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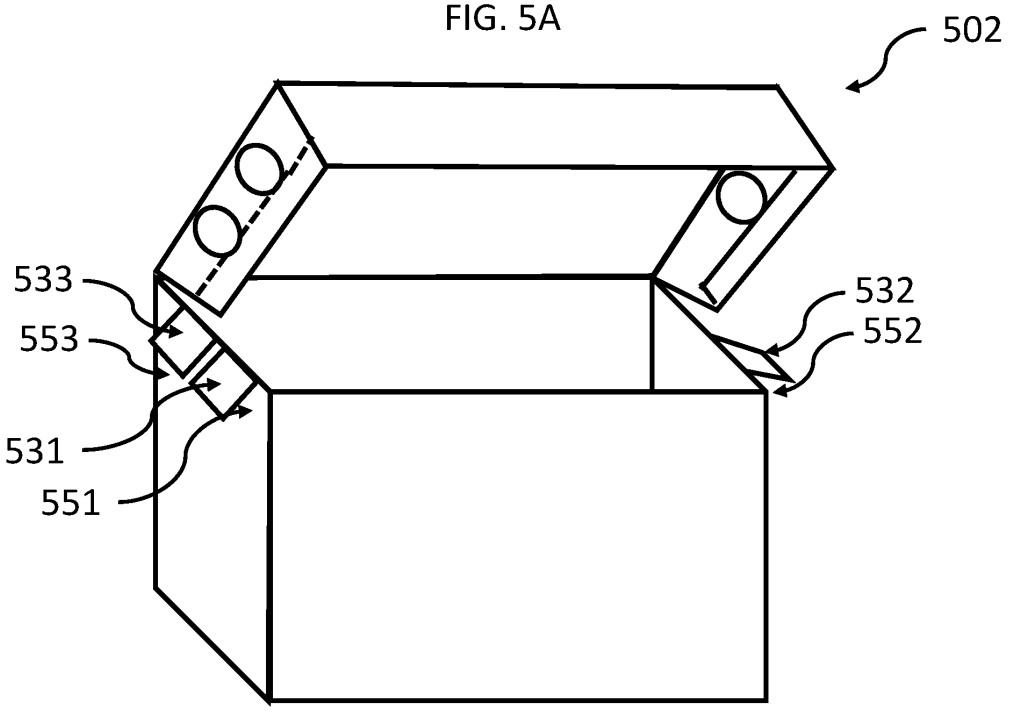
(54) COVER WITH FIRST, SECOND AND THIRD ACTUATION AREAS

(57) Examples include a consumer product comprising a box comprising a detergent product, a cover, and a lock. The cover covers an opening and first, second and third specific portions of sidewalls of the box when the cover is in the closed position, the lock comprising a first and a second actuator moveable from a locking position to an opening position, the cover comprising first, second and third actuation areas, the actuation areas permitting displacing the first and second actuators from the locking position to the opening position by simultaneously applying the actuation pressure, whereby:
- the first and third specific portions and the first actuator pertain to a same specific sidewall;
- the second specific portion and the second actuator pertain to an opposite sidewall;
- the first and third actuation areas pertain to a same specific flank; and
- the second actuation area pertains to an opposite flank.

FIG. 5A



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Description

BACKGROUND

[0001] This invention generally relates to containers for detergent products. Such containers containing detergent products are consumer products present in consumer homes, in particular in rooms such as a kitchen, a laundry room or a bathroom, which tend to generate a humid environment. It is important that the container be configured to adequately protect the detergent product from degradation due to an excessive exposure to such moisture or humidity.

BRIEF DESCRIPTION OF THE DRAWINGS

[0002]

FIG. 1A-B illustrate a first example consumer product.
FIG.2A-B illustrate a second example consumer product.
FIG.3A-C illustrate a third example consumer product.
FIG.4A-B illustrate example blanks for an example hood lid cover.
FIG.5A-B illustrate a fourth example consumer product.
FIG.6A-B illustrate a fifth example consumer product.
FIG.7A-B illustrate a sixth example consumer product.
FIG. 8 illustrates a first example method.
FIG.9 illustrates a second example method.

DETAILED DESCRIPTION

[0003] Detergent products are sensitive to humidity and should as such be contained in specific containers, in particular containers which may be locked and properly closed or locked following use or opening to reduce risks of detergent composition being overly exposed to environmental humidity. At the same time, a lock of such a container should be configured to be actuated by an ample variety of adult consumers or users. The lock should thereby reliably prevent accidental opening and reliable reclosing or relocking of the container after use, as well as provide for reliable unlocking when desired by an adult consumer. While such objectives may appear contradictory, it is important to get them both resolved. This apparent contradiction is particularly acute when applied to cardboard containers which, while offering desirable recyclability, introduce challenges related to their mechanical characteristics. The consumer product according to this disclosure aims at taking these different aspects into account.

[0004] The lock according to this disclosure should be configured to reversibly maintain a cover in a closed position. By reversibly, it should be understood that the lock permits to repeatedly lock and unlock the cover, thereby permitting repeated access to the content of the container and permitting locking the container between successive access. This differs from, for example, one-off mechanisms such as tamper proof mechanisms which would, due to their function, not be reversible. In some examples, a lock according to this disclosure is to reversibly maintain a cover in a closed position by being configured to permit at least 10 successive opening and closing operations. In some examples, a lock according to this disclosure is to reversibly maintain a cover in a closed position by being configured to permit at least 50 successive opening and closing operations. In some examples, a lock according to this disclosure is to reversibly maintain a cover in a closed position by being configured to permit at least 100 successive opening and closing operations.

[0005] As will be described below, the specific configuration described in this disclosure permits relying on a structure comprising first, second and third actuation areas which will provide a reliable locking and unlocking operation. The use of such separated three actuation areas indeed permits using 3 fingers of a same adult hand to operate a cover of a box held by the other adult hand.

[0006] Detergent products are products which may be relatively heavy, for example when a container for such product is carrying the full weight of such detergent products, in particular when the consumer product is recently acquired and thereby holds a significant quantity of detergent product. While some consumers may lift and transport such a consumer product holding a base of a box containing such detergent product, such lifting and transport may also occur by holding such consumer product by a cover, without holding the base. In such cases, it is possible that the cover, submitted to the force of gravity of the detergent product, gets released and opens the box, the box falling and possibly spreading its content. Such situations should be avoided. Beyond avoiding such unintentional cover unlocking, the structure of the container of a consumer product should preserve or improve opening ergonomics and prevent or reduce a permanent side wall deformation upon excessive or repetitive application of forces applied to the consumer product, for example during transport, in a grocery shopping bag against other objects, when submitted to external pressure, or when dropped. At the same time, containers may be elaborated in order to preserve the environment. The consumer product according to this disclosure aims at taking these different aspects into account.

[0007] A consumer product should in this disclosure be understood as a product which is provided, among others, to end consumers. Such consumer products may for example be available for purchase in supermarkets and end consumers may store such consumer products in their homes. Consumer products may be provided in large quantities and should thereby be designed taking environmental concerns into account. Consumer products should also be designed taking transportation to a

retail store into account. Consumer products should also be robust to withstand transportation as part of an e-commerce shipment. Consumer products should also be designed taking on the shelf storage in a retail store into account. Consumer products should also be designed taking transportation from a retail store to a consumer home into account. Consumer products should also be designed taking storage at a private end-consumer home into account. Consumer products should also be designed taking use of the consumer product at a private end consumer home into account. Consumer products should also be designed taking disposal into account.

[0008] The consumer product according to this disclosure comprises a detergent product. Detergent products should be understood in this disclosure as products comprising a surfactant. Detergent products may also comprise a bleach or other ingredients. Example detergent product compositions are described in more detail herein. In some examples, the detergent product comprises unit dose detergent pouches, preferably water soluble unit dose detergent pouches, more preferably flexible water soluble unit dose detergent pouches. Example unit dose detergent pouches are described in more detail herein. One should note that in some cases, the containers according to this disclosure may also be suitable for content other than a detergent product, in particular for content of a perishable nature, such as food or unstable chemical substances for example.

[0009] The consumer product according to this disclosure further comprises a container. A container should be understood in this disclosure as an object housing a content, for example in a cavity of the container. The container facilitates protection, transport, storage, access and disposal of the consumer product.

[0010] In this disclosure, the container comprises a box. A box should be understood as a generally parallelepiped, barrel shaped, cylindrical, round, oval or cubical three dimensional object defining a cavity. The use of parallelepiped boxes may facilitate storage and transportation by permitting piling up boxes in a space efficient manner. In some examples, a box may be a parallelepiped provided with some rounded, tapered trapezium or chamfered edges. The box according to this disclosure comprises the detergent product. It should be understood that the detergent product is contained or stored in the box. The box according to this disclosure comprises a base, sidewalls and an opening. In some examples, the opening is opposite the base. In other examples the opening is on a sidewall. A base according to this disclosure should be understood as a surface on which the box may lie when placed on a supporting surface such as a shelf or a floor. In some examples, the base is flat. In some examples, the base is rectangular. In some examples, the base is oval or round. In some examples, the base has an embossed profile standing in or out in relief. The sidewalls according to this disclosure should be understood as extending from the base, and connecting the base to the opening, to a transition piece or to the cover. It should be understood that the connection of the base to the opening may include one or more transition pieces in addition to a sidewall. It should be understood that the connection of the base to the opening may be through a portion of a sidewall when, for example, the opening is in such sidewall. In some examples, a transition piece may be glued or otherwise attached to the sidewall. In some examples, the sidewalls are perpendicular to the base. In some examples, the base is rectangular and has four sides, four sidewalls extending perpendicular from the base, each sidewall being rectangular, each side wall being connected by a sidewall side to a side of the base, and by two other sidewall sides to two other of the four sidewalls. In some examples the base is oval or circular and the sidewalls form a generally cylindrical wall extending from the base in a direction normal or perpendicular to the base. In some examples, sidewalls have a shape corresponding to one of a square, a rectangle, a trapeze, a polygon, a section of a sphere, a section of an ovoid, or a section of an ellipsoid. The opening according to this disclosure should be understood as a complete or partial aperture providing access to the detergent product comprised in the box. In some examples, the opening faces the base. In some examples, the opening has a surface of less than the surface of the base. In some examples, the opening has a surface larger than the surface of the base in order to provide an improved access, for example using sidewalls extending from the base at angle of more than 90 degrees from the base. In some examples, the opening is provided after removal of a tamper proof feature, for example comprising a perforated piece to be removed at first use or a tamper evident sticker locking a cover to the box. In some examples a tamper evident sticker is glued on the cover and on the box, whereby the tamper evident sticker should be broken, teared or perforated at first opening to indicate to a consumer that the container has not been tempered with before purchase. This temper evident sticker may for example be in paper or in plastic. In some examples, the opening is placed on a top panel of the box, the top panel of the box facing, i.e. opposite, the base of the box, the top panel of the box being separated from the base of the box by at least the sidewalls, the top panel of the box being generally coplanar with the base of the box. In some examples, the opening is in a sidewall, the opening having an opening profile or an opening contour which may be comprised in a plane normal to the plane of the base. In some examples, the opening is rectangular. In some examples, the opening is rectangular with rounded edges. In some examples, the opening is round or oval. In some examples, the opening is a permanent opening. In some examples, the opening is a reclosable opening. Examples reclosable opening comprise openings reclosable by a single flap, or reclosable opening reclosable through a spout like structure, for example a spout like structure comprising a main flap which, in a reclosed position, would cover the opening, and side elements which, when the opening is open, link the main flap with sides of the

opening.

