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(54) VENTILATED TOOTHBRUSH HOLDER

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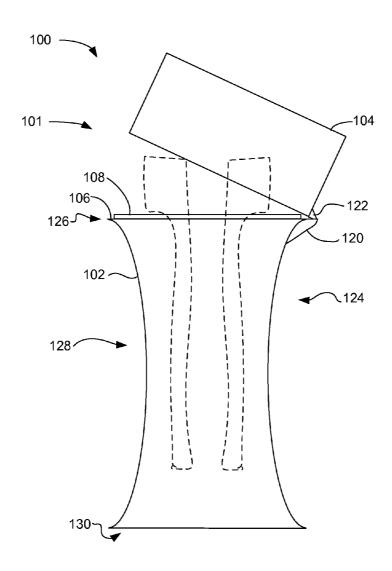
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(57) ABSTRACT

A ventilated toothbrush holder having filtered ventilation is provided. The toothbrush holder has a container, or first web, and a re-closable cover, or second web flexibly coupled to the first web. In a first embodiment, the second web has an opening that is covered by a fine-mesh polymeric filter that resists the entry of water and other liquids but allows the flow of air. In a second embodiment, the first web also has an opening covered by the same type of filter to enhance air flow into the first web and out of the second web. An exemplary shape is claimed, but other embodiments are not limited as to shape. An insert for supporting toothbrushes, adapted in shape to the first web, is disclosed.



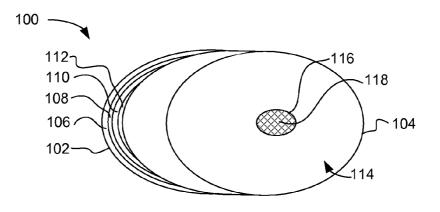
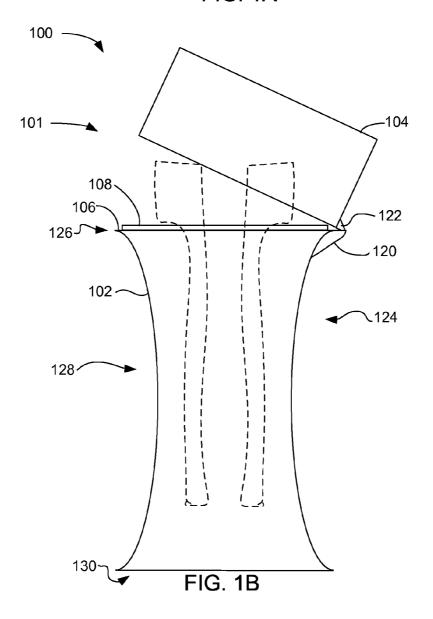


FIG. 1A



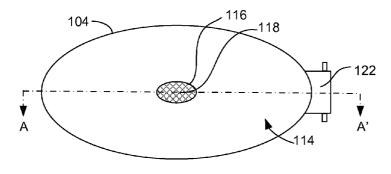
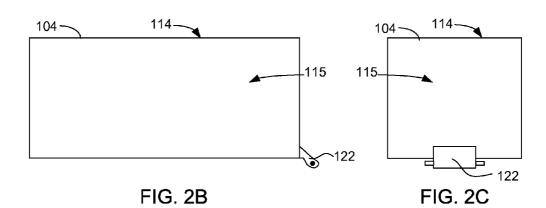


FIG. 2A



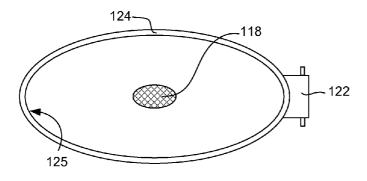
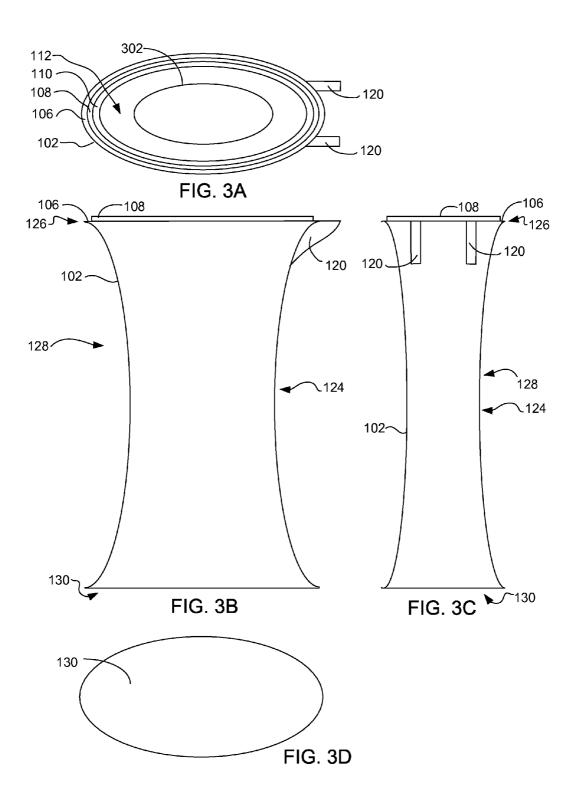


