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- (54) Title:** WET WIPE REFILL CONTAINER INDICATOR

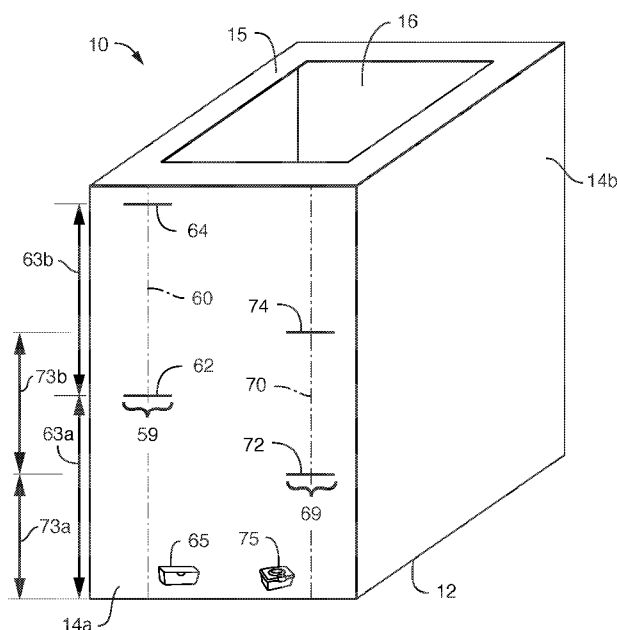


FIG. 9

- (57) Abstract:** The present disclosure relates to a wet wipe refill container and a wet wipes dispensing system. Users frequently refill empty wet wipe dispensers with wet wipes removed from a wet wipe refill container. The user can have difficulty estimating the correct number of wipes to remove from the wet wipe refill container when filling the wet wipe dispenser to maintain dispensing functionality. The wet wipe refill container includes an indicator to assist users in determining the recommended refill thickness of wet wipes to place into the empty wet wipes dispenser.



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WET WIPE REFILL CONTAINER INDICATOR

BACKGROUND OF THE DISCLOSURE

There are a variety of storing and dispensing containers in the market, particularly those for storing and dispensing wipe type products. Wipe-type products or
5 wipes have been made from a variety of materials which can be dry or wet when used. Wet wipes can be moistened with a variety of suitable wiping solutions. Such wet wipes have been used for baby wipes, hand wipes, personal care wipes, household cleaning wipes, industrial wipes and the like.

Conventional dispensers of wipes have often included a plastic container, tub or
10 package that provides a sealed environment for the wet wipes to ensure that they do not become dirty or overly dry. Oftentimes, when the wet wipes have been consumed from the wet wipe dispenser, users refill the wet wipe dispenser with wet wipes removed from a wet wipe refill container. The user realizes increased value by purchasing a wet wipe refill container of wet wipes since they are not spending money
15 for an additional or a new wet wipe dispenser. Consumers also appreciate environmental sustainability by being able to reuse the wet wipe dispenser and avoid packaging waste.

An example of a current wet wipe refill container is a flexible film package in the form of a bag that contains a stack of wet wipes as is well known to those skilled in the
20 art. Some commercial wet wipe refill containers include graphic instructions on the outside of the container showing how to place the refill wet wipes inside of the wet wipe dispenser. The current commercial wet wipe containers do not give an indication of how many wet wipes should be placed within wet wipe dispenser. Consumers often have difficulty determining how many wet wipes should be removed from the wet wipe
25 refill container that will fit into the wet wipe dispenser and still allow for functional dispensation from the wet wipe dispenser. For example, if too many wet wipes are placed into the dispenser, the wipes will jam the opening of the dispenser causing the wipes to tear as they are being pulled out of the opening or cause a complete clog that does not allow for any wipes to be dispensed.

30 The issue of determining the number of wet wipes to be removed from the wet wipe refill container becomes exacerbated for consumers who use multiple types of wet wipe dispensers. For example, while wet wipes are most commonly used in

conjunction with diapering, wet wipes are increasingly being used for non-diapering purposes, such as for cleaning of the face and hands, cleaning up messes, and other uses. Hence, a consumer may use a traditional "tub" type of wet wipe dispenser in a baby's room and a smaller, "on the go" type of wet wipe dispenser that more easily fits
5 into an automobile or a diaper changing bag. As such, a need currently exists for a wet wipe refill container that indicates the number of wet wipes that should be removed from the wet wipe refill container that will adequately fit into the desired type of wet wipe dispenser to provide functional dispensation.

SUMMARY OF THE DISCLOSURE

10 In an embodiment, the present disclosure relates to a refill container having a height dimension. The container includes a bottom wall and at least one side wall that is contiguous with the bottom wall and the side wall extends upward from the bottom wall in the height dimension. The container has an exterior surface and an interior surface. The container further includes an access opening. The container houses a
15 plurality of articles stacked in the height dimension. The container further includes a first graduated scale disposed on the side wall such that the first graduated scale includes a first graduation. The first graduation is spaced a recommended refill thickness from the bottom wall in the height dimension.

In another embodiment, the present disclosure relates to a wipes dispensing
20 system that includes a first refillable wipe dispenser adapted to house a stack of wipes having a first recommended refill thickness and a second refillable wipe dispenser adapted to house a stack of wipes having a second recommended refill thickness wherein the first recommended refill thickness is different than the second recommended refill thickness. The wipes dispensing system also includes a refill
25 container having a height dimension. The refill container includes a bottom wall and a first side wall and a second side wall that is contiguous with the bottom wall and the first side wall and the second side wall extend upward from the bottom wall in the height dimension and the first side wall and the second side wall have a width dimension that is perpendicular to the height dimension. The refill container further includes an access
30 opening. The refill container houses a plurality of articles stacked in the height dimension. The refill container includes a first graduated scale disposed on the first

side wall or the second side wall such that the first graduated scale includes a first graduation of the first graduated scale. The first graduation of the first graduation scale is spaced a first recommended refill thickness upward from the bottom wall in the height dimension. The refill container additionally includes a second graduated scale
5 disposed on the first side wall or the second side wall such that the second graduated scale includes a first graduation of the second graduated scale. The first graduation of the second graduated scale is spaced a second recommended refill thickness upward from the bottom wall in the height dimension.

BRIEF DESCRIPTION OF THE DRAWINGS

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

15 FIG. 1A representatively illustrates a perspective view of one embodiment of the refill container of the present disclosure.

FIG. 1B representatively illustrates a perspective view of a second embodiment of the refill container of the present disclosure.

FIG. 1C representatively illustrates a perspective view of a third embodiment of
20 the refill container of the present disclosure.

FIG. 2A representatively illustrates a perspective view of a third embodiment of the refill container of the present disclosure in an open configuration.

FIG. 2B representatively illustrates a perspective view of a third embodiment of the refill container of the present disclosure in a closed configuration.

25 FIG. 3A representatively illustrates a perspective view of a stack of wet wipes.

FIG. 3B representatively illustrates a side view of the stack of wet wipes illustrated in FIG. 3A.

FIG. 4A representatively illustrates a perspective view of an embodiment of the present disclosure where the refill container is housing a stack of wet wipes stacked in the height dimension relative to the bottom wall.

FIG. 4B representatively illustrates a perspective view of an embodiment of the present disclosure where the refill container is housing a stack of wet wipes stacked in the width dimension relative to the bottom wall.

FIG. 4C representatively illustrates a perspective view of another embodiment of the present disclosure where the refill container is housing a stack of wet wipes stacked in the height dimension relative to the bottom wall.

FIG. 5A representatively illustrates a perspective view of an embodiment of the present disclosure where the refill container has a first graduated scale with a first graduation.

FIG. 5B representatively illustrates a perspective view of an embodiment of the present disclosure where the refill container has a first graduated scale with a first graduation and a second graduation.

FIG. 6A representatively illustrates a perspective view of a type of tub wet wipe dispenser.

FIG. 6B representatively illustrates a plan view of the left end wall of the embodiment of FIG. 6A.

FIG. 7A representatively illustrates a perspective view of another type of wet wipe dispenser.

FIG. 7B representatively illustrates a plan view of the left end wall of the embodiment of FIG. 7A.

FIG. 8A representatively illustrates a perspective view of a travel sized type of wet wipe dispenser.

FIG. 8B representatively illustrates a plan view of the left end wall of the embodiment of FIG. 8A.

FIG. 9 representatively illustrates a perspective view of an embodiment of the present disclosure where the refill container has a first graduated scale and a second graduated scale with separate centerlines.

FIG. 10 representatively illustrates a perspective view of an embodiment of the present disclosure where the refill container has a first graduated scale and a second graduated scale with common centerlines.

FIG. 11 representatively illustrates a perspective view of an embodiment of the present disclosure where the refill container has a first graduated scale, a second graduated scale and a third graduated scale with separate centerlines.

DETAILED DESCRIPTION

The present disclosure relates to a wet wipe refill container and a wet wipes dispensing system. When wet wipes are consumed from a wet wipe dispenser, users oftentimes refill the wet wipe dispenser with wet wipes taken from a wet wipes refill container. The user may have difficulty determining the correct number of wipes to remove from the wet wipe refill container to properly fill the wet wipe dispenser. It has been discovered that if too many wipes are placed in the interior space of the wet wipe dispenser, the user may encounter dispensing issues. Accordingly, if the number of wet wipes is stacked such that the top of the wet wipe stack is too firmly pressed against the inner surface of the wet wipe dispenser, dispensing of the top wipe or wipes in the stack can be impeded or even clog the access opening of the wet wipe dispenser. The wet wipe refill container of the present disclosure includes an indicator to assist users in estimating the appropriate number of wet wipes when refilling the empty wet wipe dispenser.

A wet wipe refill container 10 is illustrated in FIG. 1A. In an embodiment, the wet wipe refill container 10 includes a bottom wall 12, at least one side wall 14a, 14b, 14c and 14d that is contiguous with the bottom wall 12, and a top wall 15. An access opening 16 is provided for removal of the wet wipes 24. The wet wipe refill container 10 includes a height dimension 22 that is perpendicular to both the plane substantially defined by the bottom wall 12 and the plane substantially defined by the top wall 15.

The wet wipe refill container 10 includes a width dimension 26 that is parallel to both the plane substantially defined by a side wall 14a, 14b, 14c, and 14d and the plane substantially defined by an opposing side wall 14a, 14b, 14c, and 14d. The wet wipe refill container 10 includes an exterior surface 18 and an interior surface 20.

5 The access opening 16 is in the plane that defines the periphery of the access opening 16. That is to say, the plane occupied by the perimeter of the access opening 16 defines the periphery of the access opening 16. In an embodiment, the access opening 16 may be in a plane that is substantially parallel to a plane that is occupied by the bottom wall 12 such that the access opening 16 is in the plane occupied by the top
10 wall 15 as shown in FIG. 1A. In an embodiment, the access opening 16 may be in a plane that is substantially perpendicular to a plane that is occupied by the bottom wall 12 such that the access opening is in the plane occupied by one of the side walls 14 as shown in FIG. 1B. Types of access openings 16 may include but are not limited to press and seal or rigid lid type of openings.

15 In an embodiment, the wet wipe refill container 10, can be a rectangular parallelepiped as shown in FIG. 1A and FIG. 1B. The top wall 15 may be a separate piece of material connected to the side walls 14a, 14b, 14c, and 14d. In an embodiment, the wet wipe refill container 10 includes a top wall 15 that is in the plane that is formed when the top of the side walls 14a, 14b, 14c, and 14d, that is, in the
20 height dimension 22 upward from the bottom wall 12, are brought together forming a polyhedron as shown in FIG. 1C. In an embodiment, the wet wipe refill container 40 can be a cylinder wherein the bottom wall 42 is connected to the side wall 44 as shown in FIG. 2A. The wet wipe refill container 40 forms a sack when a drawstring 47 is pulled tight to close the access opening 46 that is located upward from the bottom wall
25 42 in the height dimension 52 as shown in FIG. 2B. The side walls 14a, 14b, 14c, 14d and 44 may be formed of one piece of material that is connected to or continuous with the bottom wall 12, or the side walls 14a, 14b, 14c, 14d or 44 may be two, three or four separate pieces of material connected to or continuous with the bottom wall 12. The side walls 14a, 14b, 14c, 14d or 44 and the bottom wall 12 may be formed from the
30 same piece of material.

Various components of the wet wipe refill container 10 can be opaque or, alternatively, can be transparent or translucent to allow a visual inspection of the quantity of wipes remaining in the wet wipe refill container 10. Various components of the wet wipe refill container 10 can be made of various polymers, copolymers, and mixtures, including, e.g., polyethylene, polypropylene, polyester, and polystyrene. Various components of the wet wipe refill container 10 can be rigid or flexible.

The wet wipes 24 are stacked upon each other to form a stack of wet wipes 25 as is known in the art. FIG. 3A and FIG. 3B illustrate rectangular wet wipes 24 in a stack of wipes 25 in a perspective view and a side view, respectively. In particular embodiments, the wet wipes 24 are stacked upon each other to form a stack of wet wipes 25 and are disposed within the wet wipe refill container 10 in the height dimension 22 as shown in FIG. 4A. In other embodiments, the wet wipes 24 are stacked to form a stack of wet wipes 25 and are disposed within the wet wipe refill container 10 in the width dimension 26 as shown in FIG. 4B. FIG. 4C illustrates a stack of circular wet wipes 25 disposed within the cylindrical wet wipe refill container 40 in the height dimension 52.

