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#### (54) VERSATILE ORAL CARE DEVICE FOCUSED ON EARLY INFANT ORALHEALTH

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(60) Provisional application No. 63/555,757, filed on Feb. 20, 2024.

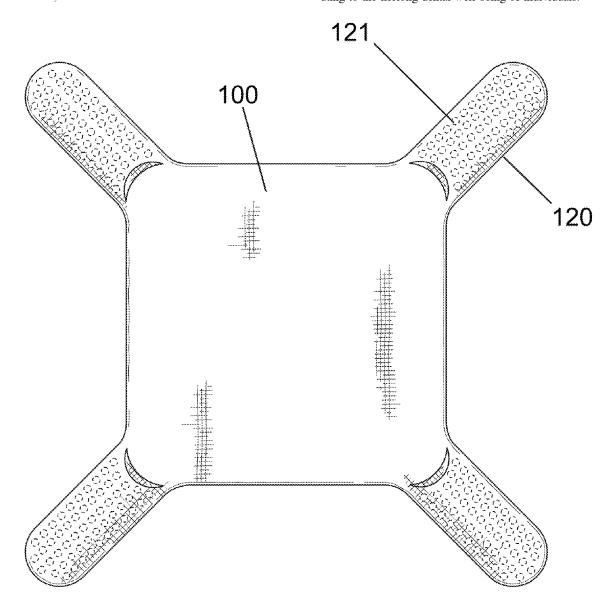
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#### (57) ABSTRACT

This invention represents a marked improvement in pediatric oral hygiene, especially focusing on the vital early stages of an infant's oral development. Offering a versatile, easyto-use device from the onset of an infant's life, the present device lays the groundwork for robust oral health, significantly reducing the risk of future dental issues. The unique design, combined with its adaptability and effectiveness in early oral care, makes it an indispensable tool in fostering comprehensive oral hygiene from infancy, thereby contributing to the lifelong dental well-being of individuals.



