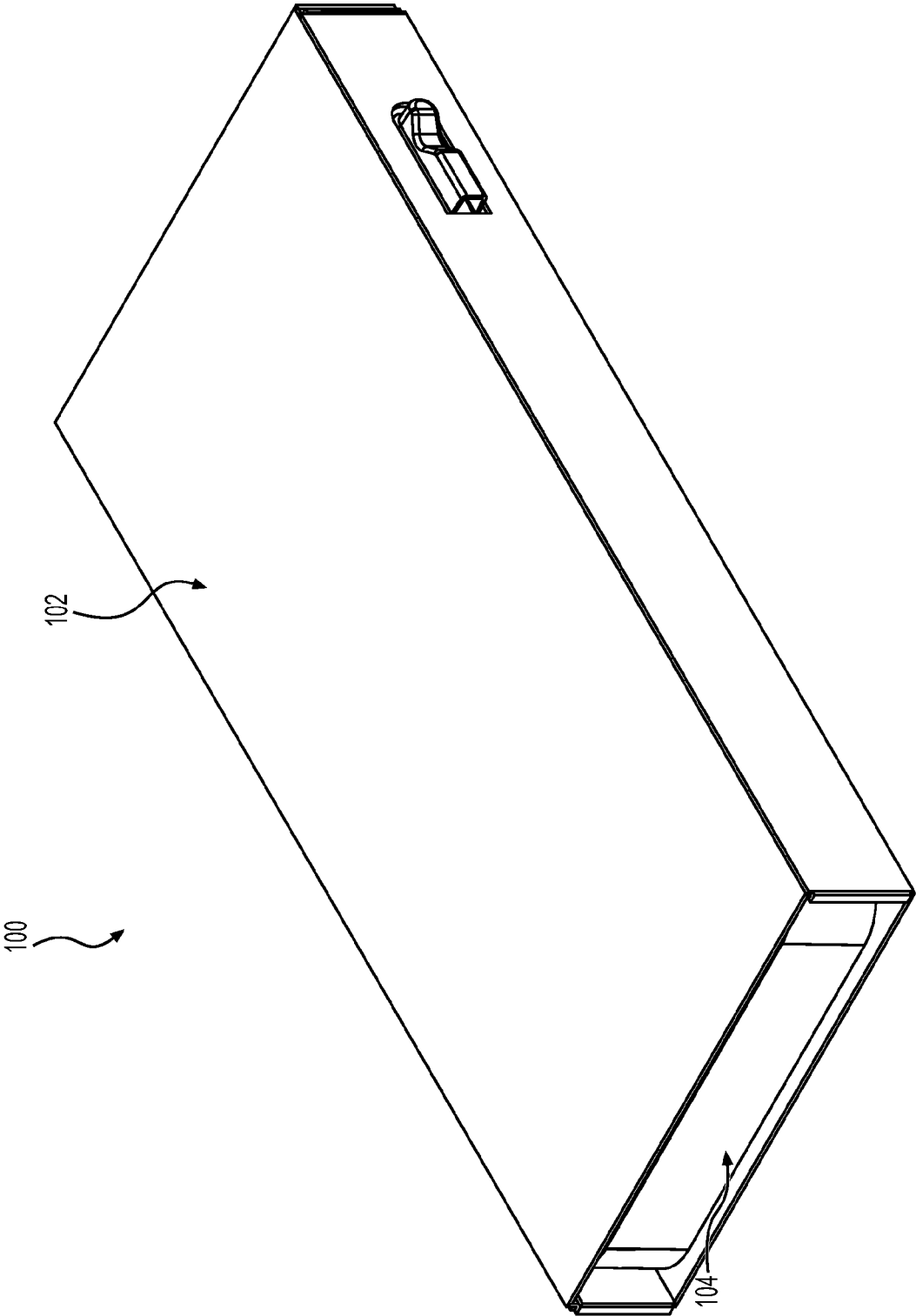


FIG. 1

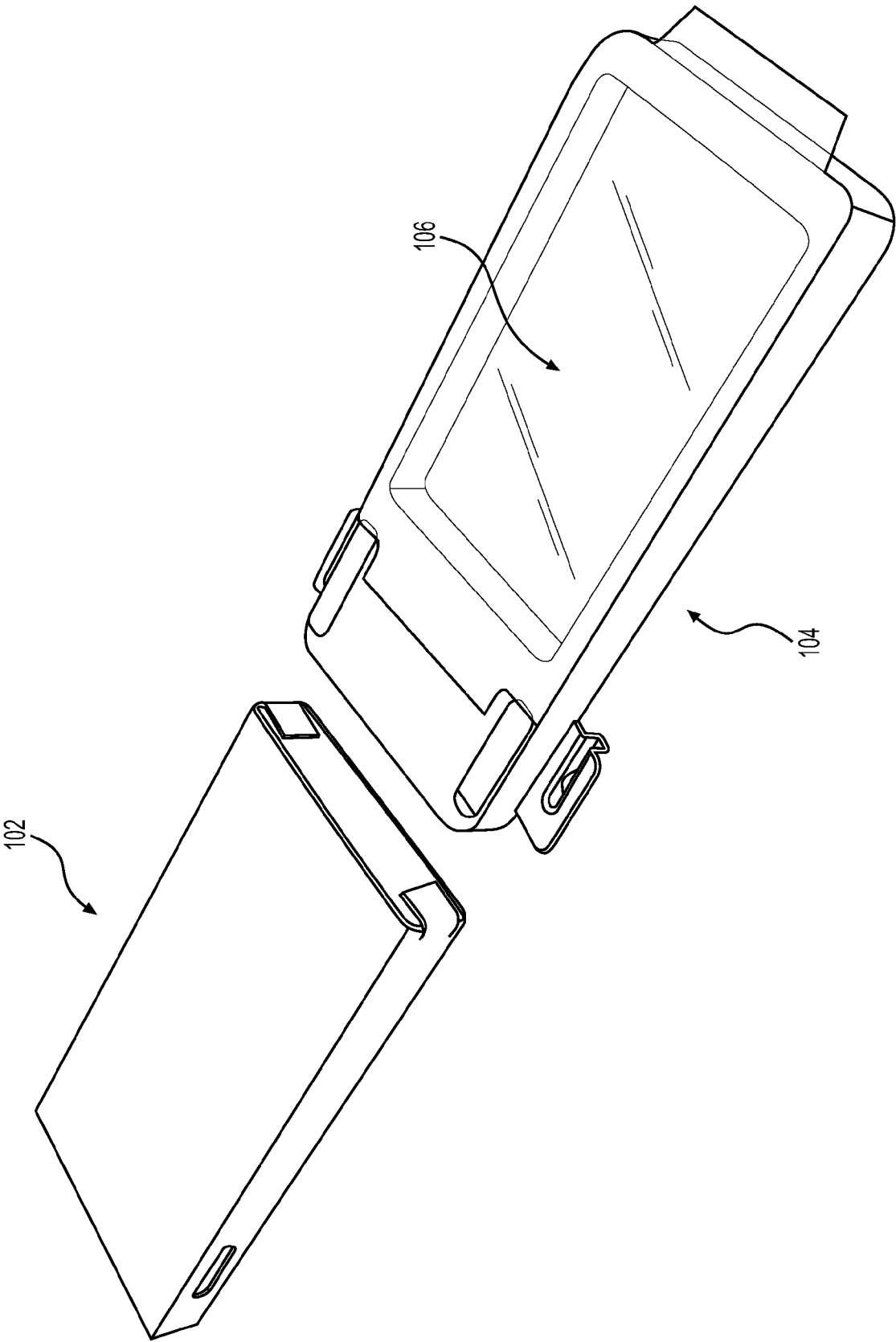


FIG. 2

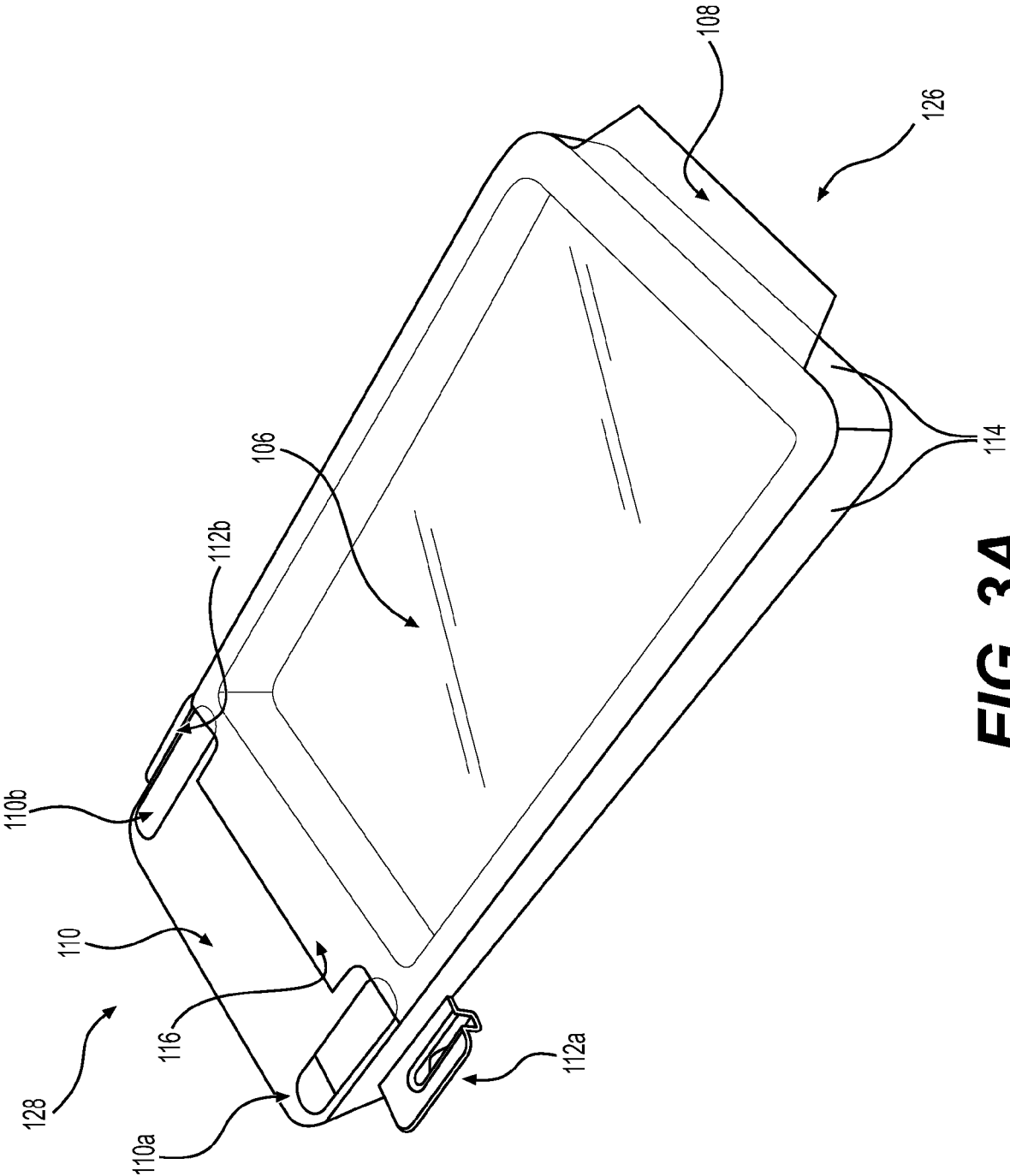


FIG. 3A

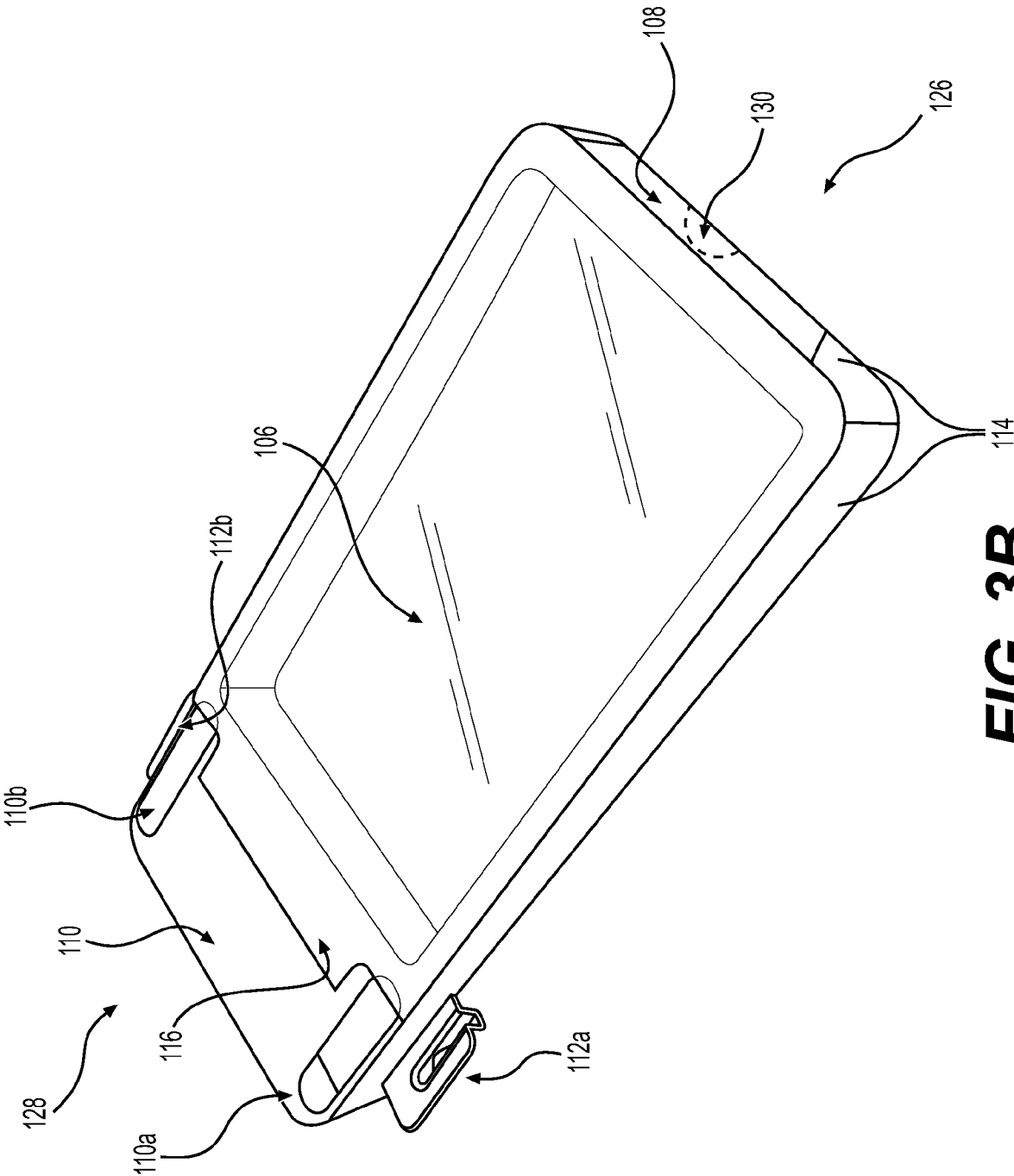


FIG. 3B

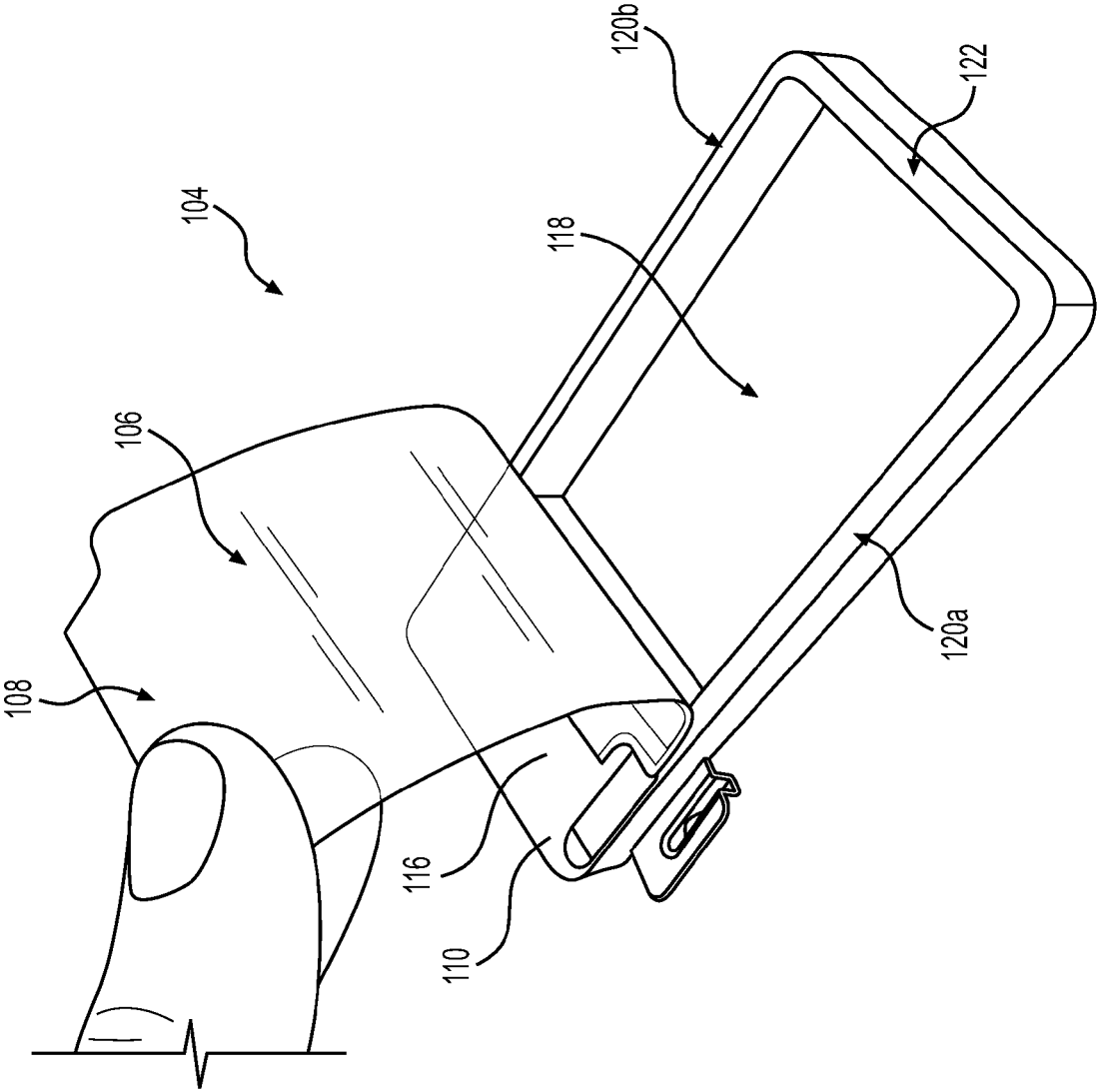


FIG. 4

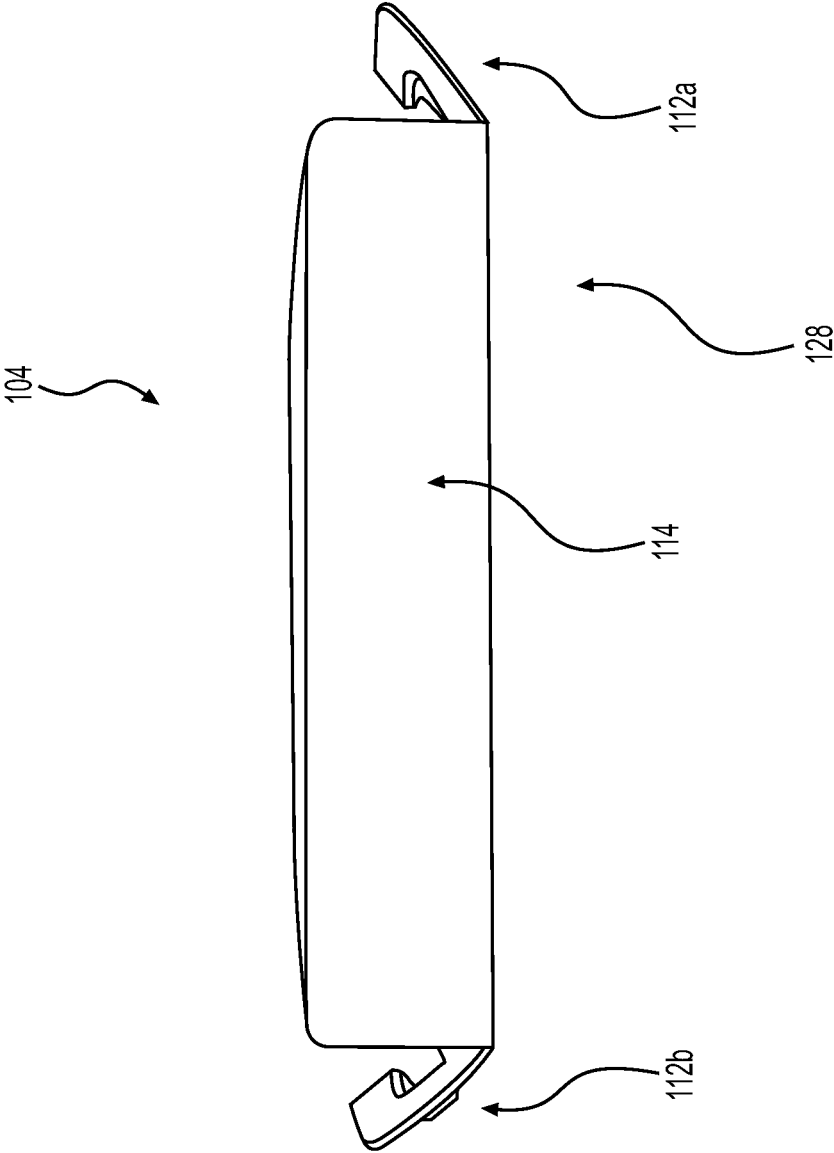


FIG. 5

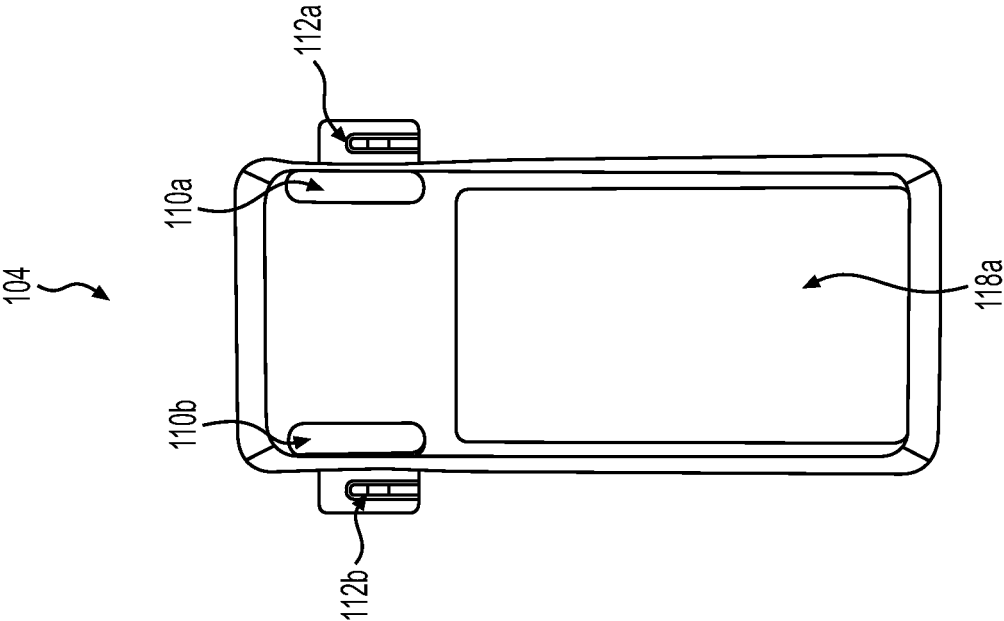


FIG. 6B

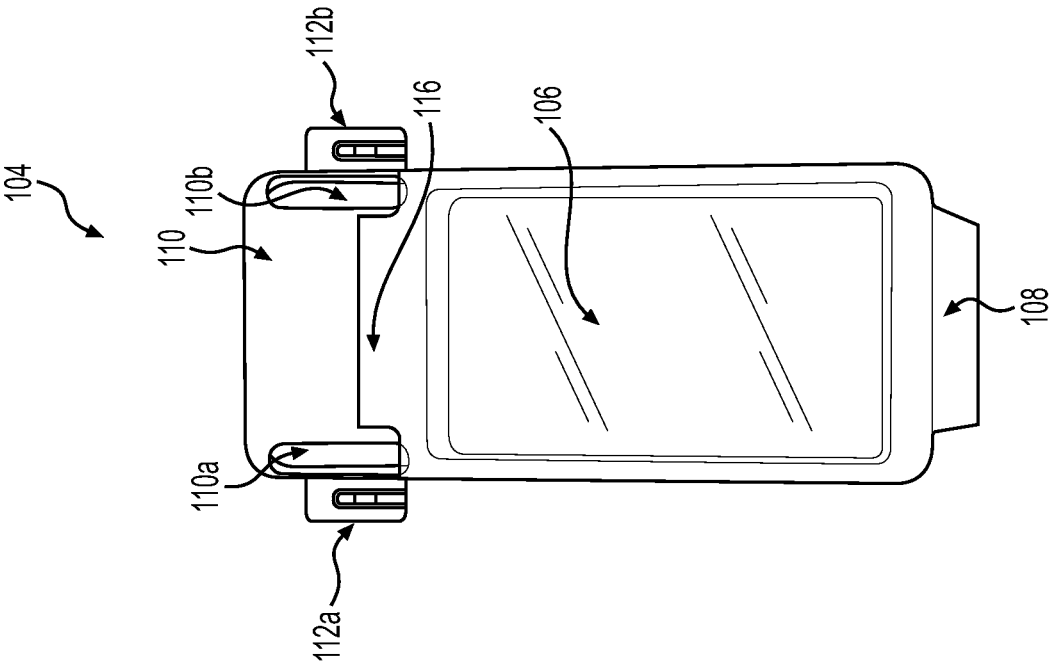


FIG. 6A

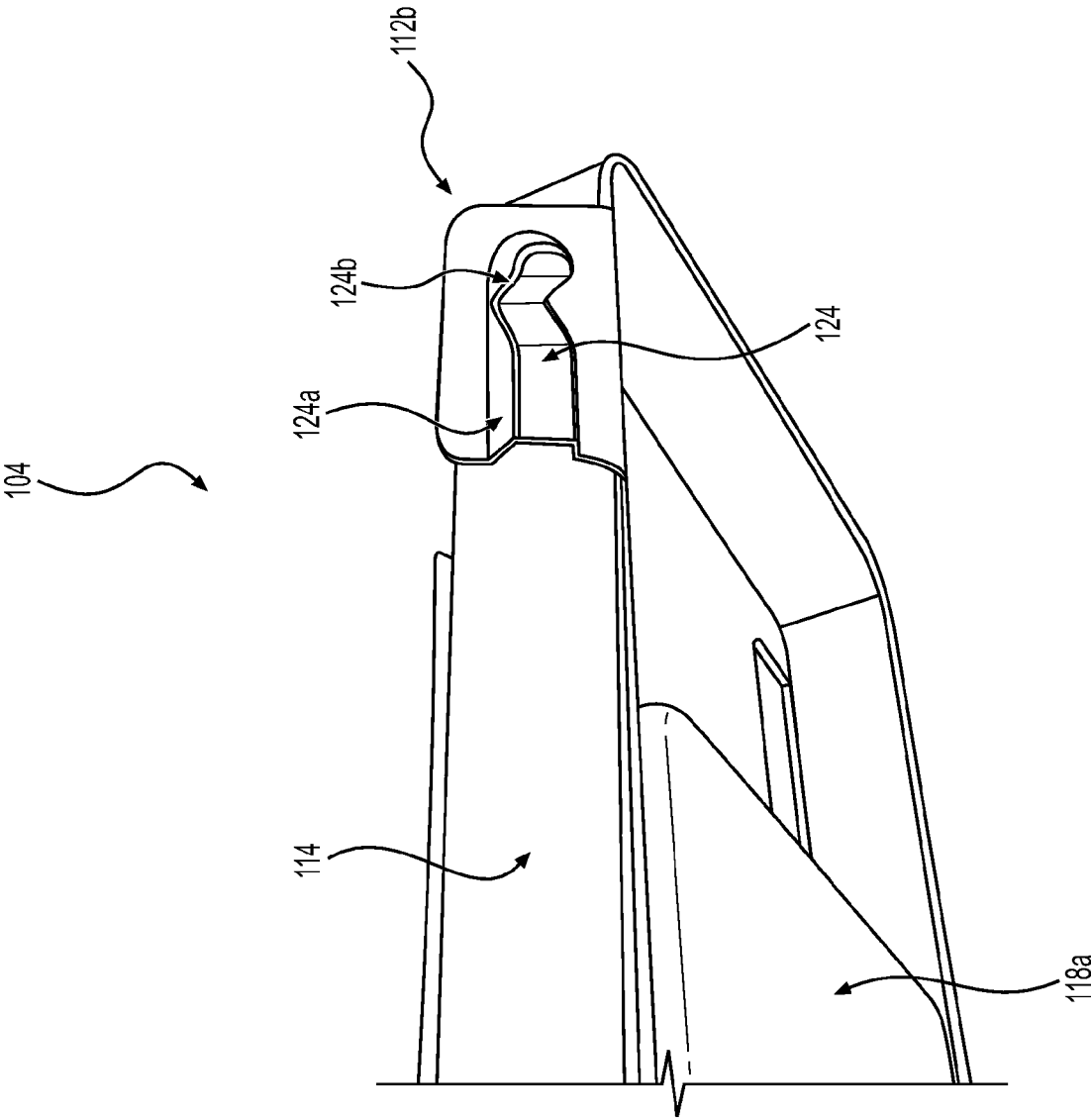


FIG. 7

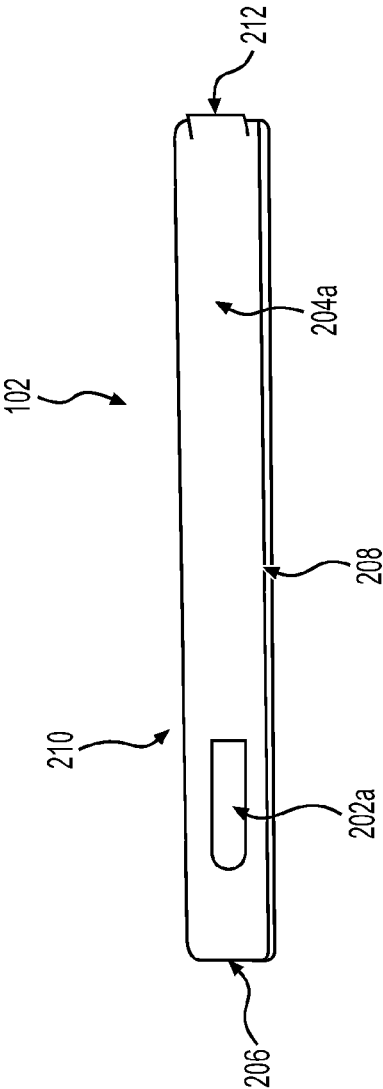


FIG. 8A

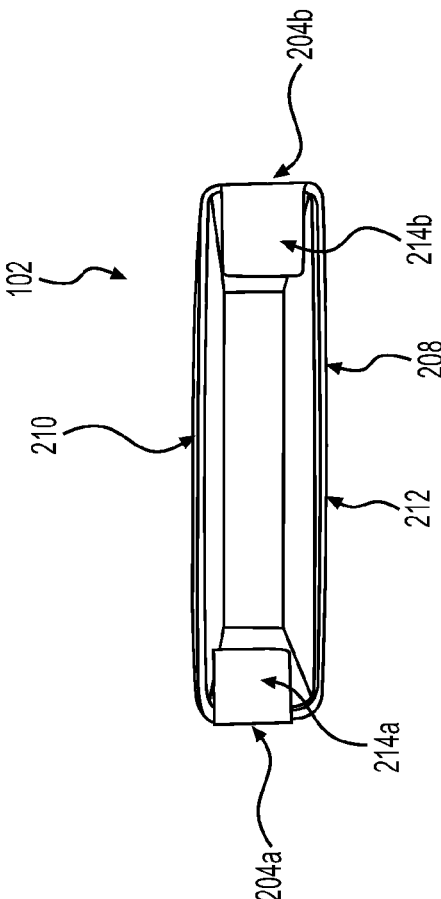


FIG. 8B

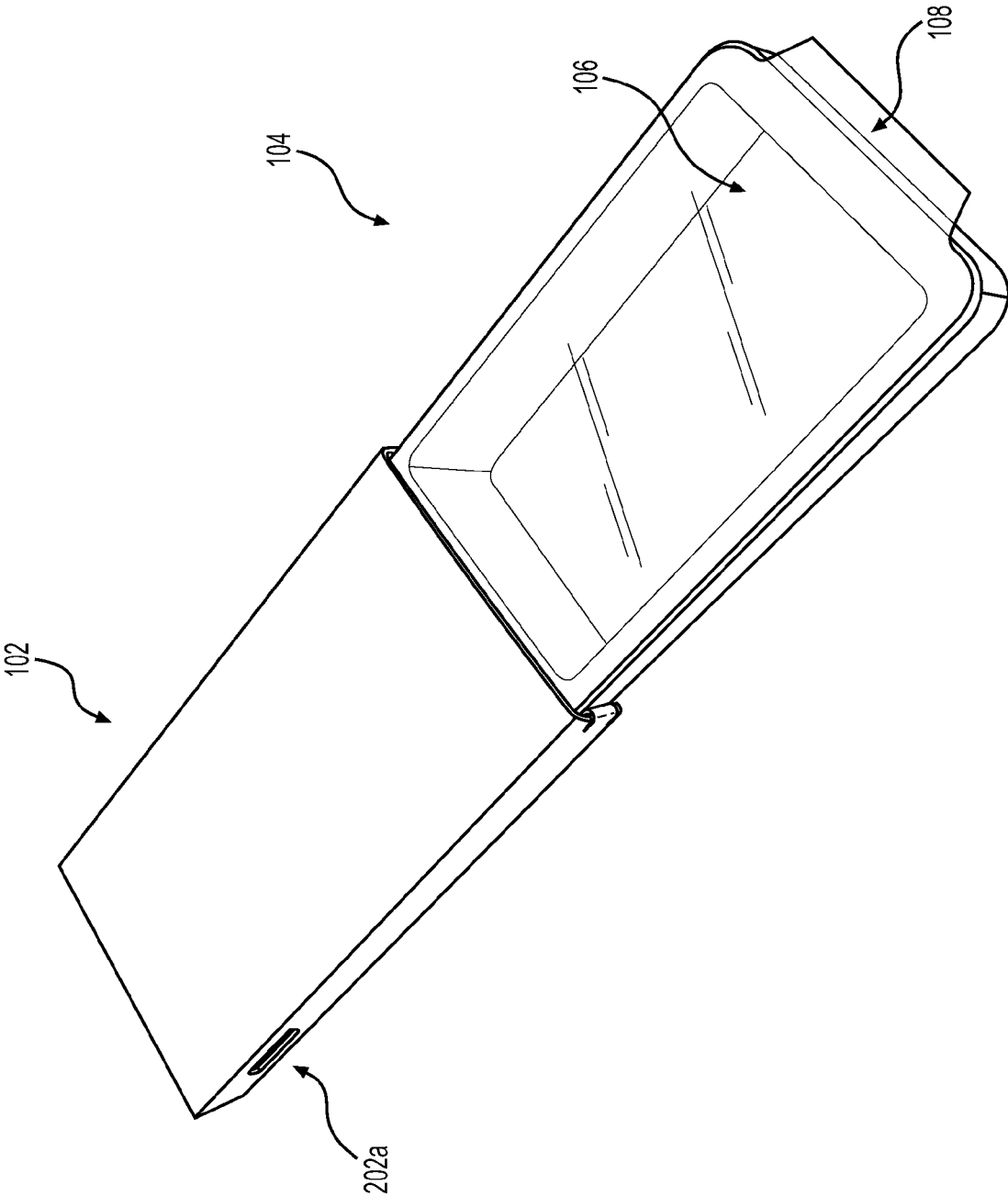


FIG. 9

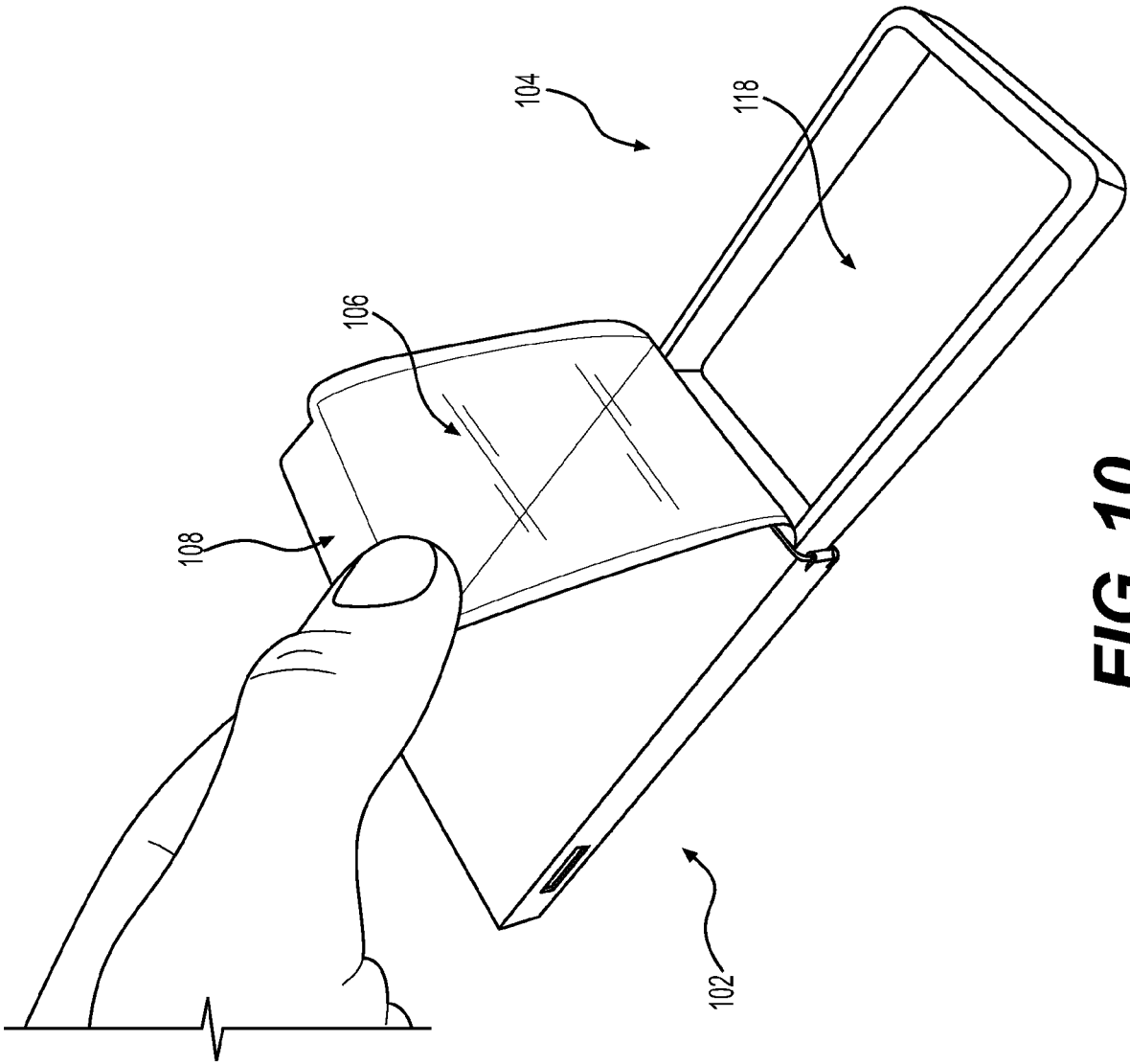


FIG. 10

CHILD-RESISTANT CONTAINER

TECHNICAL FIELD

[0001] Embodiments of the present disclosure relate generally to small containers and more specifically containers with child-resistant features, and related methods of use thereof.

BACKGROUND

[0002] Portable, child-resistant containers may be useful for a variety of applications. For example, such containers may be used to store medications, tobacco products, cannabis products, or other products and substances that may be hazardous to children. Ideally, such containers may be lightweight, may be easily opened for