[0011] The container comprises a cover for the box. The cover according to this disclosure should be understood as an element permitting to repeatedly close or open the opening of the box. In some examples the cover may be connected to the box, for example by a hinge, or may be separated from the box. The cover according to this disclosure comprises a top or cover top and flanks or cover flanks. In some examples, in addition to a top and flanks, the cover comprises a further panel, the top, flanks and further panel forming a sleeve surrounding the box. It should be understood that the cover is aimed at covering the opening of the box when the cover is in a closed position. In some examples, the top of the cover is rectangular. In some examples the top of the cover is round, hexagonal, octagonal, polygonal or oval, structures such as round or oval being for example approximated by multiplying a number of side panels and cover flaps. In some examples, the cover comprises beveled edges. In some examples, the top of the cover is rectangular with rounded edges. It should be understood that while being named "top", the top of the cover may be positioned in different orientations. The cover comprises flanks. It should be understood that the flanks according to this disclosure are elements connected to the top of the cover and extending from the cover in order to engage one or more sidewalls of the box, each flank having an extension along a corresponding sidewall between the connection to the top of the cover and a distal end of the flank. The flanks participate in placing the top of the cover onto the opening. In some examples, the flanks extend perpendicularly from the top of the cover. In some examples, the flanks surround an entire perimeter of the top of the cover. In some examples, the flanks partially surround an entire perimeter of the top of the cover, a portion of the top of the cover being flankless, for example along a hinge between the cover and the box in a case of a hinged cover. In some examples, the cover forms a sleeve. The top of the cover or another part of the cover may cover the opening, and at least a portion of the flanks or another part of the cover may cover at least a specific portion of a specific sidewall of the sidewalls of the box when the cover is in the closed position, the cover being moveable from the closed position to an open position. Movement of the cover may be restrained by a connection to the box such as a hinge, or may be entirely removable, for example to provide an improved access to the content of the box. The box and cover cooperate to participate in fulfilling the role of the container to store, transport and facilitate access to the content of the container.

[0012] The container according to this disclosure comprises a lock to reversibly maintain the cover in a closed position. Reversibility should be understood in that the lock may repeatedly be opened or closed. A lock should be in this disclosure understood as a mechanism providing appropriate closure and protection of detergent composition from humidity, as well as preventing or reducing the likelihood of an accidental opening. The lock according to this disclosure is to maintain the cover in a closed position. It should be understood that the lock according to this disclosure is expected to function under normal use of the container. It should be understood that the lock may not fulfill its function when for example unusual use is made of the box, or when the box is under unusual conditions. In some examples, the lock comprises an actuator moveable from a locking position to an opening position by applying an actuation pressure onto the actuator when the cover is in the closed position. An example actuator is a mechanical structure submitted to a movement upon actuation by an outside force or actuation pressure, such movement leading to the opening of the lock when such movement takes place. In some examples, the actuator is resilient and has a default position, such default position corresponding to the cover remaining closed, a resilience being vanquished by an outside force or actuation pressure in order to open the cover. In some examples, the actuator is resilient in that the actuator comprises a flexible element, the flexible element having a default position corresponding to the cover remaining closed, the flexible element being pressed to open the cover, the flexible element springing back to the default position when releasing pressure. It should be understood that a pressure is generated by the application of a force onto a surface. Example actuators have at least two positions being the opening position and the locking position, whereby the opening position corresponds to a position permitting opening of the cover, the locking position preventing opening of the cover to protect the content from humidity or reducing the possibility of an accidental opening of the cover.

[0013] An example actuator is connected to the specific portion being the at least specific portion of a specific sidewall of the sidewalls of the box covered by at least a portion of the cover when the cover is in the closed position, which may be a specific portion covered by at least a portion of the cover when the cover is in the closed position, the actuator abutting for example against a locking tab of the cover when in the locking position, the actuator being for example maintained away from the locking tab when in the opening position, the actuator being for example displaceable by the actuation pressure by an unlocking displacement distance in a direction normal to the specific portion of the sidewalls. The connection to the specific portion may for example be a fold line at an end of a sidewall away from the base. The connection of the actuator to the specific portion of the sidewall is due to the actuator participating in locking or unlocking the specific portion of the sidewall from the portion of the cover covering the specific portion of the sidewall, thereby permitting releasing the cover from the box. The cover may comprise a locking tab. A locking tab should be understood as a mechanical element which interlocks with the actuator. In some examples the locking tab extends away from part of the cover and may be in the form of a bulge, a ridge, an embossment or an additional material

layer sticking out of the cover and towards the specific portion of the side wall such that the actuator may abut against the tab when in the locking position to prevent separating the specific portion of the sidewalls from the cover in the area of the actuator. In some examples, the locking tab is comprised in the cover itself, the locking tab being for example formed by an aperture in the cover. Abutment according to this disclosure should be understood as a contact between the actuator or part of the actuator and the tab, such contact preventing opening of the cover. In some examples the actuator is maintained away from the locking tab when in the opening position, in order to release the locking tab. Such release of the locking tab permits opening the cover. Displacement or movement of the actuator from the locking to the opening position is by application on the actuator (directly or indirectly) of an actuation pressure or force such that the actuator is displaced by a distance sufficient to supress contact of the actuator with the locking tab, such distance corresponding to the displacement distance, in a direction normal to the specific portion of the side wall. Such force or pressure may also comprise a minor component which may be parallel to the side wall, due to the fact that the hand is a human adult hand which does not necessarily align force completely perfectly. The actuation is however triggered by a component of such force or pressure being normal to the portion of the side wall. Such presence requirement of a component normal to the portion of the sidewall in order to unlock the lock, participates in the role of the lock of avoiding an accidental opening, for example in absence of such normal force component, whereas desired opening would take place by the consumer "pushing" the actuator and apply the unlocking force or pressure permitting opening of the cover.

[0014] In order to provide precision in locating a finger appropriately, the flanks comprise an actuation area in a specific flank, the actuation area facing the actuator. The fact that such actuation area faces the actuator indeed permits locating either the thumb or one or more of the other fingers on exactly the area on which a lock opening force should be applied. The actuation area should be understood as defining a localised discontinuity on the specific flank, whereby a user or consumer may perceive such discontinuity in order to correctly locate the thumb or one or more other fingers. Such discontinuity may comprise one or more of an actuation aperture, an actuation flap, an actuation slit, an actuation membrane, or tactile elements comprised in or applied to a surface of the flank such as embossments, debossments, surface texturing, buttons or the like. In some examples, the actuation area or the specific portion comprises a visual indication indicating the location of the actuation area. In some examples whereby the actuation area is an aperture, the specific portion comprises a visual indication visible through the aperture, respectively apertures, when the cover is closed. The visual indication may be printed on an external surface of the flanks and may comprise one or more arrows or one or more areas printed in a striking colour or a specific text providing instructions such as "push here to open" for example, or a combination of any of these indications. The actuation area is configured to permit displacing the actuator from the locking position to the opening position by applying the actuation pressure at the actuation area when the cover is in the closed position. In order to appropriately place the thumb or one or more other fingers, the actuation area can span less than 8 cm^2 and more than 0.2 cm^2. It was found that a larger area would lead to lack of precision in finger placement, and that a smaller area would lead to the actuation area being difficult to locate for a user or consumer. In some examples, the actuation area has a circular shape in order to ease positioning. Other shapes may be considered such as, for example, elliptical, oval, square, triangular, square with rounded corners, triangular with rounded corners, other polygonal shapes or other polygonal shapes with rounded corners.

[0015] Figures 1A and 1B represent an example consumer product 100 according to this disclosure. Example consumer product 100 is represented open in Figure 1A and closed in Figure 1B. Example consumer product 100 comprises a detergent product (not shown) and a container, the container comprising a box 101, a cover 102 for the box, and a lock 103 to maintain the cover 102 in a closed position, the box 101 comprising the detergent product, the box 101 comprising a base 104, sidewalls 105 and an opening 106, the cover 102 comprising a top 107 and flanks 108, the cover 102 covering the opening 106 and the cover 102 covering at least first 151, second 152 and third 153 specific portions of sidewalls of the box when the cover 102 is in the closed position, the lock 103 comprising at least a first 131a-b and a second 132 actuator moveable from a locking position to an opening position by applying an actuation pressure onto the first and second actuators when the cover is in the closed position, the first actuator 131a-b being connected to the first specific portion 151, the second actuator 132 being connected at least to the second specific portion 152, the cover comprising first 181, second 182 and third 183 actuation areas, the first 181 and third 183 actuation areas facing the first actuator 131a-b, the second actuation area 182 facing the second actuator 132, the actuation areas permitting displacing the first and second actuators from the locking position to the opening position by simultaneously applying the actuation pressure at the first, second and third actuation areas when the cover is in the closed position, whereby:

- the first and third specific portions of sidewalls and the first actuator pertain to a same specific sidewall;
- the second specific portion of sidewalls and the second actuator pertain to an opposite sidewall, the opposite side wall being opposite to the specific sidewall;
- the first and third actuation areas pertain to a same specific flank covering at least the first and third specific portions of sidewalls when the cover is in the

closed position; and

- the second actuation area pertains to an opposite flank, the opposite flank being opposite to the specific flank.

In this specific example 100, the container comprises a first flap 131a facing the first actuation area 181 when the cover is in the closed position, a second flap 132 facing the second actuation area 182 when the cover is in the closed position, and a third flap 131b facing the third actuation area 183 when the cover is in the closed position, whereby the first 131a and third 131b flap form the first actuator and whereby the second flap 132 forms the second actuator.

[0016] Another example consumer product 200 is illustrated in Figures 2A and 2B. Example consumer product 200 comprises a structure similar to example consumer product, and similar elements are named and numbered in the same manner on both Figures. A difference between example consumer product 100 and example consumer product 200 is that example consumer product 200 comprises a first actuator which comprises a single flap 231 facing both the first 181 and third 183 actuation areas when the cover is in the closed position.

[0017] In both examples 100 and 200, the cover is in the form of a hood lid which may be lifted on and off the box to cover or uncover the opening 106.

[0018] Another example consumer product 300 is illustrated in Figures 3A, 3B and 3C. Example consumer product 300 is represented open in Figure 3A, closed in Figure 3C, and in an intermediate position in Figure 3B. Example consumer product 300 comprises a detergent product (not shown) and a container, the container comprising a box 301, a cover 302 for the box, and a lock 303 to maintain the cover 302 in a closed position, the box 301 comprising the detergent product, the box 301 comprising a base 304, sidewalls 305 and an opening 306, the cover 302 comprising a top 307 and flanks 308, the cover 302 covering the opening 306 and the cover 302 covering at least first 351, second 352 and third 353 specific portions of sidewalls of the box when the cover 502 is in the closed position, the lock 503 comprising at least a first 351a-b and a second 352 actuator moveable from a locking position to an opening position by applying an actuation pressure onto the first and second actuators when the cover is in the closed position, the first actuator 331a-b being connected to the first specific portion 351, the second actuator 332 being connected at least to the second specific portion 352, the cover comprising first 381, second 382 and third 383 actuation areas, the first 381 and third 383 actuation areas facing the first actuator 331a-b, the second actuation area 382 facing the second actuator 332, the actuation areas permitting displacing the first and second actuators from the locking position to the opening position by simultaneously applying the actuation pressure at the first, second and third actuation areas when the cover is in the closed position, whereby:

- the first and third specific portions of sidewalls and the first actuator pertain to a same specific sidewall;
- the second specific portion of sidewalls and the second actuator pertain to an opposite sidewall, the opposite side wall being opposite to the specific sidewall;
- the first and third actuation areas pertain to a same specific flank covering at least the first and third specific portions of sidewalls when the cover is in the closed position; and
- the second actuation area pertains to an opposite flank, the opposite flank being opposite to the specific flank.

In this specific example 300, the container comprises a first flap 331a facing the first actuation area 381 when the cover is in the closed position, a second flap 332 facing the second actuation area 382 when the cover is in the closed position, and a third flap 331b facing the third actuation area 383 when the cover is in the closed position, whereby the first 331a and third 331b flap form the first actuator and whereby the second flap 332 forms the second actuator.

In this specific example 300, the cover is in the form of a sleeve surrounding the box. In this specific example 300, the opening is on a side wall. In this specific example, the opening 306 may be opened by pulling a cutout panel 316 away from the side wall to generate the opening 306, such cutout panel acting as an element ensuring that the content of the box has not been tampered with.

[0019] In some examples, each actuation area spans less than 8 cm^2 and more than 0.2 cm^2, each actuation area defining a centroid. The centroid corresponds to an area comprised in a perimeter of the actuation area. Such actuation area span permits that a user may localise the areas corresponding to the corresponding actuators.

[0020] In some examples, each centroid of each actuation area is separated from the top of the cover by less than 5 cm and by more than 0.5 cm. This permits contributing to reaching all the actuation areas with a single adult hand at the same time.