Wet wipe dispensers 100, 120 or 130 are adapted such that each wet wipe 24 is to be extracted from the dispenser 100, 120 or 130 preferably one at a time. The wet wipes 24 are desirably configured within the stack 25 to provide "pop-up" dispensing. In such configurations, when a wet wipe 24 is removed from the wet wipe dispenser 100, 120 or 130, the wet wipe 24 pulls along the leading end of the succeeding wet wipe 24, by virtue of the succeeding wet wipe 24 being in operative contact with the leading wet wipe 24 such as via interfolding, via adhesive bonding, or via an integral connection along a line of weakness. Preferably, as the leading wipe 24 is pulled out of and away from the dispenser 100, 120 or 130, the trailing end of the leading wet wipe 24 breaks free from the leading end of the succeeding wet wipe 24, and the leading end of the succeeding wipe 24 is left protruding from the dispenser 100, 120 or 130. In this way, the leading end of the succeeding wet wipe 24 is immediately and automatically positioned for grasping and subsequent withdrawal from the dispenser 100, 120 or 130, and what was previously the succeeding wet wipe 24 now becomes a leading wet wipe 24. Alternatively, the dispenser 100, 120 or 130 may include a stack of wet wipes 25 in a non-interfolded configuration, for "reach-in" dispensing. For such a non-interfolded

stack of wet wipes 25, each wet wipe 24 may be folded onto itself with no portion of another wet wipe 24 being positioned between or underneath any portion of the folds of the adjacent wet wipe(s) 24.

5 In particular embodiments, each of the wet wipes 24 in the stack of wet wipes 25 are interfolded with one another, such as via c-folds, z-folds, or other zig zag folds. In other embodiments, the wet wipes 24 in the stack of wet wipes 25 are interconnected via frangible lines of weakness. For example, the wet wipes 24 can be arranged in the dispenser 100, 120 or 130 as a continuous web of interconnected wet wipes 24 which are folded in an accordion-like stacked configuration. The individual wet wipes 24 can
10 be connected together along lines of frangibility, such as lines of perforations, to ensure that the trailing wet wipe 24 is in position for grasping by the user after the leading wet wipe 24 is removed. For example, the wet wipes 24 can be provided by a continuous web of material which has a series of lines of frangibility extending across the width of the web. Each portion of the web of material between successive lines of frangibility
15 constitutes an individual wet wipe 24. The lines of frangibility can be provided by means known to those skilled in the art such as perforations, indentations, score lines, or cuts in the web of material.

Materials suitable for the wet wipes 24 employed in conjunction with the present disclosure are well known to those skilled in the art. For example, the wet wipes 24 can
20 be made from nonwoven materials such meltblown, coform, air-laid, or bonded-carded web materials, hydroentangled materials, high wet-strength tissue, or the like, and can comprise synthetic or natural fibers or combinations thereof. The wet wipes 24 of the present disclosure can contain a liquid which can be any solution which can be absorbed into or entrained within the wet wipes 24. The liquid contained within the wet
25 wipes 24 can include components which provide the desired wiping properties. For example, the components can include water, emollients, surfactants, preservatives, chelating agents, pH buffers, fragrances, or combinations thereof. The liquid can also contain lotions, ointments, and/or medicaments. The amount of liquid contained within each wet wipe 24 can vary depending upon the type of material being used to provide
30 the wet wipe 24, the type of liquid being used, the type of container being used to store the stack of wet wipes 25, and the desired end use of the wet wipe 24. Generally, each

wet wipe 24 can contain from about 150 to about 600 weight percent and desirably from about 200 to about 400 weight percent liquid based on the dry weight of the wipe 24.

The wet wipe refill container 10 has an indicator that is a graduated scale 59 marked on at least one side wall 14a, 14b, 14c, 14d or 44. The graduated scale 59 assists the user in determining the appropriate number of wet wipes 24 that should be removed from the wet wipe refill container 10 that can be placed into the wet wipe dispenser 100, 120 or 130 for functional dispensation. As used herein, a "graduated scale" 59 includes one or more graduations, such as marks, spaced at one or more predetermined intervals in the direction in which the wet wipes 24 are stacked. While referring to FIG. 5A, in an embodiment, a wet wipe refill container 10 houses a plurality of wet wipes 24 stacked in the height dimension 22. A first graduated scale 59 includes a first graduation 62 positioned on a side wall 14a at a recommended refill thickness 63 upward from the bottom wall 12 in the height dimension 22. The "recommended refill thickness" 63 as used herein means the height of a stack of wipes 25 that will fit into the particular wet wipe dispenser 100, 120 or 130 of interest to the user that allows for optimum functioning. While it may be possible to place more wet wipes 24 than the number of wet wipes 24 that constitutes the recommended refill thickness 63 into the particular wet wipe dispenser 100, 120 or 130, the drawbacks of impeded or clogged dispensing may be experienced by the user. Hence, the recommended refill thickness 63 can be identified for a particular wet wipe dispenser 100, 120, or 130 such that dispensing functionality for the user is not negatively impacted.

The wet wipe refill container 10 of the present disclosure can contain any number of individual wet wipes 24 that would be suitable for refilling the wet wipe dispenser 100, 120 or 130 of interest. For example, certain commercial HUGGIES® Natural Care wet wipes 24 are available in a wet wipe dispenser 100 that is preloaded with sixty-four wet wipes 24. A corresponding HUGGIES® wet wipe refill container 10 may be sold with significantly more than sixty-four wet wipes 24, such as, for example, two hundred wet wipes 24. In one embodiment, the wet wipe refill container 10 includes a graduated scale 59 that is marked with the recommended refill thickness 63 that is the height of sixty-four HUGGIES® Natural Care wet wipes 24.

In an alternate embodiment, shown in FIG. 5B, a wet wipe refill container 10 houses a plurality of wet wipes 24 stacked in the height dimension 22. In this embodiment, a first graduated scale 59 includes a first graduation 62 and a second graduation 64. The first graduation 62 is marked on a side wall 14a with a recommended refill thickness 63a upward from the bottom wall 12 in the height dimension 22. A second graduation 64 is marked on the same side wall 14a the recommended refill thickness 63b upward from the first graduation 62. In an embodiment, the wet wipes 24 stacked above the second graduation 64 may define a recommended refill thickness 63c and may extend to the top wall 15. In an embodiment, the wet wipe refill container 10 may have additional graduations 62, 64 marked within the first graduated scale 59 to include additional sections that define recommended refill thicknesses 63, marked upward in the height dimension 22 from the prior graduation mark 62 or 64.

In an embodiment, the graduation marks 62 or 64 can include words, numbers, letters, characters, symbols, shapes, lines, dots, colors, patterns, raised portions, depressed portions or combinations thereof and can be printed, etched, embossed, or the like. In an embodiment, the graduation marks 62 or 64 can be disposed on the interior surface 20 and/or on the exterior surface 18 of the wet wipe refill container 10. In an embodiment, graduation marks 62 or 64 that are disposed on the interior surface 20 of the wet wipe refill container 10 may be visible and or tactilely detectable from the exterior surface 18 of the wet wipe refill container 10. In an embodiment, graduation marks 62 or 64 that are disposed on the exterior surface 18 of the wet wipe refill container 10 may be visible and or tactilely detectable from the interior surface 20 of the wet wipe refill container 10. Each of these embodiments further assists the user in removing the recommended refill thickness 63 from the wet wipe refill container 10.

Wet wipes 24 may be used in conjunction with diapering and non-diapering purposes, such as cleaning of the face and hands, cleaning up messes, and other uses. Hence, a consumer may use a traditional "tub" type of wet wipe dispenser 100 in a baby's room where frequent diapering may occur and thus a greater number of wet wipes 24 is desired to be kept on hand than the number of wipes 24 that can be held in a smaller wet wipe dispenser 120 or 130. FIG. 6A illustrates an embodiment of a tub wet wipe dispenser 100 including a bottom wall 112, side walls 114, a top wall 115 and

an access opening 116. The tub wet wipe dispenser 100 has an internal dispenser height 101 that extends in the height dimension 22 from the interior of the bottom wall 112 to the interior of the top wall 115. In an embodiment, the internal dispenser height 101 does not correspond to the recommended refill thickness 63; instead, the
5 recommended refill thickness 63 is less than the internal dispenser height 101. A recommended refill thickness 63 of wet wipes 24 that is the same height as the internal dispenser height 101 could in certain embodiments cause impeded or clogged dispensation from wet wipe dispenser 100. FIG. 6B is a plan view of the left end wall 114 of the embodiment of FIG. 6A illustrating that the internal dispenser height 101 is
10 greater than the recommended refill thickness 63.

A consumer may use a different wet wipe dispenser 120 for purposes other than diapering such as cleaning messes or wiping faces and such dispensers can be kept in other areas such as a garage or a kitchen. FIG. 7A illustrates an embodiment of
15 another wet wipe dispenser 120 including a bottom wall 122, side walls 124, a top wall 125 and an access opening 126. The wet wipe dispenser 120 has an internal dispenser height 121 that extends from the interior of the bottom wall 122 to the interior of the top wall 125. In an embodiment, the internal dispenser height 121 does not correspond to the recommended refill thickness 73; instead, the recommended refill thickness 73 is less than the internal dispenser height 121. A recommended refill
20 thickness 73 of wet wipes 24 that is the same height as the internal dispenser height 121 could in certain embodiments cause impeded or clogged dispensation from wet wipe dispenser 120. FIG. 7B is a plan view of the left end wall 124 of the embodiment of FIG. 7A illustrating that the internal dispenser height 121 is greater than the recommended refill thickness 73. For example, certain commercial HUGGIES® Natural
25 Care wet wipes 24 are available in a wet wipe dispenser 120 that is preloaded with forty wet wipes 24 that are stacked in the height dimension 22; such a wet wipe dispenser 120 is illustrated in FIGS. 7A and 7B. The recommended refill thickness 73 for this particular wet wipe dispenser 120 is forty wet wipes 24.

A consumer may use yet another wet wipe dispenser 130 for “on the go”
30 convenience of a wet wipe dispenser 130 that can more easily fit into an automobile or a diaper changing bag. FIG. 8A illustrates an embodiment of an “on the go”, travel sized wet wipe dispenser 130 including a bottom wall 132, side walls 134, a top wall

135 and an access opening 136. The travel sized wet wipe dispenser 130 has an internal dispenser height 131 that extends from the interior of the bottom wall 132 to the interior of the top wall 135. In an embodiment, the internal dispenser height 131 does not correspond to the recommended refill thickness 83; instead, the recommended refill
5 thickness 83 is less than the internal dispenser height 131. A recommended refill thickness 83 of wet wipes 24 that is the internal dispenser height 131 could in certain embodiments cause impeded or clogged dispensation from the wet wipe dispenser 130. FIG. 8B is a plan view of the left end wall 134 of the embodiment of FIG. 8A illustrating that the internal dispenser height 131 is greater than the recommended refill thickness
10 83. For example, certain commercial HUGGIES® Natural Care wet wipes 24 are available in a wet wipe dispenser 130 that is preloaded with sixteen wet wipes 24 that are stacked in the height dimension 22; such a wet wipe dispenser 130 is illustrated in FIGS. 8A and 8B. The recommended refill thickness 83 for this particular wet wipe dispenser 130 is sixteen wet wipes 24.

15 In an embodiment, while referring to FIG. 9, the wet wipe refill container 10 includes a first graduated scale 59 that includes a first graduation 62 and a second graduation 64. The first graduation 62 is placed a first recommended refill thickness 63a upward from the bottom wall 12 in the height dimension 22. The first recommended refill thickness 63 is associated with the first graduated scale 59 and is
20 associated with a particular wet wipe dispenser 100. The second graduation 64 is placed a first recommended refill thickness 63b associated with the same wet wipe dispenser 100 upward from the first graduation 62 in the height dimension 22. The wet wipe refill container 10 additionally includes a second graduated scale 69 that includes a first graduation 72 and a second graduation 74. The first graduation 72 is placed a
25 second recommended refill thickness 73a upward from the bottom wall 12 in the height dimension 22. The second recommended refill thickness 73 is associated with the second graduated scale 69 and is associated with a particular wet wipe dispenser 120 that is different from the particular wet wipe dispenser 100 associated with the first graduated scale 59. The second graduation 74 is placed the second recommended
30 refill thickness 73b associated with the same wet wipe dispenser 120 upward from the first graduation of 72 in the height dimension 22. In certain embodiments, it is to be

understood that several graduation marks 62, 64, 72, and 74 may be present for each graduated scale 59 or 69 for the wet wipe refill container 10.

Wet wipe dispenser indicia 65 or 75 may be associated with each graduated scale 59 or 69 to further assist the user with identifying the wet wipe dispenser 100 or 120 that is associated with the graduated scale 59 or 69 of interest. The wet wipe dispenser indicia 65 or 75 can include words, numbers, letters, characters, symbols, shapes, lines, dots, colors, patterns, raised portions, depressed portions or combinations thereof. For example, as shown in FIG. 9, a first wet wipe dispenser indicia 65 is shown that is associated with the first graduated scale 59 that is associated with the first recommended refill thickness 63 for the associated first wet wipe dispenser 100. A second wet wipe dispenser indicia 75 is shown that is associated with the second graduated scale 69 that is associated with the second recommended refill thickness 73 for the associated second wet wipe dispenser 120.

The first graduated scale 59 includes a first graduated scale centerline 60 and the second graduated scale 69 includes a second graduated scale centerline 70 as shown in FIG. 9. The first graduated scale centerline 60 and the second graduated scale centerline 70 run through the center of the graduation marks 62, 64, 72 and 74 and extend in the height dimension 22 from the bottom wall 12 to the top wall 15 of the wet wipe refill container 10. In an embodiment, the first graduated scale centerline 60 and the second graduated scale centerline 70 may not share a common position along the width dimension 26 as is shown in FIG. 9. In an embodiment, the first graduated scale centerline 60 and the second graduated scale centerline 70 share a common position along the width dimension 26 as is shown in FIG. 10. In an embodiment, the first graduated scale centerline 60 and the second graduated scale centerline 70 may each be in a different side wall 14. In an embodiment, the first graduated scale centerline 60 and the second graduated scale centerline 70 may be in the same side wall 14a, 14b, 14c, 14d or 44.