FIG. 2D



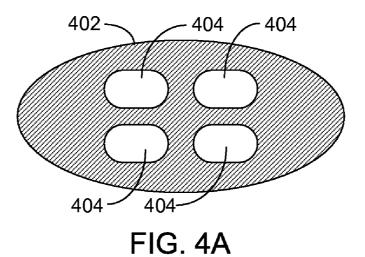




FIG. 4B

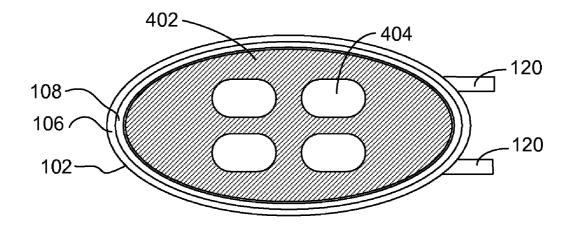
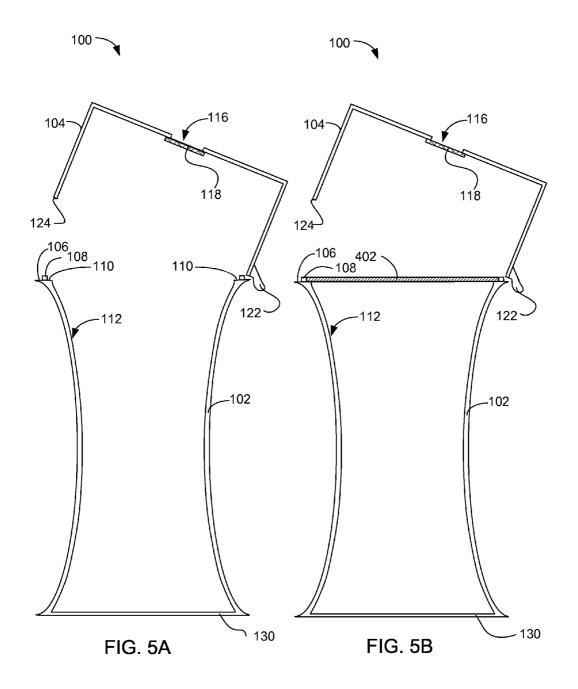
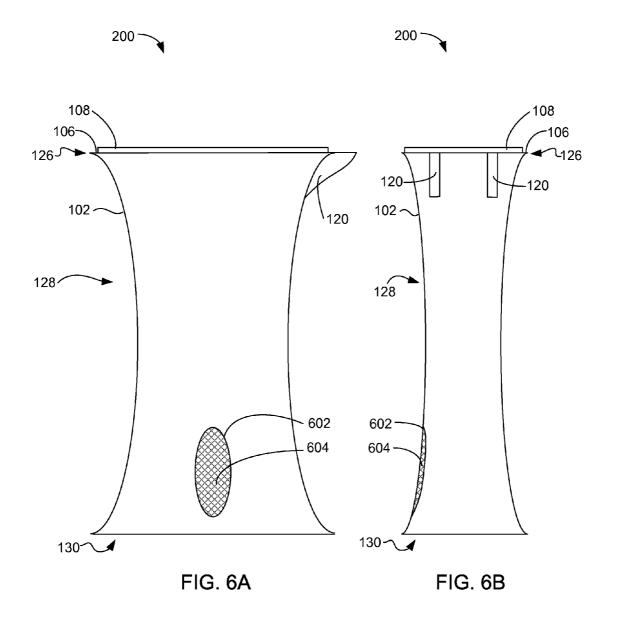
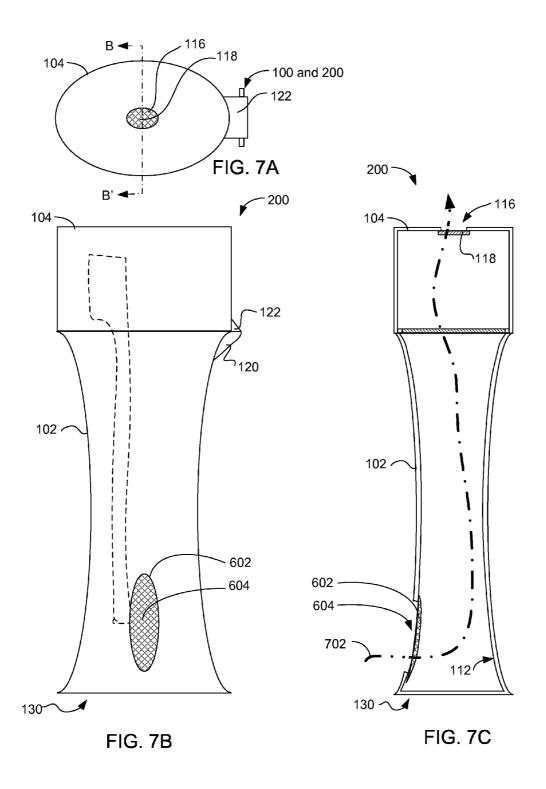
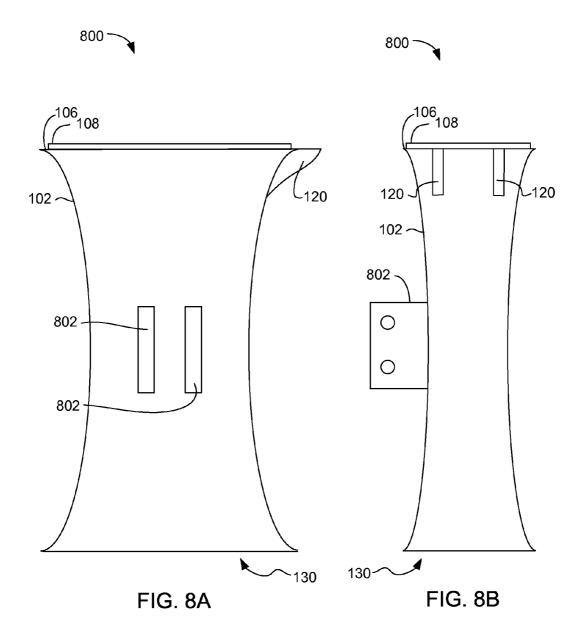