access to the contents, may be easily closed to keep the contents fresh, and may include a mechanism suitable for preventing children from accessing the contents. Existing containers may lack these desirable features and may be constructed in a manner that is inefficient for mass production. Accordingly, existing containers may be unsuitable for storage of the items described and existing containers may also be unsuitable for retail distribution of various products.

[0003] As such, there exists a need for improved child-resistant containers and methods of using the same to provide users with desirable features and functionality via a container that can be manufactured in a low-cost and efficient manner.

[0004] The present disclosure is directed to addressing the above-referenced challenges. The background description provided herein is for the purpose of generally presenting the context of the disclosure. Unless otherwise indicated herein, the materials described in this section are not prior art to the claims in this application and are not admitted to be prior art, or suggestions of the prior art, by inclusion in this section.

SUMMARY OF THE DISCLOSURE

[0005] According to certain aspects of the disclosure, child-resistant containers and methods for using the same are described.

[0006] In one example, a child-resistant container may include: an inner tray including a first side, a second side opposite the first side, a first locking mechanism on the first side, and a second locking mechanism on the second side; and an outer sleeve including a first sleeve side, a second sleeve side opposite the first sleeve side, a first locking port on the first sleeve side, a second locking port on the second sleeve side, an open end, and one or more catches located on an interior of the outer sleeve toward the open end. The inner tray may be configured to be slidably inserted into the outer sleeve through the open end such that each of the locking mechanisms releasably engages at least one of the locking ports upon insertion of the inner tray into the outer sleeve; and at least one of the locking mechanisms may be further configured, upon sliding the inner tray outwardly through the open end of the outer sleeve, to engage with the one or more catches to prevent the inner tray from being fully withdrawn from the outer sleeve.

[0007] In another example, a child-resistant container may include: an inner tray including a first side and a first locking mechanism positioned on the first side; and an outer sleeve

