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(54) **TOWELETTE DISPENSER**

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(57) **ABSTRACT**

A towelette dispenser is provided with a lid. The lid has a central aperture for allowing access to a roll of towelettes maintained within a tub receiving the lid therein. The lid includes an inwardly tapered annular surface extending towards the tub. A gap segment is configured in the annular surface to define an entrance. The gap segment travels through the surface structure to a capturing element configured to exert a force on a towelette to permit separation of one towelette from supply of interconnected towelettes. The gap segment is further configured to travel upwardly along the surface structure in a direction away from the entrance towards the capturing element, such that the capturing element is offset and upwardly positioned along the surface structure from the entrance.

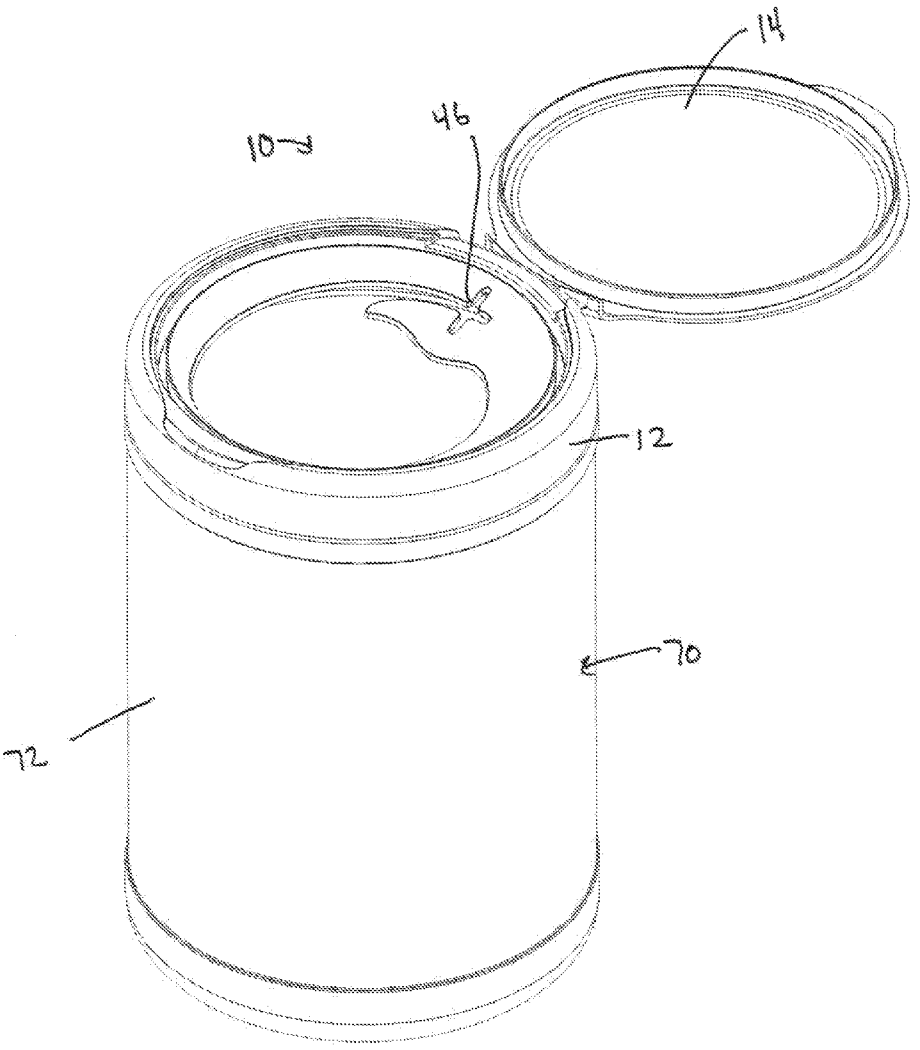


Figure 1

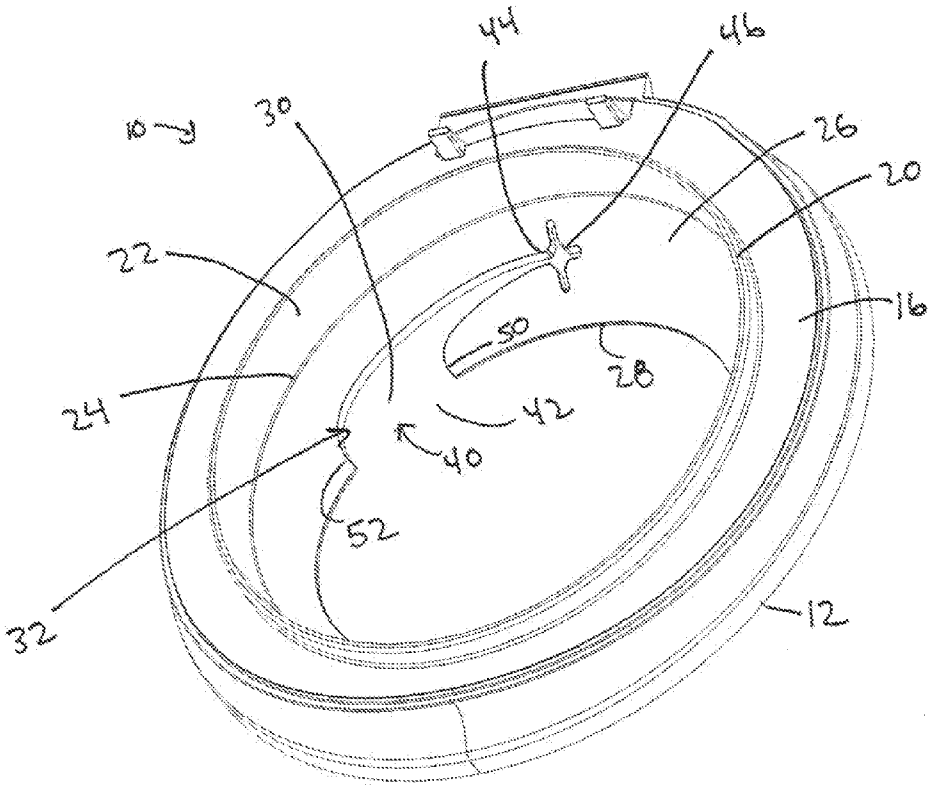


