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Patente de Invención.



Patente de Modelo de Utilidad.



Capítulo I.



Capítulo II.

2

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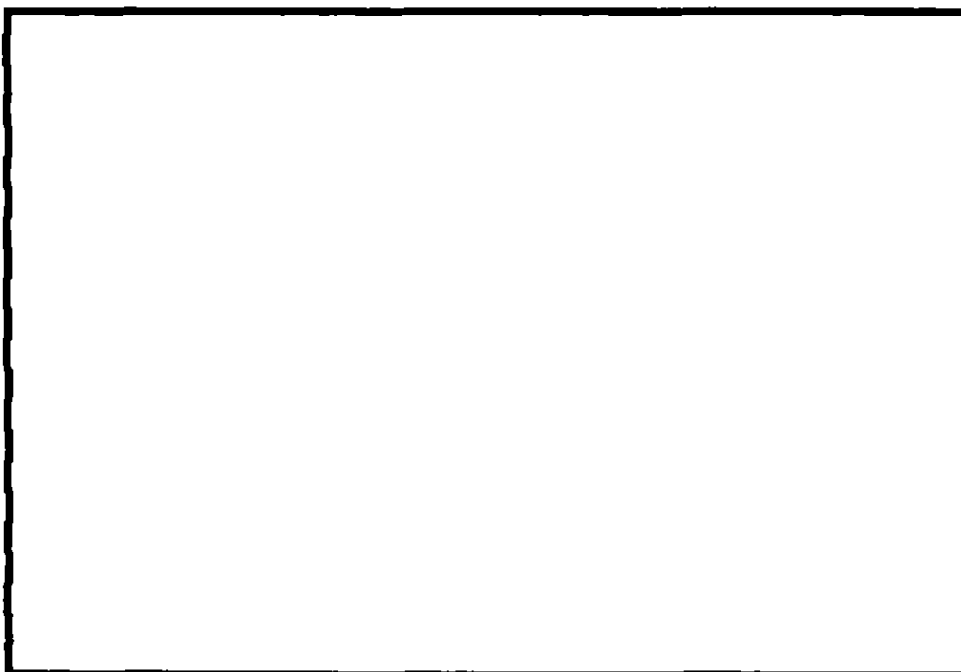
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ANEXOS

- ☒ Comprobante de pago de la tasa de presentación de la solicitud. \$443.000
- ☒ Documento que acredite la existencia y representación legal cuando el solicitante sea persona jurídica.
- ☒ Poderes, si fuere el caso. Fotocopia Autenticada
- ☒ Documento de cesión del inventor al solicitante o a su causante.
- ☐ Declaraciones
- ☒ Copia de la solicitud internacional. (Resumen, descripción, reivindicaciones, dibujos)
- ☒ Traducción de la solicitud internacional al castellano. (Resumen, descripción, reivindicaciones, dibujos)
- ☐ Copia del examen preliminar efectuado por la IPEA.
- ☐ Traducción del examen preliminar efectuado por la IPEA.
- ☐ De ser el caso, copia del contrato de acceso.
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- ☐ De ser el caso, certificado de depósito del material biológico.
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- ☐ De ser el caso, información sobre otras solicitudes de patente o títulos obtenidos en el extranjero por el mismo titular o su causante, relacionadas parcial o totalmente con la invención de esta solicitud.
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11 FIGURA CARACTERÍSTICA:



12 Solicitud de concesión de la patente

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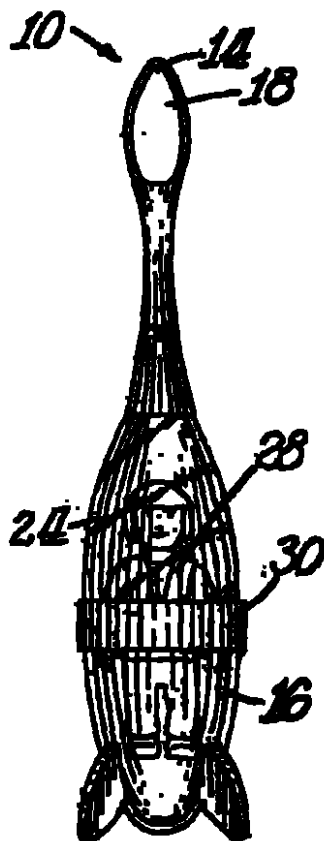
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(54) Title: TOOTHBRUSH ASSEMBLY