including a first sleeve side, a first locking port on the first sleeve side, an open end, and a catch located on an interior of the outer sleeve toward the open end. The inner tray may be configured to be slidably inserted into the outer sleeve through the open end such that the locking mechanism releasably engages the locking port upon insertion of the inner tray into the outer sleeve; and the locking mechanism may be further configured, upon sliding the inner tray outwardly through the open end of the outer sleeve, to engage with the catch to prevent the inner tray from being fully withdrawn from the outer sleeve.

[0008] In still another example, a method of accessing contents of a child-resistant container comprising an inner tray positioned with an outer sleeve may include: disengaging a first locking mechanism of the inner tray from a first locking port of the outer sleeve and a second locking mechanism of the inner tray from a second locking port of the outer sleeve; withdrawing the tray through an open end of the outer sleeve until at least one of the first locking mechanism and the second locking mechanism engages with at least one catch positioned on an interior of the outer sleeve to prevent the inner tray from being fully withdrawn from the outer sleeve; and accessing the contents located in a cavity of the inner tray.

[0009] Additional objects and advantages of the disclosed embodiments will be set forth in part in the description that follows, and in part will be apparent from the description, or may be learned by practice of the disclosed embodiments.

[0010] It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory only and are not restrictive of the disclosed embodiments, as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate various exemplary embodiments and together with the description, serve to explain the principles of the disclosed embodiments.

[0012] FIG. 1 depicts an isometric view of a container according to some embodiments.

[0013] FIG. 2 depicts an isometric view of a container in a partially exploded configuration according to some embodiments.

[0014] FIG. 3A depicts an isometric view of a tray of a container according to some embodiments.

[0015] FIG. 3B depicts an isometric view of a tray of a container according to some embodiments.

[0016] FIG. 4 depicts an isometric view of a tray of a container according to some embodiments.