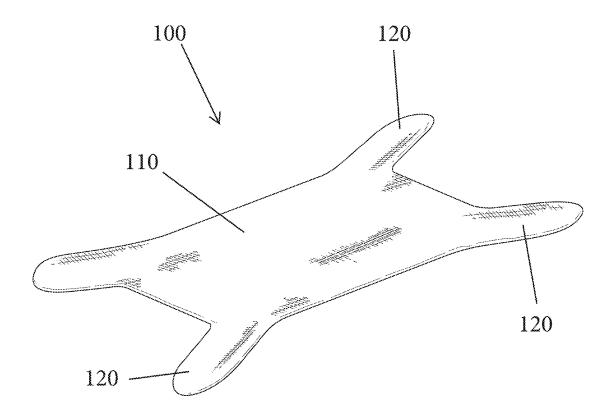


FIG. 1

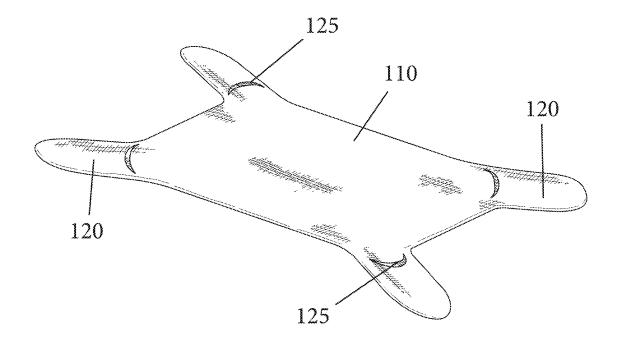


FIG. 2

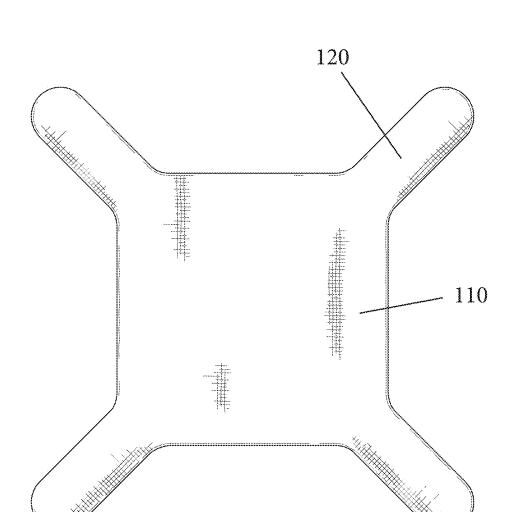


FIG. 3

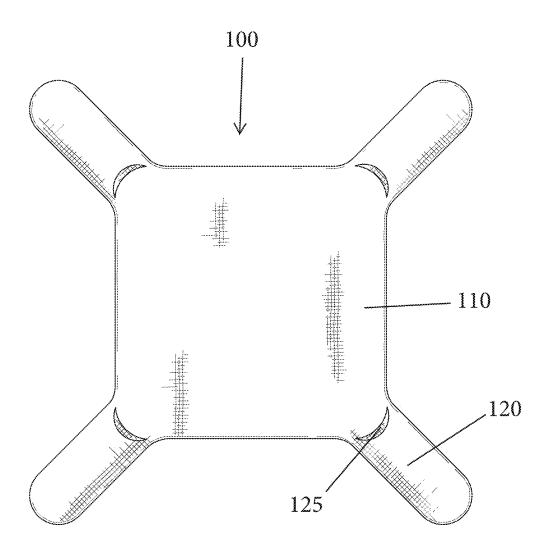


FIG. 4

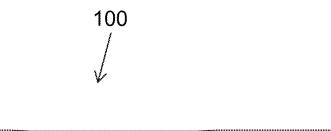


FIG. 5

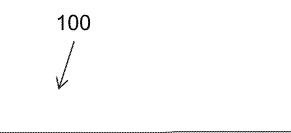


FIG. 6

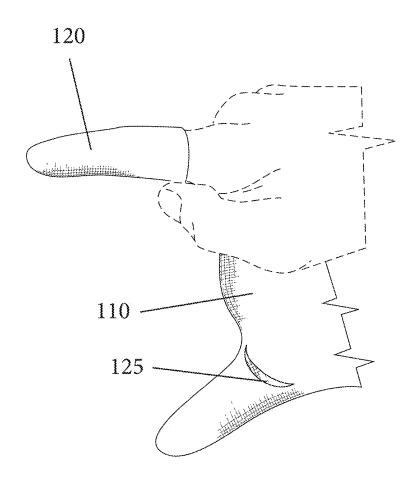


FIG. 7

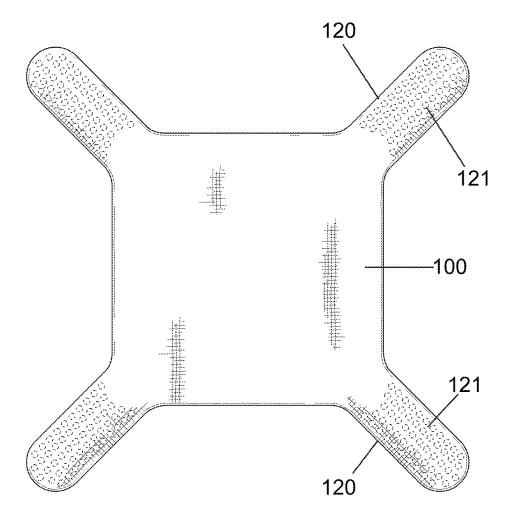


FIG. 8

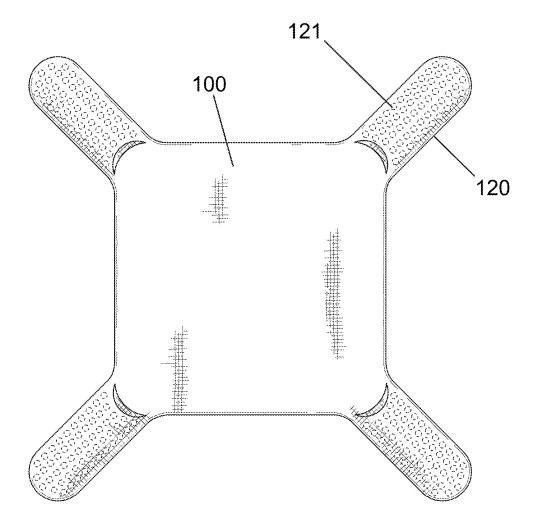


FIG. 9

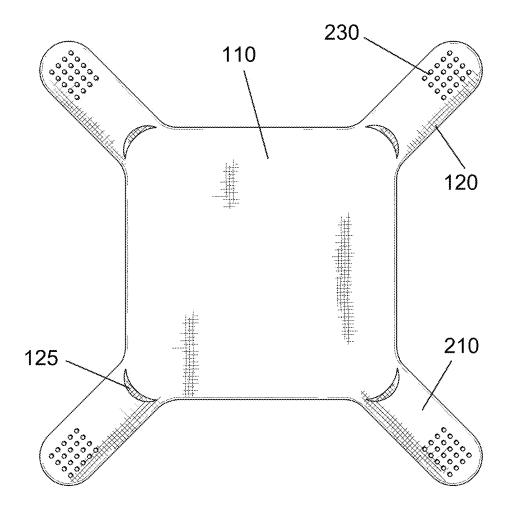


FIG. 10

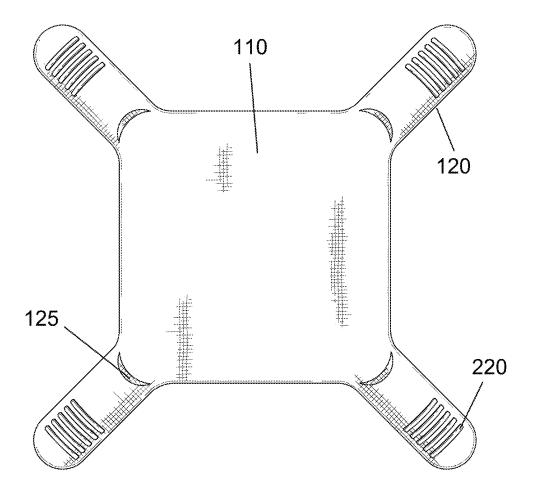


FIG. 11