[0021] In some examples, each centroid is separated from a distal end of the specific flank by more than 0.5 cm. In the configuration of examples consumer products 100 and 200, such distal end is the end of the flanks opposite to the top of the cover. Such a threshold distance permits maintaining structural integrity for the flanks of the cover.

[0022] In some examples, the top of the cover spans less than 13 cm and more than 6cm along a direction normal to the specific portion at the centroid, in particular at the centroid of the first actuation area. This also permits contributing to reaching all the actuation areas with a single adult hand at the same time.

[0023] In some examples, each actuation area spans less than 8 cm^2 and more than 0.2 cm^2, each actuation area defining a centroid; each centroid is separated from the top of the cover by less than 5 cm and by more than

0.5 cm; each centroid is separated from a distal end of the specific flank by more than 0.5 cm; and the top of the cover spans less than 13 cm and more than 6cm along a direction normal to the specific portion at the centroid, in particular at the centroid of the second actuation area. Complying with such combined conditions was found particularly suited to reaching all the actuation areas with a single adult hand at the same time. In preferred configurations, as illustrated for example in Figures 1A, 1B, 2A and 2B, the centroid of the first actuation area and the centroid of the third actuation area are separated by a separation distance along a direction parallel to the top of the cover, the separation distance being of more than 1.5 cm and of less than 10 cm, more preferably the separation distance being of more than 5 cm and of less than 7 cm, in order to reach such first actuation area and third actuation area simultaneously with different fingers of a same adult hand. In some even more preferred configurations, a shortest distance between the centroid of the second actuation area and either the centroid of the first actuation area or the centroid of the third actuation area along the flanks and top of the cover is of less than 18cm. In some further preferred configurations, each centroid is separated from the top of the cover by more than 1 cm and by less than 3 cm, permitting transmitting a feedback force through the cover to render a pinching movement leading to lock opening more precise. In some even further preferred configurations, the centroid of the second actuation area is located in a central region of a flank of the cover along a horizontal direction parallel to the top of the cover, thereby easing the sliding of a cover such as a hood lid by avoiding exerting more force on one side of the cover than on another, which could lead to such a lid getting stuck.

[0024] Figures 4A-B illustrate different blanks which may be used to obtain a cover or hood lid as per cover 102 for example. In Figure 4A, the centroid of the second actuation area 182 is aligned with the centroid of the first actuation area 181. In another example (not represented), the centroid of the second actuation area may be aligned with the centroid of the third actuation area 183 along a direction normal to the second specific portion when the cover is in the closed position portion. In Figure 4B, the centroid of the second actuation area 182 is facing a region between the centroid of the first actuation area 181 and the centroid of the third actuation area 183. Such configurations were found particularly suited to actuating all 3 actuation areas simultaneously with 3 fingers of a same adult hand.

[0025] In some examples, one or more of the actuation areas is one of an aperture and of a tactile element. While an aperture would be a preferred actuation area due not only to the simplicity of implementation, but also to the direct contact with the actuator provided by an actuation area in the form of an aperture, other types of actuation areas may be considered which may for example detected by a change of texture, the presence of a membrane, of an embosses element, of a debossed element or of a slit. Such different possibilities all permit identifying the location of the actuators underlying the actuation areas when the lid is closed.

[0026] In some examples, the detergent product is in the form of unit dose detergent pouches, preferably in the form of flexible water soluble unit dose detergent pouches, whereby the one or more apertures are configured to prevent a unit dose detergent pouch from passing through the one or more apertures.

[0027] In some examples, one or more of the first, second and third specific portions comprise a visual indication visible through the aperture, respectively apertures, when the cover is closed. This permits providing guidance to a user, not only through tactile means but also through visual means as to identifying areas appropriate to manipulate the lock. Such visual indications may for example comprise one or more of codes, symbols, colors, numbers, icons, letters, words or text and may be combined with opening instruction printed on the container.

[0028] In some examples consumer products as illustrated in Figures 5A and 5B, the cover 502 may be a hinged lid, the hinged lid taking for example a rectangular shape comprising a hinged side, a side opposite the hinged side, and two adjacent sides, whereby the adjacent side may, when the cover is closed, correspond to the first 551, second 552 and third 353 specific portions of sidewall. In such a case, the cover is opened by rotating the cover around the hinge, the lock comprising in this example first 531, second 532 and third 533 actuators in the form of flaps. In this example, the cover 502 is open in Figure 5A, and closed in figure 5B. the actuators correspond to first 581, second 582 and third 583 actuation areas in the form of apertures.

[0029] Figures 6A and 6B illustrate a further example consumer product, in a respectively open and closed configuration, in this case similar to the consumer product 200 comprising a first actuator in the form of a single flap, the consumer product comprising an additional actuator, in this case a third actuator 633 associated to a fourth actuation area 684 and located on the opposite sidewall. This specific example has the advantage of being reversible, whereby the cover may be placed such that the fourth actuation 684 area correspond to the first actuator, which is in the form of a single flap in this example. Such reversible covers may be particularly useful to be suitable for both right and left handed users, independently of its storage orientation.

[0030] Figures 7A and 7B illustrate a further example consumer product, in a respectively open and closed configuration, in this case similar to the consumer product 100, the consumer product comprising an additional actuator, in this case a fourth actuator 734 associated to a fourth actuation area 784 and located on the specific sidewall carrying the first actuator. This specific example has the advantage of being improving the lock by introducing an additional actuator which may be disengaged by using a thumb of the first adult hand and three or more other

fingers of the first adult hand, the three or more other fingers preferably comprising the index finger, the middle finger and the ring finger, whereby the thumb and the three or more other fingers simultaneously apply the actuation pressure on the four actuation areas.

[0031] Figure 8 illustrates an example method to operate a locked consumer product, the consumer product being according to any of the examples hereby described, the method comprising:

- unlocking the container, in block 81, by pinching the cover with a first adult hand between a thumb of the first adult hand and two or more other fingers of the first adult hand, the two or more other fingers preferably comprising the index finger and the middle finger, alternatively the middle finger and the ring finger, whereby the thumb and the two or more other fingers simultaneously apply the actuation pressure on the actuation areas; and
- opening the container, in block 82, by rotating or sliding the pinched cover away from the box

[0032] Figure 9 illustrates another method which comprises blocks 81 and 82 as well as closing the container, in block 93, by placing the cover on the opening until the cover is in the locked position. Preferably, the lock is configured to emit a clicking sound on closing in order to provide audible feedback confirming closure.

[0033] The present disclosure also aims at resolving an apparent contradiction between, on one hand, the use of materials for the sidewalls which would resist accidental opening, and the use of materials for the sidewalls which are particularly environmentally friendly.

[0034] The container may indeed be made from paper or cardboard material, in particular rigid cardboard material, flexible cardboard material or a mixture thereof. In some example, the material forming the box or the cover has a wall thickness of more than 220 microns and of less than 3mm. In some example, the material forming the box or the cover has a wall thickness of more than 1mm and of less than 2mm. In some example, the material forming the box or the cover is folded on itself, for example to reinforce parts of or the whole of the box or the cover. The container may be made from paper materials, bio based material, bamboo fibres, cellulose fibres, cellulose based or fibre based materials, or a mixture thereof. The container may be made from materials comprising recycled materials, for example recycled cellulose fiber based materials. In some examples, in order to facilitate opening, the cover may be entirely separated from the box when open, and the cover weighs less than 200g, preferably less than 100g, even more preferably less than 80g, and more than 10g, more preferably more than 30g, even more preferably more than 40g, in order to obtain a sufficiently robust cover structure.

[0035] In some examples where the cover is in the form of a lid, the cover according to some examples comprises a support element structure, the support element structure entering the opening of the box when the cover is in the closed position, at least part of the specific portion of the sidewalls being located between the flanks and the support element structure when the cover is in the closed position, a clearance distance separating the sidewalls from the support element structure in a direction normal to the specific portion of the sidewalls when the cover is in the closed position and when no actuation pressure is applied, the clearance distance being reduced to zero by flexing of the specific portion of the sidewalls when the actuation pressure is applied above a pressure threshold when the cover is in the closed position. Both the support element structure and the flanks are structurally part of the cover, the support element structure and the flanks permitting sandwiching the specific portion of the sidewall, thereby preventing sinking in of the specific portion of the sidewall and undesired disengagement of the actuator from the locking tab. It is important to take note of the fact that in case of an actuation pressure being applied while lifting the box through the cover, the pressure applied will catch the sandwiched specific portion of the sidewall against the support element structure, thereby compensating a force of gravity which would otherwise disconnect the cover from the box, such compensation of the gravity force being through a resisting static friction force between the specific portion of the sidewall and the support element structure. In some examples, the use of the support element structure permits using for making the box a relatively flexible material, whereby such flexible material would flex in the absence of the support element structure to the point that the box would fall off if lifted by its cover. Permitting using a relatively flexible material also permits using a lesser quantity of such material due to the presence of the support element structure which compensates for such flexibility. The presence of such support element structure thereby prevents or reduces the risk of accidental opening even if the actuation pressure is applied onto the actuator of the lock, for example as the box is lifted while applying pressure on the actuator of the lock.

[0036] The support element structure enters the opening when the cover is in the closed position, fitting within the box when the cover is in the closed position. Such entering the opening should be understood in that the support element structure comprises a support element structure portion which enters the opening when the cover is moved from the open to the closed position, and whereby such support element structure portion exits the opening when the cover is moved from the closed to the open position. At least part of the specific portion of the sidewalls is located between the flanks and the support element structure when the cover is in the closed position. This structure permits capturing the specific portion of the sidewall between the flanks and the support element structure, the specific portion of the sidewall getting inserted between the flanks and the support element structure when the cover moves from the open to the closed position, the specific portion of the side wall being re-

leased from between the flanks and the support element structure when the cover moves from the closed to the open position. A clearance distance separates the sidewalls from the support element structure in a direction normal to the specific portion of the sidewalls when the cover is in the closed position, such direction corresponding for example to a direction of a linear ridge of the support element, and when no actuation pressure is applied. Such clearance distance would exist on a first side, and be repeated additionally on a second side of the support element structure. Such clearance distance permits insertion of the support element structure through the opening as the cover gets closed, such that the support element structure does not collide with the specific portion of the sidewall when the cover gets closed. The clearance is reduced to zero by flexing of the specific portion of the sidewalls when the actuation pressure is applied above a pressure threshold when the cover is in the closed position. When such pressure threshold is reached, the sidewall lays against the support element structure through the clearance distance being reduced to zero, the sidewall thereby being prevented from being exceedingly distorted and being prevented from sinking in to the point of the actuator releasing the locking tab. The clearance distance according to such examples relates in some examples to a tolerance distance between the cover and the box which both permits placing the cover onto the box without undue difficulty, while avoiding that the cover be loose when in the closed position. While the clearance distance according to this disclosure is considered in a region of the lock, the tolerance distance between the cover and the box may be considered along an entire perimeter of the opening of the box. In some examples, the tolerance is of at least 0.1 mm and of less than 5 mm. In some examples the tolerance is of at least 0.5mm and of less than 3 mm. Such tolerance would for example be measured when the cover is in the closed position and between an internal surface of the flanks and an external surface of the sidewalls, understanding that such tolerance may take a different value in a region of the lock.

[0037] In some examples, the clearance distance is of at least 1mm and of less than 1cm when the cover is in the closed position and no actuation pressure is applied. Such a range permits both easing the closing of the cover and preventing sinking of the specific portion of the sidewall leading to undesired unlocking. In some examples, the clearance distance is of at least 1.5mm and of less than 0.5cm when the cover is in the closed position and no actuation pressure is applied. In some examples, the clearance distance is of at least 2mm and of less than 0.4cm when the cover is in the closed position and no actuation pressure is applied.

[0038] In some examples, the cover comprises a corrugated cardboard layer, the corrugated cardboard layer comprising flutes, the flutes preferably running parallel to the direction normal to the specific portion and parallel to a top of the cover, and whereby the actuation area preferably intersect at least some of the flutes. Such a structure permits reinforcing the top of the cover. The intersecting of flutes by an actuation area in the form of an aperture also permits ventilating the flank or flanks in which the aperture is provided, thereby reinforcing flank integrity in humid environments.