[0017] FIG. 5 depicts a rear view of a tray according to some embodiments.

[0018] FIG. 6A depicts a top view of a tray according to some embodiments.

[0019] FIG. 6B depicts a bottom view of a tray according to some embodiments.

[0020] FIG. 7 depicts an isometric view of a locking tab according to some embodiments.

[0021] FIG. 8A depicts a side view of a sleeve according to some embodiments.

[0022] FIG. 8B depicts a front view of a sleeve according to some embodiments.

[0023] FIG. 9 depicts an isometric view of a container in an exploded configuration according to some embodiments.

[0024] FIG. 10 depicts an isometric view of a container in an exploded configuration according to some embodiments.

DETAILED DESCRIPTION OF EMBODIMENTS

[0025] The terminology used below may be interpreted in its broadest reasonable manner, even though it is being used in conjunction with a detailed description of certain specific examples of the present disclosure. Indeed, certain terms may even be emphasized below; however, any terminology intended to be interpreted in any restricted manner will be overtly and specifically defined as such in this Detailed Description section. Both the foregoing general description and the following detailed description are exemplary and explanatory only and are not restrictive of the features, as claimed.

[0026] In this disclosure, the term “based on” means “based at least in part on.” The singular forms “a,” “an,” and “the” include plural referents unless the context dictates otherwise. The term “exemplary” is used in the sense of “example” rather than “ideal.” The terms “comprises,” “comprising,” “includes,” “including,” or other variations thereof, are intended to cover a non-exclusive inclusion such that a process, method, or product that comprises a list of elements does not necessarily include only those elements, but may include other elements not expressly listed or inherent to such a process, method, article, or apparatus. Relative terms such as “substantially” and “generally” are used to indicate a possible variation of $\pm 10\%$ of a stated or understood value.

[0027] In general, the present disclosure is directed to improved, child-resistant containers and methods for using the same. The devices and methods described in the present disclosure offer significant technical benefits which will become apparent.

[0028] Portable, child-resistant containers may be useful for storing medications, tobacco products, cannabis products, or other products and substances that may be hazardous to children. As one example, such containers may be used to store pre-rolled tobacco or cannabis cigarettes. In such an application, a child-resistant container may serve multiple functions, such as protecting the contents from physical damage during shipment, maintaining the freshness of the contents before use, providing a means for a user to safely and easily transport the contents, and preventing access by children to whom the contents may be hazardous or toxic.

[0029] It may be desirable for child-resistant containers to be sufficiently rigid to protect the contents, for example, during shipment to a retail location or to an end user. If the contents of a container include pre-rolled cigarettes, the container may protect the cigarettes from physical damage during shipment. The container may further be suitable for and allow packing of large quantities of similar containers without buckling or flattening.

[0030] It may also be desirable for child-resistant containers to be easily opened and resealed such that the contents need not be removed from the container all at once. For example, a user may wish to open such a container to remove one of multiple cigarettes for immediate use and reseal the remaining cigarettes in the container. That way, the user may save the remaining cigarettes for later use in the container, thereby preventing the cigarettes from becoming stale and also preventing access of the remaining cigar-

ettes by children. The container may further allow the user to easily transport the remaining cigarettes in a pocket, for example, without risking crushing, tearing, or other physical damage to the cigarettes.

[0031] It may further be desirable for child-resistant containers to include a mechanism suitable for preventing children from accessing the contents of the containers while simultaneously being easily operable by the intended user. An easily operable mechanism may be operated manually, requiring minimal force and not requiring tools. An easily operable mechanism may also be sufficiently complex so as to inhibit a child from opening the container, but not so complex that an adult could not readily open the container.

[0032] Additionally, it may be desirable for child-resistant containers incorporating one or more of the foregoing features to be formed of a simple construction to enable efficient and low-cost manufacturing. When configured in such a manner, containers may be suitable for use in high-volume packaging applications without significantly contributing to a cost of the end product stored within the containers.

[0033] Accordingly, a need exists for improved child-resistant containers and methods of using the same to provide users with the desirable features described herein via a container that can be manufactured in a low-cost and efficient manner. Embodiments of the present disclosure offer technical solutions to address the foregoing needs, as well as other needs.

[0034] FIG. 1 depicts an exemplary child-resistant container 100 in accordance with the present disclosure. Child-resistant container 100 may include an outer sleeve 102 and an inner tray 104. As shown in FIG. 1, inner tray 104 may be positioned within outer sleeve 102 when the child-resistant container 100 is in a closed configuration. In the closed configuration, child-resistant container 100 may enclose contents stored therein, such as pre-rolled cigarettes or the like. In the closed configuration, a user may be prevented from simply withdrawing inner tray 104 from outer sleeve 102 without taking additional steps, which will be described in greater detail hereinafter.

[0035] In the closed configuration, child-resistant container 100 may be compact for convenient transport by a user, such as in a pocket of an article of clothing, in a purse, or the like. In some embodiments, child-resistant container 100 may be about 5 inches long, about 2.5 inches wide, and about 0.5 inches thick. Though exemplary dimensions are provided herein, these dimensions are not intended to be limiting and it should be understood that the dimensions of child-resistant container 100 may vary.

[0036] FIG. 2 depicts child-resistant container 100 in a partially exploded configuration, i.e., with inner tray 104 fully withdrawn from outer sleeve 102. Outer sleeve 102 may be formed of a generally hollow construction, having a space therein sized to accommodate inner tray 104. In some embodiments, outer sleeve 102 may be formed, for example, of a folded paper material such as paperboard, cardboard, or the like. In some embodiments, outer sleeve 102 may alternatively be formed of molded plastic materials such as polyethylene terephthalate (PET), high-density polyethylene (HDPE), polyvinyl chloride (PVC), low-density polyethylene (LDPE), polypropylene (PP) or polystyrene. In some embodiments, outer sleeve 102 may be formed from a plastic sheet that is folded into shape. In some embodiments, outer sleeve 102 may be formed of a stamped metal material such as aluminum, tin, or the like. In some embodi-

ments, outer sleeve 102 may be formed of a combination of any of the foregoing materials.

[0037] Inner tray 104 may be dimensioned so as to substantially occupy the space within outer sleeve 102. For example, inner tray 104 may be sized such that a clearance fit is created between outer sleeve 102 and inner tray 104, thereby allowing a user to slide inner tray 104 relative to outer sleeve 102. Inner tray 104 may be formed of molded plastic materials such as PET, HDPE, PVC, LDPE, PP, or polystyrene. In some embodiments, inner tray 104 may be formed of a stamped metal material such as aluminum or tin. In some embodiments, inner tray 104 may be formed of a folded paper material. In some embodiments, inner tray 104 may be formed of a combination of any of the foregoing materials, such as a folded paper material with plastic and/or metal components.

[0038] Inner tray 104 may include a sealing substrate 106 configured to seal the contents of child-resistant container 100 within inner tray 104. Sealing substrate 106 may be a flexible material and may include an adhesive disposed on a lower side thereof. Sealing substrate 106 may be formed from a plastic film, aluminum foil, paper, paper laminated with a plastic film, or any other suitable flexible material. The adhesive may adhere to an upper surface of inner tray 104 such that it may be selectively peeled from inner tray 104 by the user to reveal or otherwise provide access to the contents of child-resistant container 100. Sealing substrate 106 may serve, for example, to maintain freshness of the contents and/or to prevent contamination of the contents by impurities. In some embodiments, sealing substrate 106 may be transparent or translucent to allow a user to see the contents of child-resistant container 100 without peeling sealing substrate 106.

[0039] Referring to FIG. 3A, sealing substrate 106 may include a pull tab 108 disposed toward an open-end side 126 of inner tray 104, where the open-end side 126 is a side exposed when child-resistant container 100 is in a closed state, as shown in FIG. 1. Pull tab 108 may extend over the open-end side 126 of inner tray 104 such that a user may easily grasp pull tab 108 to peel sealing substrate 106 from inner tray 104 to access the contents of inner tray 104. In some embodiments, pull tab 108 may extend out of outer sleeve 102 when child-resistant container 100 is in a closed state, thereby permitting the user to withdraw inner tray 104 from outer sleeve 102 via pull tab 108. Pull tab 108 may have any suitable configuration.

[0040] Inner tray 104 may further include an upper planar surface 110 positioned opposite the open-end side 126 toward a distal side of inner tray 104. Upper planar surface 110 may include cut-outs 110a and 110b formed therein. Cut-outs 110a and 110b may be formed as elongated openings in upper planar surface 110, extending through inner tray 104. Cut-outs 110a and 110b may be positioned adjacent a closed-end side of inner tray 104, which is opposite the open-end side 126. Cut-outs 110a and 110b may further be positioned, respectively, adjacent a right side and a left side of inner tray 104. Upper planar surface 110 may further accommodate an adhering strip 116 of sealing substrate 106. Adhering strip 116 may be a portion of sealing substrate 106 having an adhesive on a lower side thereof that may serve to maintain an orientation of sealing substrate 106 relative to inner tray 104 when sealing substrate 106 is peeled. Adhering strip 116 may further be shaped so as to adhere between cut-outs 110a and 110b located on upper planar surface 110.