Figure 2

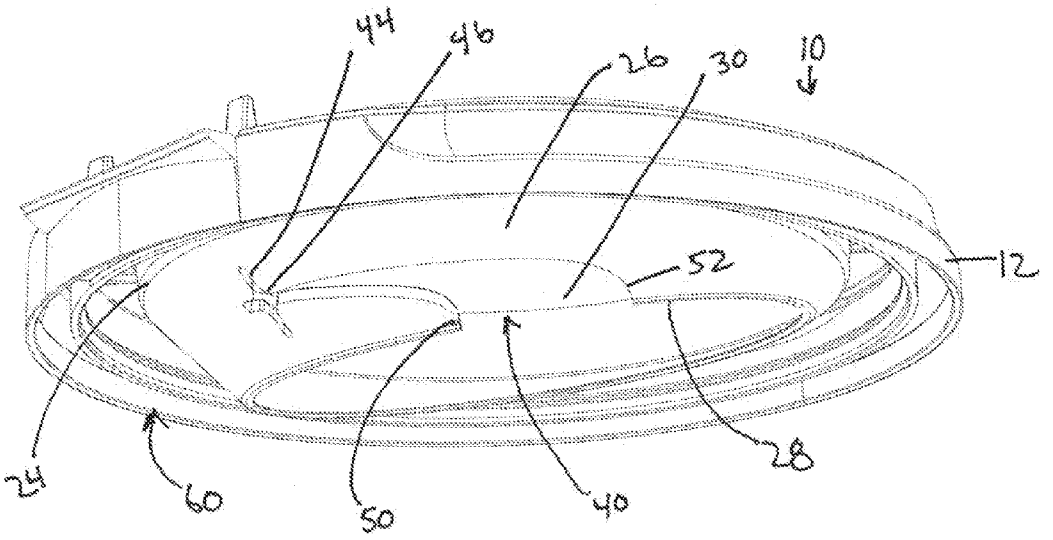
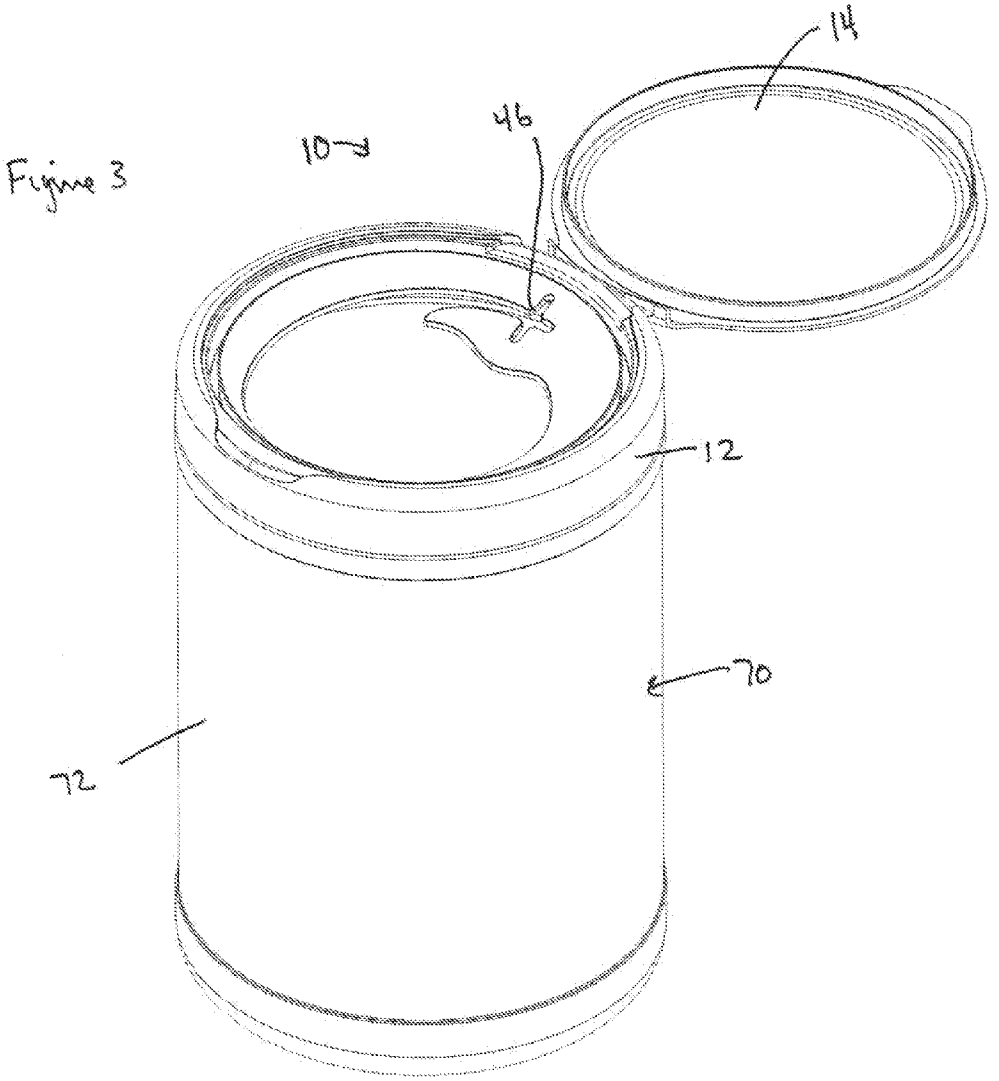


Figure 3



TOWELETTE DISPENSER

TECHNICAL FIELD

[0001] The invention herein resides in the art of dispensing devices and, more particularly, to devices adapted for maintaining and allowing for the separate dispensing of interconnected towelettes or "wipes." Specifically, the invention relates to a novel integrally configured dispensing lid that allows for ease of threading the leading towelette into the separating mechanism.