[0039] In some examples the detergent product comprises a detergent composition. The detergent composition may be a laundry detergent composition, an automatic dishwashing composition, a hard surface cleaning composition, or a combination thereof. The detergent composition may comprise a solid, a liquid or a mixture thereof. The term liquid includes a gel, a solution, a dispersion, a paste, or a mixture thereof. The solid may be a powder. By powder we herein mean that the detergent composition may comprise solid particulates or may be a single homogenous solid. In some examples, the powder detergent composition comprises particles. This means that the powder detergent composition comprises individual solid particles as opposed to the solid being a single homogenous solid. The particles may be free-flowing or may be compacted. A laundry detergent composition can be used in a fabric hand wash operation or may be used in an automatic machine fabric wash operation, for example in an automatic machine fabric wash operation. Example laundry detergent compositions comprise a non-soap surfactant, wherein the non-soap surfactant comprises an anionic non-soap surfactant and a non-ionic surfactant. In some examples, the laundry detergent composition comprises between 10% and 60%, or between 20% and 55% by weight of the laundry detergent composition of the non-soap surfactant. Example weight ratio of non-soap anionic surfactant to nonionic surfactant are from 1:1 to 20:1, from 1.5:1 to 17.5:1, from 2:1 to 15:1, or from 2.5:1 to 13:1. Example non-soap anionic surfactants comprises linear alkylbenzene sulphonate, alkyl sulphate or a mixture thereof. Example weight ratio of linear alkylbenzene sulphonate to alkyl sulphate are from 1:2 to 9:1, from 1:1 to 7:1, from 1:1 to 5:1, or from 1:1 to 4:1. Example linear alkylbenzene sulphonates are C_{10}-C_{16} alkyl benzene sulfonic acids, or C_{11}-C_{14} alkyl benzene sulfonic acids. By 'linear', we herein mean the alkyl group is linear. Example alkyl sulphate anionic surfactant may comprise alkoxylated alkyl sulphate or non-alkoxylated alkyl sulphate or a mixture thereof. Example alkoxylated alkyl sulphate anionic surfactant comprise an ethoxylated alkyl sulphate anionic surfactant. Example alkyl sulphate anionic surfactant may comprise an ethoxylated alkyl sulphate anionic surfactant with a mol average degree of ethoxylation from 1 to 5, from 1 to 3, or from 2 to 3. Example alkyl sulphate anionic surfactant may comprise a non-ethoxylated alkyl sulphate and an ethoxylated alkyl sulphate wherein the mol average degree of ethoxylation of the alkyl sulphate anionic surfactant is from 1 to 5, from 1 to 3, or from 2 to 3. Example alkyl fraction of the alkyl sulphate anionic surfactant are derived from fatty alcohols, oxo-synthesized alcohols, Guerbet alcohols, or mixtures thereof. In

some examples, the laundry detergent composition comprises between 10% and 50%, between 15% and 45%, between 20% and 40%, or between 30% and 40% by weight of the laundry detergent composition of the non-soap anionic surfactant. In some examples, the non-ionic surfactant is selected from alcohol alkoxylate, an oxo-synthesised alcohol alkoxylate, Guerbet alcohol alkoxylates, alkyl phenol alcohol alkoxylates, or a mixture thereof. In some examples, the laundry detergent composition comprises between 0.01% and 10%, between 0.01% and 8%, between 0.1% and 6%, or between 0.15% and 5% by weight of the liquid laundry detergent composition of a non-ionic surfactant. In some examples, the laundry detergent composition comprises between 1.5% and 20%, between 2% and 15%, between 3% and 10%, or between 4% and 8% by weight of the laundry detergent composition of soap, in some examples a fatty acid salt, in some examples an amine neutralized fatty acid salt, wherein in some examples the amine is an alkanolamine for example selected from monoethanolamine, diethanolamine, triethanolamine or a mixture thereof, in some examples monoethanolamine. In some examples, the laundry detergent composition is a liquid laundry detergent composition. In some examples the liquid laundry detergent composition comprises less than 15%, or less than 12% by weight of the liquid laundry detergent composition of water. In some examples, the laundry detergent composition is a liquid laundry detergent composition comprising a non-aqueous solvent selected from 1,2-propanediol, dipropylene glycol, tripropyleneglycol, glycerol, sorbitol, polyethylene glycol or a mixture thereof. In some examples, the liquid laundry detergent composition comprises between 10% and 40%, or between 15% and 30% by weight of the liquid laundry detergent composition of the non-aqueous solvent. In some examples, the laundry detergent composition comprises a perfume. In some examples, the laundry detergent composition comprises an adjunct ingredient selected from the group comprising builders including enzymes, citrate, bleach, bleach catalyst, dye, hueing dye, brightener, cleaning polymers including alkoxylated polyamines and polyethyleneimines, soil release polymer, surfactant, solvent, dye transfer inhibitors, chelant, encapsulated perfume, polycarboxylates, structurant, pH trimming agents, and mixtures thereof. In some examples, the laundry detergent composition has a pH between 6 and 10, between 6.5 and 8.9, or between 7 and 8, wherein the pH of the laundry detergent composition is measured as a 10% product concentration in demineralized water at 20°C. When liquid, the laundry detergent composition may be Newtonian or non-Newtonian. In some examples, the liquid laundry detergent composition is non-Newtonian. Without wishing to be bound by theory, a non-Newtonian liquid has properties that differ from those of a Newtonian liquid, more specifically, the viscosity of non-Newtonian liquids is dependent on shear rate, while a Newtonian liquid has a constant viscosity independent of the applied shear rate. The decreased viscosity upon shear application for non-Newtonian liquids is thought to further facilitate liquid detergent dissolution. The liquid laundry detergent composition described herein can have any suitable viscosity depending on factors such as formulated ingredients and purpose of the composition.

[0040] In some examples, the consumer product comprises at least one water-soluble unit dose article and the container. The consumer product can be sold 'as is', in other words the consumer product is the item that the consumer picks up from the shelf. Alternatively, the consumer product could be housed as one unit of a multi-component product. For example, more than one consumer product could be housed within an outer package and the multiple packaged consumer products sold together in a single purchase. The consumer product may comprise aesthetic elements, for example shrink sleeves or labels attached to the container. Alternatively, the container may be coloured or printed with aesthetic elements or informative print such as usage instructions.

[0041] In some examples a water-soluble unit dose article comprises at least one water-soluble film orientated to create at least one-unit dose internal compartment, wherein the at least one-unit dose internal compartment comprises a detergent composition. The water-soluble film and the detergent composition are described in more detail below. In some examples the consumer product comprises at least one water-soluble unit dose article, in some cases at least two water-soluble unit dose articles, in some cases at least 10 water-soluble unit dose articles, in some cases at least 20 water-soluble unit dose articles, in some cases at least 30 water-soluble unit dose articles, in some cases at least 40 water-soluble unit dose articles, in some cases at least 45 water-soluble unit dose articles. A water-soluble unit dose article is in some examples in the form of a pouch. A water-soluble unit dose article comprises in some examples a unitary dose of a composition as a volume sufficient to provide a benefit in an end application. The water-soluble unit dose article comprises in some examples one water-soluble film shaped such that the unit-dose article comprises at least one internal compartment surrounded by the water-soluble film. The at least one compartment comprises a cleaning composition. The water-soluble film is sealed such that the cleaning composition does not leak out of the compartment during storage. However, upon addition of the water-soluble unit dose article to water, the water-soluble film dissolves and releases the contents of the internal compartment into the wash liquor. The unit dose article may comprise more than one compartment, at least two compartments, or at least three compartments, or at least four compartments, or even at least five compartments. The compartments may be arranged in superposed orientation, i.e. one positioned on top of the other. Alternatively, the compartments may be positioned in a side-by-side orientation, i.e. one orientated next to the other. The compartments may be orientated in a 'tyre and rim' arrangement, i.e. a first compartment is positioned next to a second compartment, but the first compartment at least

partially surrounds the second compartment, but does not completely enclose the second compartment. Alternatively, one compartment may be completely enclosed within another compartment. In some examples the unit dose article comprises at least two compartments, one of the compartments being smaller than the other compartment. In some examples the unit dose article comprises at least three compartments, two of the compartments may be smaller than the third compartment, and in some examples the two smaller compartments being superposed on the larger compartment. In some examples the unit dose article comprises at least four compartments, three of the compartments may be smaller than the fourth compartment, and in some examples the three smaller compartments being superposed on the larger compartment. The superposed compartments are in some examples orientated side-by-side. In some examples each individual unit dose article may have a weight of between 10g and 40g, or even between 15g and 35g. The water soluble film may be soluble or dispersible in water. Prior to be being formed into a unit dose article, the water-soluble film has in some examples a thickness of from 20 to 150 micron, in other examples 35 to 125 micron, in further examples 50 to 110 micron, in yet further examples about 76 micron. Example water soluble film materials comprise polymeric materials. The film material can, for example, be obtained by casting, blow-moulding, extrusion or blown extrusion of the polymeric material. In some examples, the water-soluble film comprises polyvinyl alcohol polymer or copolymer, for example a blend of polyvinylalcohol polymers and/or polyvinylalcohol copolymers, for example selected from sulphonated and carboxylated anionic polyvinylalcohol copolymers especially carboxylated anionic polyvinylalcohol copolymers, for example a blend of a polyvinylalcohol homopolymer and a carboxylated anionic polyvinylalcohol copolymer. In some examples water soluble films are those supplied by Monosol under the trade references M8630, M8900, M8779, M8310. In some examples the film may be opaque, transparent or translucent. The film may comprise a printed area. The area of print may be achieved using techniques such as flexographic printing or inkjet printing. The film may comprise an aversive agent, for example a bittering agent. Suitable bittering agents include, but are not limited to, naringin, sucrose octaacetate, quinine hydrochloride, denatonium benzoate, or mixtures thereof. Example levels of aversive agent include, but are not limited to, 1 to 5000ppm, 100 to 2500ppm, or 250 to 2000ppm. The water-soluble film or water-soluble unit dose article or both may be coated with a lubricating agent. In some examples, the lubricating agent is selected from talc, zinc oxide, silicas, siloxanes, zeolites, silicic acid, alumina, sodium sulphate, potassium sulphate, calcium carbonate, magnesium carbonate, sodium citrate, sodium tripolyphosphate, potassium citrate, potassium tripolyphosphate, calcium stearate, zinc stearate, magnesium stearate, starch, modified starches, clay, kaolin, gypsum, cyclodextrins or mixtures thereof.

[0042] In some examples the container comprises a first part, wherein the first part comprises a first compartment in which the at least one water-soluble unit dose article is contained. In some examples the first compartment comprises at least two water-soluble unit dose articles. The first compartment may comprise between 1 and 80 water-soluble unit dose articles, between 1 and 60 water-soluble unit dose articles, between 1 and 40 water-soluble unit dose articles, or between 1 and 20 water-soluble unit dose articles. The volume of the first compartment may be between 500ml and 5000ml, in some examples between 800ml and 4000ml.

[0043] In some examples, the detergent product is in the form of unit dose detergent pouches, preferably in the form of flexible water soluble unit dose detergent pouches, whereby the aperture is configured to prevent a unit dose detergent pouch from passing through the aperture. Having the aperture configured to prevent a unit dose detergent pouch from passing through the aperture permits avoiding spilling detergent pouches accidentally through the aperture. In some examples, the pouches have a minimum cross section, such minimum cross section being in some cases surrounded by an external flange area, such minimum cross section intersecting an internal volume of the detergent article comprising the detergent, such minimum cross section being of less than the actuation area aperture. For example, if the actuation area aperture is of $1cm^2$, pouches having a minimum cross section of $1.5cm^2$ will not spill through the aperture.

[0044] In some examples, one or more flank of the flanks comprising an actuation area covers at least 10%, preferable at least 20%, more preferably at least 30% of one or more respective sidewall of the sidewalls when the cover is in the closed position. In such examples, if the respective actuation area is an aperture, such aperture will to some degree permit evacuating air comprised in the cover while closing the cover as the cover slides onto the box. In some examples, the cover defines a cover internal volume delimited by the top of the cover and the flanks. In some examples the cover internal volume is comprised between 200 and 2000 cm^3, preferably between 750 cm^3 and 1500 cm^3. In some examples, one or more flank of the flanks comprising a respective actuation area covers at least 40% of one or more respective sidewall of the sidewalls when the cover is in the closed position. In some examples, one or more flank of the flanks comprising a respective actuation area covers at least 50% of one or more respective sidewall of the sidewalls when the cover is in the closed position. Providing a higher flank coverage increases robustness and permits holding the content of the container in the cover case of an accidental upside down opening. Such configurations may be advantageously combined in some examples with an aperture configured to prevent a unit dose detergent pouch from passing through the aperture.