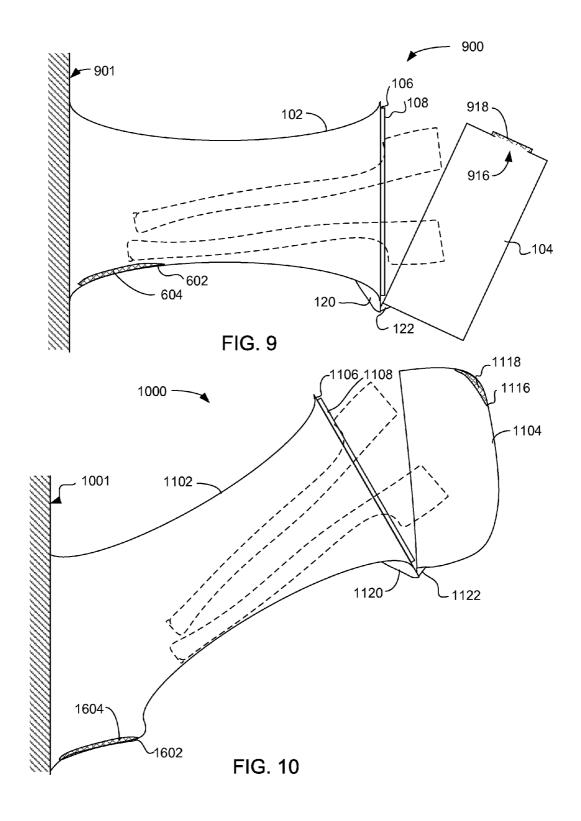
FIG. 4C











VENTILATED TOOTHBRUSH HOLDER

FIELD OF THE INVENTION

[0001] The invention relates to covered toothbrush holders and more specifically to covered toothbrush holders with ventilation. Most specifically, the invention relates to covered, ventilated, toothbrush holders with filters in the ventilation openings.

BACKGROUND OF THE INVENTION

[0002] The problem of how to keep toothbrushes both easily accessible and isolated from environmental contamination when not in use continues to challenge inventors. Sources of contamination include dust, germs, insects, pests, and splashed liquids. Because toothbrushes are normally kept near a sink, the possibility exists for contamination from dirty water splashed by people washing their hands, other people spitting while brushing their teeth, and from all the other uses which call for the use of a sink.

[0003] Many attempts have been made to find the best balance between accessibility and sanitation. U.S. Design Pat. D495137 was issued to Lee on Aug. 31, 2004. Lee illustrates a covered toothbrush holder, apparently for travel use. Lee's toothbrush holder has a slot in the side that could admit liquids and other contaminants. U.S. Design Pat. D413033 was issued to Harris on Aug. 24, 1999. Harris illustrates a covered toothbrush holder, with one embodiment having a central column that appears to be a toothpaste tube holder with holes in the bottom, perhaps for drainage, and one embodiment without the central column. Harris' toothbrush holder can admit contaminants through the holes used to receive toothbrushes or the drainage holes in the central column. U.S. Pat. No. 5,725,091 was issued to Knoebel on Mar. 10, 1998 for a vacuum toothbrush holder that has a cover that prevents ventilation in order to maintain a vacuum seal. Knoebel shows good contamination resistance but requires a vacuum pump that requires electrical power to operate. U.S. Pat. No. 5,630,505 was issued to Garcia on May 20, 1997 for a ventilated cover for a toothbrush holder designed to prevent pests, insects, and other large contaminants from accessing the bristles of the toothbrush. U.S. Pat. No. 5,566,823 was issued to Summers on Oct. 22, 1996 for a covered toothbrush holder that suspends the bristles of the toothbrush in a sanitizing liquid, such as mouthwash. U.S. Design Pat. D296728 was issued to Nielsen on Jul. 19, 1988, illustrating a covered toothbrush holder (actually, a case) for a single toothbrush. U.S. Design Pat. D295234 was issued to Luhrsen, et al. on Apr. 19, 1988 disclosing a covered toothbrush holder with holes in the sides of the cover that could admit contaminants. U.S. Design Pat. D415917 was issued to Salazar, et al. on Nov. 2, 1999. Salazar illustrates a fluted cylinder with a hole in the side, nearer the bottom than the top. Salazar does not illustrate a cover, and offers no protection form environmental contamination.

[0004] Accordingly, the present inventor has recognized a need for a covered and ventilated toothbrush holder that prevents the entry of liquids, germs, and dust, while providing adequate ventilation to allow the bristles to dry. To meet this need, and to solve related problems, the present inventor brings to commerce the present invention.

OBJECTS AND FEATURES OF THE INVENTION

[0005] The primary object of this invention is providing a toothbrush older that is covered, ventilated, and resistant to

small contaminants as well as large ones. A further object of this invention is to provide such a toothbrush holder that does not require electrically powered machinery to operate. Another object of the present invention is to provide a toothbrush holder that may be supported on an environmental surface such as a counter top, wall, or underside of a cabinet. Yet another object of the present invention is to provide a toothbrush holder that has filtered ventilation, using modern filter materials. Another object of the invention is to provide a toothbrush holder that is resistant to the entry of splashed liquids. Yet another object of the present invention is to provide a toothbrush holder that is simple and economical to manufacture and to use. Finally, it is an object of this invention to provide a toothbrush holder that is handy, economical, and safe.

SUMMARY OF THE INVENTION

[0006] The invention provides a toothbrush holder that includes the combination of a first web sized, shaped, and arranged to be supportable on an environmental surface in a toothbrush-receiving orientation; and a second web, flexibly coupled to the first web and operable to releasably close the toothbrush holder, the second web comprising a first opening; and a first filter covering the first opening, the first filter operable to allow the passage of air and to resist the passage of liquids.

[0007] The invention further includes a toothbrush holder wherein the first web includes a cylindrical shell of varying oval cross-section, having a top, a middle, and a bottom, the oval cross section being smaller in the middle and wider at the top and at the bottom, the bottom being at least partially closed by a portion of the first web.

[0008] The invention further includes a toothbrush holder wherein the cylindrical shell has an arcuate side profile.

[0009] The invention still further includes a toothbrush holder wherein the second web has a top portion; and the first opening in the second web includes a first opening in the top portion of the second web.

[0010] The invention may further include a toothbrush holder wherein the second web includes a second web surface area; the first opening includes a first opening area; and the first opening area includes less than five percent of the second web surface area.

[0011] The invention may further include a toothbrush holder wherein the first web includes a bottom; a second opening proximate the bottom; a second filter covering the second opening proximate the bottom, the second filter operable to allow the passage of air and to resist the passage of liquids; and wherein the second opening proximate the bottom and the first opening in the second web enables air flow into the second opening proximate the bottom, through the first web, and out of the first opening in the second web.