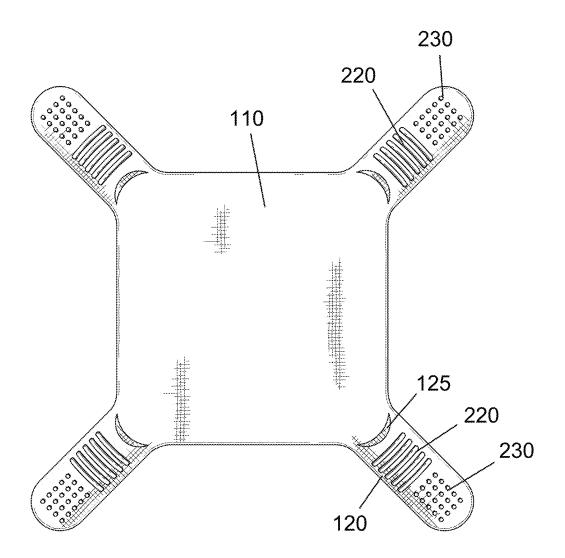


FIG. 12

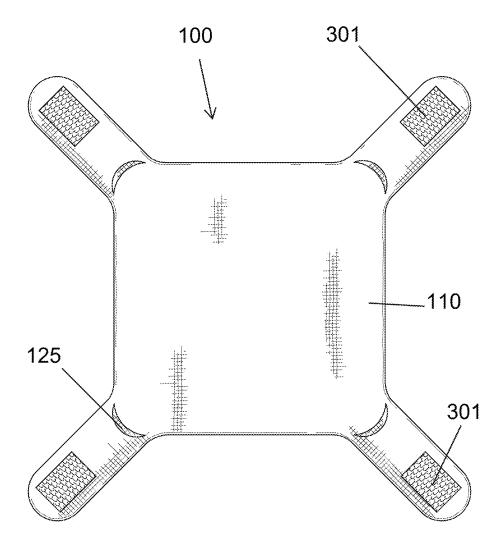


FIG. 13

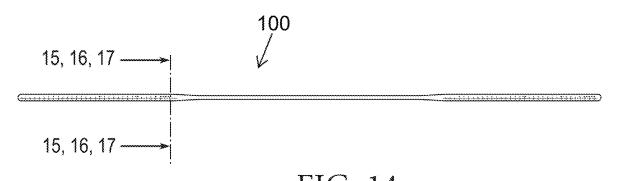
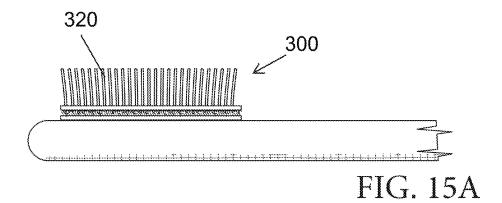
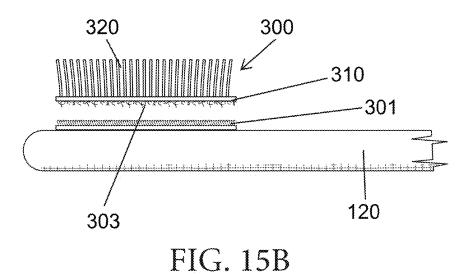
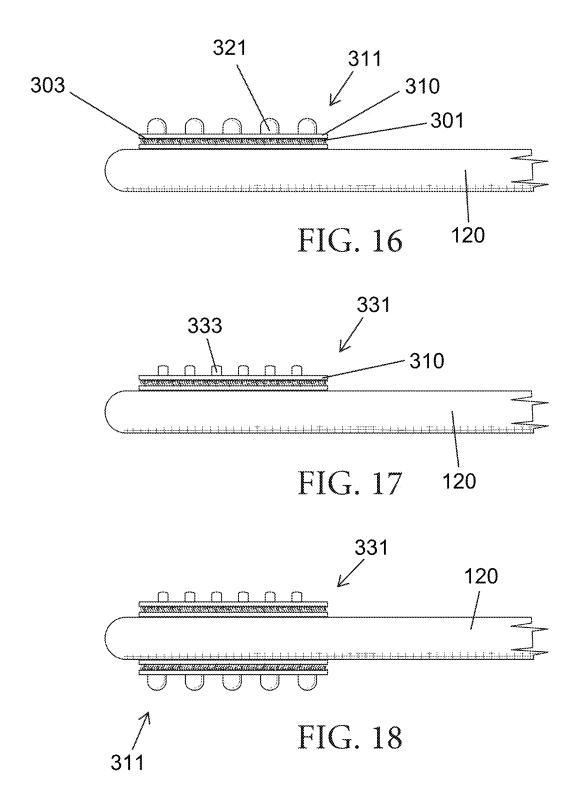


FIG. 14







#### VERSATILE ORAL CARE DEVICE FOCUSED ON EARLY INFANT ORALHEALTH

# CROSS REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority to and the benefit of U.S. patent application Ser. No. 63/555,757, filed Feb. 20, 2024, which is hereby incorporated by reference in its entirety.