[0045] In some examples, the actuation area covers

less than 6 cm^2 and more than 1 cm^2. Such dimensioning was also found particularly effective at applying a high precision force or pressure.

[0046] In some examples, the flanks comprising two short flanks and two long flanks, whereby the actuation areas are on the two long flanks. This configuration permits increasing rigidity of the top of the cover, while maintaining a desired container inner volume. The cover may indeed comprise two opposite long flanks parallel to each other and two opposite short flanks parallel to each other, the long flanks being perpendicular to the short flanks, the long flanks being preferably reinforced, in order to take into account the fact that a user or consumer may be more likely to apply pressure on long flanks, and that long flanks are more likely to be submitted to deformation given that their middle point along the first direction is farther away from corners of the same long flank than the middle point of a short flank from the respective short flank corners.

[0047] The dimensions and values disclosed herein are not to be understood as being strictly limited to the exact numerical values recited. Instead, unless otherwise specified, each such dimension is intended to mean both the recited value and a functionally equivalent range surrounding that value. For example, a dimension disclosed as "40 mm" is intended to mean "about 40 mm".

Claims

1. A consumer product comprising a detergent product and a container, the container comprising a box, a cover for the box, and a lock to maintain the cover in a closed position, the box comprising the detergent product, the box comprising a base, sidewalls and an opening, the cover comprising a top and flanks, the cover covering the opening and the cover covering at least first, second and third specific portions of sidewalls of the box when the cover is in the closed position, the lock comprising at least a first and a second actuator moveable from a locking position to an opening position by applying an actuation pressure onto the first and second actuators when the cover is in the closed position, the first actuator being connected to the first specific portion, the second actuator being connected at least to the second specific portion, the cover comprising first, second and third actuation areas, the first and third actuation areas facing the first actuator, the second actuation area facing the second actuator, the actuation areas permitting displacing the first and second actuators from the locking position to the opening position by simultaneously applying the actuation pressure at the first, second and third actuation areas when the cover is in the closed position, whereby:

    - the first and third specific portions of sidewalls and the first actuator pertain to a same specific sidewall;
    - the second specific portion of sidewalls and the second actuator pertain to an opposite sidewall, the opposite side wall being opposite to the specific sidewall;
    - the first and third actuation areas pertain to a same specific flank covering at least the first and third specific portions of sidewalls when the cover is in the closed position; and
    - the second actuation area pertains to an opposite flank, the opposite flank being opposite to the specific flank.

2. The consumer product according to claim 1, whereby the first actuator comprises a single flap facing both the first and third actuation areas, and whereby the second actuator comprises a second flap facing the second actuation area, when the cover is in the closed position.

3. The consumer product according to claim 1, whereby the container comprises a first flap facing the first actuation area when the cover is in the closed position, a second flap facing the second actuation area when the cover is in the closed position, and a third flap facing the third actuation area when the cover is in the closed position, whereby the first and third flap form the first actuator and whereby the second flap forms the second actuator.

4. The consumer product according to any of the above claims, whereby the consumer product comprises a fourth actuation area covering either the first or second actuator, or an additional actuator, when the cover is in the closed position.

5. The consumer product according to any of the above claims, whereby:

    - each actuation area spans less than 8 cm^2 and more than 0.2 cm^2, each actuation area defining a centroid;
    - each centroid is separated from the top of the cover by less than 5 cm and by more than 0.5 cm;
    - each centroid is separated from a distal end of the specific flank by more than 0.5 cm; and
    - the top of the cover spans less than 13 cm and more than 6cm along a direction normal to the specific portion at the centroid.

6. The consumer product according to the above claim, whereby the centroid of the first actuation area and the centroid of the third actuation area are separated by a separation distance along a direction parallel to the top of the cover, the separation distance being of more than 1.5 cm and of less than 10 cm.

7. The consumer product according to any of claims 5

or 6, whereby the centroid of the second actuation area is aligned either with the centroid of the first actuation area or with the centroid of the third actuation area along a direction normal to the second specific portion when the cover is in the closed position portion.

8. The consumer product according to the any of claims 5 or 6, whereby the centroid of the second actuation area is facing a region between the centroid of the first actuation area and the centroid of the third actuation area.

9. The consumer product according to any of the claims 5 to 8, whereby a shortest distance between the centroid of the second actuation area and either the centroid of the first actuation area or the centroid of the third actuation area along the flanks and top of the cover is of less than 18cm.

10. The consumer product according to any of claims 5 to 9, whereby each centroid is separated from the top of the cover by more than 1 cm and by less than 3 cm.

11. The consumer product according to any of claims 5 to 10, whereby the centroid of the second actuation area is located in a central region of a flank of the cover along a horizontal direction parallel to the top of the cover.

12. The consumer product according to any of the above claims, whereby one or more of the actuation areas is one of an aperture and of a tactile element.

13. The consumer product according to the above claim, whereby the detergent product is in the form of unit dose detergent pouches, preferably in the form of flexible water soluble unit dose detergent pouches, whereby the one or more apertures are configured to prevent a unit dose detergent pouch from passing through the one or more apertures.

14. The consumer product according to either one of claims 12 or 13, whereby one or more of the first, second and third specific portions comprise a visual indication visible through the aperture, respectively apertures, when the cover is closed.

15. The consumer product according to any of the above claims, whereby one or more flank of the flanks covers at least 10%, preferably at least 20%, more preferably at least 30% of one or more respective sidewall of the sidewalls when the cover is in the closed position.

16. The consumer product according to any of the above claims, whereby each actuation area, has a circular shape.

17. The consumer product according to any of the above claims, whereby each actuation area covers less than 6 cm^2 and more than 1 cm^2.

18. The consumer product according to any of the above claims, whereby the container is made from paper or cardboard materials.

19. The consumer product according to any of the above claims, the flanks comprising two short flanks and two long flanks, whereby the actuation areas are on the long flanks.

20. A method to operate a locked consumer product, the consumer product being according to any of the above claims, the method comprising:

- unlocking the container by pinching the cover with a first adult hand between a thumb of the first adult hand and two or more other fingers of the first adult hand, the two or more other fingers preferably comprising the index finger and the middle finger, whereby the thumb and the two or more other fingers simultaneously apply the actuation pressure on the actuation areas; and
- opening the container by rotating or sliding the pinched cover away from the box.

21. The method to operate a locked consumer product according to claim 20, the method further comprising closing the container by placing the cover on the opening until the cover is in the locked position.

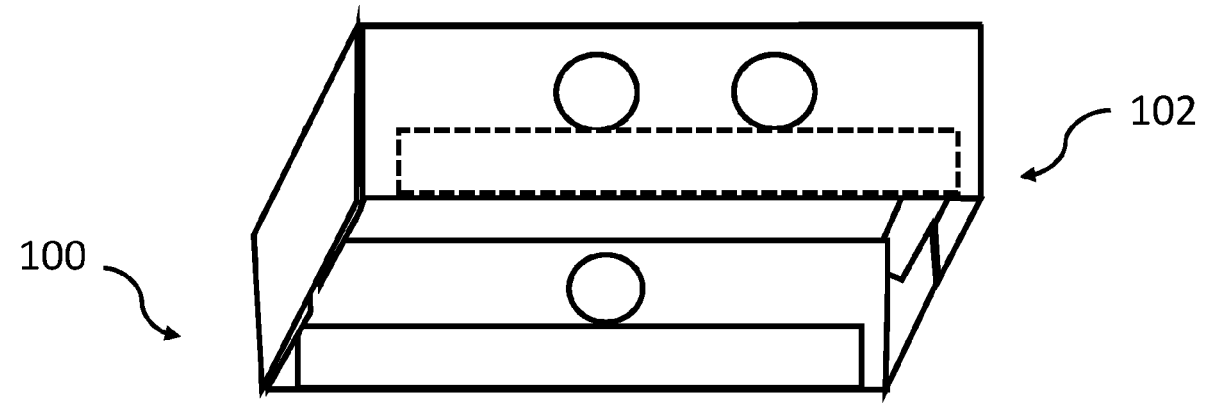
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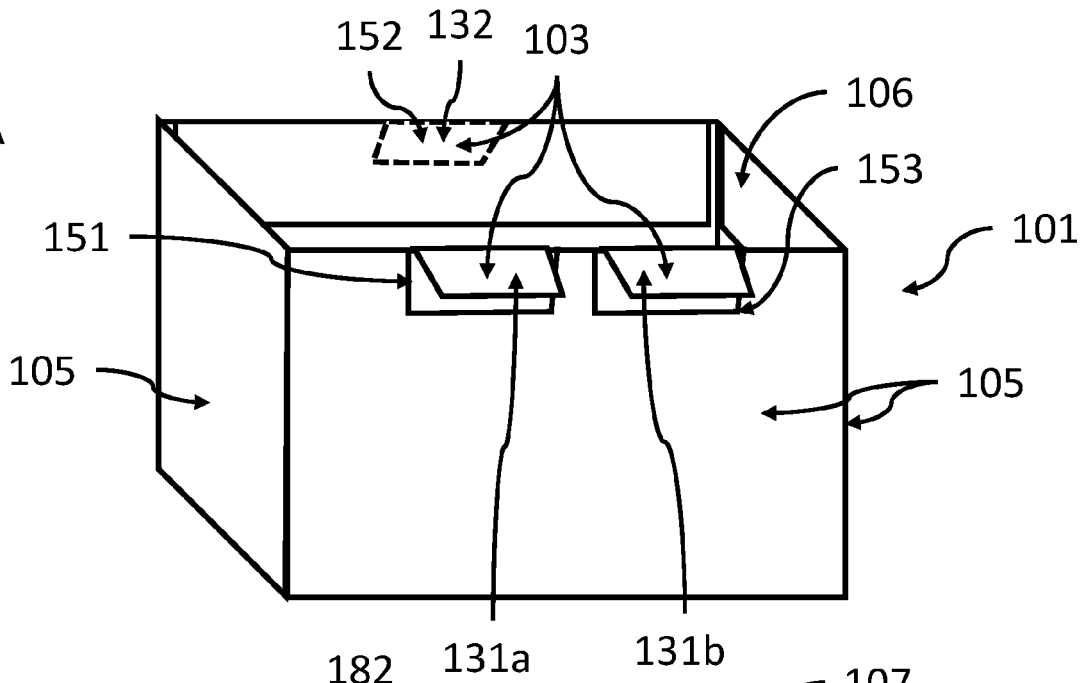
FIG. 1A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131a
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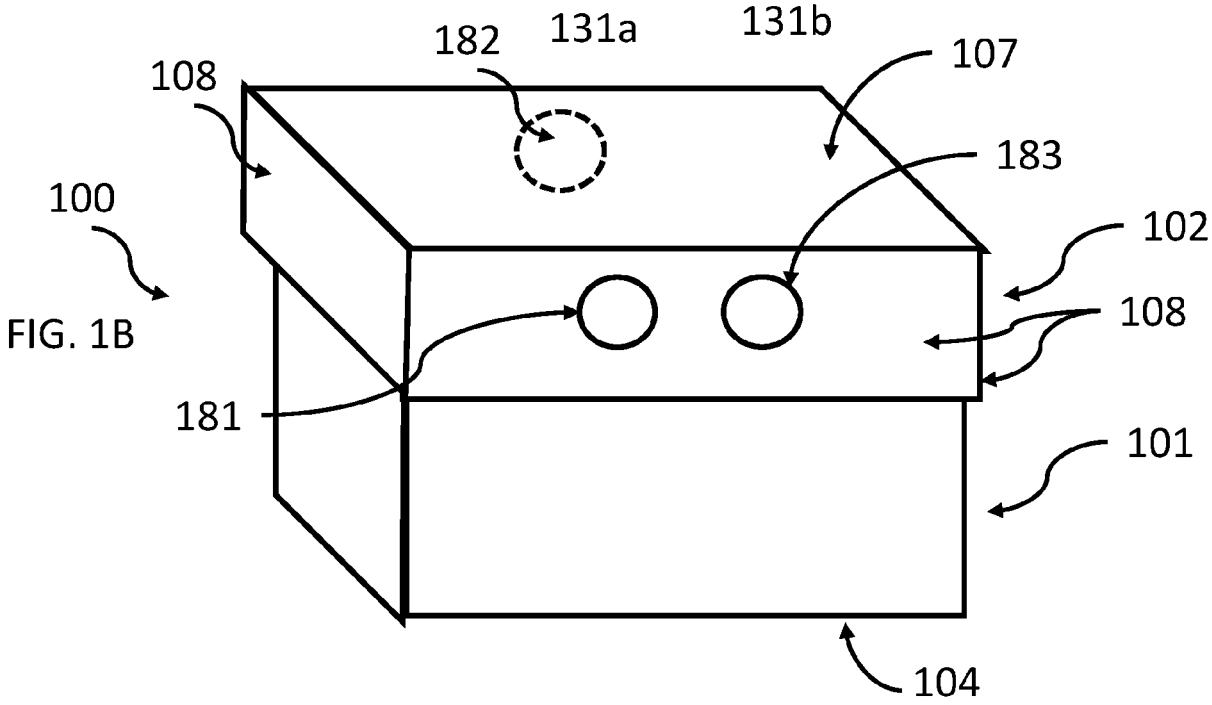
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FIG. 1B