[0012] The invention may further include a toothbrush holder wherein the first web includes at least one extension sized, shaped, and arranged to support at least a portion of a flexible coupling for the flexibly coupled second web: and the second web includes at least one adaptation sized, shaped, and arranged to support at least a portion of a flexible coupling for the flexibly coupled first web.

[0013] The invention may further include a toothbrush holder wherein the first web includes: a top; and at least one flange, interior to the first web proximate the top, the at least one flange operable to support a removable insert, the remov-

able insert sized, shaped, and arranged to support toothbrushes when such toothbrushes are within the toothbrush holder.

[0014] The invention may further include a toothbrush holder wherein the first web includes a top; the second web includes an edge; the first web further includes at least one outer flange proximate the top, the at least one flange operable to abut the edge of the second web when the second web is in a closed position.

[0015] The invention may further include a toothbrush holder wherein at least one of the first web and the second web is at least partially transparent.

[0016] The invention may further include a toothbrush holder wherein the first filter is washable.

[0017] The invention provides another embodiment of a toothbrush holder that includes the combination of a re-closable container comprising: a first web sized, shaped, and arranged to be supportable on an environmental surface in a toothbrush-receiving orientation; a second web, flexibly coupled to the first web and operable to releasably close the re-closable container, the second web comprising: a first opening; and a first filter covering the first opening, the filter operable to allow the passage of air and to resist the passage of liquids; and a removable insert, operable to be removably inserted into the container, the insert sized and shaped to support at least one toothbrush in the container when the insert is in the container.

[0018] The invention may further include a toothbrush holder wherein the first web includes: a top; and at least one flange, interior to the first web proximate the top, the at least one flange operable to support the removable insert.

[0019] The invention may further include a toothbrush holder wherein the first web includes at least one extension to support at least a portion of a flexible coupling for the flexibly coupled second web.

[0020] The invention may further include a toothbrush holder wherein the first web includes: a bottom; a second opening proximate the bottom; a second filter covering the second opening proximate the bottom, the second filter operable to allow the passage of air and to resist the passage of liquids; and wherein the second opening proximate the bottom and the first opening in the second web enables air flow into the second opening proximate the bottom, through the first web, and out of the first opening in the second web.

[0021] The invention may further include a toothbrush holder wherein the first web includes a cylindrical shell of varying oval cross-section, having a top, a middle, and a bottom, the oval cross section being smaller in the middle and wider at the top and at the bottom, the bottom being at least partially closed by a portion of the first web, the cylindrical shell having an arcuate side profile.

[0022] The invention may further include a toothbrush holder wherein the second web has a top portion and the first opening in the second web includes a first opening in the top portion of the second web.

[0023] The invention may further include a toothbrush holder wherein the second web includes a surface area; the first opening includes a first opening area; and the first opening area includes less than five percent of the surface area.

[0024] The invention provides yet another embodiment of a toothbrush holder that includes a combination of a re-closable container comprising: a first web, sized, shaped, and arranged to be supportable on an environmental surface in a receiving orientation, the first web comprising: a top; a middle; a bot-

tom at least partially closed by a portion of the first web; a cylindrical shell of varying cross-section, the cross section being smaller in the middle and wider at the top and at the bottom; a second web, flexibly coupled to the first web and operable to releasably close the re-closable container, the second web comprising: a top portion; a second web surface having a second web surface area; an edge; a first opening in the top portion of the second web having a first opening area less than five percent of the second web surface area; a first filter covering the first opening, the filter operable to allow the passage of air and to resist the passage of liquids; wherein the first web further includes: at least one extension sized, shaped, and arranged to support at least a portion of a flexible coupling for the flexibly coupled second web; at least one outer flange proximate the top, the at least one outer flange operable to abut the edge of the second web when the second web is in a closed position; and a removable insert, operable to be removably inserted into the re-closable container, the insert sized and shaped to support at least one toothbrush in the re-closable container when the insert is in the re-closable container; and wherein the first web further includes at least one interior flange, interior to the first web proximate the top, the at least one interior flange operable to support the removable insert.

[0025] The invention may further include a toothbrush holder wherein the first web includes: a second opening proximate the bottom; a second filter covering the second opening proximate the bottom, the second filter operable to allow the passage of air and to resist the passage of liquids; and wherein the second opening proximate the bottom and the first opening in the second web enable air flow into the second opening proximate the bottom, through the first web, and out of the first opening in the second web.

BRIEF DESCRIPTION OF THE DRAWINGS

[0026] The above and other objects and advantages of the present invention will become more apparent from the following description taken in conjunction with the following drawings in which:

[0027] FIG. 1A is a top plan view illustrating a first exemplary embodiment of the first and second webs of the ventilated toothbrush holder in a partially open state, according to a preferred embodiment of the present invention;

[0028] FIG. 1B is a side elevation view illustrating a first exemplary embodiment of the first and second webs of the ventilated toothbrush holder of FIG. 1A, according to a preferred embodiment of the present invention;

[0029] FIG. 2A is a top plan view illustrating a first exemplary embodiment of the second web of the ventilated toothbrush holder of FIG. 1, showing cross-section indicator A-A' according to a preferred embodiment of the present invention;

[0030] FIG. 2B is a side elevation view illustrating a first exemplary embodiment of the second web of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0031] FIG. 2C is a rear elevation view illustrating a first exemplary embodiment of the second web of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0032] FIG. 2D is an underside plan view illustrating a first exemplary embodiment of the second web of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0033] FIG. 3A is a top plan view illustrating a first exemplary embodiment of the first web of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0034] FIG. 3B is a side elevation view illustrating a first exemplary embodiment of the first web of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0035] FIG. 3C is a rear elevation view illustrating a first exemplary embodiment of the first web of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0036] FIG. 3D is an underside plan view illustrating a first exemplary embodiment of the first web of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0037] FIG. 4A is a top plan view illustrating a first exemplary embodiment of the insert for the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0038] FIG. 4B is a side elevation view illustrating a first exemplary embodiment of the insert for the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0039] FIG. 4C is a top plan view illustrating a first exemplary embodiment of the first web with the insert for the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention;