#### TECHNICAL FIELD

**[0002]** The present application is directed to oral hygiene devices, and more particularly to a versatile, finger-mounted device designed for comprehensive oral care of infants and young children. The device is uniquely tailored for early implementation, starting from the pre-teething stage, to establish a strong foundation for lifelong oral health.

#### BACKGROUND

[0003] Conventional finger-mounted brushes, predominantly used for teeth brushing and gum massaging, often fail to meet the nuanced needs of infant oral care, particularly in the pivotal pre-teething phase. The gap in current oral hygiene tools is particularly evident for new parents seeking practical, easy-to-use solutions that can be seamlessly integrated into their caregiving routine. The American Academy of Pediatric Dentistry (AAPD) and the American Academy of Pediatrics (AAP) underscore the importance of early oral care, highlighting that early childhood caries (ECC) is the most common chronic early childhood disease. Furthermore, ECC has been identified as a significant predictor of future dental health, with a single cavity in baby teeth potentially tripling the risk of cavities in permanent teeth. Thus, there is a critical need for a device that not only conforms to the unique oral environment of infants but also promotes preventive oral hygiene practices from an early age. In developing this device, a key consideration has been the practicality and convenience for new parents—a tool that is simple, efficient, and encourages consistent use without adding to the complexity of new parenthood.

#### **SUMMARY**

[0004] The present application is directed to a dynamic oral care device, optimally suited for infants and young children from the gum-wiping stage onward. Designed to be non-intrusive and user-friendly, this device ensures ease of integration into both daily and nighttime oral care routines. It is a pivotal tool in laying down a solid oral health foundation, which is vital in light of the increased risk of future dental problems stemming from early oral health neglect.

# BRIEF DESCRIPTION OF THE DRAWING FIGURES

[0005] The accompanying drawings will further explicate the design and utility of the invention.

[0006] FIGS. 1-9 illustrate an oral tooth cleaning device in accordance with one embodiment;

[0007] FIG. 10 illustrates an oral tooth cleaning device in accordance with a second embodiment;

[0008] FIG. 11 illustrates an oral tooth cleaning device in accordance with a third embodiment;

[0009] FIG. 12 illustrates an oral tooth cleaning device in accordance with a fourth embodiment;

[0010] FIG. 13 illustrates an oral tooth cleaning device in accordance with a second embodiment;

[0011] FIG. 14 is a side elevation view of the device of FIG. 13:

[0012] FIG. 15A is a cross-sectional view showing a first bristle pad attached to a finger pocket of the device;

[0013] FIG. 15B is a cross-sectional view showing the first bristle pad detached from the finger pocket;

[0014] FIG. 16 is a cross-sectional view showing a second bristle pad attached to a finger pocket of the device;

[0015] FIG. 17 is a cross-sectional view showing a third bristle pad attached to a finger pocket of the device; and

[0016] FIG. 18 is a cross-sectional view showing both the second bristle pad and the third bristle pad attached to the finger pocket of the device.

# DETAILED DESCRIPTION OF CERTAIN EMBODIMENTS

[0017] FIGS. 1-9 illustrate an oral care device 100 according to one embodiment. As described herein, the device 100 can have a towel construction and is thus formed of a towel material that is suitable for the intended application. In other words, in one embodiment, the device 100 is formed of a suitable fabric material, such as microfiber, etc. As described herein, the device 100 can be constructed such that at least certain sections of the device 100 are formed of two layers of the same material or can be formed such that different materials are used for the different layers. The two or more layers can be attached using any number of traditional techniques, including but not limited to, stitching, use of bonding agents, etc.

[0018] Shape and Size: The device 100, while initially presented as generally square-shaped, is designed to be adaptable to various shapes to accommodate different user preferences and needs. Its size is ideally optimized for easy maneuverability and effective cleaning within an infant's mouth, offering comprehensive coverage in a manner akin to a tactile glove. The device 100 thus can have a center portion 110 that can be square shaped.

[0019] Corner Finger Pockets 120: Regardless of shape, each design of the device 100 features strategically placed corner finger pockets 120 for fingertip placement, enhancing grip and maneuverability. This is essential for the gentle massaging of an infant's gums, stimulating healthy gum tissue in preparation for the eruption of primary teeth. These corner finger pockets 120 are in the form of elongated appendages or fingers that extend outwardly from at least two corners and as illustrated, each corner can have an associated corner finger pocket 120. Thus, in the illustrated embodiment, there are four corner finger pockets 120. The corner finger pockets 120 can be and are preferably formed with the center portion 110. In other words, the corner finger pockets 120 are integrally formed with the center portion 110 and can be formed of two layers attached to one another, such as along a perimeter, to define a hollow interior. Along the rear face of the device 100, there is an opening 125 into the corner finger pocket 120. This opening can be in the form of a slit, etc. The opening is sized to permit passage of the finger into the hollow interior of the finger (much like a finger puppet). The hollow interior of the finger pocket preferably extends the entire length to the distal tip thereof. [0020] Material Texture and Composition: Constructed from a range of suitable materials (e.g., natural or synthetic fibers/fabrics), the device 100 preferably possesses a slightly abrasive texture for efficient plaque removal, coupled with the necessary softness to protect delicate oral tissues (e.g., a textured fabric). This balance is crucial in preventing cavities in baby teeth, subsequently reducing the risk of cavities in adult teeth. In addition, one or more of the corner finger pockets 120 can include added texture in the form of one or more textured pads that are formed along the surface of the (fabric) pocket 120. Textured areas can thus be added to the corner finger pocket 120 and also, it will be appreciated that different corner finger pockets 120 can have different textures areas (size, shape and/or material). For example, one texture can comprise bristles that are configured to clean gums, while another texture can comprise bristles that are configured to clean teeth (i.e., soft bristles vs. stiffer bristles). Broadly speaking the textured surface comprises a series of protrusions (protruding features).