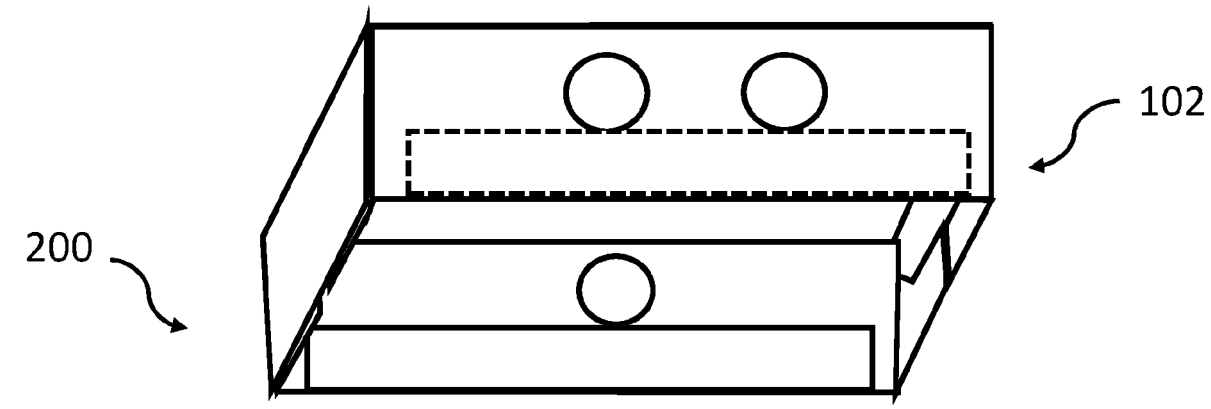
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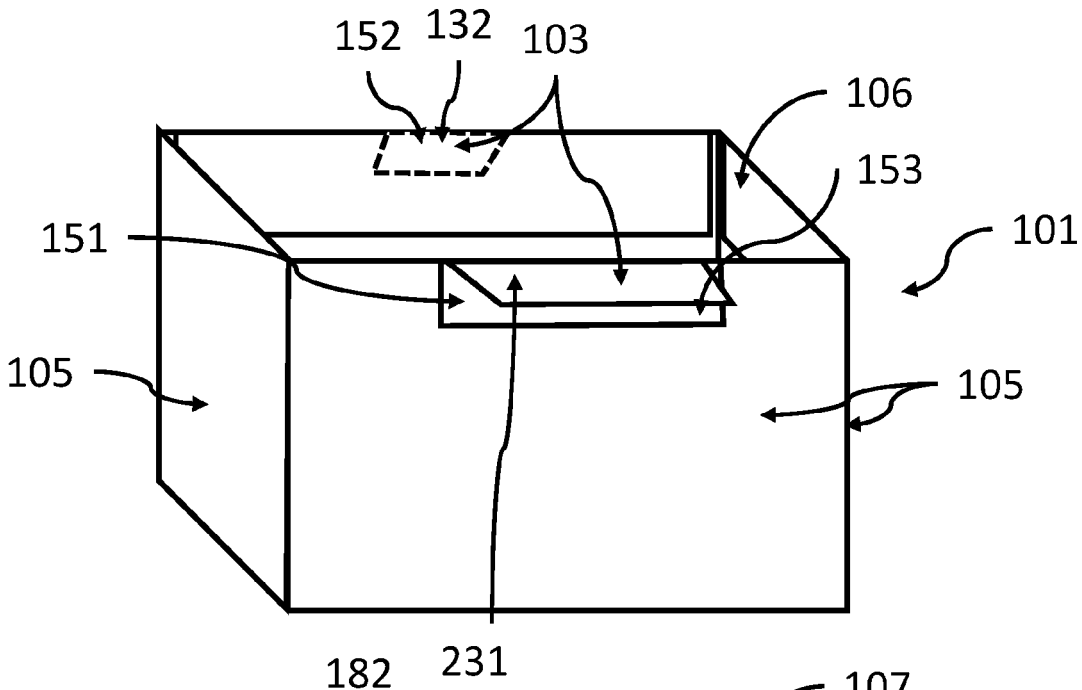
FIG. 2A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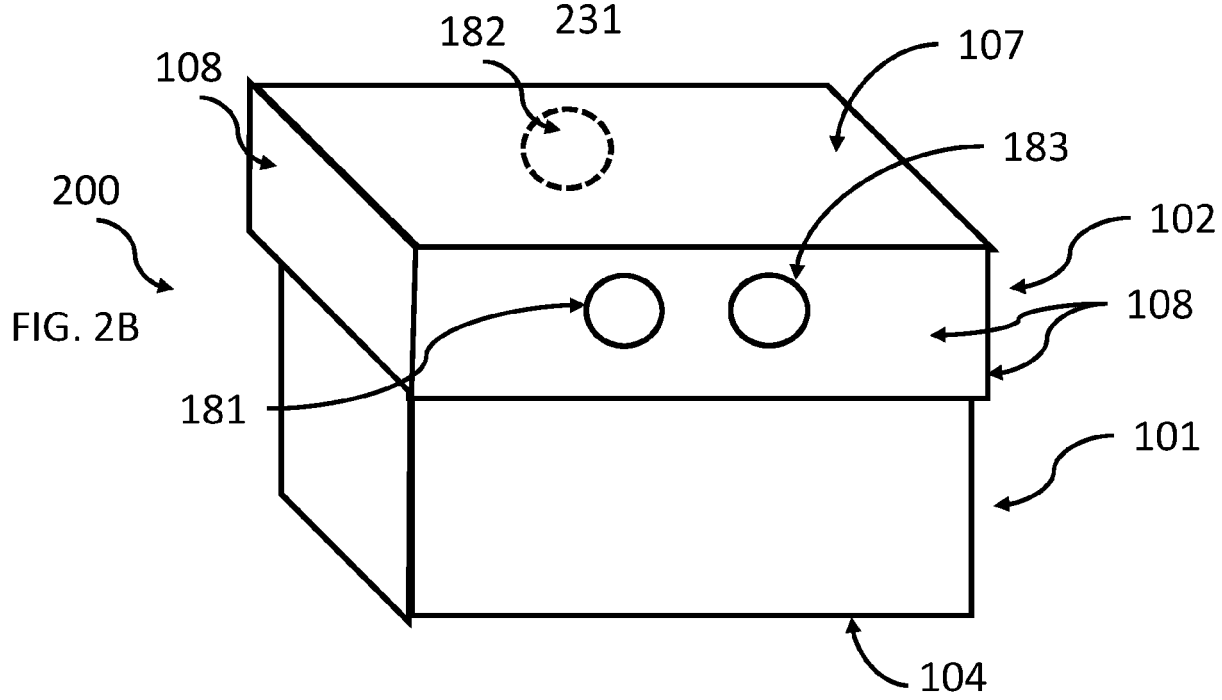
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FIG. 2B