[0040] FIG. 5A is a cross-sectional view through section A-A' illustrating a first exemplary embodiment of the first and second webs of the ventilated toothbrush holder of FIG. 1, according to a preferred embodiment of the present invention; [0041] FIG. 5B is a cross-sectional view through section A-A' illustrating a first exemplary embodiment of the first and second webs of the ventilated toothbrush holder of FIG. 1 with the insert installed, according to a preferred embodiment of the present invention;

[0042] FIG. 6A is a side elevation view illustrating a second exemplary embodiment of the first web of the ventilated toothbrush holder, according to a preferred embodiment of the present invention;

[0043] FIG. 6B is a rear elevation view illustrating a second exemplary embodiment of the first web of the ventilated toothbrush holder of FIG. 6A, according to a preferred embodiment of the present invention;

[0044] FIG. 7A is a top plan view illustrating a second exemplary embodiment of the second web of the ventilated toothbrush holder of FIG. 6A, and defining cross-sectional plane B-B', according to a preferred embodiment of the present invention;

[0045] FIG. 7B is a side elevation view illustrating a second exemplary embodiment of the first and second webs of the ventilated toothbrush holder of FIG. 6A, according to a preferred embodiment of the present invention;

[0046] FIG. 7C is a cross-sectional view through plane B-B' as defined in FIG. 7A, illustrating a second exemplary embodiment of the first and second webs of the ventilated toothbrush holder of FIG. 6A, according to a preferred embodiment of the present invention;

[0047] FIG. 8A is a side elevation view illustrating a third exemplary embodiment of the first web of a ventilated toothbrush holder, according to a preferred embodiment of the present invention;

[0048] FIG. 8B is a rear elevation view illustrating a third exemplary embodiment of the first web of the ventilated toothbrush holder of FIG. 8A, according to a preferred embodiment of the present invention;

[0049] FIG. 9 is a side elevation view illustrating a fourth exemplary embodiment of the first and second webs of a ventilated toothbrush holder, according to a preferred embodiment of the present invention; and

[0050] FIG. 10 is a side elevation view illustrating a fifth exemplary embodiment of the first and second webs of a ventilated toothbrush holder, according to a preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE DRAWINGS AND THE PREFERRED EMBODIMENTS

[0051] FIG. 1A is a top plan view illustrating a first exemplary embodiment of the first and second webs 102 and 104 of the ventilated toothbrush holder 100 in a partially open state, according to a preferred embodiment of the present invention. Second web 104 is illustrated as a right elliptical (or oval) cylinder with a closed top portion 114, but the invention is not so limited. Second web 104 serves the function of a cover, or lid, and any shape adequate to that purpose will suffice for second web 104. Second web 104 has a top portion 114 that, in the illustration, is flat. Top portion 114 has a first opening 116 that preferably takes up less than five percent of the surface area of second web 104. In various alternate embodiments, the first opening 116 may be located in various other positions on second web 104.

[0052] A filter 118 that allows the passage of air but that resists the passage of liquids covers first opening 116. Filter 118 also resists the passage of dust, bacteria, and viruses. In the illustrated embodiment, filter 118 is located interior to second web 104. In various alternate embodiments, filter 118 may be installed on the exterior of second web 104 or in the first opening 116. Filter 118 is preferably a fine mesh polymeric material that is preferably washable, and more preferably machine washable. The term "resists the passage of liquids" as defined and used herein, means a substantial resistance, able to prevent the passage of liquids that are subject to the normal forces which propel liquids away from a sink in a bathroom environment, such as splashing, dripping, spitting, and the like.

[0053] Second web 104 is flexibly coupled to first web 102 (See FIG. 1B) and operable to releasably close said toothbrush holder. A portion of first web 102 is visible in the illustration of FIG. 1A. First web 102 has an outer flange 106, a ridge 108, an interior flange 110, and an interior surface 112. First web 102 has a varying oval cross-section, but other shapes, even irregular shapes, are within the scope of the present invention.

[0054] FIG. 1B is a side elevation view illustrating a first exemplary embodiment of the first and second webs 102 and 104 of the ventilated toothbrush holder 100 of FIG. 1A, according to a preferred embodiment of the present invention. First web 102 is sized, shaped, and arranged to be supportable on an environmental surface in a toothbrush-receiving orientation. First web 102 has a top 126, middle 128, bottom 130, and an arcuate side profile 124. First web 102 includes a cylindrical shell of varying oval cross-section, where the oval cross section is smaller in the middle 128 and wider at the top 126 and at the bottom 130. Bottom 130 is at least partially closed by a portion of the first web 102. The bottom 130 is supportable by an environmental surface such as a counter-

top. Bottom 130 may include additional features, such as frictional pads, legs, or the like, to contribute to support on an environmental surface.

[0055] The arcuate side profile 124 is a feature of the present embodiment, but is not required for all embodiments. Similarly, in alternate embodiments with exotic shapes, defining a top 126, middle 128, and bottom 130 may be made challenging by the presence of more than one of each.

[0056] Extension 120 of first web 102 is a first portion of a flexible coupling for flexibly coupling second web 104 to first web 102. Extension 120 sized, shaped, and arranged to support at least a portion of a flexible coupling for the flexibly coupled second web 104. Extension 120 is preferably formed with web 102. Second web 104 has adaptation 122 sized, shaped, and arranged to support at least a portion of a flexible coupling for the flexibly coupled first web 102. Adaptation 122 serves as a second portion of a flexible coupling for flexibly coupling second web 104 to first web 102. For example, and without limitation, extension 120 and adaptation 122 may be portions of a hinge. Second web 104, first web 102, and the flexible coupling formed by extensions 120 and adaptation 122 form a re-closable container. Those of skill in the art, illuminated by this disclosure, will be aware of the wide variety of flexible couplings that may be used with the present invention. The toothbrushes, shown in dashed lines, are not part of the invention.