(57) Abstract: A child's toothbrush includes a handle in the form of a child-safe, ven-
tilated toy, such as a rocket or a vehicle, and contains a removable child-safe vehicle,
figurine, other toy or sundry product therein, and wherein a toothbrush head may be
detachable from the handle.



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TOOTHBRUSH ASSEMBLY**BACKGROUND OF THE INVENTION****A. Field of the Invention**

The present invention relates generally to toothbrushes, and, more particularly, to a toothbrush assembly having a child-safe, ventilated, toy-shaped handle with a compartment for removably storing a separate child-safe figurine or other toy.

B. Description of the Related Art

Various types of toothbrushes having object-shaped handles are generally known in the art, and are designed to appeal to children to encourage them to brush their teeth for enhanced oral health. Examples of such toothbrushes that appeal to children include U.S. Design Patent Nos. 237,659, 443,765, 452,381, and 452,382 disclose toothbrushes having handles shaped like vehicles (e.g., race cars, rocket ships, jets, etc.). U.S. Design Patent Nos. 329,948, 347,146, 347,147, 347,148, 363,166, 402,119, 434,907, and 452,380, and U.S. Patent Nos. 5,353,464 and 6,026,532 disclose toothbrushes having handles shaped like animals. Toothbrush handles having other shapes are also possible, as seen in U.S. Design Patent Nos. 113,744, 155,668, 175,198, and 209,574.

Many children's toys are handheld, and, especially with vehicle type handheld toys, contain a compartment with a lid for retaining figurines, such as toy people, therein. For example, the LEGO® Company of Denmark offers several vehicle type handheld toys that have a compartment with a transparent lid to retain a LEGO® figurine, such as a driver, within the vehicle. Such handheld toys are not known to have been used as toothbrush handles.

The closest the toothbrush art comes to offering toy-based handles with compartments for retaining additional figurines may be found in U.S. Patent Nos. 5,353,464, 5,887,601, and 5,590,436 and U.S. Design Patent No. 170,680. U.S. Patent No. 5,353,464 discloses a

toothbrush having a handle in the general form of an animal. If desired, the handle can contain a hollowed-out compartment for storage of a detachably/attachable toothbrush head. The compartment can be fitted with a suitable cover, plug, or lid to encase the entire toothbrush head within the handle. However, the compartment of U.S. Patent No. 5,353,464 is adapted to retain only the detachable toothbrush head, and there is no mention of providing a child-safe figurine within the handle. U.S. Patent No. 5,353,464 also fails to disclose providing a child-safe, ventilated toy-shaped handle.

Similarly, U.S. Patent No. 5,887,601 discloses a toothbrush having a handle with a compartment. The compartment, however, is for storage of retainer rings used in dental retainer devices. U.S. Patent No. 5,887,601 fails to disclose a toy-shaped handle, providing a figurine in the compartment, as well as a child-safe, ventilated, toy-shaped handle with a compartment for removably storing a separate child-safe figurine.

U.S. Patent No. 5,590,436 discloses a toothbrush having a handle that carries a figurine formed separately from but attached to the handle. The figurine can be attached directly to the handle of the toothbrush or can be attached first to a carrier which is then attached to the handle. The toothbrush handle of U.S. Patent No. 5,590,436 does not have a compartment with a cover or lid for retaining the figurine, and is not child-safe or ventilated.

U.S. Design Patent No. 170,680 shows a figurine attached to a toothbrush handle. However, it cannot be determined whether the figurine is in a compartment formed in the toothbrush handle or is molded into a visible portion of the handle. The toothbrush handle of U.S. Design Patent No. 170,680 does not have a compartment with a cover or lid for retaining the figurine. Thus, the reference fails to disclose a child-safe, ventilated, toy-shaped handle with a compartment for removably storing a separate child-safe figurine.