In an embodiment, while referring to FIG. 11, the wet wipe refill container 10 includes a first graduated scale 59 that includes a first graduation 62 and a second graduation 64. The first graduation 62 is placed the first recommended refill thickness 63a upward from the bottom wall 12 in the height dimension 22. The first

recommended refill thickness 63 is associated with the first graduated scale 59 and is associated with a particular wet wipe dispenser 100. The second graduation 64 is placed the first recommended refill thickness 63b associated with the same wet wipe dispenser 100 upward from the first graduation 62 in the height dimension 22. The wet
5 wipe refill container 10 includes a second graduated scale 69 that includes a first graduation 72 and a second graduation 74. The first graduation 72 is placed the second recommended refill thickness 73a upward from the bottom wall 12 in the height dimension 22. The second recommended refill thickness 73 is associated with the second graduated scale 69 and is associated with a particular wet wipe dispenser 120
10 that is different from the particular wet wipe dispenser 100 associated with the first graduated scale 59. The second graduation 74 is placed the second recommended refill thickness 73b associated with the same wet wipe dispenser 120 upward from the first graduation 72 in the height dimension 22. The wet wipe refill container 10 additionally includes a third graduated scale 79 that includes a first graduation 82. The
15 first graduation 82 is placed a third recommended refill thickness 83 upward from the bottom wall 12 in the height dimension 22. The third recommended refill thickness 83 is associated with the third graduated scale 79 and is associated with a particular wet wipe dispenser 130 that is different from the particular wet wipe dispensers 100 and 120 that are associated with the first graduated scale 59 and the second graduated
20 scale 69, respectively. Wet wipe dispenser indicia 65, 75 or 85 may be associated with each graduated scale 59, 69 or 79 to further assist the user with identifying the wet wipe dispenser 100, 120 or 130 that is associated with the graduated scale 59, 69 or 79 of interest. A first wet wipe dispenser indicia 65 may be associated with the first graduated scale 59 that is associated with the first recommended refill thickness 63 for
25 the associated first wet wipe dispenser 100. A second wet wipe dispenser indicia 75 may be associated with the second graduated scale 69 that is associated with the second recommended refill thickness 73 for the associated second wet wipe dispenser 120. A third wet wipe dispenser indicia 85 may be associated with the third recommended refill thickness 83 for the associated third wet wipe dispenser 130. In
30 certain embodiments, it is to be understood that several graduation marks 62, 64, 72, 74 and 82 may be present for each graduated scale 59, 69 or 79 for the wet wipe refill container 10. In an embodiment, the first, second and third graduated scales, 59, 69 and 79, may include centerlines that share a common position along the width

dimension 26. In an embodiment, the first, second and third graduated scales, 59, 69 and 79, may include centerlines that do not share a common position along the width dimension 26.

In an embodiment, the wet wipe refill container 10 may include more than one graduated scale 59, 69 or 79 as shown in FIG. 9 – FIG. 11. In certain embodiments, one of the side walls 14a, 14b, 14c, 14d, or 44 may include all of the graduated scales 59, 69 or 79. In other embodiments, each side wall 14a, 14b, 14c, 14d, and 44 may include a single graduated scale 59, 69, or 79, or multiple graduated scales, 59, 69 or 79. For example, one side wall 14a, 14b, 14c, 14d, or 44 may include the first graduated scale 59, the second side wall 14a, 14b, 14c, 14d, or 44 may include the second graduated scale 69, and the third side wall 14a, 14b, 14c, 14d, or 44 may include the third graduated scale 79. In another embodiment, one side wall 14a, 14b, 14c, 14d, or 44 may include the first graduated scale 59 and another side wall 14a, 14b, 14c, 14d, or 44 may include the second graduated scale 69 and the third graduated scale 79.

In the interests of brevity and conciseness, any ranges of values set forth in this disclosure contemplate all values within the range and are to be construed as support for claims reciting any sub-ranges having endpoints which are whole number values within the specified range in question. By way of hypothetical example, a disclosure of a range from 1 to 5 shall be considered to support claims to any of the following ranges: 1 to 5; 1 to 4; 1 to 3; 1 to 2; 2 to 5; 2 to 4; 2 to 3; 3 to 5; 3 to 4; and 4 to 5.

While particular embodiments have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of this disclosure. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of this disclosure.

WE CLAIM:

1. A refill container having a height dimension, the container comprising:
 - a bottom wall;
 - at least one side wall contiguous with the bottom wall and extending in the height dimension upward from the bottom wall;
 - an exterior surface;
 - an interior surface;
 - an access opening;
 - a plurality of articles stacked in the height dimension; and
 - a first graduated scale disposed on the side wall, the first graduated scale comprising a first graduation, wherein the first graduation is spaced a recommended refill thickness from the bottom wall in the height dimension.
2. The refill container of claim 1, wherein the access opening is spaced apart from the bottom wall in the height dimension.
3. The refill container of any of the preceding claims, wherein the access opening is in a plane that is parallel to the bottom wall.
4. The refill container of claims 1 or 2, wherein the access opening is in a plane that is perpendicular to the bottom wall.
5. The refill container of any of the preceding claims, wherein the first graduation is disposed on the exterior surface of the refill container and is visible or tactilely detectable from the interior surface.
6. The refill container of any of the preceding claims wherein the first graduated scale comprises a second graduation that is disposed on the side wall, wherein the second graduation is spaced the recommended refill thickness upward from the first graduation in the height dimension.

7. The refill container of any of the preceding claims, having a second graduated scale disposed on one of the first and the second side walls, the second graduated scale comprising a first graduation, wherein the first graduation is spaced a second recommended refill thickness upward from the bottom wall in the height dimension.
8. The refill container of claim 7, wherein the second graduated scale comprises a second graduation, wherein the second graduation is spaced the second recommended refill thickness upward from the first graduation in the height dimension.
9. A wipes dispensing system comprising:
 - a first refillable wipe dispenser adapted to house a stack of wipes having at most a first recommended refill thickness;
 - a second refillable wipe dispenser adapted to house a stack of wipes having at most a second recommended refill thickness wherein the first recommended refill thickness is different than the second recommended refill thickness;
 - a refill container having a height dimension, the container comprising:
 - a bottom wall;
 - a first side wall and a second side wall contiguous with the bottom wall, the first side wall and the second side wall having a width dimension perpendicular to the height dimension;
 - an access opening;
 - a plurality of articles stacked in the height dimension;
 - a first graduated scale disposed on one of the first and the second side walls, the first graduated scale comprising a first graduation, wherein the first graduation is spaced the first recommended refill thickness upward from the bottom wall in the height dimension;

a second graduated scale disposed on one of the first and the second side walls, the second graduated scale comprising a first graduation, wherein the first graduation is spaced the second recommended refill thickness from the bottom wall in the height dimension.

10. The wipes dispensing system of claim 9, wherein the access opening is spaced apart from the bottom wall in the height dimension.
11. The wipes dispensing system of claims 9 or 10, wherein the access opening is in a plane that is parallel to the bottom wall.
12. The wipes dispensing system of claims 9 or 10, wherein the access opening is in a plane that is perpendicular to the bottom wall.
13. The wipes dispensing system of claims 9, 10, 11 or 12, wherein the first graduated scale comprises a second graduation, wherein the second graduation is spaced a first recommended refill thickness upward from the first graduation in the height dimension.
14. The wipes dispensing system of any of claims 9, 10, 11, 12 or 13, wherein the second graduated scale comprises a second graduation, wherein the second graduation is spaced a second recommended refill thickness upward from the first graduation in the height dimension.
15. The wipes dispensing system of any of claims 9, 10, 11, 12, 13 or 14, wherein the first graduated scale has a first centerline extending in the height dimension and the second graduated scale has a second centerline extending in the height dimension and wherein the first centerline and the second centerline share a common position along the width dimension of one of the first and the second side walls.
16. The wipes dispensing system of any of claims 9, 10, 11, 12, 13, 14 or 15, wherein the first graduated scale has a first centerline extending in the height

dimension and the second graduated scale has a second centerline extending in the height dimension, wherein the first centerline and the second centerline are in the first or the second side walls.

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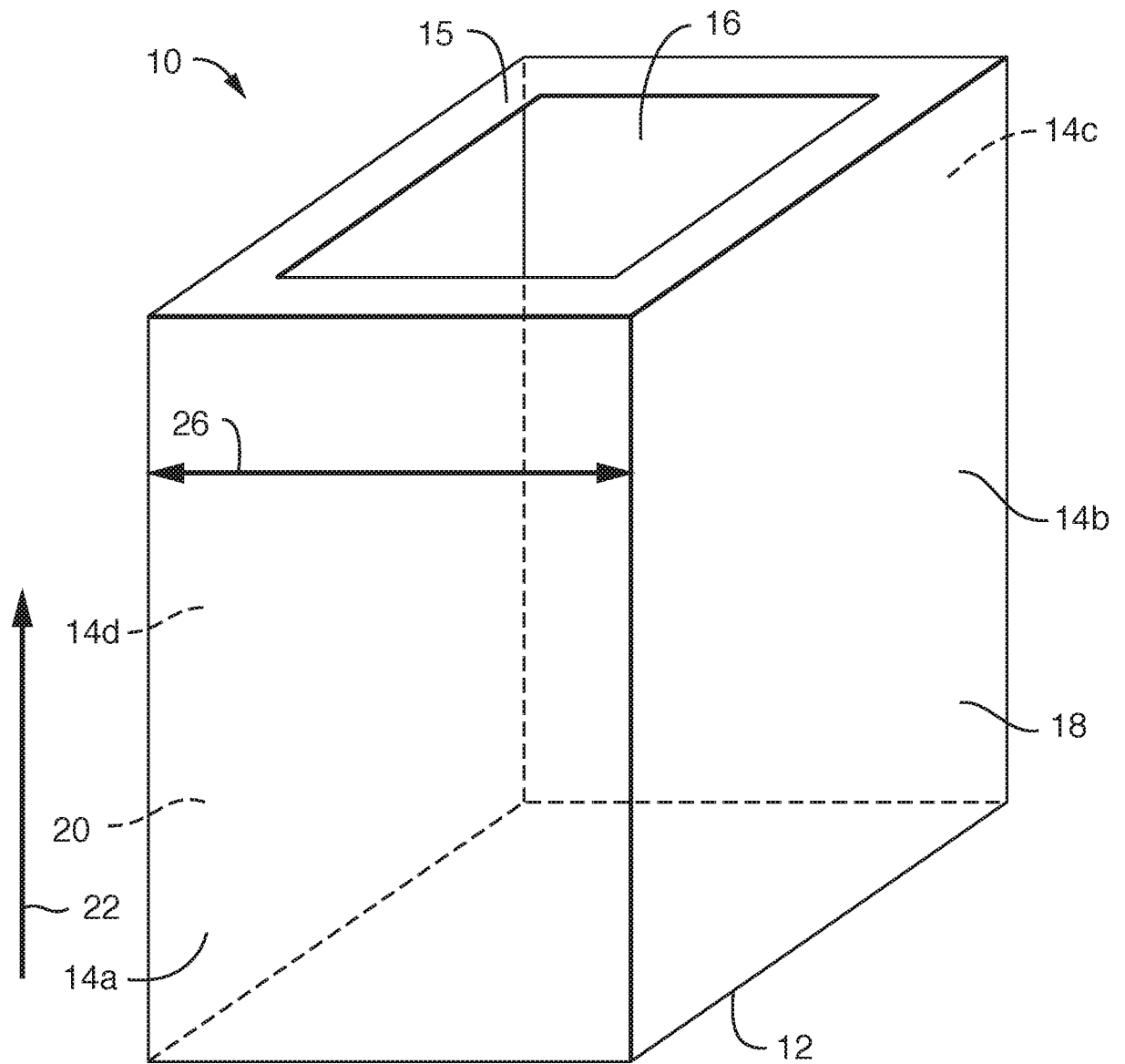


FIG. 1A

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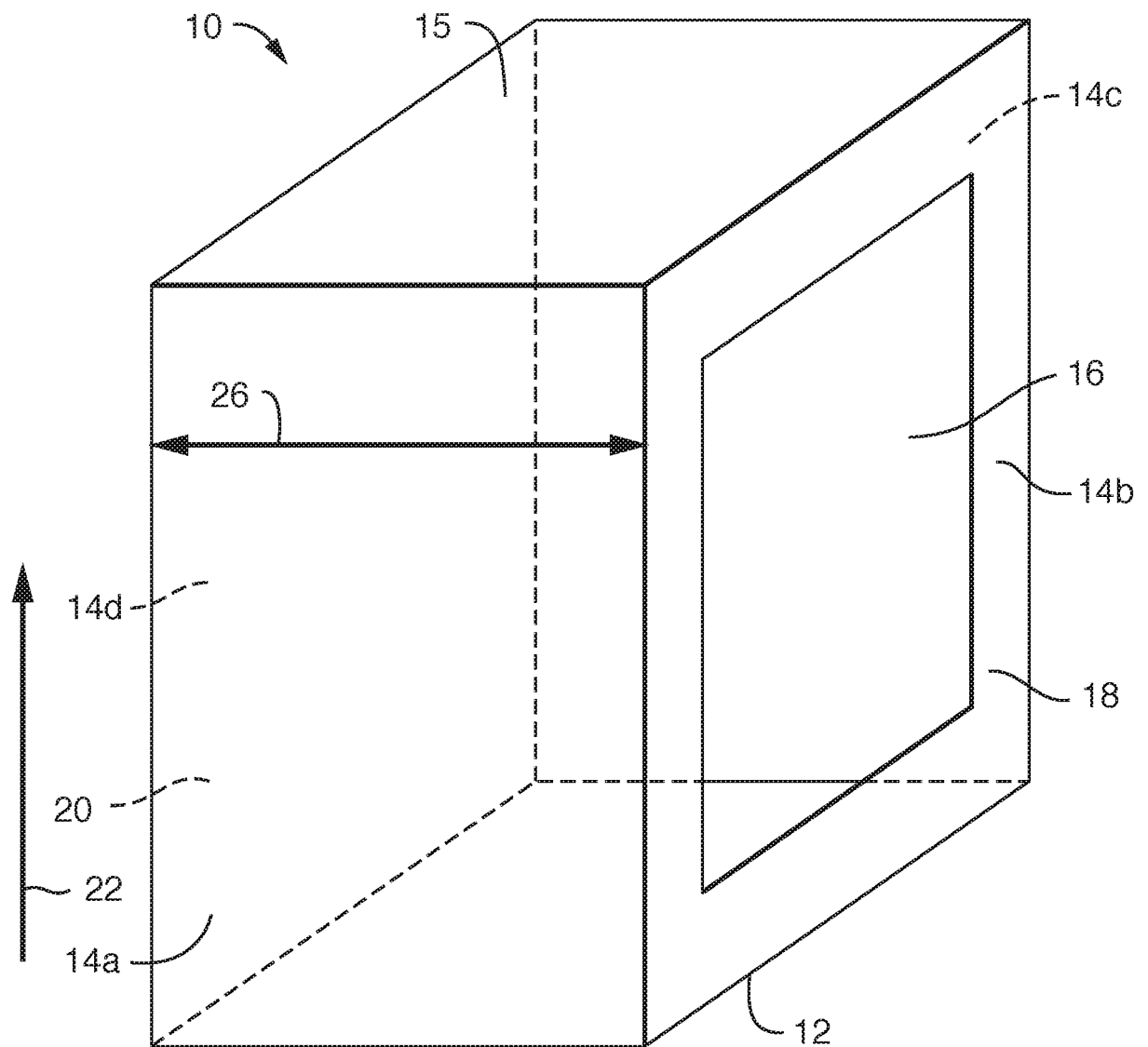