[0057] FIG. 2A is a top plan view illustrating a first exemplary embodiment of the second web 104 of the ventilated toothbrush holder 100 of FIG. 1, showing cross-section indicator A-A' according to a preferred embodiment of the present invention. Adaptation 122 is shown as a protrusion supporting hinge pins, such as spring-loaded hinge pins, adapted to fitting into complementary holes in extensions 120. First opening 116 is shown having a shape corresponding to the shape of top portion 114 of second web 104. In various alternate embodiments, other shapes for first opening 116 may be used, including irregular shapes. Filter 118 may be shaped to follow the shape of first opening 116, or may be a regular geometric patch that can cover any one of various shapes. Filter 118 may be attached with an adhesive, which, in an alternate embodiment, may be a releasable adhesive. Preferably, filter 118 is washable, allowing reuse of the filter 118 and simplifying the washing of the entire toothbrush older 100. Second web 104 may be decorated. Second web 104 is preferably transparent. In a particular alternate embodiment, the second web is transparent to at least ultraviolet wavelengths.

[0058] FIG. 2B is a side elevation view illustrating a first exemplary embodiment of the second web 104 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. A side view of adaptation 122 is shown. Adaptation 122 is sized, shaped, and arranged to support at least a portion of a flexible coupling for the flexibly coupled first web 102. Side surface 115 of second web 104 is a right elliptical (oval) cylinder closed by top portion 114. The shape of the side elevation of second web 104 may be varied within the constraint of providing room for toothbrushes inside.

[0059] FIG. 2C is a rear elevation view illustrating a first exemplary embodiment of the second web 104 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. FIG. 2C is

included to provide a complete set of views for enablement. Reference numbers used in FIG. 2C refer to the same items already described.

[0060] FIG. 2D is an underside plan view illustrating a first exemplary embodiment of the second web 104 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. Filter 118 is shown larger than first opening 116 in FIG. 2A, indicating that Filter 118 is adhered to the underside of top portion 114. Second web 104 has an edge 124 on its perimeter. First web includes at least one outer flange 106 proximate to the top 126 of first web 102, and the at least one outer flange 106 is operable to abut edge 124 of the second web 104 when the second web 104 is in a closed position. A small portion of interior second web surface 125 abuts the radially outer edge of ridge 108 when the second web 104 is in the closed position.

[0061] FIG. 3A is a top plan view illustrating a first exemplary embodiment of the first web 102 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. First web 102 has outer flange 106, ridge 108, inner flange 110, interior surface 112, extension 120, and an interior narrow neck 302. Outer flange 106 is preferably entire, as it abuts edge 124 of second web 104 when the second web 104 is in the closed position. Inner flange 110, on the other hand, may be a plurality of smaller inner flange 110 sections, for reasons that will be discussed below.

[0062] FIG. 3B is a side elevation view illustrating a first exemplary embodiment of the first web 102 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. First web 102 comprises a cylindrical shell of varying oval cross-section, having a top 126, a middle 128, and a bottom 130. The oval cross section is smaller in the middle 128 and wider at the top 126 and at the bottom 130, the bottom 130 being at least partially closed by a portion of the first web 102.

[0063] FIG. 3C is a rear elevation view illustrating a first exemplary embodiment of the first web 102 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. The rear elevation view additionally shows a rear view of extensions 120. In various alternate embodiments, other extensions 120 might be used. For example, and without limitation, extensions 120 to engage straps, flexible webs, 3-bar mechanisms, universal joints, and "invisible" hinges may be used.

[0064] FIG. 3D is an underside plan view illustrating a first exemplary embodiment of the first web 102 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. Bottom 130 is shown as flat. Other contours may be used in various alternate embodiments. For example, and without limitation, a circumferential rim, feet, or a kick (as in a wine bottle) may be used with bottom 130.

[0065] FIG. 4A is a top plan view illustrating a first exemplary embodiment of the insert 402 for the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. Insert 402 is sized, shaped, and arranged to support toothbrushes when such toothbrushes are within said toothbrush holder. Insert 402 has four openings 404 for receiving toothbrush handles but not allowing the bristles through. Insert 402 is preferably washable. All materials used in the present invention should be corrosion, rust,

and rot resistant, due to the moisture that accompanies use. In some alternate embodiments, insert **402** may have additional openings for ventilation.

[0066] FIG. 4B is a side elevation view illustrating a first exemplary embodiment of the insert 402 for the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. First web 102 and second web 104, when flexibly coupled, form a re-closable container 101 that may be releasably closed. Insert 402 is preferably a removable insert, operable to be removably inserted into the re-closable container 101, sized and shaped to support at least one toothbrush in the re-closable container 101 when the removable insert 402 is in the re-closable container 101. Insert 402 is preferably flat, as shown, but, in various alternate embodiments, may take on various shapes. For example, and without limitation, insert 104 may be concave, convex, have a cylinder descending from each opening 404, or have an irregular vertical profile.

[0067] FIG. 4C is a top plan view illustrating a first exemplary embodiment of the first web 102 with the insert 402 for the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. Insert 402 is shaped to rest on inner flange 110 inside ridge 108. Ridge 108 preferably limits the motion of insert 402. In alternate embodiments, the shape of insert 402 may be adapted to the shape of the first web 102.

[0068] FIG. 5A is a cross-sectional view through section A-A' illustrating a first exemplary embodiment of the first and second webs 102 and 104 of the ventilated toothbrush holder 100 of FIG. 1, according to a preferred embodiment of the present invention. FIG. 5A is provided primarily for comparison with FIG. 5B. All of the referenced items in FIG. 5A have been previously discussed above. Note, however, the filter 118 in profile below first opening 116 and the technique of creating inner flange 110 and outer flange 106 by thickening first web 102 near the top 126 of first web 102. The thickness profile of the first web 102 is exemplary, and may be varied in various alternate embodiments to provide a self-supporting first web with features 106, 108, 110, and 120 for engaging second web 104.