[0041] Inner tray 104 may include a sidewall 114 extending around the perimeter of inner tray 104. Inner tray 104 may also include locking mechanisms 112a and 112b, positioned on or otherwise extending from sidewall 114 on left and right sides of the inner tray 104, respectively. Locking mechanisms 112a and 112b may releasably engage with locking ports 202a of outer sleeve 102, as described herein—after in greater detail, to prevent opening of child-resistant container 100 by a child. Locking mechanisms 112a and 112b may be, for example, depressible tabs, depressible buttons, or any other suitable mechanism for selectively engaging locking ports of outer sleeve 102. Locking mechanisms 112a and 112b may be positioned toward the closed-end side 128 of inner tray 104.

[0042] In some embodiments, and as shown in FIG. 3B, pull tab 108 may be folded down against sidewall 114. In some embodiments, pull tab 108 may include adhesive applied to an underside thereof such that pull tab 108 may be adhered to sidewall 114 when folded down. Pull tab 108 may further include a grip portion 130, an underside of which does not include adhesive applied thereto. Grip portion 130 may be hemispherical, triangular, rectangular, or any other shape. Grip portion 130 may allow a user to more easily position a finger or other object between pull tab 108 and sidewall 114 to release pull tab 108 from sidewall 114 when removing sealing substrate 106 from inner tray 104. By folding pull tab 108 down against sidewall 114 and adhering it thereto, the seal of sealing substrate 106 to inner tray 104 may be enhanced and/or further secured.

[0043] Referring to FIG. 4, to access the contents of child-resistant container 100, a user may peel sealing substrate 106 from inner tray 104 to expose cavity 118. Cavity 118 may be a space formed within inner tray 104 configured to store or retain medications, pre-rolled cigarettes, edible products, or any other items suitable for storage in child-resistant container 100. In some embodiments, cavity 118 include a single space, as shown in FIG. 4. Alternatively, in some embodiments, cavity 118 may be subdivided into multiple spaces. For example, cavity 118 may include multiple discrete spaces, each of which is configured to store one or more pre-rolled cigarettes.

[0044] Sealing substrate 106 may be adhered to one or more of left edge 120a, right edge 120b, or open-end edge 122, each of which border cavity 118. Sealing substrate 106 may be peeled initially from open-end edge 122, then from left edge 120a and right edge 120b to expose the contents stored in cavity 118. As shown, sealing substrate 106 need not necessarily be removed entirely from inner tray 104 and may indeed remain partially adhered to inner tray 104 while a user accesses the contents. For example, adhering strip 116 of sealing substrate 106 may remain adhered to upper planar surface 110 while a user accesses the contents in cavity 118. Accordingly, an orientation of sealing substrate 106 relative to inner tray 104 may be maintained so that sealing substrate 106 may easily be re-adhered to inner tray 104, thereby resealing cavity 118. Such a configuration may be particularly useful, for example, for a user who wishes to remove one of several items from cavity 118 and preserve the freshness of the remaining items.

[0045] FIG. 5 depicts closed-end side 128 of child-resistant container 100 and an exemplary configuration of locking mechanisms 112a and 112b in greater detail. In some embodiments, locking mechanisms 112a and 112b may be

hinged tabs extending from and attached to a lower edge of sidewall 114. Locking mechanisms 112a and 112b may be integrally formed with the lower edge of sidewall 114, such that they may be folded upward toward the upper surface of inner tray 104. Upon folding of locking mechanisms 112a and 112b upward toward the upper surface of inner tray 104, a resiliency of the hinges may cause the locking mechanisms 112a and 112b to be biased outwardly, away from sidewall 114. As a result of the outward biasing, locking mechanisms 112a and 112b may be selectively depressed inwardly by the user.

[0046] FIGS. 6A and 6B depict top and bottom views, respectively, of inner tray 104. As shown, locking mechanism 112a may be positioned adjacent cut-out 110a, and locking mechanism 112b may be positioned adjacent cut-out 110b. In such a configuration, cut-outs 110a and 110b may facilitate the selective depression of locking mechanisms 112a and 112b. For example, cut-outs 110a and 110b may allow for increased inward flexion of sidewall 114, thereby permitting locking mechanisms 112a and 112b to be easily depressed by the user.

[0047] As shown in FIG. 6B, inner tray 104 may be integrally formed of a thin-walled construction, such that contours of cavity 118 can be seen via a corresponding lower cavity wall 118a in a bottom view of inner tray 104.

[0048] Referring to FIG. 7, features of an exemplary locking mechanism 112b will be described in greater detail. Locking mechanism 112b may include a projection 124 extending outwardly therefrom. Projection 124 may be configured to engage with a locking port of outer sleeve 102, e.g. locking port 202a as shown in FIG. 8A. Projection 124 may include a locking portion 124a and a tactile portion 124b. Locking portion 124a may engage with a locking port of outer sleeve 102 to prevent inner tray 104 from being withdrawn from outer sleeve 102. Locking portion 124a may be, for example, a partially cylindrical shape. Tactile portion 124b may be a textured, raised, or otherwise distinct portion of projection 124, which may allow a user to easily locate and/or depress locking mechanism 112b. Further, as inner tray 104 may be integrally formed of a thin-walled construction, by including locking portion 124a and tactile portion 124b on projection 124 in lieu of a uniform surface, projection 124 may be fortified against deformation which could render projection 124 non-functional. Though not shown in FIG. 7, locking mechanism 112a may include substantially the same features as locking mechanism 112b.

[0049] Referring to FIGS. 8A and 8B, outer sleeve 102 will be described in greater detail. Outer sleeve 102 may include a locking port 202a located on a left side wall 204a of outer sleeve 102. Locking port 202a may be in the form of a cut-out extending through left side wall 204a and shaped to receive projection 124 as described herein previously. Outer sleeve 102 may further include a right side wall 204b, a closed end 206, a lower wall 208, an upper wall 210, and an open end 212. Though not shown, right side wall 204b may include a locking port substantially similar to locking port 202a and positioned opposite locking port 202a.

[0050] When inner tray 104 is fully inserted into outer sleeve 102, the respective projections 124 on each of locking mechanisms 112a and 112b may protrude through a respective locking port of outer sleeve 102, thereby engaging the locking ports. When the projections 124 engage

the locking ports, inner tray 104 may be prevented from sliding relative to outer sleeve 102 and may therefore be prevented from being withdrawn from outer sleeve 102. For a user to be able to withdraw inner tray 104 from outer sleeve 102, the user may first be required to depress each of locking mechanisms 112a and 112b inwardly such that the projections 124 disengage from the locking ports. Cut-outs 110a and 110b may be positioned near locking mechanisms 112a and 112b such that cut-outs 110a and 110b permit locking mechanisms 112a and 112b to be depressed inwardly a sufficient distance to disengage from the locking ports. Cut-outs 110a and 110b may further reduce the pressure necessary to depress locking mechanisms 112a and 112b inwardly by increasing the flexibility of inner tray 104. When the projections 124 are disengaged from the locking ports, the user may slide inner tray 104 relative to outer sleeve 102 and accordingly may withdraw inner tray 104 at least partially from outer sleeve 102.

[0051] In some embodiments, a user may depress locking mechanisms 112a and 112b by applying pressure with a thumb and/or fingers. For example, a user may depress locking mechanism 112a with her thumb and may depress locking mechanism 112b with her index finger. In some embodiments, simultaneous depression of locking mechanism 112a and locking mechanism 112b may be required to withdraw inner tray 104 from outer sleeve 102. In some embodiments, depressing locking mechanism 112a and locking mechanism 112b at different times may permit withdrawal of inner tray 104 from outer sleeve 102.

[0052] Referring to FIG. 8B, open end 212 may be configured to receive inner tray 104 such that inner tray 104 is slidable with respect to outer sleeve 102 through open end 212. Outer sleeve 102 may further include a left catch 214a positioned on an interior surface of left side wall 204a and a right catch 214b positioned on an interior surface of right side wall 204b. Left catch 214a and right catch 214b may be attached to left side wall 204a and right side wall 204b, respectively, via hinges such that left catch 214a and right catch 214b may swing inwardly into the space defined by outer sleeve 102. In some embodiments, the hinges may be formed by simply folding left catch 214a and right catch 214b inwardly. In some embodiments, left catch 214a and right catch 214b may be separately formed components that are adhered or otherwise attaching to 204a// and 204b//, respectively. Catches 214a and 214b may be folded into sleeve 102 and secured therein by, e.g., a suitable adhesive.

[0053] Upon insertion of inner tray 104 through open end 212 and into the space defined by outer sleeve 102, left catch 214a and right catch 214b may each be caused to fold about their respective hinged attachments by inner tray 104. When inner tray 104 is positioned within outer sleeve 102, left catch 214a may be parallel or substantially parallel to an interior surface of left side wall 204a. Similarly, when inner tray 104 is positioned within outer sleeve 102, right catch 214b may be parallel or substantially parallel to an interior surface of right side wall 204b.