[0021] As shown in FIGS. 8 and 9, the surface of the finger pocket 120 can feature a distinctive, engineered texture 121 that mimics the tactile quality of a towel or microfiber fabric, renowned for their superior moisture absorption and frictional properties. FIG. 8 illustrates the texture 121 formed along the front surface (tissue contacting surface) of the finger pockets, while FIG. 9 shows it also formed along the rear surface which is optional. Thus, both sides of the finger pocket can include tactile features. This texture 121 can be achieved through the following characteristics:

[0022] Micro-ridged Surface: The primary texture can consist of micro-ridged patterns that are finely etched onto the surface of the sleeve (e.g., the etching creates valleys or channels that define the ridges); however, any number of other techniques can be used to form the ridges, including using an injection or molding process where the ridges are laid down on the surface. These ridges will be designed to increase the surface area in contact with the skin or biofilm, enhancing mechanical removal of biofilms through gentle abrasion. This pattern can be defined by parallel ridges.

[0023] Embedded Microdots: In addition to the ridged patterns, the surface can be interspersed with microdots. These dots will serve as focal points of increased friction, providing targeted disruption of biofilm structures without necessitating excessive pressure that could harm the skin. The microdots, being slightly raised above the main surface, will act as mini scrubbers. Any number of techniques can be used to form the microdots, including a molding or injection process. The figures illustrate circular shaped microdots along the outer surface of the finger pocket.

[0024] Towel-like Texture Zones: Specific zones on the finger sleeve can feature a texture that closely resembles that of a towel or microfiber cloth. This texture will be achieved by weaving or embedding microfiber threads into the material of the sleeve, offering a dual-action effect of absorption and mechanical biofilm disruption. These zones will be strategically placed to maximize efficiency during use.

[0025] Variable Texture Density: To cater to different levels of biofilm density and sensitivity of skin areas, the finger sleeve can have areas with variable texture density. Zones with a denser, more pronounced texture will be more effective for tough biofilms, while softer, less dense areas will be suitable for sensitive skin or less challenging biofilm removal tasks.

[0026] Ergonomic Design for Enhanced Grip: The overall design of the finger sleeve, including the texture, will be ergonomically optimized to ensure that the user can maintain a firm and comfortable grip during use. This is important for effective biofilm disruption, as it allows for precise control of pressure and movement.

[0027] This textured design aims to provide a comprehensive solution for the mechanical disruption of bacterial biofilms, enhancing the finger sleeve's effectiveness while ensuring user comfort and safety. The combination of microridged surfaces, embedded microdots, towel-like texture zones, and variable texture density is engineered to offer a versatile and efficient tool for health and hygiene practices. [0028] In one embodiment, the fabric body comprises a woven structure, such as a woven microfiber product, which can be formed of one or more types of fibers, such as a fiber blend. It will also be appreciated that a non-woven construction is also possible and/or it can contain sections made of a synthetic material, such as silicone.

[0029] Flexibility and Thickness: The design's focus on thinness and flexibility ensures the device's adaptability to various oral dimensions and shapes, crucial for infants at different developmental stages.

[0030] Early Implementation and Long-term Impact: Its non-intrusive nature and ease of use make it ideal for early implementation in an infant's oral care routine. Introducing this device from the gum-wiping stage sets a strong foundation for oral health and significantly reduces the likelihood of future dental complications.

[0031] There are also a number of additional features that can be added to and/or be integrated into the device 100.

[0032] For example, with reference to FIGS. 10-12, the device 100 can include plural sensory texture zones located in strategic areas and more particularly, one or more of the corner finger pockets 120 can include the sensory texture zones. The sensory texture zones comprise different textured zones for various sensations. For example, the sensory texture zones can include, for example, a smooth region 210, a ribbed region 220 and/or a bumpy region 230, or a combination thereof. These different regions help soothe gums and engage babies. In one example, one or more of the finger pockets 120 can include two or more different sensory texture zones. These zones can be formed in different ways, such in discrete bands (side-by-side) or in a concentric pattern or other pattern. For example, one zone can be a center circular zone and the other zone can be an annular shaped zone that surrounds the center circular zone. These different texture zones can be formed of the same material or can be formed of different materials. FIG. 12 shows a combination of two different textured regions (220, 230).