FIG. 1B

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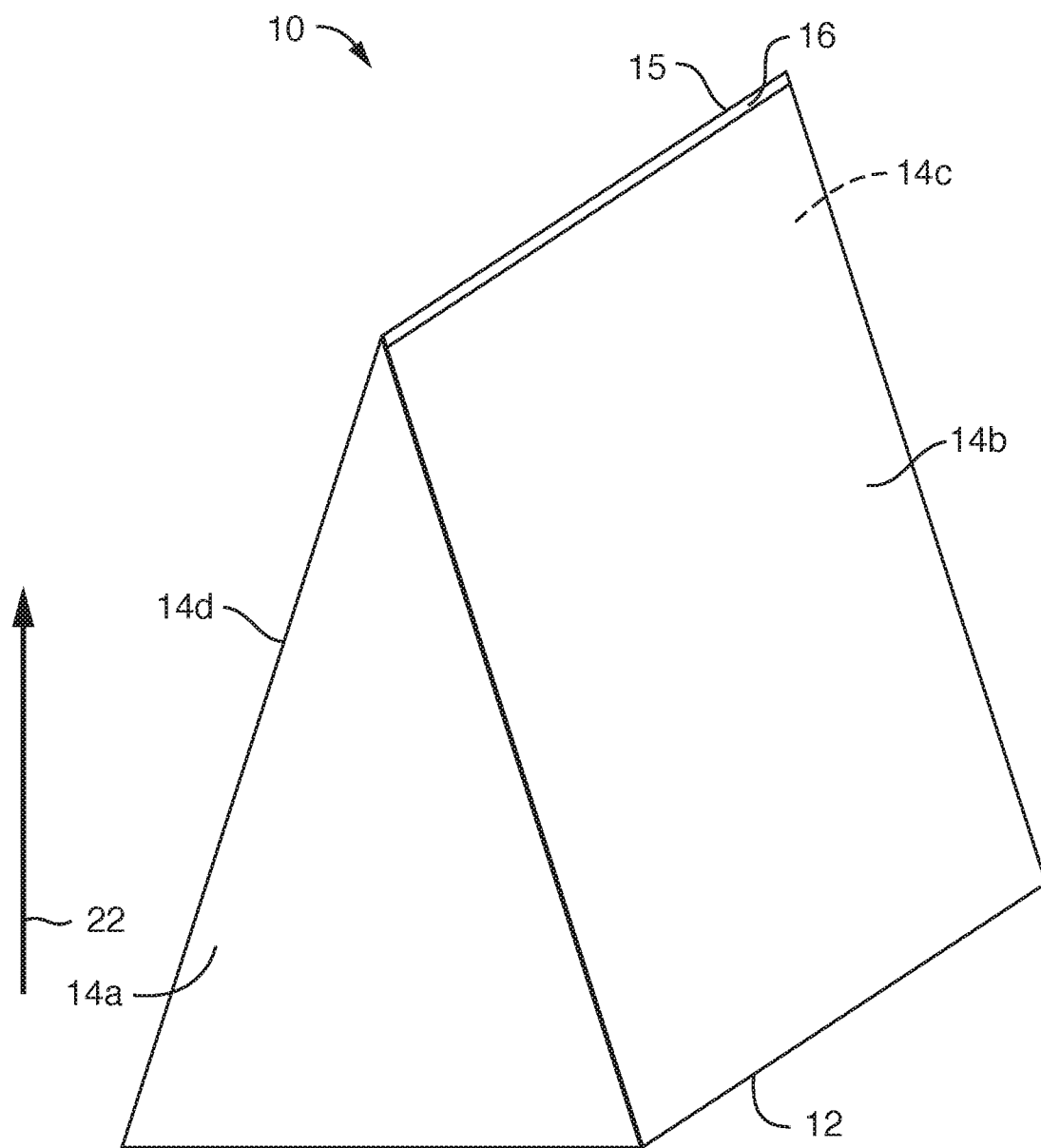


FIG. 1C

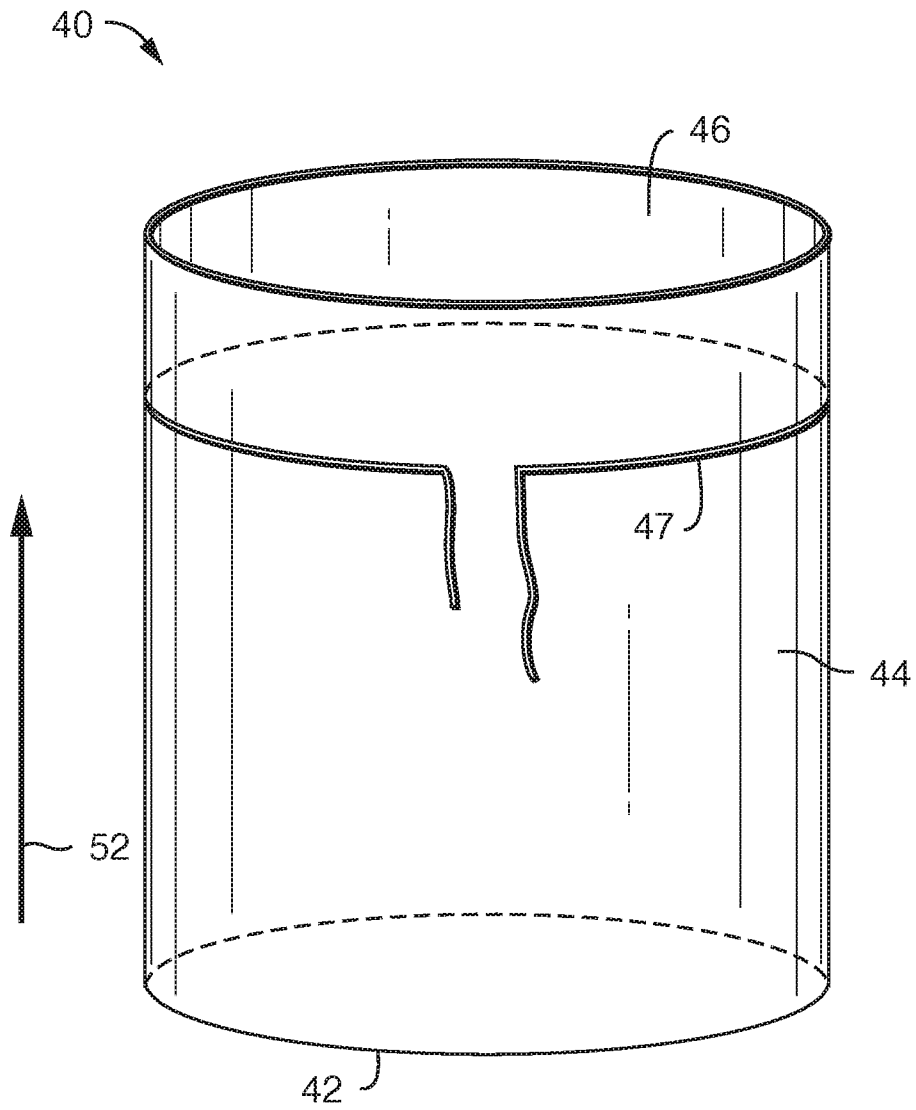


FIG. 2A

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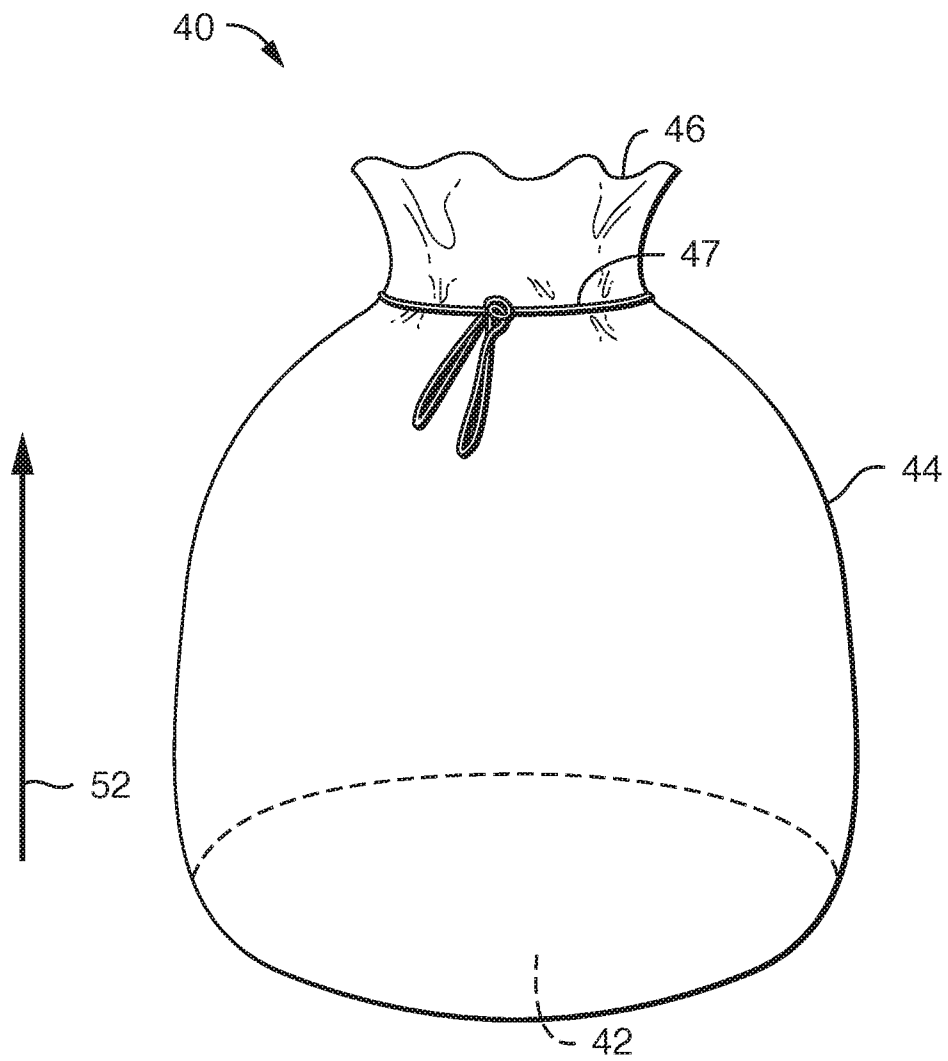


FIG. 2B

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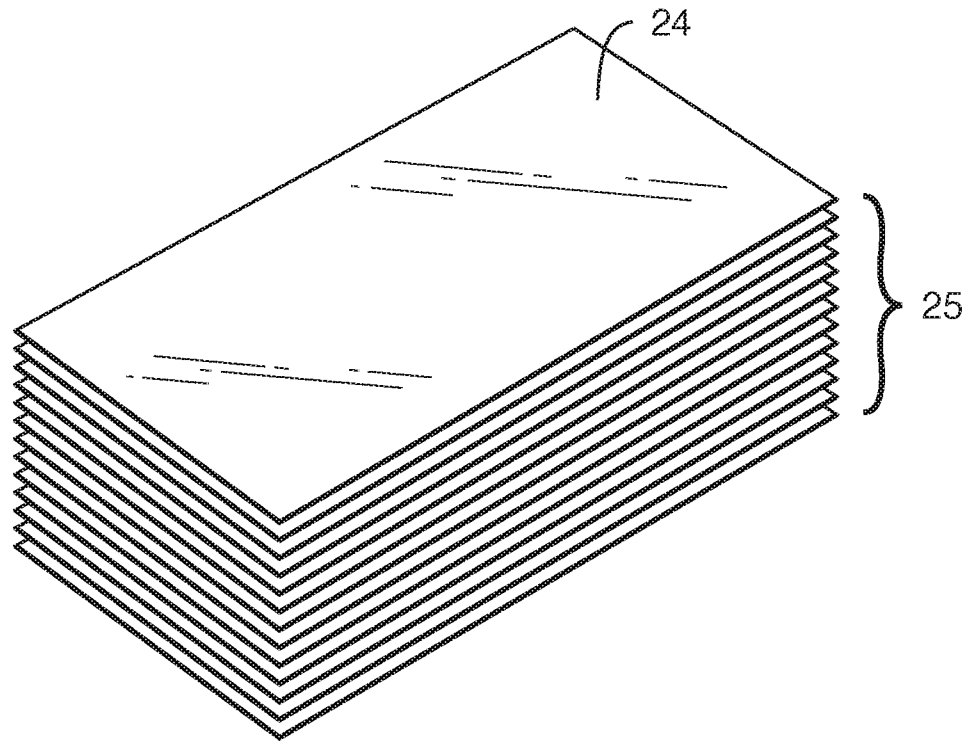