Although not part of the toothbrush art, U.S. Patent No. 5,713,664 discloses a beverage stirrer having a pop out item such as a figurine, logo, or product replica. The pop out item can be

mounted to an end of a sliding mechanism and can be configured to extend out of an open end of a casing as the beverage is stirred. Unfortunately, U.S. Patent No. 5,713,664 fails to suggest that such a pop out item configuration can be used for a toothbrush handle.

Thus, there is a need in the art to appeal to children with a child-safe, ventilated toy-shaped toothbrush handle having a compartment and a cover or lid for removably storing a child-safe figurine or other child's toy therein, wherein the handle can function as a toy with or without a detachable toothbrush head to encourage children to brush their teeth.

SUMMARY OF THE INVENTION

The present invention solves the problems of the related art by providing a toothbrush having a head and neck which may be detachably connected to a child-safe, ventilated toy-shaped handle, such as a rocket or vehicle or figurine. The handle includes a compartment with a cover or lid for removably storing a separate child-safe vehicle, figurine, other toy or sundry product, such as candy or a miniature tube of toothpaste therein. The handle is preferably a handheld toy design that functions as a toy whether or not detached from the toothbrush head. The present invention is child-safe because neither the handle nor the figurine contained therein presents a choking hazard to children less than three years of age. The handle of the present invention is ventilated for sanitary purposes to provide rapid drying when moisture infiltrates the compartment. Ventilation prevents buildup of bacteria such as mold and mildew that accompanies stagnant moisture. The inventors of the present invention have found that such handheld toy designs, containing a compartment with an additional toy or sundry product therein, makes an ideal toothbrush handle which offers a fun, safe, sanitary, and exciting way for children to brush their teeth. Such excitement motivates children to brush their teeth often, to set in place lifelong habits of good oral hygiene.

As embodied and broadly described herein, the present invention is broadly drawn to a

toothbrush assembly, comprising: a head connected to a neck, the head having an exposed outer surface; a plurality of bristles mounted to the head, the bristles being grouped into bristle tufts which extend outwardly from the exposed outer surface; a child-safe, ventilated handle connected to the neck, the handle having a ventilated compartment provided therein and an opening that provides access to the compartment; and a child-safe vehicle, figurine, other toy or sundry product removably provided within the compartment of the handle, the child-safe vehicle, figurine, other toy or sundry product being provided removably and storeably within the compartment via the opening provided in the handle.

In various practices of the present invention, the toothbrush handle takes the form of a rocket ship having a compartment and a cover or lid for retaining a child-safe figurine, such as action figure therein. Preferably, the cover is transparent so that the figurine may be viewed within the rocket ship-shaped handle. The cover may preferably be opened and closed, or removed and replaced so that the figurine may be removed and stored in the handle compartment.

In another aspect of the present invention, the toothbrush handle takes the form of a vehicle (e.g., a rescue vehicle) having a compartment and a transparent cover for retaining a figurine, such as a toy driver, therein. The transparent cover of the vehicle-shaped handle may function as a windshield for the vehicle, and may preferably be opened and closed, or removed and replaced so that the figurine may be removed and stored in the handle compartment.

In still another aspect of the present invention, the toothbrush handle may be a more conventional toothbrush shape, not the shape of a toy, but still acts as a storage and display case for the figurine contained in a compartment provided therein. An entirely transparent or translucent handle or an opaque handle with a transparent or translucent cover may be provided to enable the figurine to be displayed, and may preferably be opened and closed; or removed and replaced so that the figurine may be removed and stored in the handle compartment.