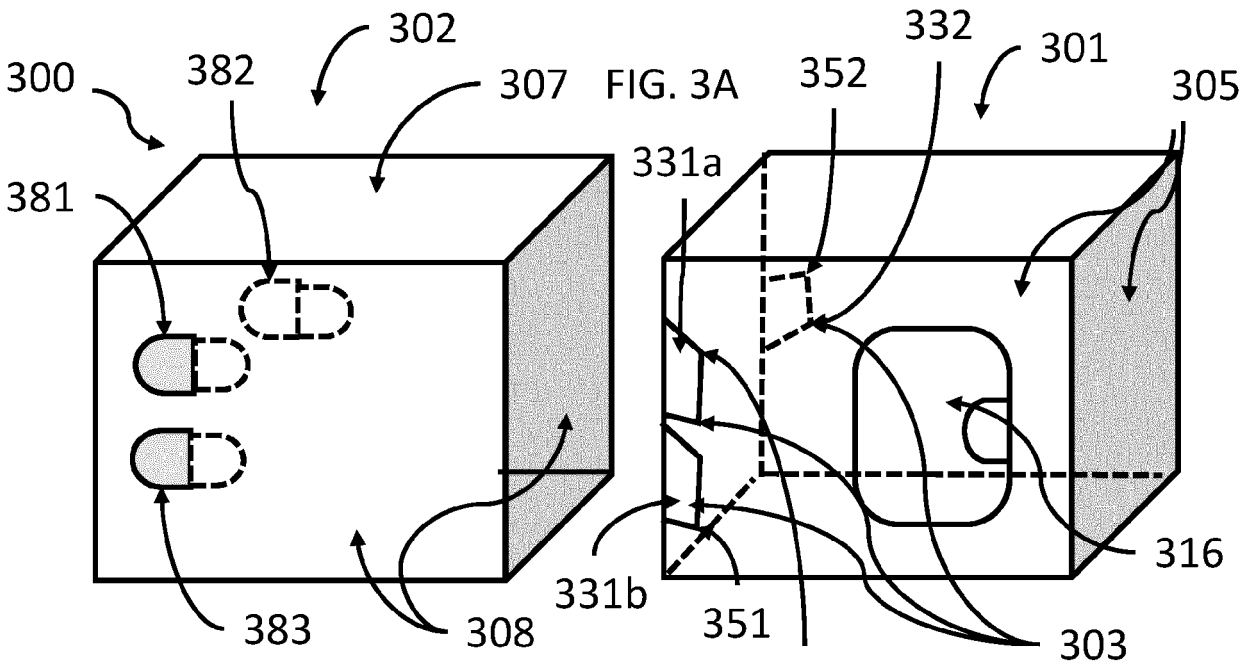


FIG. 3A

FIG. 3B

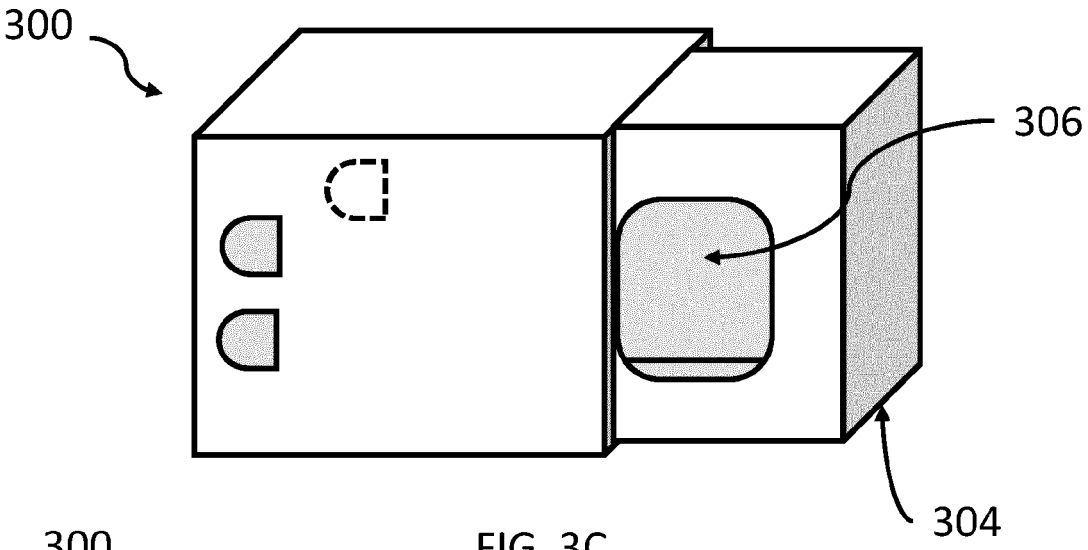


FIG. 3C

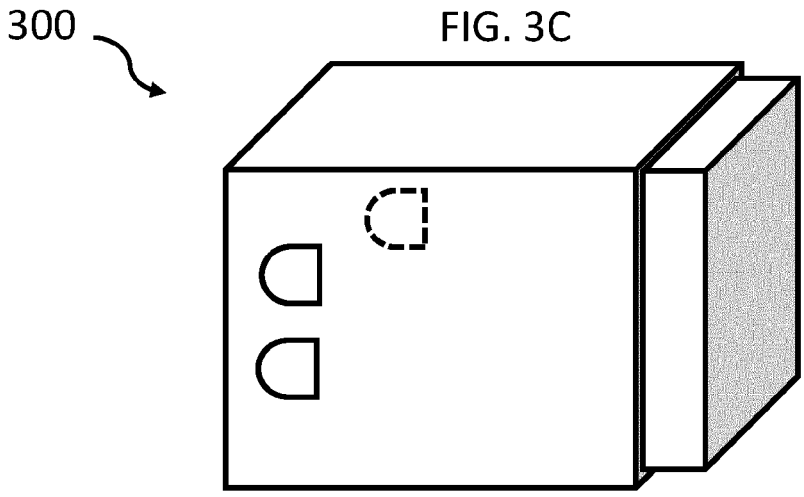


FIG. 4A

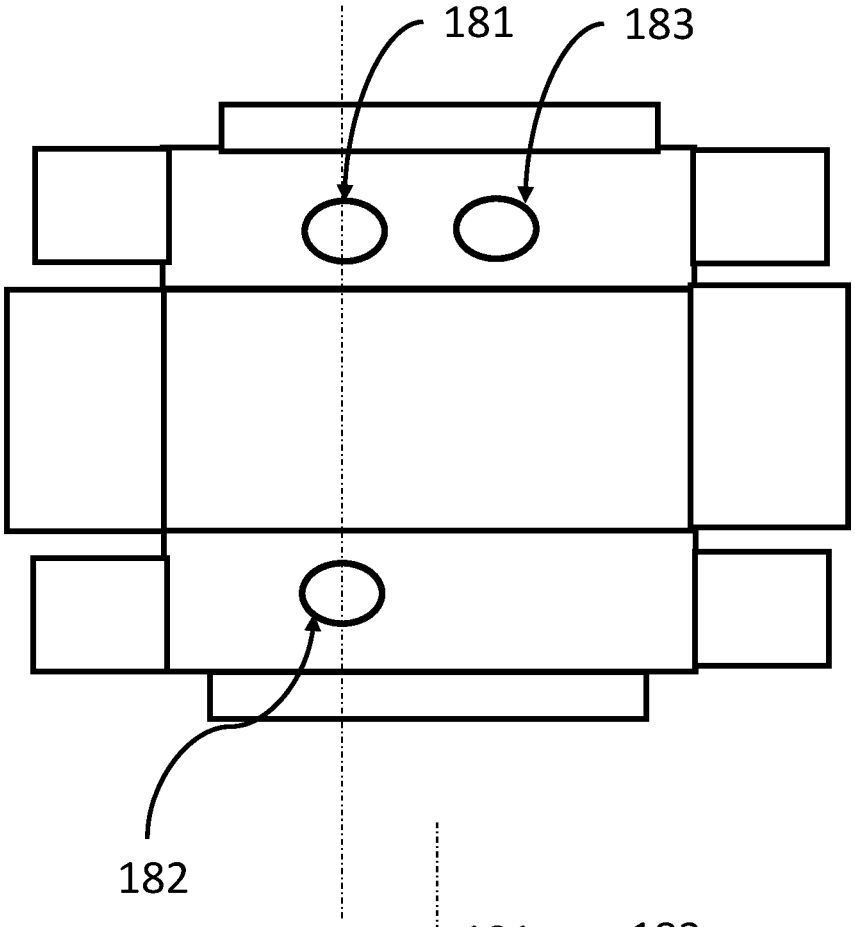


FIG. 4B

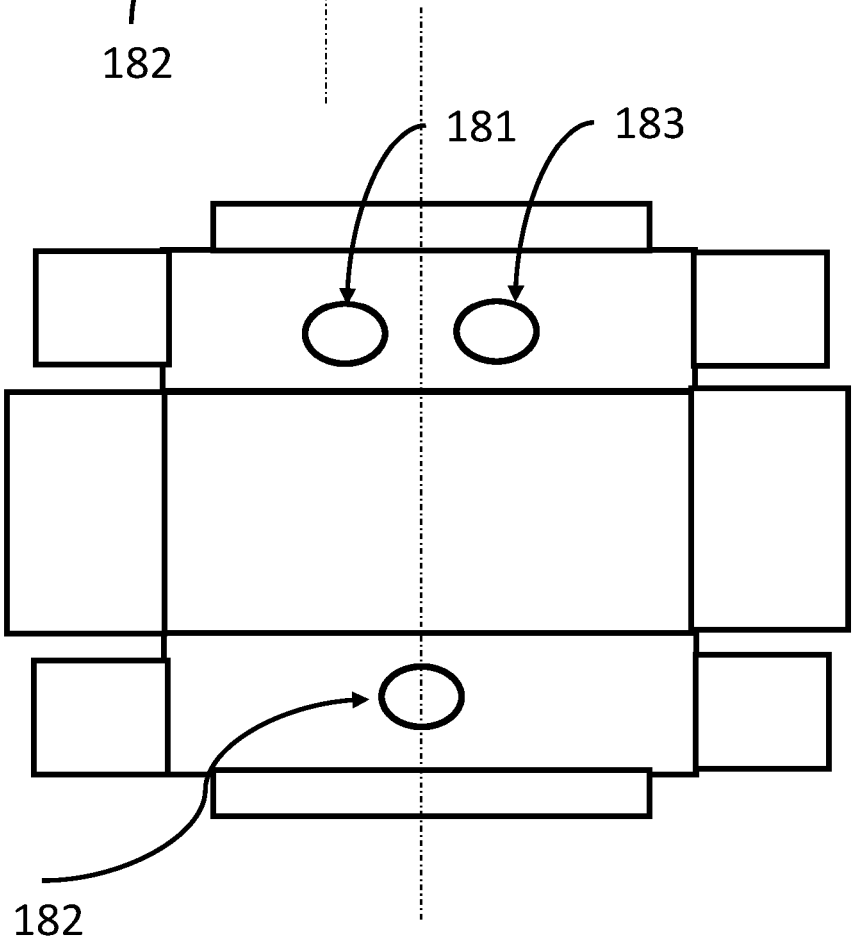
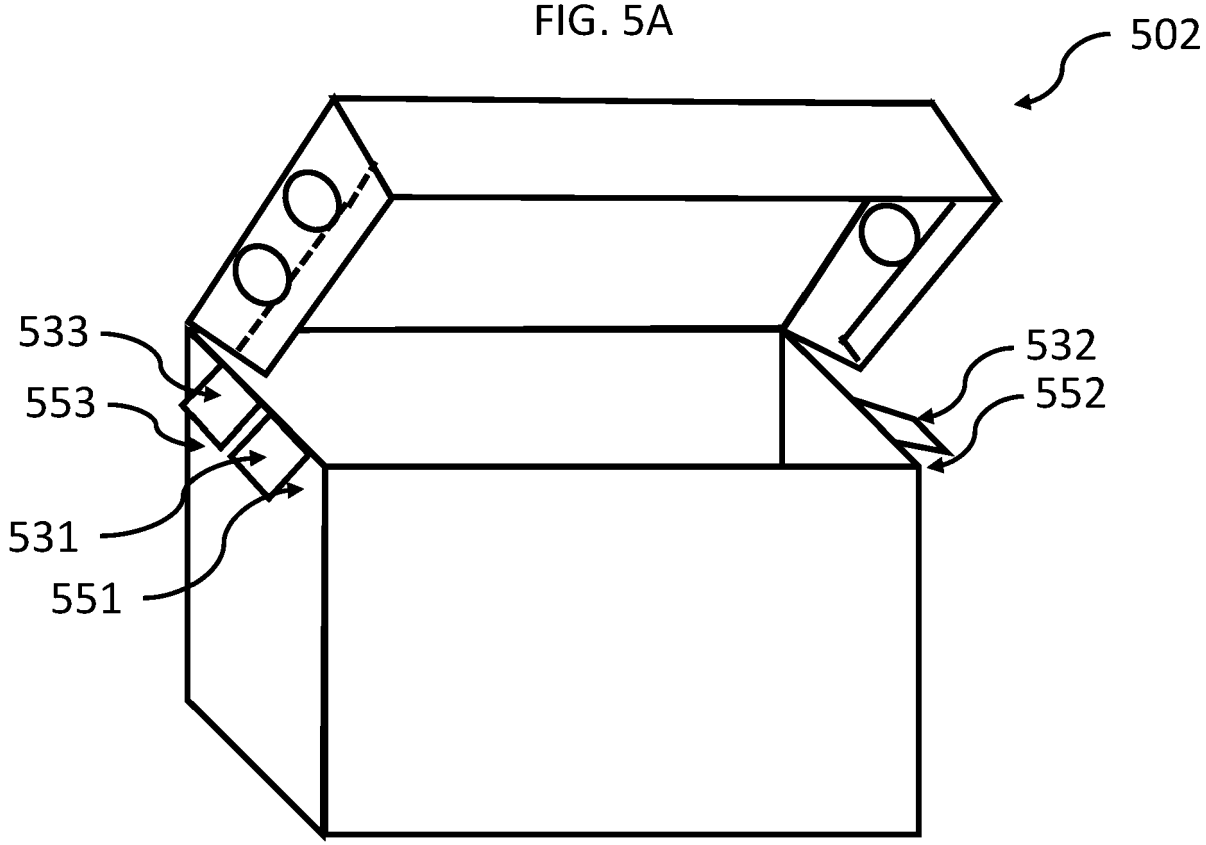