[0054] When the inner tray 104 is positioned within outer sleeve 102 and left catch 214a and right catch 214b are positioned along the respective sidewalls, left catch 214a and right catch 214b may interfere with locking mechanisms 112a and 112b to prevent inner tray 104 from being fully withdrawn from outer sleeve 102. For example, when child-resistant container 100 is in a closed configuration (FIG. 1) and the user wishes to access the contents stored

within child-resistant container **100**, the user may depress locking mechanisms **112a** and **112b**, thereby disengaging them from the respective locking ports. The user may then slide inner tray **104** relative to outer sleeve **102** outwardly through open end **212**. Before inner tray **104** is fully withdrawn from outer sleeve **102**, locking mechanism **112a** may engage with left catch **214a** and locking mechanism **112b** may engage with right catch **214b**. Locking mechanisms **112a** and **112b** may thus be prevented from moving further relative to outer sleeve **102** toward open end **212**. Consequently, inner tray **104** may likewise be prevented from moving further by virtue of locking mechanisms **112a** and **112b** being attached thereto.

[0055] Referring to FIGS. 9 and 10, left catch **214a** and right catch **214b** may permit inner tray **104** to be withdrawn from outer sleeve **102** to a position in which the contents of child-resistant container **100** may be accessible to a user, i.e. a contents-accessible position. In the contents-accessible position, locking mechanisms **112a** and **112b** may engage with catches **214a** and **214b** to prevent further movement of the inner tray **104** relative to outer sleeve **102**. Further, in the contents-accessible position, sealing substrate **106** may be peeled from inner tray **104**, thereby exposing an entirety of cavity **118** and any contents that may be stored therein. In the contents-accessible position, outer sleeve **102** may continue to cover upper planar surface **110** and adhering strip **116**, thereby helping to maintain adhering strip **116** in place on upper planar surface **110**. As a result, when a user peels sealing substrate **106** from inner tray **104**, sealing substrate **106** may remain in a position to be easily resealed to inner tray **104** by a user.

[0056] Locking mechanisms **112a** and **112b** as described herein may therefore serve in a multi-functional capacity on child-resistant container **100**. In conjunction with the locking ports (e.g. **202a** and a similar locking port on an opposite side of outer sleeve **102**), locking mechanisms **112a** and **112b** may serve as a means by which a user can selectively secure the contents of child-resistant container **100**. In this way, locking mechanisms **112a** and **112b** may effectively prevent children from accessing contents of child-resistant container **100** which may be hazardous. In conjunction with left catch **214a** and right catch **214b**, locking mechanisms **112a** and **112b** may prevent a user from inadvertently disassembling child-resistant container **100** and may further facilitate repeated opening and closing of child-resistant container **100**. Furthermore, by configuring locking mechanisms **112a** and **112b** in the manner described herein, the various aforementioned functionalities may be incorporated into child-resistant container **100** while minimizing the quantity and complexity of structural features included on child-resistant container **100**. Accordingly, child-resistant container **100** may be formed by simple and cost-effective manufacturing processes suitable for mass production and retail distribution.

[0057] Although the exemplary embodiments described above have been disclosed in connection with a child-resistant container, those skilled in the art will understand that the principles set out above can be applied to any container and can be implemented in different ways without departing from the scope of the disclosure as defined by the claims. In particular, construction details, including manufacturing techniques and materials, are well within the understanding of those of skill in the art and have not been set out in detail here. These and other modifications and variations are well

within the scope of the present disclosure and can be envisioned and implemented by those of skill in the art.

[0058] Other exemplary embodiments of the present disclosure will be apparent to those skilled in the art from consideration of the specification and practice of the exemplary embodiments disclosed herein. It is intended that the specification and examples be considered as exemplary only, and departures in form and detail may be made without departing from the scope and spirit of the present disclosure as defined by the following claims.

What is claimed is:

1. A child-resistant container, comprising:

an inner tray including a first side, a second side opposite the first side, a first locking mechanism on the first side, and a second locking mechanism on the second side; and
an outer sleeve including a first sleeve side, a second sleeve side opposite the first sleeve side, a first locking port on the first sleeve side, a second locking port on the second sleeve side, an open end, and one or more catches located on an interior of the outer sleeve toward the open end;
wherein the inner tray is configured to be slidably inserted into the outer sleeve through the open end such that each of the locking mechanisms releasably engages at least one of the locking ports upon insertion of the inner tray into the outer sleeve; and

wherein at least one of the locking mechanisms is further configured, upon sliding the inner tray outwardly through the open end of the outer sleeve, to engage with the one or more catches to prevent the inner tray from being fully withdrawn from the outer sleeve.

2. The child-resistant container of claim 1, wherein the locking mechanisms are configured, when engaged with the locking ports, to prevent the inner tray from being withdrawn through the open end of the outer sleeve.

3. The child-resistant container of claim 1, wherein the first locking mechanism includes a first projection and the second locking mechanism includes a second projection; and
wherein the first projection protrudes through the first locking port when the first locking mechanism engages the first locking port and the second projection protrudes through the second locking port when the second locking mechanism engages the second locking port.

4. The child-resistant container of claim 3, wherein the first locking mechanism is configured to disengage from the first locking port upon depression of the first projection and the second locking mechanism is configured to disengage from the second locking port upon depression of the second projection.

5. The child-resistant container of claim 4, wherein upon depression of the first projection and the second projection, the inner tray is permitted to be withdrawn outwardly through the open end of the outer sleeve.

6. The child-resistant container of claim 1, wherein the inner tray further includes a third side and a fourth side opposite the third side, the third side located at the open end of the outer sleeve when the inner tray is inserted in the outer sleeve; and

wherein the first locking mechanism and the second locking mechanism are positioned adjacent the fourth side.

7. The child-resistant container of claim 6, wherein the one or more catches are positioned adjacent the third side when the inner tray is inserted in the outer sleeve.

8. The child-resistant container of claim 7, wherein the one or more catches includes a first catch and a second catch, the first catch configured to engage with the first locking mechanism and the second catch configured to engage with the second locking mechanism.

9. The child-resistant container of claim 6, wherein the inner tray further includes a first cut-out positioned adjacent the first locking mechanism, the first cut-out configured to facilitate disengagement of the first locking mechanism from the first locking port.

10. The child-resistant container of claim 1, wherein the inner tray is integrally formed of a molded plastic.

11. The child-resistant container of claim 10, wherein the outer sleeve is formed of a folded paper material or a folded plastic sheet.

12. The child-resistant container of claim 10, wherein the inner tray further includes one or more cavities configured to retain contents of the child-resistant container.

13. The child-resistant container of claim 12, wherein the inner tray further includes a substrate configured to selectively seal the one or more cavities.

14. A child-resistant container, comprising:

an inner tray including a first side and a first locking mechanism positioned on the first side; and

an outer sleeve including a first sleeve side, a first locking port on the first sleeve side, an open end, and a catch located on an interior of the outer sleeve toward the open end;

wherein the inner tray is configured to be slidably inserted into the outer sleeve through the open end such that the locking mechanism releasably engages the locking port upon insertion of the inner tray into the outer sleeve; and wherein the locking mechanism is further configured, upon sliding the inner tray outwardly through the open end of the outer sleeve, to engage with the catch to prevent the inner tray from being fully withdrawn from the outer sleeve.

15. The child-resistant container of claim 14, wherein the locking mechanism is configured, when engaged with the locking port, to prevent the inner tray from sliding outwardly through the open end of the outer sleeve.

16. The child-resistant container of claim 14, wherein the first locking mechanism includes a first projection; and

wherein the first projection protrudes through the first locking port when the first locking mechanism engages the first locking port and the first locking mechanism is configured to be disengaged from the first locking port upon depression of the first projection.

17. The child-resistant container of claim 14, wherein the inner tray further includes a third side and a fourth side opposite the third side, the third side being located within the open end of the outer sleeve when the inner tray is inserted in the outer sleeve; and

wherein the first locking mechanism is positioned adjacent the fourth side.

18. The child-resistant container of claim 17, wherein the catches is positioned adjacent the third side when the inner tray is inserted in the outer sleeve.

19. The child-resistant container of claim 16, wherein upon depression of the first projection, the inner tray is permitted to slide outwardly through the open end of the outer sleeve.

20. A method of accessing contents of a child-resistant container comprising an inner tray positioned with an outer sleeve, the method comprising:

disengaging a first locking mechanism of the inner tray from a first locking port of the outer sleeve and a second locking mechanism of the inner tray from a second locking port of the outer sleeve;

withdrawing the inner tray through an open end of the outer sleeve until at least one of the first locking mechanism and the second locking mechanism engages with at least one catch positioned on an interior of the outer sleeve to prevent the inner tray from being fully withdrawn from the outer sleeve; and

accessing the contents located in a cavity of the inner tray.

21. The method of claim 20, further comprising:

after withdrawing the inner tray, peeling a substrate partially from the inner tray such that the cavity is unsealed and the substrate remains adhered to at least a portion of the inner tray.

22. The method of claim 21, further comprising:

repositioning the substrate on the inner tray such that the cavity is resealed.

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