[0002] It has become increasingly popular to employ towelettes or "wipes". Typically, a towelette or wipe is a fibrous piece of material that is impregnated or saturated with a cleanser or treatment, such as disinfectant, detergent, solvent, wax or polish.

[0003] While such towelettes have previously been maintained in containers in a fan fold arrangement, where the towelettes are separate and independent of each other, the most common and utilitarian type presently employed finds the towelettes forming a continuous web and being separable from each other by means of perforations or the like. Typically, the towelettes are maintained upon a continuous roll. In such arrangements, the tub or container maintaining the towelettes has generally been provided with a lid. Several problems have characterized the prior art devices. Most formidable is the mechanism by which the leading edge of the first towelette is threaded into the rip fence, such that the remainder of the web may be progressively pulled therethrough and the towelettes individually separated. Prior devices have typically required removal of the lid from the tub or container of towelettes, the threading of the leading towelette through the rip fence, and the replacement of the lid upon the tub. Such a process has typically been found to be complex and given to error and frustration by the user. Moreover, the prior art towelette dispensers have not been given to a simplicity in design that provides a mechanism that ensures that the leading edge of the next towelette to be dispensed is stuffed within the container or tub and not in the way of the lid or cap when it is to be closed and sealed.

SUMMARY OF THE INVENTION

[0004] In one embodiment of the present invention there is provided a towelette dispenser having a tub with an open end and receiving and maintaining a bulk supply of interconnected towelettes, separable from each other by perforations. The dispenser having a lid received by the tub over the open end. The lid further configured to include a base portion having a top annular planar surface with a central aperture. The top annular planar surface includes an interior edge abutting the central aperture and an interior skirt extends from the interior edge downwardly toward the tub. The interior skirt having a terminal edge from which an inwardly tapered annular surface structure extends therefrom. The surface structure includes a free lower edge. The surface structure further including a mechanism configured to receive a towelette from the supply of interconnected towelettes and configured to permit the towelette to separate from the supply of interconnected towelettes while being further configure to capture the subsequent towelette. The mechanism is further defined by having a gap segment configured to start at the free lower edge to create first and second gap edges defined in the surface structure defining an entrance to the mechanism, and the gap segment further traveling through the surface structure to a capturing station. The gap segment is further configured to travel upwardly along the surface structure in a direction away from the entrance towards the capturing station in a narrowing configuration. As such the capturing station is offset and upwardly positioned along the surface structure from the entrance to the gap segment.

[0005] In other aspects, the surface structure tapers inwardly and downwardly towards the tub. The first and second gap edges may also curve away from the entrance to the capturing station. In addition, the capturing station may be formed into a cross shaped element with one end of the cross shaped element being configured from the narrowest portion of the gap segment.

[0006] In yet another embodiment of the present invention there is provided a towelette dispenser having a tub with an open end and receiving and maintaining a bulk supply of interconnected towelettes, separable from each other by perforations and having a lid received by the tub over the open end. The lid further comprising a base portion having a top annular planar surface with a central aperture, the top annular planar surface includes an interior edge abutting the central aperture. An interior skirt extends from the interior edge downwardly toward the tub with the interior skirt having a terminal edge. An inwardly tapered annular surface structure extends from the terminal edge of the interior skirt and includes a free lower edge. The surface structure has a gap segment configured to start at the free lower edge to create first and second gap edges defined in the surface structure to define an entrance. The gap segment further traveling through the surface structure to a capturing element configured to exert a force on a towelette to permit separation of one towelette from supply of interconnected towelettes. Wherein the gap segment is further configured to travel upwardly along the surface structure in a direction away from the entrance towards the capturing element, and wherein the capturing element is offset and upwardly positioned along the surface structure from the entrance to the gap segment, whereby the entrance to the gap segment is thus configured to receive a towelette from the supply of interconnected towelettes, and further configured to permit the towelette to travel around the gap segment until being captured at the capturing element wherein the capturing element permits separation of one towelette from supply of interconnected towelettes.