FIG. 3A

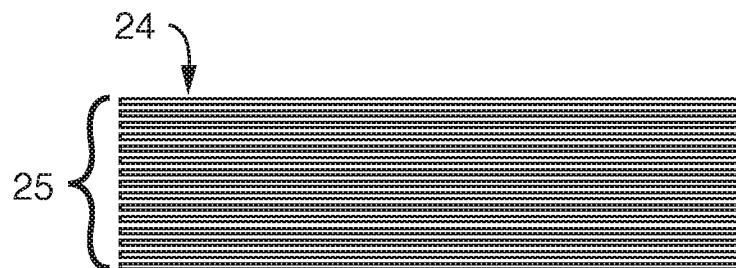


FIG. 3B

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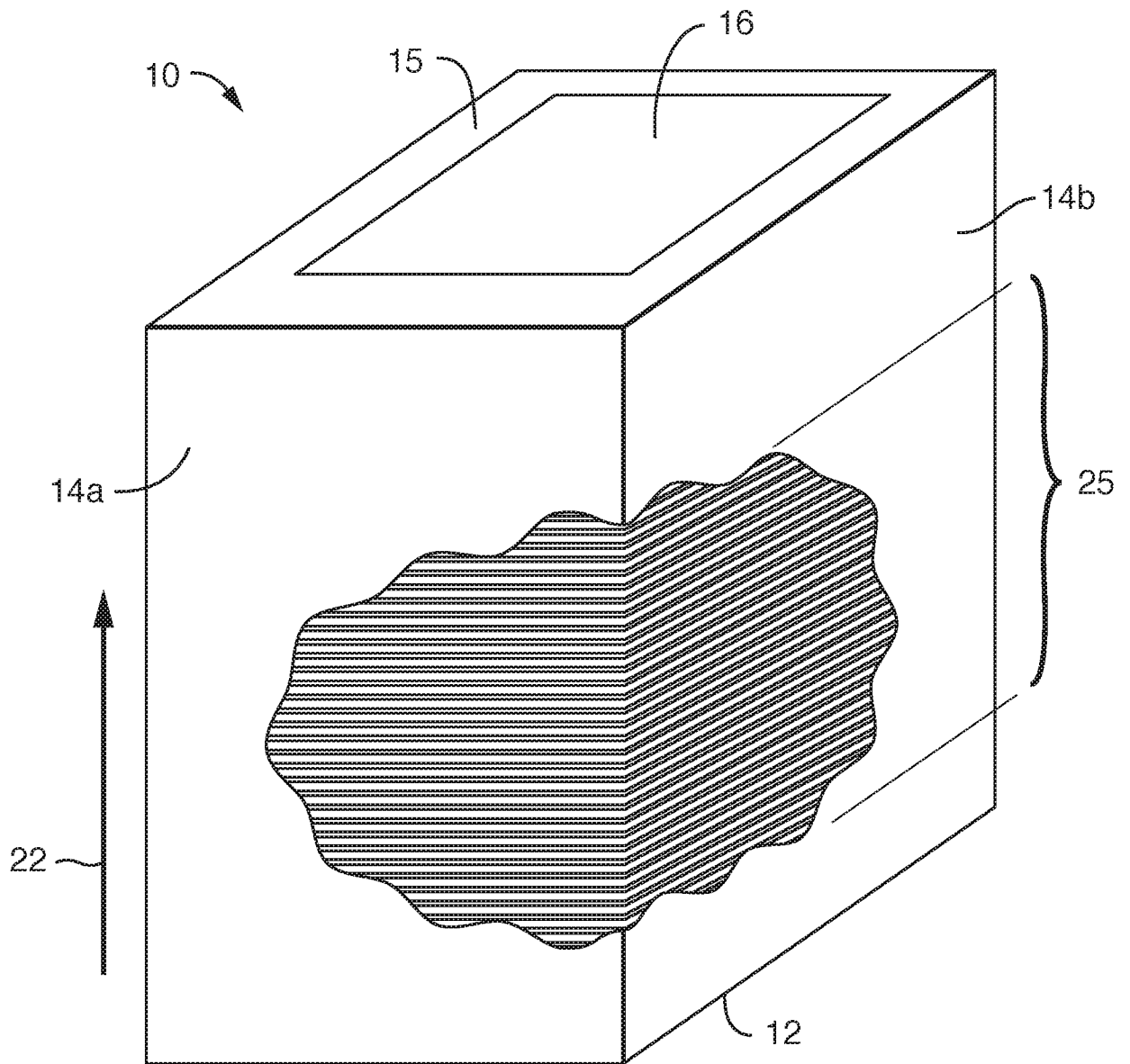


FIG. 4A

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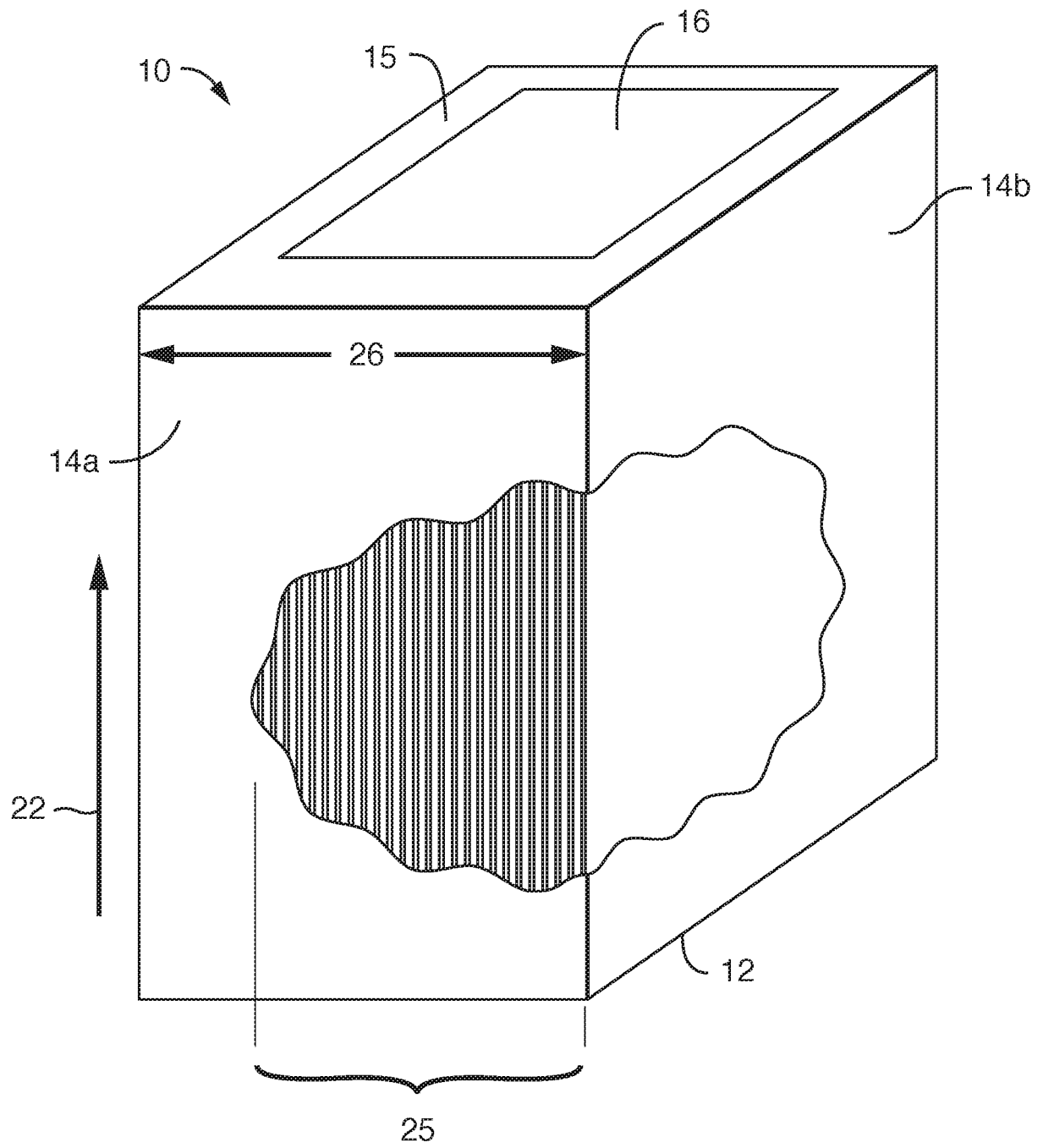


FIG. 4B

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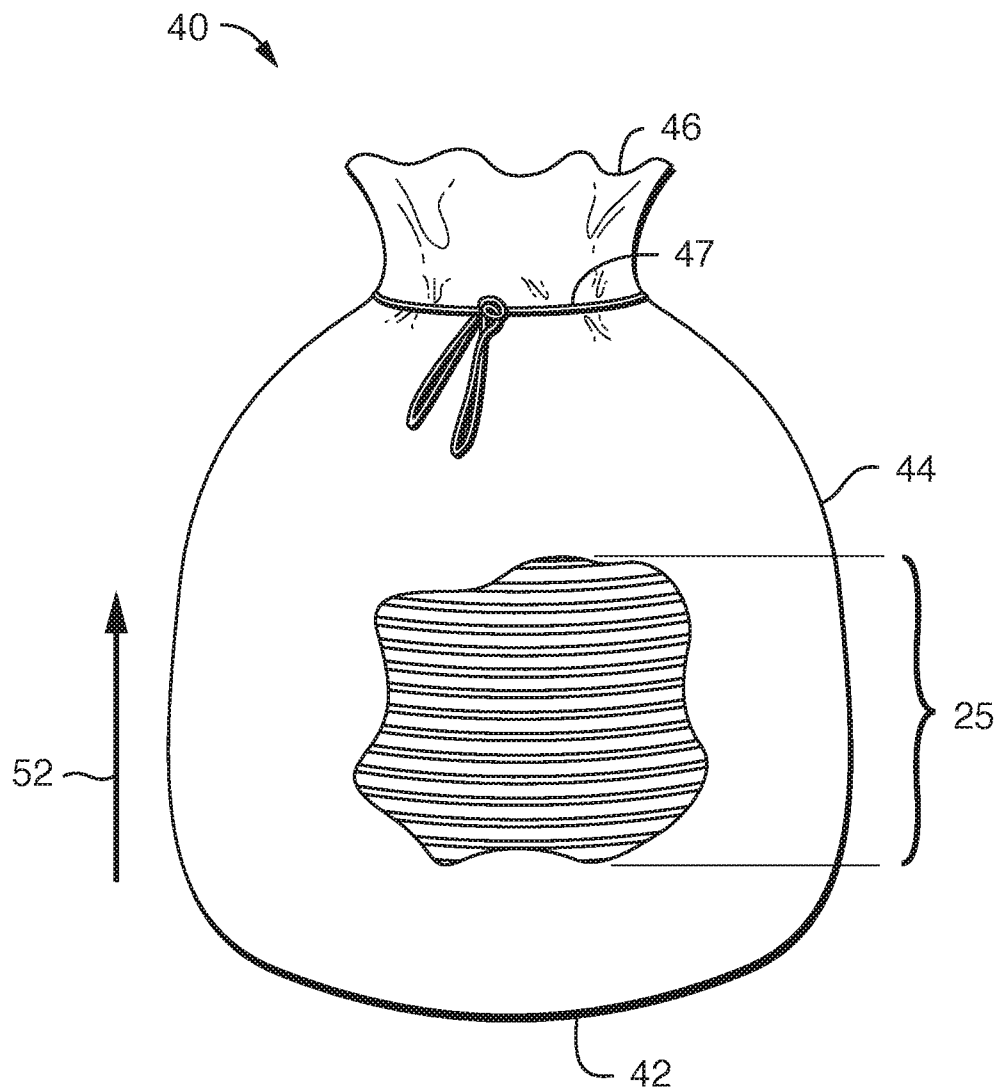