[0033] Now referring to FIGS. 13-18, in yet another feature, the device can include interchangeable bristle textures in the form of bristle pads. The device 100 can be designed with detachable or flip bristle options, one side with soft silicone bristles for gums and another side with firmer ones for cleaning budding teeth.

[0034] In general, the device 100 can include one or more interchangeable bristle patches 300 that are interchangeable and removably attached to at least one surface of the device 100. Any number of different techniques can be used to

attach the patch 300 in a removable manner. For example, a hook and loop technique can be used to attach the patch 300 to the device 100. In one embodiment, along at least one face (e.g., front or rear face) of one side of the finger pocket 120, there is a first part 301 of the hook and loop system and along the one faces of the patch 300 is there is the complementary second part 303 of the hook and loop system. The user simply contacts the first and second parts 301, 303 with one another to attach the patch 300 to the finger pocket 120. The ease of use allows different patches to be interchanged to customize the bristle experience.

[0035] Moreover, the other side of the finger pocket 120 can also include the first part 301 of the hook and loop system. This allows one interchangeable bristle patch 300 to be affixed along one side of the finger pocket 120 and a different interchangeable bristle patch 300 to be affixed along the other side of the finger pocket 120. This allows the user to manipulate his/her finger to place one of the patches 300 into contact with the tissue/teeth. This design allows a dual action cleaning of the gums and teeth.

[0036] FIGS. 15A, 15B, 16 and 17 illustrate exemplary bristle patches. In one embodiment shown in FIG. 15B, the bristle patch 300 includes a base layer 310 that includes the second part 303 of the hook and loop material and a tactile layer or individual tactile features affixed to the base layer 310. As illustrated, a bristle layer or bristles 320 can comprise the tactile, cleaning features attached to the base layer 310 (e.g., integrally molded to the base layer 310). For example, the tactile features can be in the form of one or more set of bristles 320, such as soft bristles suitable for gum cleaning or stiffer bristles for cleaning teeth.

[0037] FIG. 16 illustrates an alternative embodiment in which a bristle patch 311 is illustrated. The bristle patch 311 includes the base layer 310 of hook and loop material (with second part 303) and tactile, cleaning features 321 affixed to the base layer 310. For example, the tactile features 321 can be in the form of one or more set of bristles, or microdots, flexible cleaning protrusions, ridges, etc.

[0038] FIG. 17 illustrates an alternative embodiment in which a bristle patch 331 is illustrated. The bristle patch 331 includes the base layer 310 of hook and loop material (with second part 303) and tactile, cleaning features 331 affixed to the base layer 310. For example, the tactile features 331 can be in the form of one or more set of bristles, or microdots, flexible cleaning protrusions, ridges, etc. As shown, the size and/or material characteristics of the tactile features 321, 333 are different.

[0039] FIG. 18 shows the bristle patch 311 attached to one side of the finger pocket and the bristle patch 331 attached to the other side of the finger pocket.

[0040] It will be appreciated that the bristle patches 311, 331 can be part of a kit that includes the device 100 itself and accessories, such as the bristle patches 311, 331. In this way, the user simply selects and attaches the cleaning accessories that are desired for a particular application. All of the accessories can be easily cleaned and sterilized.

[0041] In addition, the parts of the hook and loop system that are attached to the main body of the device 100 should be undersized relative to the complementary other parts of the hook and loop system that is attached to underside of the bristle patch so that there are not exposed hook and loop surfaces that could contact the tissue or teeth.

[0042] In yet another embodiment, one bristle patch is constructed to have two different bristle options, one on one

side of the patch and the other one on the other side of the patch. As mentioned below, any number of different attachment techniques can be used to removably attach the patch to the body of the device 100. For example, a hook and loop system can be used to attach the patch. For example, the outer perimeter edge of the patch can include a first part of the hook and loop system, while the outer face of the body of the device 100 can include the second part of the hook and loop system. The first part can be provided along both the front face and rear face of the patch to allow for reversal of the patch.

[0043] The exposed face of the patch is thus selected in view of what treatment has been selected. It will also be appreciated that the finger pocket 120 can include more than one detachable patch. For example, two or more patches can be provided along one finger pocket 120. There can be a hook and loop material patch on the main body that can accommodate two or more patches 300.

[0044] Alternative ways to attach the bristle pads to the main body of the device are equally possible and within the scope of the present disclosure.

[0045] In addition, other features for the device 100, also discussed below as being a sleeve, are as follows:

[0046] Temperature-Sensitive Color Change: Incorporate materials that change color with temperature, so parents can see if the sleeve is warm or cool enough for comfort. For example, the device 100, or a part thereof, can be formed of a thermochromic material(s) or can include a feature formed of a thermochromic material that changes color reversibly when the temperature changes. For example, at the end of each finger, there can be an indicator region formed of a thermochromic material.

[0047] Embedded Micro-Vibrations: Include gentle, battery-powered vibrations to soothe the gums and provide a sensory experience, ideal for teething. Accordingly, each finger can include an actuator that is configured to vibrate to provide the desired functionality. A controller can be included an include an on/off switch or the actuator can be controlled with a remote control. The remote control can be used to change different operating modes, such as vibration frequency, etc.