BRIEF DESCRIPTION OF THE FIGURES

[0007] For a complete understanding of the various aspects, structures and processes of the invention, reference should be made to the following detailed description and accompanying drawing wherein:

[0008] FIG. **1** is a perspective view of a dispensing lid made in accordance with the invention;

[0009] FIG. **2** is a bottom perspective view of the lid of FIG. **1**; and

[0010] FIG. **3** is a perspective view of another embodiment of a lid made in accordance with the invention attached to a tub holding towelettes.

DETAILED DESCRIPTION OF THE INVENTION

[0011] Referring now to the drawings, it can be seen that a dispensing lid made in accordance with the invention is designated generally by the numeral **10**. As will be appreciated herein, a benefit of the dispensing lid **10** is the fact that it can

be molded as a single piece of a suitable plastic or elastomeric material. The dispensing lid **10** includes a base portion **12** and a cap portion **14**.

[0012] The base portion **12** is characterized by a top annular planar surface **16** having a central aperture **18** therein. The top annular planar surface **16** includes an interior edge **20** abutting the central aperture **18**. An interior skirt **22** extends from the interior edge **20** downwardly toward a container that would be secured to the lid **10**. The interior skirt **22** includes a terminal edge **24** connected to an inwardly tapered surface structure **26**. The surface structure **26** tapers inwardly and downwardly towards the container. The surface structure **26** includes a free lower edge **28**. A portion **30** of the surface structure **26** is carved or removed to create a mechanism **32** to allow a user to feed a towelette into the mechanism **32** and then capture the towelettes for future easy dispensing.

[0013] The mechanism **32** is best defined by providing a gap segment **40** that starts at the free lower edge **28**. The gap segment **40** creates first **50** and second **52** gap edges defined in the surface structure **26** at the entrance **42** of the gap segment **40** and ending at a capturing station **44**. The gap section is configured to travel upwardly along the surface structure **26** and in a direction away from the entrance **42**. To aid in feeding the towelettes the first and second gap edges curve away from the entrance to the capturing station. In addition the gap segment **40** narrows from its largest distance at the entrance **42** to its smallest distance about the capturing station **44**. As such, the capturing station **44** is offset and upwardly along the surface structure **26** from the entrance **42** to the gap segment **40**. Lastly, the capturing station **44** is formed into a cross shaped element **46** with one end of the cross being feed from the narrowest portion of the gap segment **40**. It is however, contemplated that the capturing station **44** can have other shapes such as a star shape, circular shape with inward edges to help capture the towelette and allow the towelette to be easily separated at its perforations.

[0014] The lid **10** includes an underside **60** that may incorporate various structures to aid the lid in being connected to the container neck. Ideally when connected the lid and container should form a tight seal to help maintain and keep the towelettes moist.

[0015] As shown in FIG. **3**, a wipe or towelette dispenser employing the lid **19** is designated generally by the numeral **70**. A tub or bucket **72** receives the cap **10** and is filled with a plurality of towelettes typically maintained in a roll. According to the concept of the invention, the aperture **18** is sized sufficiently for the user's hand to reach the lead towelette in the bulk of towelettes maintained therein. When maintained in the roll, the lead towelette comes from the center of the roll. The leading edge of this first to be dispensed towelette may then be threaded about the gap segment and configured into placement with the cross shaped element **46** which is sized to provide a grip on the towelettes being dispensed, with the grip being sufficient that as the lead towel is pulled through the capturing station, the drag on the towelette is greater than the force required for separation at the perforations connecting the towelettes. In use, as the area of perforation is passed through the cross shaped element **46**, the perforations begin to separate as the leading edge of the next towel emerges from cross shaped element **46**, such that total separation of the first towelette is achieved when the leading edge of the subsequent towelette has passed through cross shaped element **46**. Accordingly, the leading edge of the next-to-be-dispensed towelette is exposed for ready access by the user.