FIG. 4C

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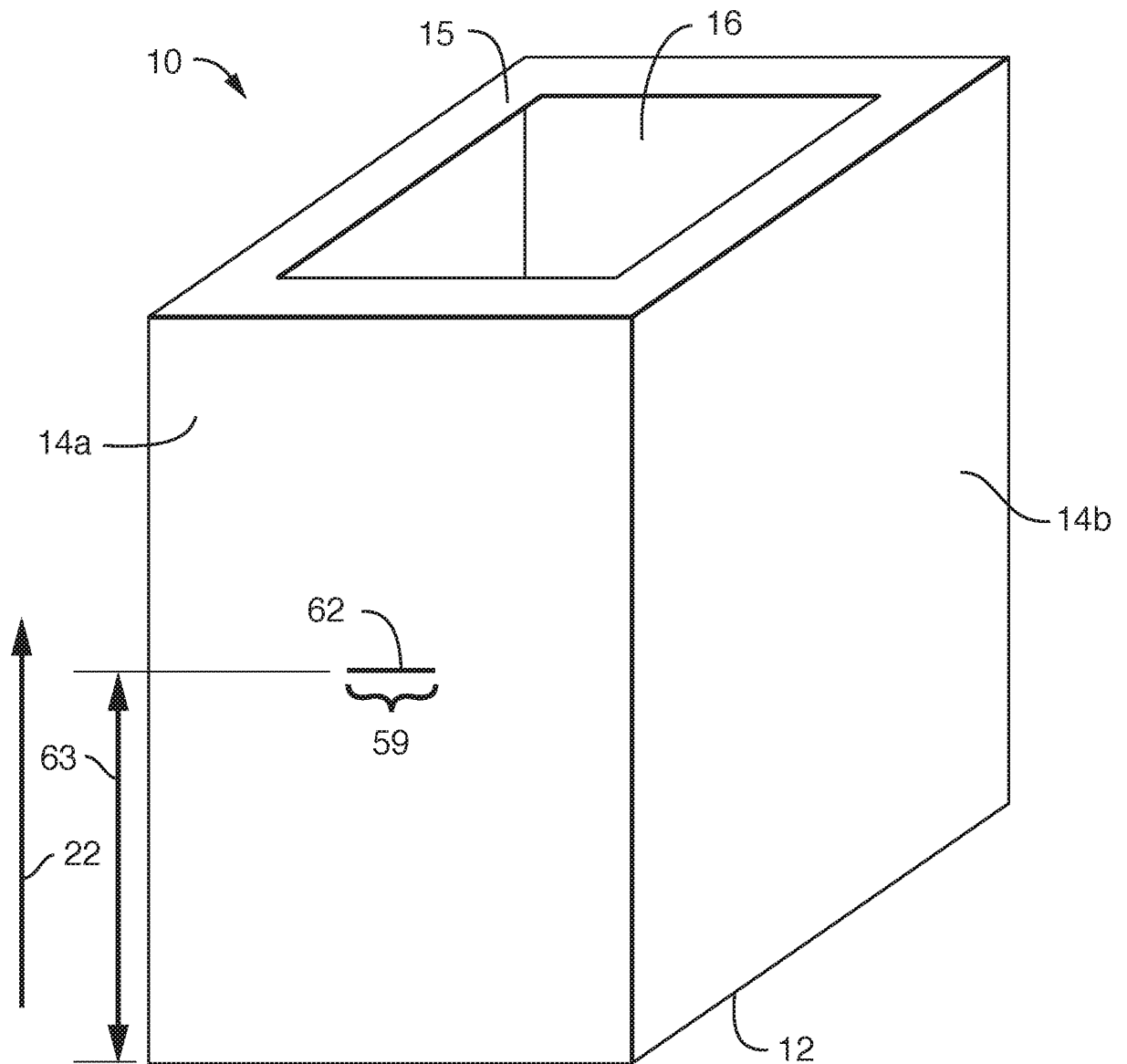


FIG. 5A

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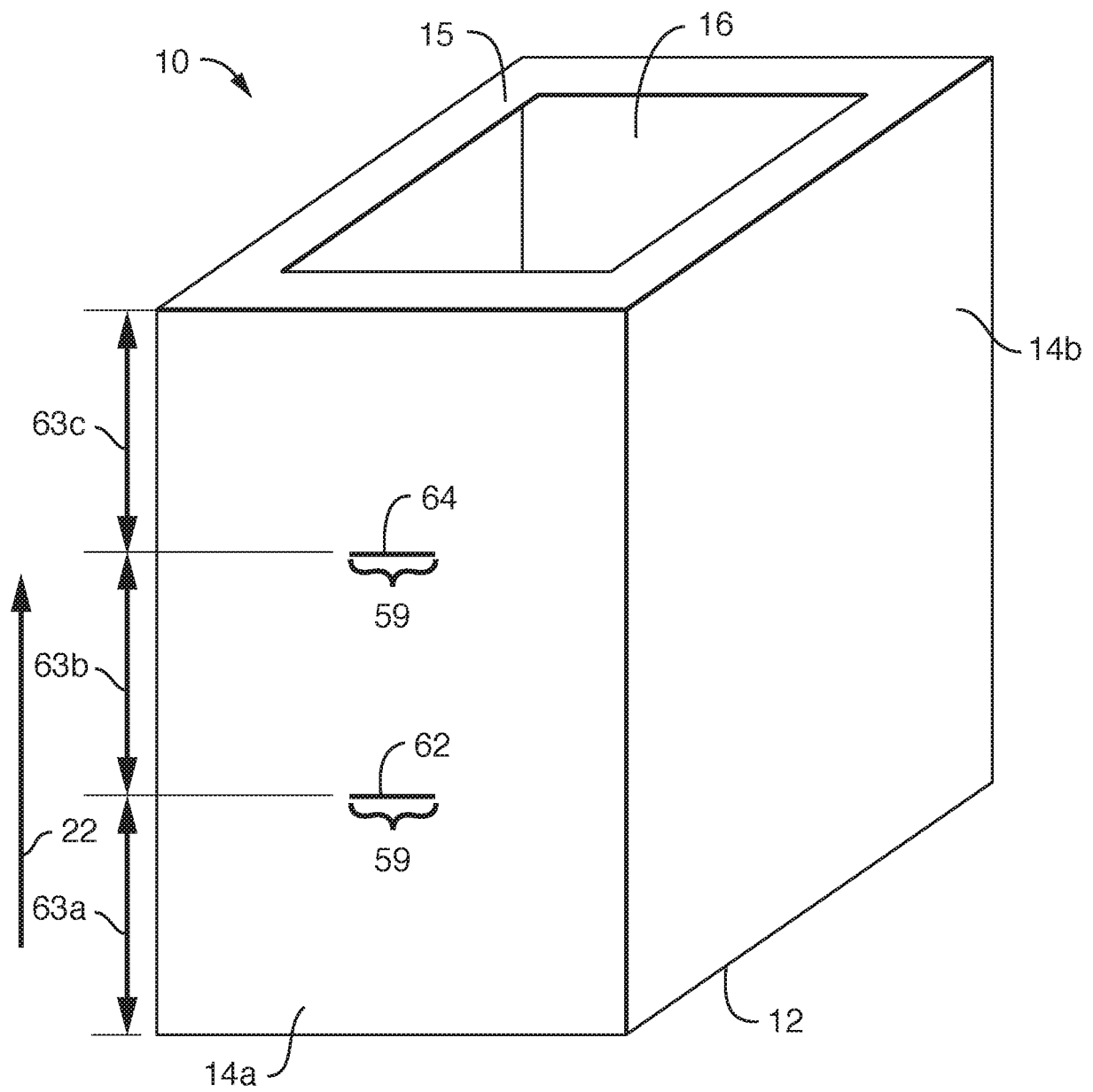
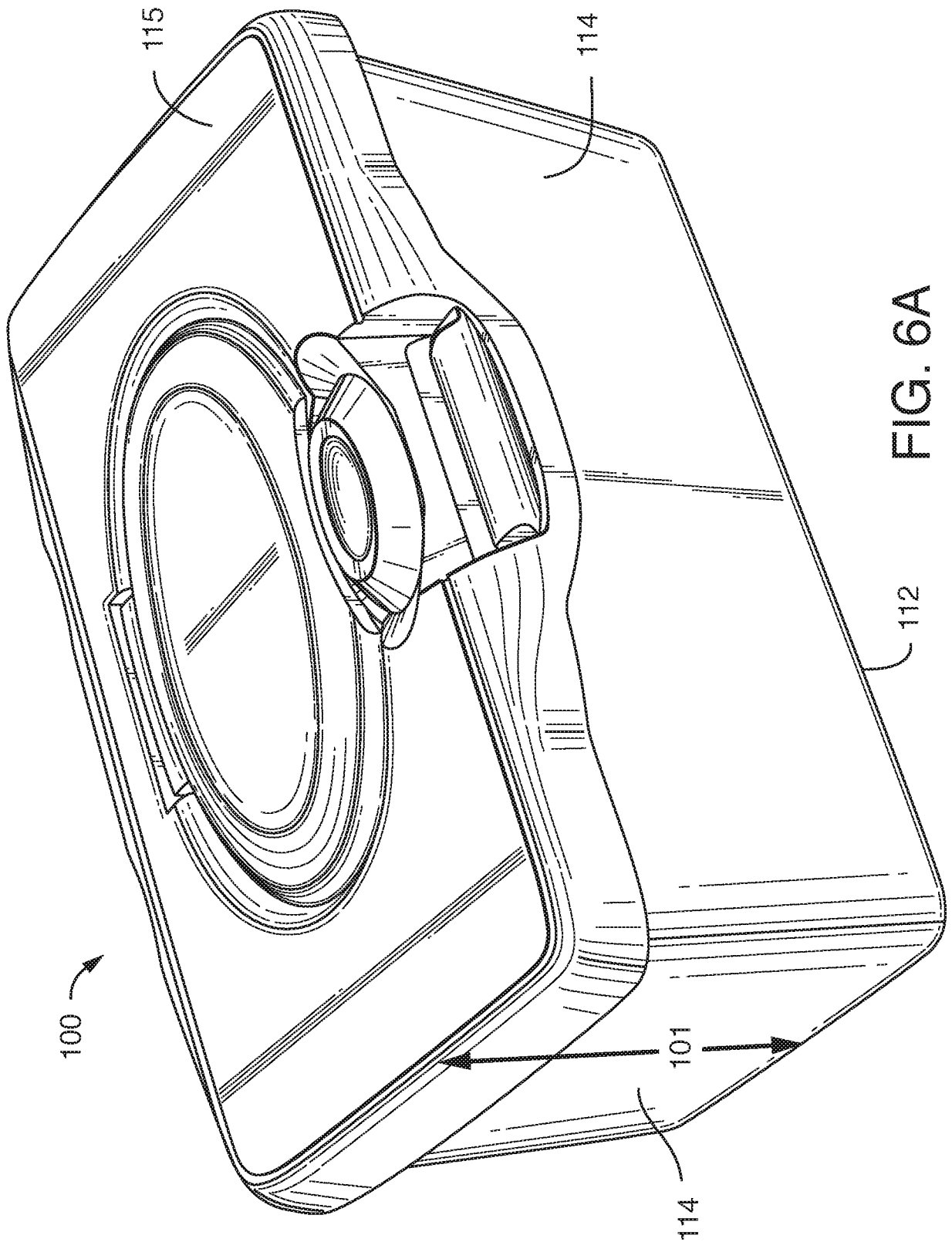


FIG. 5B

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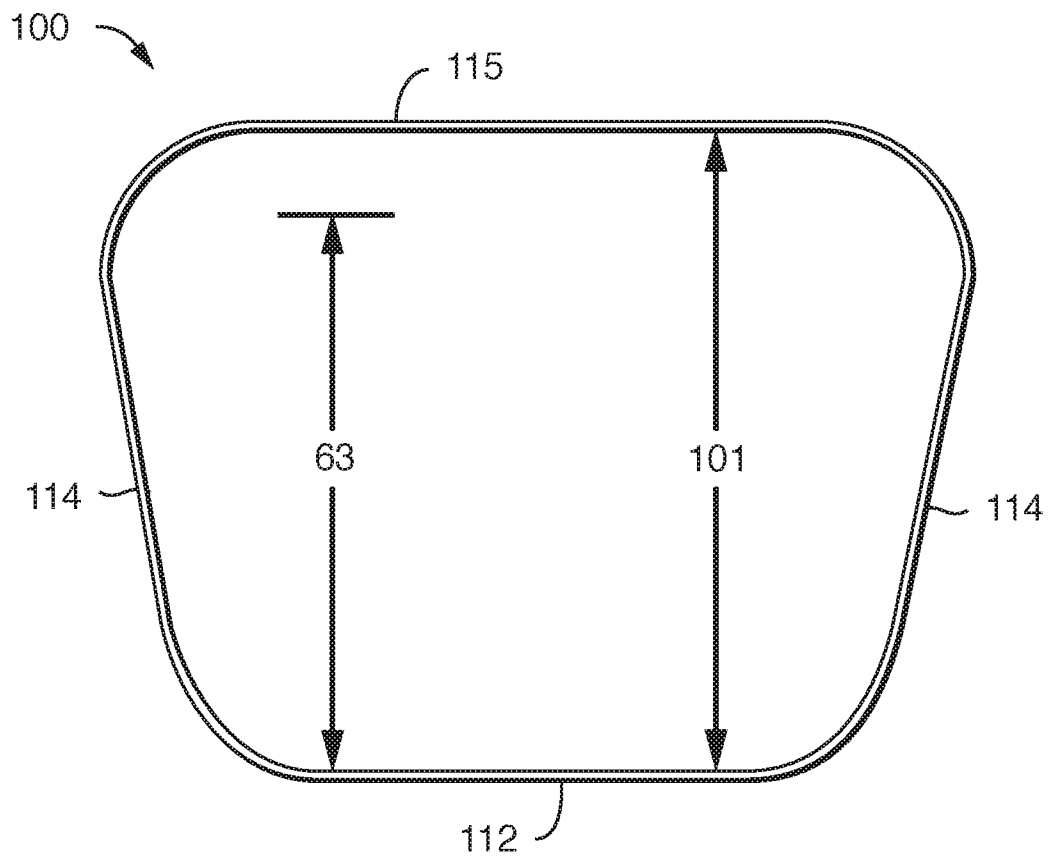