[0048] Cooling Gel Pockets: Add small pockets within the sleeve that can be filled with cooling gel, allowing parents to chill the sleeve before use to help soothe inflamed gums, especially useful for teething. For example, each finger can have a pocket that is formed in the outer layer of the fabric that is intended for contacting the patient's gums. The pocket is easily accessible to allow the user to insert and move the cooling gel pack to the desired location (e.g., a textured area). For example, a third layer of material can be positioned along the finger pocket 120 and be attached to the underlying layer except along an opening or entrance to this gel pocket.

[0049] Dual Material Design: One side made of silicone for gentle brushing and another side of antimicrobial-treated fabric for wiping excess saliva or residue, combining cleaning and soothing. For example, the finger pocket is formed of two layers attached along their peripheries to define the open space therebetween

for receiving the finger. One layer can be formed of silicone, while the other layer is formed of the antimicrobial-treated fabric.

[0050] Pressure Sensitivity: Integrate light pressure sensors on each fingertip, signaling if too much force is applied, preventing injury to sensitive gums. In other words, a pressure sensor is incorporated into the fingertip and is operatively connected to a light and power source and is configured that if excess pressure is sensed, the light (LED) illuminates to notify the user.

[0051] Embedded Timer Light: Include an LED timer light that guides parents on how long to use each side of the sleeve for optimal cleaning and gum stimulation. In other words, the user an begin the timer by pressing a button and then an internal timer (processor) counts the time and when a programmed time has elapsed, a light (LED) can illuminate. The LED can be in the form of a small light (circular light) at the end of the corner pocket.

[0052] UV Sanitizing Strip: Integrate a small UV light strip that activates when the sleeve is not in use, helping sanitize the sleeve and prevent bacterial growth between uses. For example, the light strip can be positioned along the tissue contacting surface and there can be an actuator, such as a button, that can initiate a UV treatment post use of the product. By pressing the button, a processor causes the UV light strip to illuminate for the predetermined period of time and then shuts off

[0053] Integrated Saliva Absorption Pad: Add a discreet, replaceable pad within the sleeve that absorbs excess saliva during brushing or soothing, keeping the child's mouth area dry and comfortable. It will be appreciated that in one embodiment, instead of the detachable bristle pad (shown in the figures), an absorption pad can be attached to the second part of the hook and loop system to allow easy attachment and removal from the corner finger pocket. Such absorption pad would just be a layer with no cleaning protrusions.

[0054] Gentle Gum Massager Nodules: Design with soft nodules along the sides that gently massage the gums while cleaning, promoting blood flow and relieving gum discomfort in teething babies.

[0055] Wireless Rechargeable Battery: Equip the sleeve with a compact, wireless rechargeable battery that powers any electronic features (e.g., vibrations or LED lights) without the hassle of disposable batteries.

[0056] Adaptive Finger Fit with Memory Foam Layer: Incorporate a thin layer of memory foam within the finger pocket that conforms to the shape of the user's finger for a customized fit and improved control while brushing. In the cross-sectional view shown herein, this thin layer of memory foam would just be an added layer.

[0057] Biometric Monitoring for Gum Health: Integrate a small biometric sensor that can monitor indicators of gum health, such as pH levels, offering parents insights on early signs of gum or oral issues.

[0058] Micro-Pocket for Oral Health Gel: Incorporate a tiny pocket that can hold a single-use, baby-safe oral health gel or gum soother, allowing caregivers to apply the gel evenly on the gums while using the sleeve.

[0059] Removable Water Mist Dispenser: Attach a mini misting device that dispenses a gentle spray of water to

keep the mouth hydrated during longer brushing sessions or to rinse the gums post-brushing.

[0060] Embedded Activity Tracker for Usage Analytics: Include a sensor that records usage patterns, such as frequency and duration, syncing with a companion app to provide insights and recommendations to caregivers on optimal usage. The sensor can communicate to an external device, such as a smartphone, to upload the data.

[0061] Additional features of the device include, but are not limited to, the following: the adaptable shape maintains functionality and ergonomic benefits across various designs; the fabric that varies in composition but is ideally soft yet slightly abrasive, optimized for plaque removal and safeguarding sensitive oral tissues; the device is characterized by a thin, flexible design for adaptability to diverse oral dimensions and ease of use from the pre-teething stage onwards; and the device is particularly beneficial for early implementation in an infant's oral care routine, offering a practical solution for oral care from the gum-wiping stage through the emergence of baby teeth, establishing a strong foundation for long-term oral health.

[0062] While all of the corner fingers are shown as having the same length, it will be appreciated that the lengths can be different for one more of the corner fingers.

[0063] Various embodiments of systems, devices, and methods have been described herein. These embodiments are given only by way of example and are not intended to limit the scope of the claimed inventions. It should be appreciated, moreover, that the various features of the embodiments that have been described may be combined in various ways to produce numerous additional embodiments. Moreover, while various materials, dimensions, shapes, configurations and locations, etc. have been described for use with disclosed embodiments, others besides those disclosed may be utilized without exceeding the scope of the claimed inventions.