[0016] Various features of the embodiments provide for an open area of a conic feature provides unobstructed access to the end of the towelette in an unused state prior to threading into aperture or gap segment. The aperture or gap segment lead-in design facilitates intuitive and convenient threading of the towelette end against the fixed outer wall of the conic structure or surface structure into the capturing station. In addition, the conic or surface structure provides headspace or a compartment for portion of the towelette remaining in the capturing station after use to rest, eliminating the need for reorientation of the towelette by the user and to avoid interference between the closure and towel when closing lid. Furthermore, the orientation of the capturing station at substantially an alignment with the cap with a side feed or offset entrance to the gap segment promotes a natural motion of pulling the towelette from the package towards the user.

[0017] It can be seen that the various aspects of the invention have been satisfied by the structure presented and described herein. While in accordance with the patent statutes only the best known and preferred embodiment of the invention has been presented and described in detail, the invention is not limited thereto or thereby, but is defined by the following claims.

I claim:

1. A towelette dispenser having a tub with an open end and receiving and maintaining a bulk supply of interconnected towelettes, separable from each other by perforations and having a lid received by said tub over said open end, said lid further comprising:

a base portion having a top annular planar surface with a central aperture, the top annular planar surface includes an interior edge abutting the central aperture,

an interior skirt extends from the interior edge downwardly toward the tub, the interior skirt having a terminal edge, and

an inwardly tapered annular surface structure extending from the terminal edge of the interior skirt, wherein the surface structure includes a free lower edge, the surface structure having a mechanism configured to receive a towelette from the supply of interconnected towelettes and configured to permit said towelette to separate from the supply of interconnected towelettes while being further configure to capture the subsequent towelette,

said mechanism is further defined being having:

a gap segment configured to start at the free lower edge to create first and second gap edges defined in the surface structure defining an entrance to the mechanism, the gap segment further traveling through the surface structure to a capturing station, and

wherein the gap segment is further configured to travel upwardly along the surface structure in a direction away from the entrance towards the capturing station in a narrowing configuration, and wherein the capturing station is offset and upwardly positioned along the surface structure from the entrance to the gap segment.

2. The towelette dispenser of claim **1**, wherein the surface structure tapers inwardly and downwardly towards the tub.

3. The towelette dispenser of claim **1**, wherein the first and second gap edges curve away from the entrance to the capturing station

4. The towelette dispenser of claim **1**, wherein the capturing station is formed into a cross shaped element with one end

of the cross shaped element being configured from the narrowest portion of the gap segment.

5. A towelette dispenser having a tub with an open end and receiving and maintaining a bulk supply of interconnected towelettes, separable from each other by perforations and having a lid received by said tub over said open end, said lid further comprising:

a base portion having a top annular planar surface with a central aperture, the top annular planar surface includes an interior edge abutting the central aperture,

an interior skirt extends from the interior edge downwardly toward the tub, the interior skirt having a terminal edge, and

an inwardly tapered annular surface structure extending from the terminal edge of the interior skirt, wherein the surface structure includes a free lower edge, the surface structure having:

a gap segment configured to start at the free lower edge to create first and second gap edges defined in the surface structure defining an entrance, and the gap segment further traveling through the surface structure to a capturing element configured to exert a force on a towelette to permit separation of one towelette from supply of interconnected towelettes, and

wherein the gap segment is further configured to travel upwardly along the surface structure in a direction away from the entrance towards the capturing element, and wherein the capturing element is offset and upwardly positioned along the surface structure from the entrance to the gap segment, whereby the entrance to the gap segment is thus configured to receive a towelette from the supply of interconnected towelettes, further permitting said towelette to travel around the gap segment until being captured at the capturing element wherein the capturing element permits separation of one towelette from supply of interconnected towelettes.

6. The towelette dispenser of claim **5**, wherein the surface structure tapers inwardly and downwardly towards the tub.

7. The towelette dispenser of claim **5**, wherein the first and second gap edges curve away from the entrance to the capturing element such that the gap segment narrows from the entrance to the capturing element

8. The towelette dispenser of claim **5**, wherein the capturing element is formed into a cross shaped element with one end of the cross shaped element being configured from the gap segment.

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