FIG. 6B

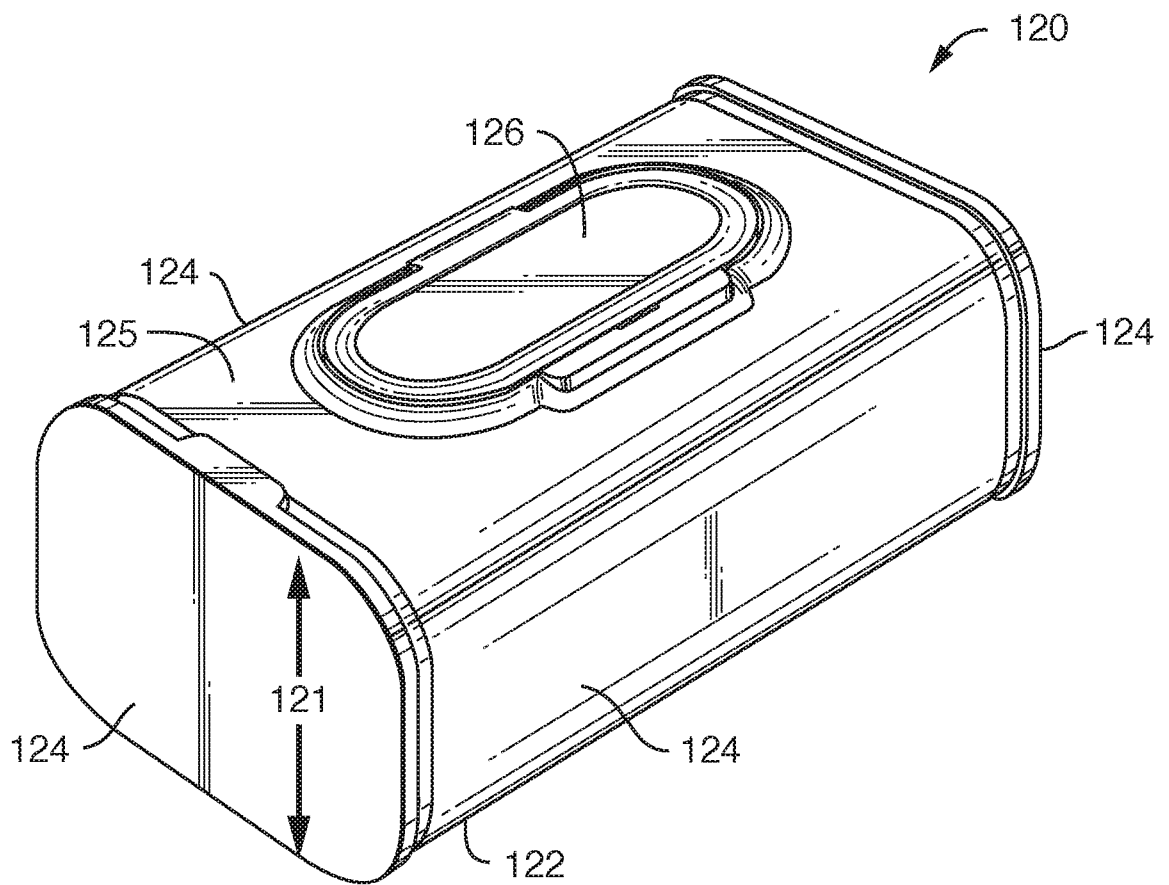


FIG. 7A

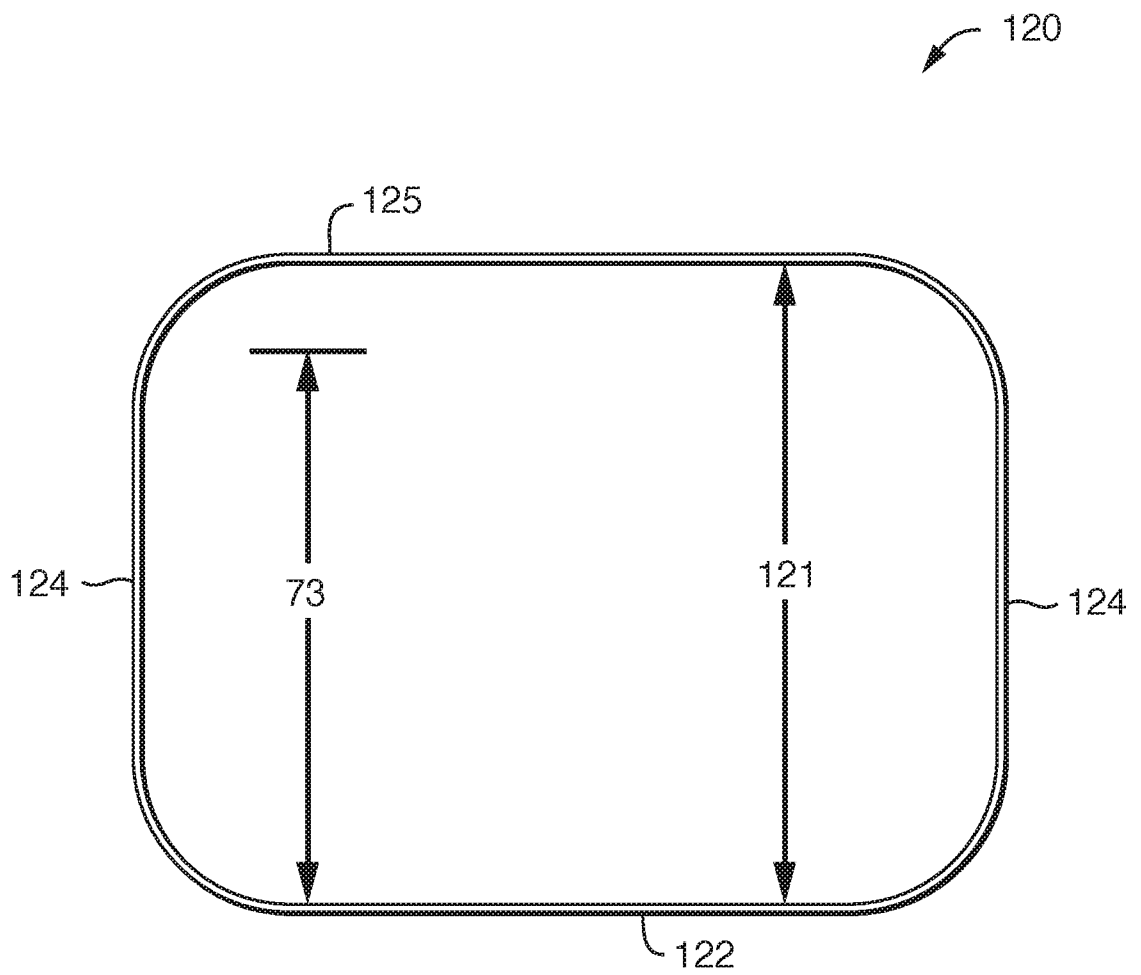


FIG. 7B

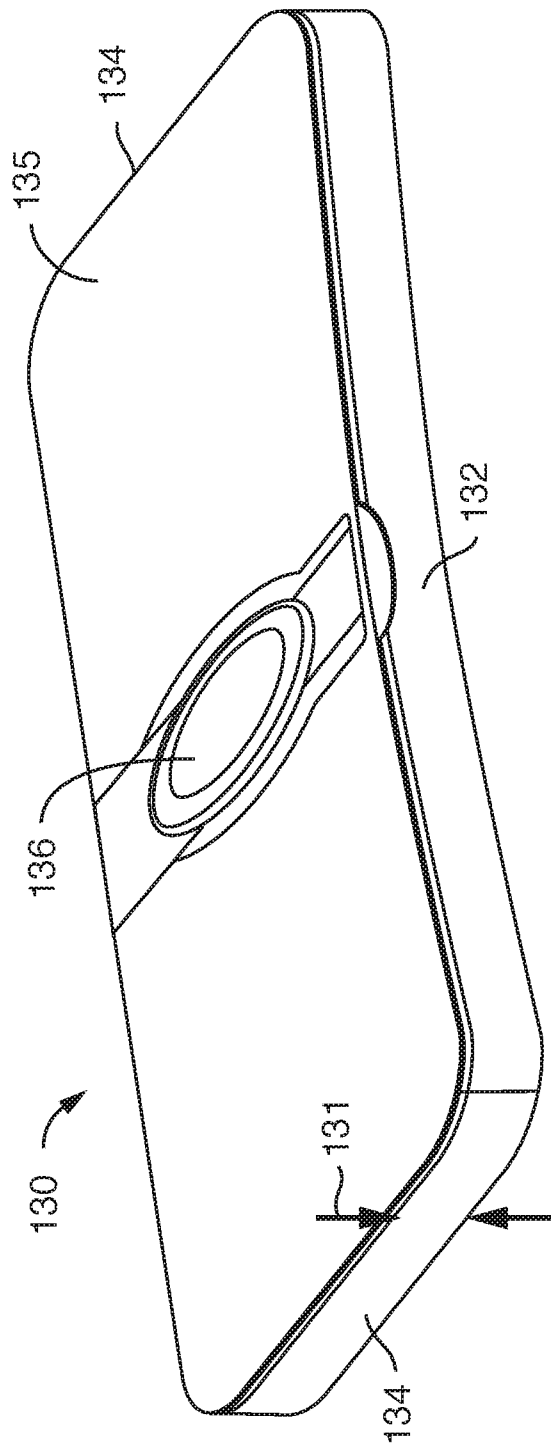


FIG. 8A

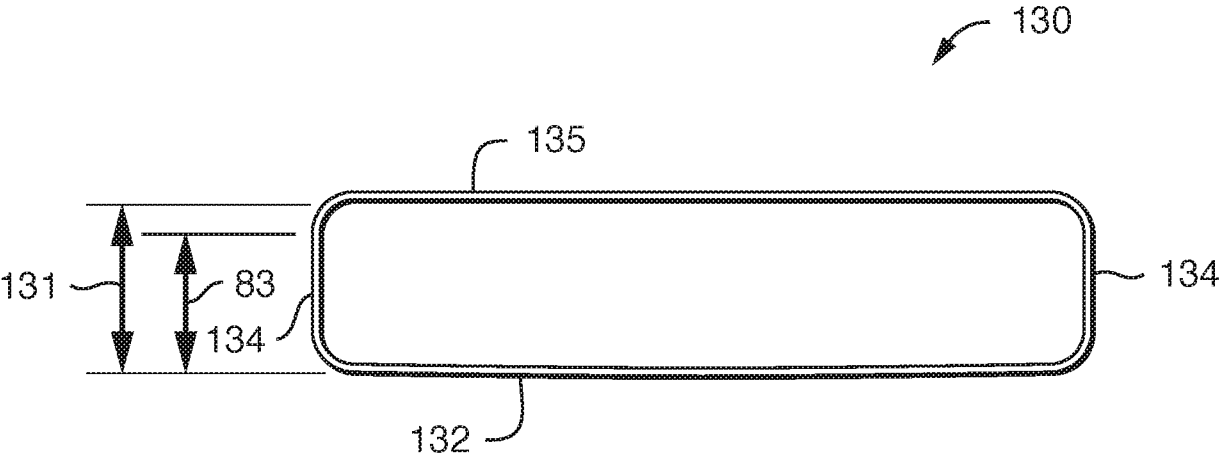


FIG. 8B

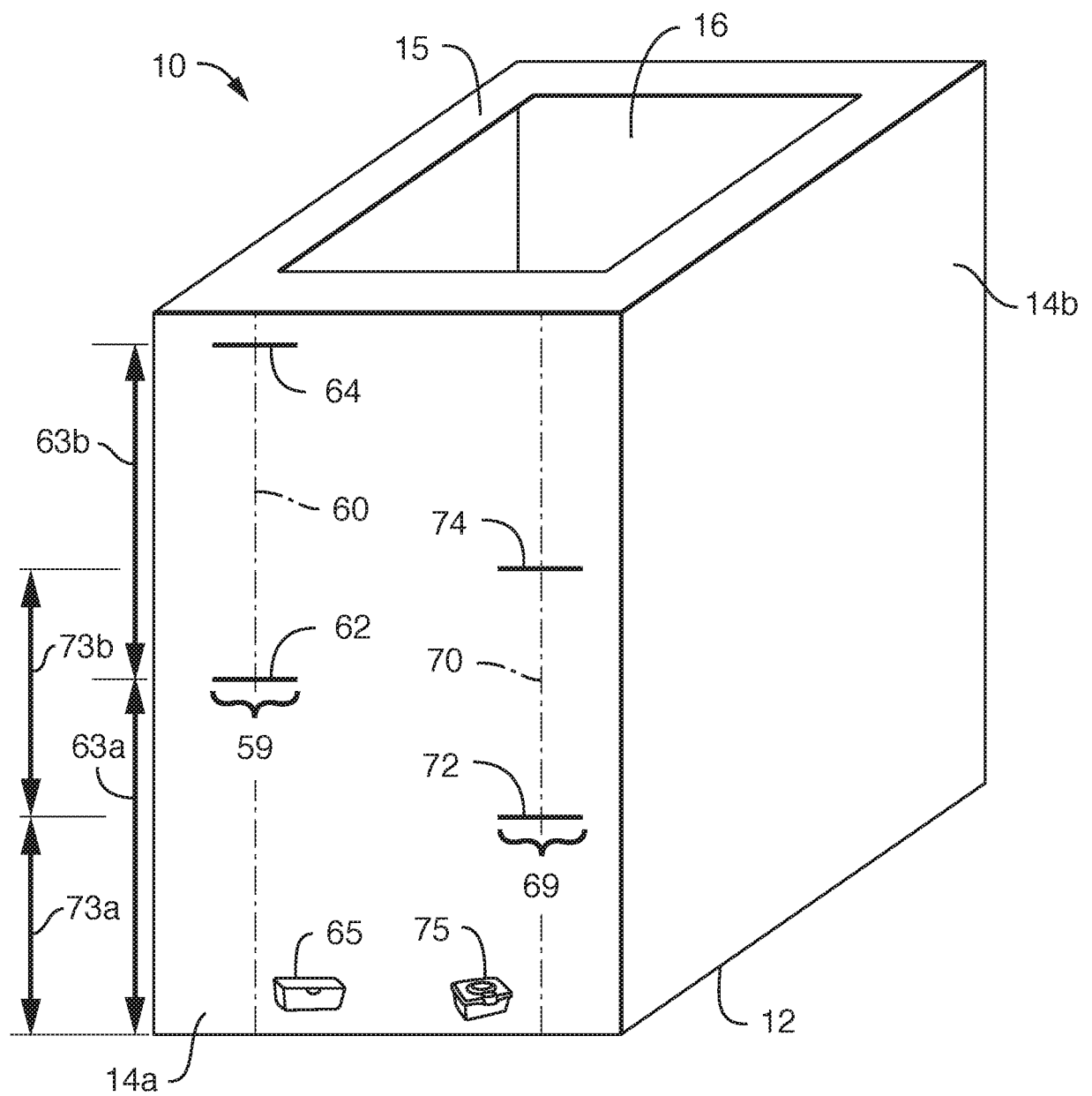


FIG. 9

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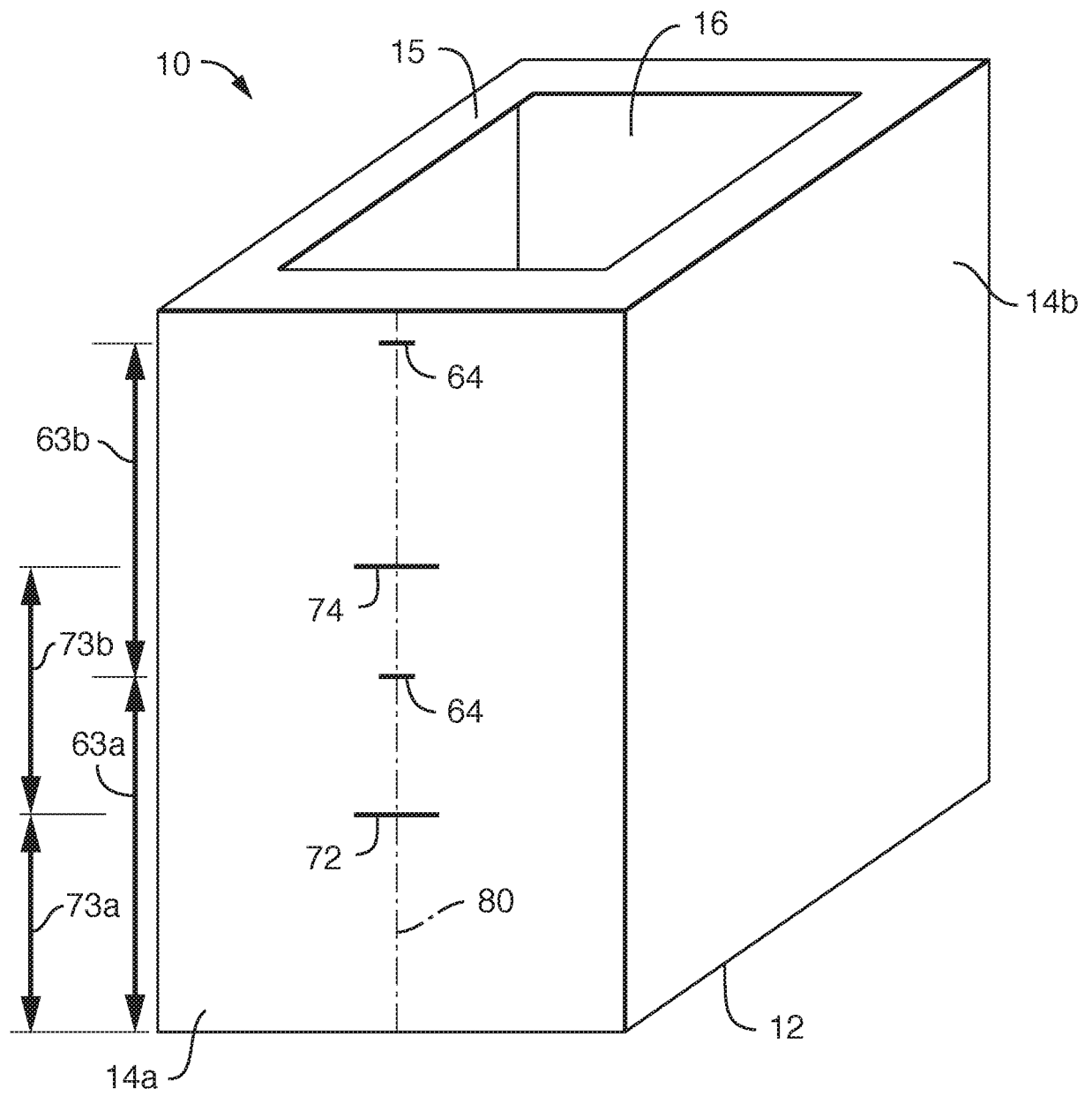


FIG. 10

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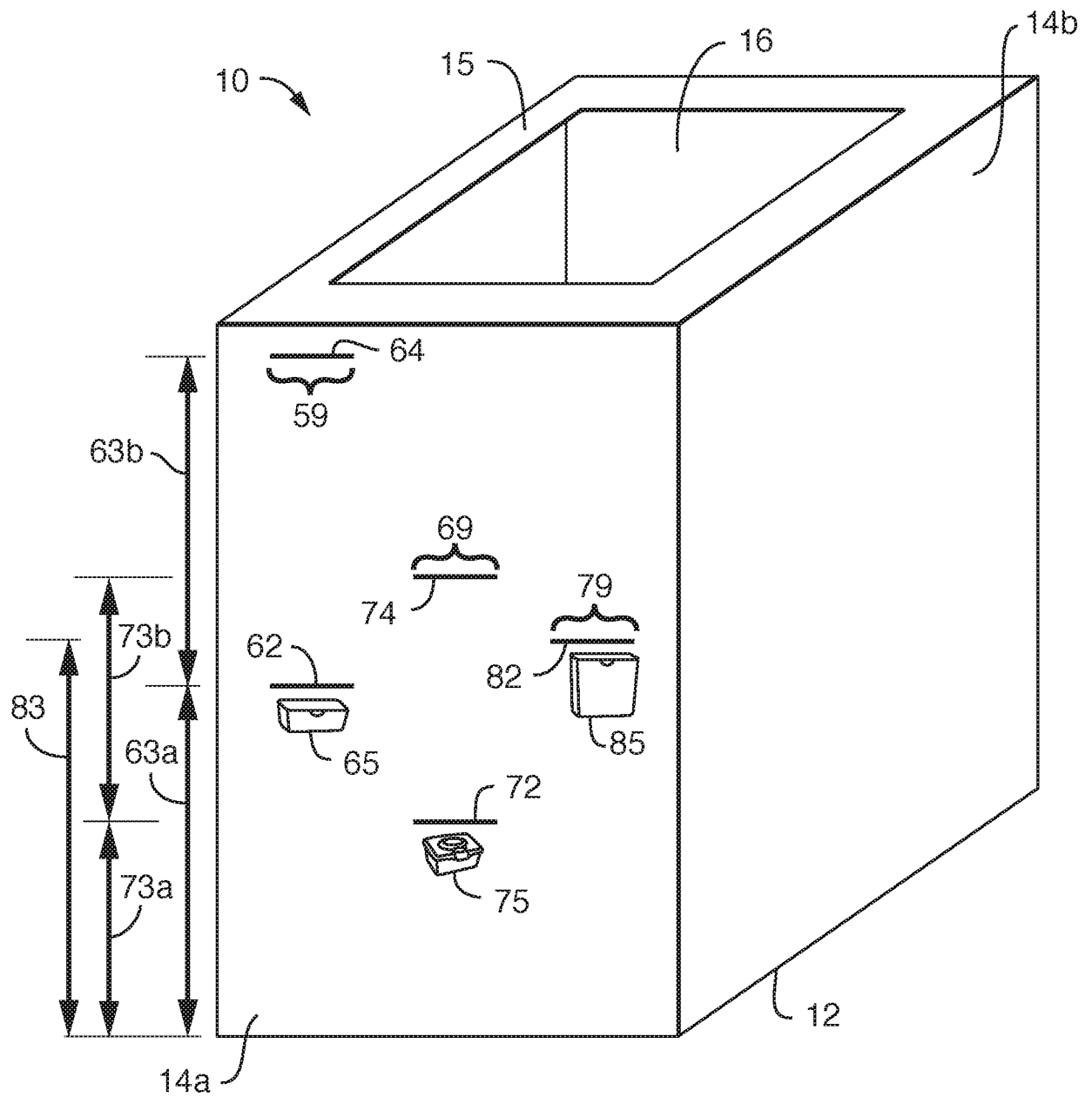


FIG. 11

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2014/065994**A. CLASSIFICATION OF SUBJECT MATTER****B65D 25/56(2006.01)i, B65D 83/08(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D 25/56; B65D 85/16; A47K 10/20; B65H 1/00; B65D 85/67; B65D 83/08

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: wet wipe, refill, container, indicator, graduation, wall, surface, opening, scale

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5531325 A (DEFLANDER et al.) 02 July 1996 See column 3, line 26 - column 4, line 26; column 6, line 48 - column 7, line 44; claim 1; and figure 1.	1-4,9-12
Y	US 2002-0179624 A1 (TRAMONTINA, PAUL FRANCIS) 05 December 2002 See paragraph [0070]; and figure 8A.	1-4,9-12
A	US 2004-0124202 A1 (MITCHELL et al.) 01 July 2004 See paragraphs [0022]-[0027]; and figure 1.	1-4,9-12
A	EP 0999990 B1 (KIMBERLY-CLARK WORLDWIDE, INC.) 10 September 2003 See paragraphs [0019]-[0023]; and figure 2.	1-4,9-12
A	US 2003-0192903 A1 (SAUER et al.) 16 October 2003 See paragraphs [0024]-[0028]; and figure 2.	1-4,9-12



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 February 2015 (17.02.2015)

Date of mailing of the international search report

17 February 2015 (17.02.2015)

Name and mailing address of the ISA/KR

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Republic of Korea

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

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

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

2. ☒ Claims Nos.: 8
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claim 8 is not clear under PCT Article 6 because it refers to claim 7, which does not comply with PCT Rule 6.4(a). Therefore, claim 8 does not meet the requirement of PCT Article 6.

3. ☒ Claims Nos.: 5-7, 13-16
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

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

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

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of any additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

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

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/IB2014/065994

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5531325 A	02/07/1996	EP 0630345 A1	28/12/1994
		EP 0630345 B1	16/07/1997