[0064] Persons of ordinary skill in the relevant arts will recognize that the subject matter hereof may comprise fewer features than illustrated in any individual embodiment described above. The embodiments described herein are not meant to be an exhaustive presentation of the ways in which the various features of the subject matter hereof may be combined. Accordingly, the embodiments are not mutually exclusive combinations of features; rather, the various embodiments can comprise a combination of different individual features selected from different individual embodiments, as understood by persons of ordinary skill in the art. Moreover, elements described with respect to one embodiment can be implemented in other embodiments even when not described in such embodiments unless otherwise noted. [0065] Although a dependent claim may refer in the claims to a specific combination with one or more other claims, other embodiments can also include a combination of the dependent claim with the subject matter of each other dependent claim or a combination of one or more features with other dependent or independent claims. Such combinations are proposed herein unless it is stated that a specific combination is not intended.

[0066] Any incorporation by reference of documents above is limited such that no subject matter is incorporated that is contrary to the explicit disclosure herein. Any incorporation by reference of documents above is further limited such that no claims included in the documents are incorpo-

rated by reference herein. Any incorporation by reference of documents above is yet further limited such that any definitions provided in the documents are not incorporated by reference herein unless expressly included herein.

[0067] For purposes of interpreting the claims, it is expressly intended that the provisions of 35 U.S.C. § 112(f) are not to be invoked unless the specific terms "means for" or "step for" are recited in a claim.

- 1. An oral tooth cleaning device comprising:
- a fabric body with a plurality of corners; and
- ergonomic corner finger pockets that extend outwardly from at least two of the plurality of corners of the fabric body, each finger pocket having an opening that allows a finger to be inserted into the finger pocket;
- wherein the fabric body comprises a textured surface for effective oral cleaning including infant gum care and early tooth emergence.
- 2. The device of claim 1, wherein the fabric body has a square shape with four corners and there are four corner finger pockets extending outwardly from the four corners.
- 3. The device of claim 1, wherein each corner finger pocket has an elongated shape with a hollow interior.
- **4**. The device of claim **1**, wherein the fabric body is formed of a synthetic material.
- 5. The device of claim 1, wherein the textured surface is located along at least one exposed face of the finger pocket.
- **6**. The device of claim **1**, wherein each corner finger pocket has a first face along one side that includes one or more textured sections, the one or more textured sections comprising a plurality of textured pads.
- 7. The device of claim 6, wherein the plurality of textured pads comprises a plurality of different bristle sections.
- **8**. The device of claim **1**, wherein the textured surface comprises two or more bristles sections that having different bristle constructions.
- **9**. The device of claim **8**, wherein the different bristle constructions comprise a first bristle section configured for gum care and a second bristle section that is stiffer than the first bristle section and is for cleaning teeth.
- 10. The device of claim 1, wherein the textured surface comprises a micro-ridged surface defined by a plurality of ridges and a plurality of microdots.
- 11. The device of claim 1, wherein the corner finger pockets are integrally formed with the fabric body.
- 12. The device of claim 1, wherein the textured surface comprises two or more section having different texture density.

- 13. The device of claim 1, wherein each corner finger pocket is formed of first and second layers that are attached along their peripheries to define an open space therebetween for receiving the finger, the first layer being formed of silicone, while the second layer is formed of an antimicrobial-treated fabric.
  - 14. An oral tooth cleaning device comprising:
  - a fabric body with a plurality of corners;
  - ergonomic corner finger pockets that extend outwardly from at least two of the plurality of corners of the fabric body, each finger pocket having an opening that allows a finger to be inserted into the finger pocket, each finger pocket having a first face and an opposite second face;
  - a plurality of interchangeable bristle pads that are configured to be removably attached to at least one of the first face and the second face of the corner finger pockets.
- 15. The device of claim 14, wherein the plurality of interchangeable bristle pads are configured to attach to the corner finger pockets by a hook and loop system.
- 16. The device of claim 15, wherein the hook and loop system includes first parts that are secured to the corner finger pockets and second parts that are secured to the undersides of the interchangeable bristle pads.
- 17. The device of claim 14, wherein the plurality of interchangeable bristle pads includes: (1) a first bristle pad that has a first bristle section configured for gum care, and (2) a second bristle pad that has a second bristle section that is stiffer than the first bristle section and is for cleaning teeth.
- 18. The device of claim 14, wherein at least one bristle pad is attached to the first face of the finger pocket and at least one bristle pad is attached to the opposite second face of the finger pocket.
- 19. The device of claim 14, wherein the fabric body has a first texture and the first faces of the corner finger pockets have second textures different than the first texture.
  - **20**. An oral tooth cleaning device comprising: a fabric body with a plurality of corners; and
  - ergonomic corner finger pockets that extend outwardly from at least two of the plurality of corners of the fabric body, each finger pocket having an opening that allows a finger to be inserted into the finger pocket;
  - wherein each corner finger pocket comprises a textured surface for effective oral cleaning including infant gum care and early tooth emergence, wherein the textured surface includes at least two different cleaning textures.

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