[0069] FIG. 5B is a cross-sectional view through section A-A' illustrating a first exemplary embodiment of the first and second webs 102 and 104 of the ventilated toothbrush holder 100 of FIGS. 1 and 5A with the insert 402 installed, according to a preferred embodiment of the present invention. Insert 402 is shown installed on inner flange 110 and within ridge 108. Insert 402 is preferably no thicker than ridge 108 is high, as shown. In various alternate embodiments, the shape and height of ridge 108 may be adapted the inserts 402 for the respective alternate embodiments.

[0070] FIG. 6A is a side elevation view illustrating a second exemplary embodiment of the first web 102 of the ventilated toothbrush holder 200, according to a preferred embodiment of the present invention. Second opening 602 is added to first web 102, and second filter 604 covers second opening 602. Second opening 602 is shown as a regular ellipse and is aligned to the vertical, but this is not required for various alternate embodiments. In various alternative embodiments, the second opening may be sized differently, shaped differently, positioned on the front, rear, or other side of web 102, or even at least partially on the bottom 130.

[0071] FIG. 6B is a rear elevation view illustrating a second exemplary embodiment of the first web 102 of the ventilated toothbrush holder 200 of FIG. 6A, according to a preferred

embodiment of the present invention. FIG. 6B is provided to support enablement, as all referenced items have already been described. The second web 104 used with toothbrush holder 200 is second web 104, just as is used with toothbrush holder 100. The insert 402 used with toothbrush holder 200 preferably has additional openings for ventilation.

[0072] FIG. 7A is a top plan view illustrating a second exemplary embodiment of the second web 104 of the ventilated toothbrush holder 200 of FIG. 6, and defining cross-sectional plane B-B', according to a preferred embodiment of the present invention. The second web 104 used with toothbrush holder 200 is preferably second web 104, just as is used with toothbrush holder 100.

[0073] FIG. 7B is a side elevation view illustrating a second exemplary embodiment of the first and second webs 102 and 104 of the ventilated toothbrush holder 200 of FIG. 6, according to a preferred embodiment of the present invention. The toothbrush holder 200 is shown in a closed position and with second opening 602 and second filter 604.

[0074] FIG. 7C is a cross-sectional view through plane B-B' defined in FIG. 7A and illustrating a second exemplary embodiment of the first and second webs 102 and 104 of the ventilated toothbrush holder 200 of FIG. 6A, according to a preferred embodiment of the present invention. Second opening 602 proximate bottom 130 and first opening 116 in second web 104 enables airflow 702 into second opening 602 proximate bottom 130, through first web 102, and out of the first opening 116 in the second web 104. This airflow 702 assists in drying the bristles of a toothbrush without introducing contaminants.

[0075] FIG. 8A is a side elevation view illustrating a third exemplary embodiment of the first web 102 of a ventilated toothbrush holder 800, according to a preferred embodiment of the present invention. Toothbrush holder 800 includes first web 102 with support flanges 802, further with second web 104 flexibly coupled to first web 104 (not shown in this view), and optionally with a removable insert 402 installed (not shown in this view). Support flanges 802 on first web 102 assist in wall mounting a toothbrush holder 800. This expands the types environmental surfaces that may support toothbrush holders based on first web 102. In an alternate embodiment, a wall mount may be provided that grasps first web 102, as by a contractible band, and obviates the need for support flanges 802. Support flanges 802 are merely exemplary, and are not intended to limit the variations to first web 102 that may assist in mounting the toothbrush holder 800 on the wall. Those of skill in the art, enlightened by this disclosure, will be aware of various approaches to mounting toothbrush holder 800 on the wall.

[0076] FIG. 8B is a rear elevation view illustrating a third exemplary embodiment of the first web 102 of the ventilated toothbrush holder 800 of FIG. 8A, according to a preferred embodiment of the present invention. FIG. 8B is provided to support enablement by adding a second view. All referenced items in the drawing have already been described above.

[0077] FIG. 9 is a side elevation view illustrating a fourth exemplary embodiment of the first and second webs 102 and 104 of a ventilated toothbrush holder 900, according to a preferred embodiment of the present invention. First web 102 is of the type used with toothbrush holder 200, but is mounted sideways on a wall 901 (as by adhesive), with the second opening 602 and second filter 604 moved towards the base and facing down. Second web 104 has been modified to move first opening 916 to a higher point on second web 104, and

first opening 916 is located at a higher point than if first opening 116 had been retained. Second filter 918 is mounted on the outside of second web 104, as example of the possible variations.

[0078] FIG. 10 is a side elevation view illustrating a fifth exemplary embodiment of the first and second webs 1002 and 1004 of a ventilated toothbrush holder 1000, according to a preferred embodiment of the present invention. References numbers from previous drawings have been retained in the last three digits, with 1000 added with respect for the magnitude of the changes. First web 1102 has a significantly different shape, adapted to mounting on wall 1001 at an incline. Second opening 1602 has been moved further down and away from the toothbrushes. Second filter 1604 is mounted inside second opening 1602. Second web 1104 has a domed shape and filter 1118 is within first opening 1116. Outer flange 1106 still abuts the second web 1104 edge when the second web 1104 is in a closed position. Ridge 1108 abuts the inner surface of second web 1104 when second web 1104 is in the closed position. Extension 1120 and adaptation 1122 form a flexible coupling between web 102 and web 104.