		KR 10-0294945 B1	17/09/2001
		KR 10-1995-0700202 A	16/01/1995
		WO 1993-017933 A1	16/09/1993
US 2002-0179624 A1	05/12/2002	AU 1999-18296 A1	05/07/1999
		AU 2000-20470 A1	26/06/2000
		CA 2310653 A1	24/06/1999
		CA 2310653 C	02/08/2005
		CA 2352857 A1	15/06/2000
		CN 100405491 C	23/07/2008
		CN 1139357 C	25/02/2004
		CN 1174382 C	03/11/2004
		CN 1219730 A	16/06/1999
		CN 1346247 A	24/04/2002
		CN 1555057 A	15/12/2004
		CN 1555057 C	23/07/2008
		CN 1881429 A	20/12/2006
		CN 1901050 A	24/01/2007
		CN 1920969 A	28/02/2007
		EP 0923070 A2	16/06/1999
		EP 0923070 A3	23/08/2000
		EP 0923070 B1	06/11/2002
		EP 1039826 A1	04/10/2000
		EP 1039826 B1	15/06/2005
		EP 1137357 A1	04/10/2001
		EP 1137357 B1	07/06/2006
		JP 11-176100 A	02/07/1999
		JP 2002-508198 A	19/03/2002
		JP 2002-531337 A	24/09/2002
		JP 3814481 B2	30/08/2006
		JP 3983871 B2	26/09/2007
		KR 10-0282387 B1	02/03/2001
		KR 10-0495841 B1	17/06/2005
		KR 10-1999-0062934 A	26/07/1999
		KR 10-2001-0033136 A	25/04/2001
		TW 431880 A	01/05/2001
		US 2002-0179630 A1	05/12/2002
		US 2002-0191509 A1	19/12/2002
		US 2004-0037186 A1	26/02/2004
		US 2005-0122866 A1	09/06/2005
		US 2006-0245319 A1	02/11/2006
		US 2007-0091748 A1	26/04/2007
		US 2008-0037388 A1	14/02/2008
		US 2009-0147641 A1	11/06/2009
		US 6241118 B1	05/06/2001
		US 6419113 B1	16/07/2002
		US 6422416 B1	23/07/2002

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/IB2014/065994

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		US 6459667 B1	01/10/2002
		US 6643235 B2	04/11/2003
		US 6752290 B2	22/06/2004
		US 6830151 B2	14/12/2004
		US 7035183 B2	25/04/2006
		US 7292510 B2	06/11/2007
		US 7508741 B2	24/03/2009
		US 7515512 B2	07/04/2009
		US 7768891 B2	03/08/2010
		WO 1999-030601 A1	24/06/1999
		WO 2000-033713 A1	15/06/2000
US 2004-0124202 A1	01/07/2004	CA 2452242 A1	26/06/2004
		MX PA03011383 A	02/07/2004
EP 0999990 B1	10/09/2003	AR 016560 A1	25/07/2001
		CO 4840530 A1	27/09/1999
		DE 69818062 T2	08/07/2004
		EP 0999990 A1	17/05/2000
		ES 2206973 T3	16/05/2004
		HU 0002414 A2	28/11/2000
		HU 0002414 A3	28/12/2000
		HU 219985 B	28/10/2001
		PL 187305 B1	30/06/2004
		PL 338606 A1	06/11/2000
		SK 1322000 A3	09/04/2001
		TW 407128 A	01/10/2000
		US 6158614 A	12/12/2000
		WO 1999-006311 A2	11/02/1999
		WO 1999-006311 A3	29/04/1999
US 2003-0192903 A1	16/10/2003	AU 2002-27090 A1	11/06/2002
		BR 0115508 A	16/09/2003
		BR 0115508 B1	16/11/2010
		CA 2427469 A1	06/06/2002
		CA 2427469 C	15/07/2008
		DE 60126818 T2	15/11/2007
		EP 1345521 A1	24/09/2003
		EP 1345521 B1	21/02/2007
		ES 2277961 T3	01/08/2007
		KR 10-0781024 B1	29/11/2007
		KR 10-2003-0053536 A	28/06/2003
		MX PA03004306 A	19/08/2003
		US 2002-0063136 A1	30/05/2002
		US 6588626 B2	08/07/2003
		US 6736287 B2	18/05/2004
		WO 2002-043547 A1	06/06/2002