FIG. 5A



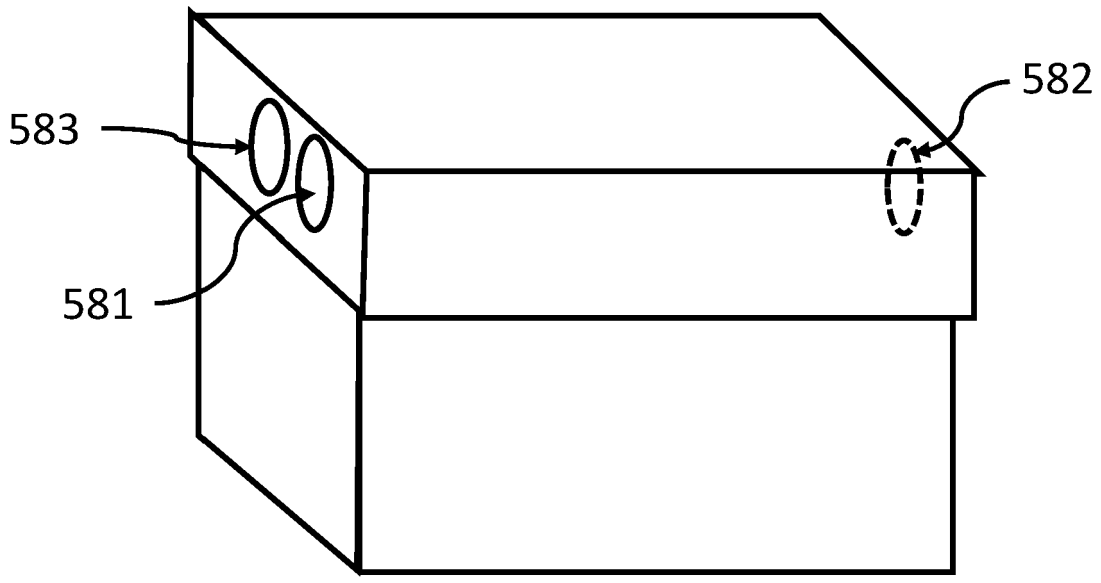


FIG. 5B

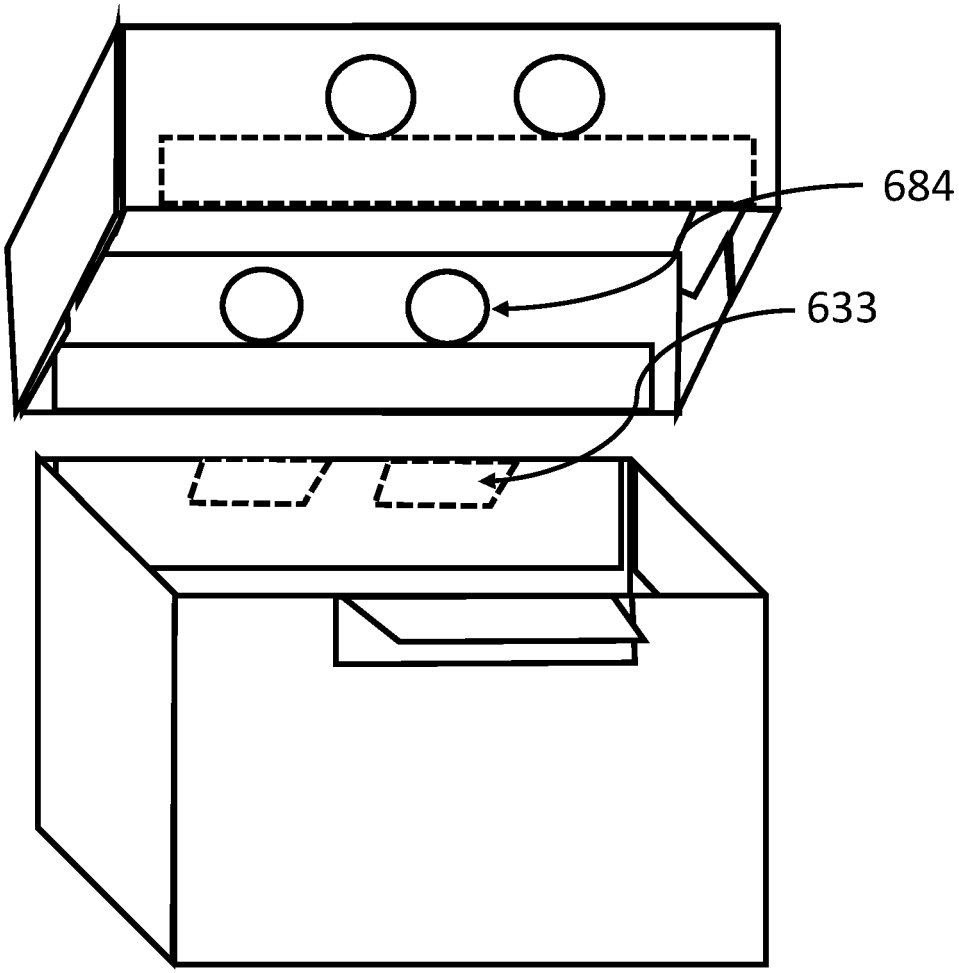


FIG. 6A

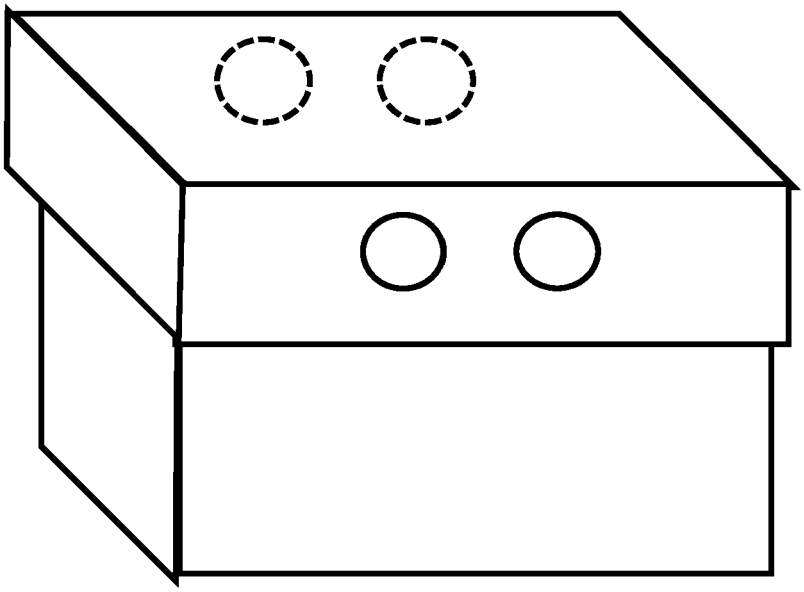
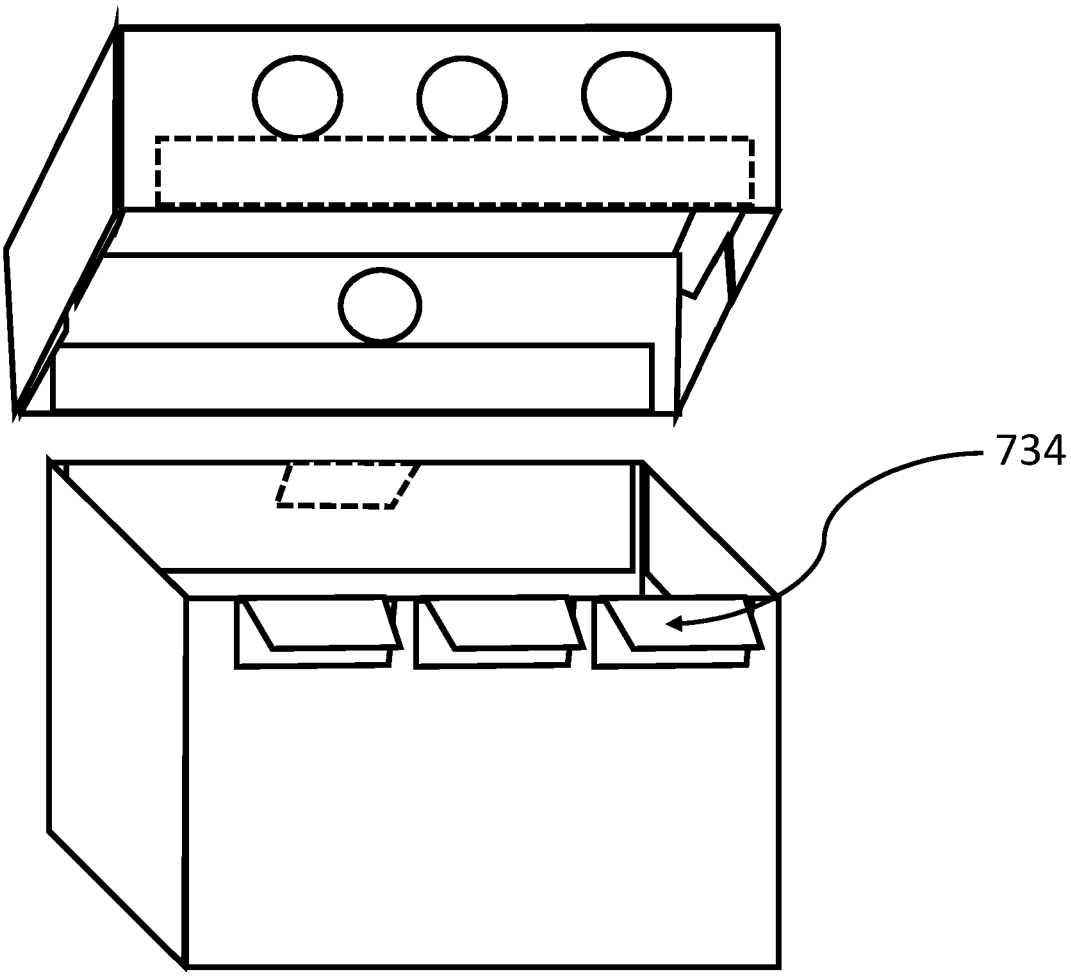


FIG. 6B

FIG. 7A



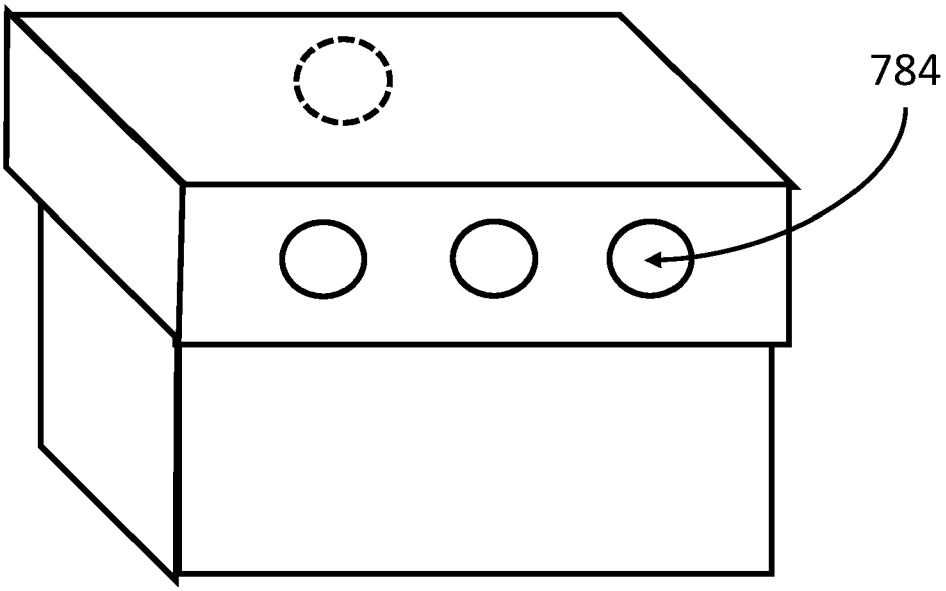


FIG. 7B

FIG. 8

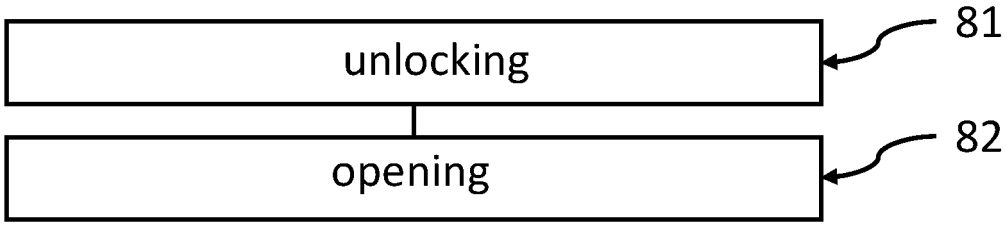
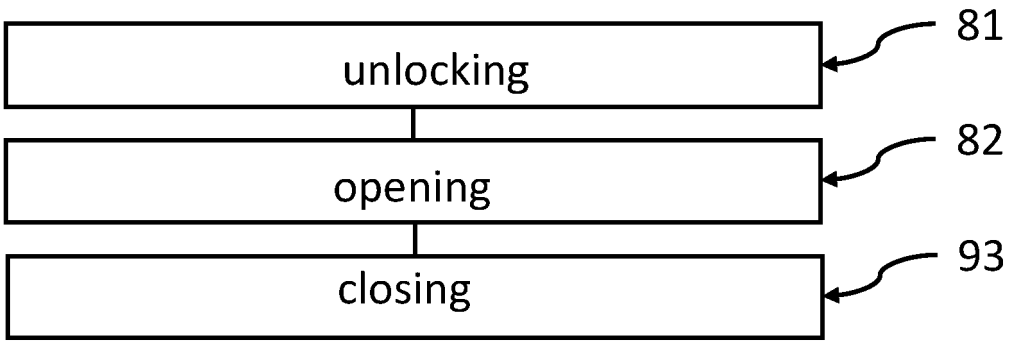


FIG. 9



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Place of search	Date of completion of the search	Examiner
Munich	1 July 2021	Jervelund, Niels

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