What is claimed is:

- 1. A toothbrush holder comprising the combination of:
- a. a first web sized, shaped, and arranged to be supportable on an environmental surface in a toothbrush-receiving orientation; and
- a second web, flexibly coupled to said first web and operable to releasably close said toothbrush holder, said second web comprising:
 - i. a first opening; and
 - ii. a first filter covering said first opening, said first filter operable to allow the passage of air and to resist the passage of liquids.
- 2. The toothbrush holder of claim 1, wherein said first web comprises a cylindrical shell of varying oval cross-section, having a top, a middle, and a bottom, said oval cross section being smaller in said middle and wider at said top and at said bottom, said bottom being at least partially closed by a portion of said first web.
- 3. The toothbrush holder of claim 2, wherein said cylindrical shell has an arcuate side profile.
 - 4. The toothbrush holder of claim 1, wherein:
 - a. said second web has a top portion; and
 - b. said first opening in said second web comprises a first opening in said top portion of said second web.
 - 5. The toothbrush holder of claim 1, wherein:
 - a. said second web comprises a second web surface area;
 - b. said first opening comprises a first opening area; and
 - c. said first opening area comprises less than five percent of said second web surface area.
- 6. The toothbrush holder of claim 1, wherein said first web comprises:
 - a. a bottom;
 - b. a second opening proximate said bottom;
 - c. a second filter covering said second opening proximate said bottom, said second filter operable to allow the passage of air and to resist the passage of liquids; and
 - d. wherein said second opening proximate said bottom and said first opening in said second web enables air flow into said second opening proximate said bottom, through said first web, and out of said first opening in said second web.

- 7. The toothbrush holder of claim 1, wherein:
- a. said first web comprises at least one extension sized, shaped, and arranged to support at least a portion of a flexible coupling for said flexibly coupled second web;
- b. said second web comprises at least one adaptation sized, shaped, and arranged to support at least a portion of a flexible coupling for said flexibly coupled first web.
- 8. The toothbrush holder of claim 1, wherein said first web comprises:
 - a. a top; and
 - b. at least one flange, interior to said first web proximate said top, said at least one flange operable to support a removable insert, said removable insert sized, shaped, and arranged to support toothbrushes when such toothbrushes are within said toothbrush holder.
 - 9. The toothbrush holder of claim 1, wherein:
 - a. said first web comprises a top;
 - b. said second web comprises an edge;
 - c. said first web further comprises at least one outer flange proximate said top, said at least one flange operable to abut said edge of said second web when said second web is in a closed position.
- 10. The toothbrush holder of claim 1, wherein at least one of said first web and said second web is at least partially transparent.
- 11. The toothbrush holder of claim 1, wherein said first filter is washable.
- 12. A toothbrush holder comprising the combination of:
- a. a re-closable container comprising:
 - i. a first web sized, shaped, and arranged to be supportable on an environmental surface in a toothbrush-receiving orientation;
 - ii. a second web, flexibly coupled to said first web and operable to releasably close said re-closable container, said second web comprising:
 - 1. a first opening; and
 - a first filter covering said first opening, said filter operable to allow the passage of air and to resist the passage of liquids; and
- b. a removable insert, operable to be removably inserted into said re-closable container, said insert sized and shaped to support at least one toothbrush in said container when said insert is in said re-closable container.
- 13. The toothbrush holder of claim 12, wherein said first web comprises:
 - a. a top; and
 - at least one flange, interior to said first web proximate said top, said at least one flange operable to support said removable insert.
- 14. The toothbrush holder of claim 12, wherein said first web comprises extensions to support at least a portion of a flexible coupling for said flexibly coupled second web.
- 15. The toothbrush holder of claim 12, wherein said first web comprises:
 - a. a bottom;
 - b. a second opening proximate said bottom;
 - c. a second filter covering said second opening proximate said bottom, said second filter operable to allow the passage of air and to resist the passage of liquids; and
 - d. wherein said second opening proximate said bottom and said first opening in said second web enables air flow into said second opening proximate said bottom, through said first web, and out of said first opening in said second web.

- 16. The toothbrush holder of claim 12, wherein said first web comprises a cylindrical shell of varying oval cross-section, having a top, a middle, and a bottom, said oval cross section being smaller in said middle and wider at said top and at said bottom, said bottom being at least partially closed by a portion of said first web, said cylindrical shell having an arcuate side profile.
- 17. The toothbrush holder of claim 12, wherein said second web has a top portion and said first opening in said second web comprises a first opening in said top portion of said second web.
 - 18. The toothbrush holder of claim 12, wherein:
 - a. said second web comprises a surface area;
 - b. said first opening comprises a first opening area; and
 - c. said first opening area comprises less than five percent of said surface area.
 - **19**. A toothbrush holder comprising the combination of: a. a re-closable container comprising:
 - i. a first web, sized, shaped, and arranged to be supportable on an environmental surface in a receiving orientation, said first web comprising:
 - 1. a top;
 - 2. a middle;
 - a bottom at least partially closed by a portion of said first web;
 - a cylindrical shell of varying cross-section, said cross section being smaller in said middle and wider at said top and at said bottom;
 - ii. a second web, flexibly coupled to said first web and operable to releasably close said re-closable container, said second web comprising:
 - 1. a top portion;
 - a second web surface having a second web surface area;
 - 3. an edge;

- a first opening in said top portion of said second web having a first opening area less than five percent of said second web surface area;
- a first filter covering said first opening, said filter operable to allow the passage of air and to resist the passage of liquids;
- iii. wherein said first web further comprises:
 - at least one extension sized, shaped, and arranged to support at least a portion of a flexible coupling for said flexibly coupled second web;
 - at least one outer flange proximate said top, said at least one outer flange operable to abut said edge of said second web when said second web is in a closed position; and
- b. a removable insert, operable to be removably inserted into said re-closable container, said insert sized and shaped to support at least one toothbrush in said reclosable container when said insert is in said re-closable container; and
- c. wherein said first web further comprises at least one interior flange, interior to said first web proximate said top, said at least one interior flange operable to support said removable insert.
- 20. The toothbrush holder of claim 19, wherein said first web comprises:
 - a. a second opening proximate said bottom;
 - a second filter covering said second opening proximate said bottom, said second filter operable to allow the passage of air and to resist the passage of liquids; and
 - c. wherein said second opening proximate said bottom and said first opening in said second web enable air flow into said second opening proximate said bottom, through said first web, and out of said first opening in said second web.

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