Further scope of applicability of the present invention will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description. It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory only and are not restrictive of the invention, as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will become more fully understood from the detailed description given hereinbelow and the accompanying drawings which are given by way of illustration only, and thus are not limitative of the present invention, and wherein:

Fig. 1 is a front elevational view of a toothbrush having a head and a rocket ship-shaped handle having a removable and replaceable cover that allows access to a compartment for storing a figurine therein in accordance with an embodiment of the present invention;

Fig. 2 is a side elevational view of the toothbrush shown in Fig. 1;

Fig. 3 is a rear elevational view of the toothbrush shown in Figs. 1 and 2;

Fig. 4 is a top plan view of the toothbrush shown in Figs. 1-3;

Fig. 5 is a bottom plan view of the toothbrush shown in Figs. 1-4;

Fig. 5A is an alternative bottom plan view of the toothbrush shown in Fig. 1-4 and showing an alternative mechanism to provide ventilation to the toothbrush handle;

Fig. 6 is a front elevational view of the toothbrush handle shown in Figs. 1-5, and showing a removable and replaceable cover held in place by a snap-in latch;

Fig. 7 is a cross-sectional view in elevation of the toothbrush handle shown in Figs. 1-6,

taken along line 7-7 of Fig. 6 and showing a snap-in latch provided in a receiver recess;

Fig. 8 is a front elevational view of the toothbrush handle shown in Figs. 1-5, and showing an alternative embodiment with a hinged full cover with a snap-in latch;

Fig. 9 is a front elevational view of the toothbrush handle shown in Figs. 1-5, and showing another alternative embodiment with a vertically-hinged two-piece cover with snap-in latches for each removable and replaceable cover;

Fig. 10 is a front elevational view of the toothbrush handle shown in Figs. 1-5, and showing still another alternative embodiment with a horizontally-hinged two-piece cover with snap-in latches for each removable and replaceable cover and a figurine removed from the compartment of the toothbrush handle;

Fig. 11 is a side elevational view of a toothbrush having a removable head and neck (shown in phantom outline) and a vehicle-shaped handle having a removable and replaceable cover displaying a compartment that removably stores a figurine therein in accordance with still another embodiment of the present invention;

Fig. 12 is a front elevational view of the toothbrush shown in Fig. 11;

Fig. 13 is a fragmental rear view of the toothbrush shown in Figs. 11 and 12, and showing how a retainer button of the toothbrush neck engages a retainer slot formed in the handle;

Fig. 14 is a side elevational view of a toothbrush having a removable head and neck, and a handle having a cover displaying a compartment that stores a figurine therein in accordance with still another embodiment of the present invention;

Fig. 15 is a side elevational view of still another embodiment of a toothbrush of the present invention having a removable head and neck, and a handle having a cover displaying a compartment that stores a figurine therein;

Fig. 16 is a top plan view of a small parts cylinder in accordance with ASTM International Standard F963-96a² Standard Consumer Safety Specification on Toy Safety, representing the size

requirements for toys including the toothbrush handle and figurine of the present invention; and

Fig. 17 is a cross-sectional side view of the small parts cylinder taken along line 17-17 of Fig. 16.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

The following detailed description of the invention refers to the accompanying drawings.

The same reference numbers in different drawings identify the same or similar elements. Also, the following detailed description does not limit the invention. Instead, the scope of the invention is defined by the appended claims and equivalents thereof.

Figs. 1-5 illustrate one practice of the present invention wherein a toothbrush 10 includes a neck section 12 interposed between a head 14 and a handheld handle 16. Preferably, neck 12 and head 14 are integrally connected, and together are detachably connected to handle 16 so that head 14 may be replaced as the bristles become worn and so that handle 16 may function separately as a toy when detached from neck 12 and head 14. In an alternate, less costly embodiment of the present invention, the head 14 and neck 12 are integral and permanently connected to the handle 16.

As further shown in Figs. 1-5, handle 16 preferably includes a hollowed-out compartment 22 with a cover, window, or lid 24 for retaining a figurine 28, such as an action figure; however, it is understood that in place of the figurine may be a vehicle, such as a submarine, plane or other toy or sundry product, such as candy or a miniature toothpaste tube which will appeal to a child. Cover 24 may be hinged or otherwise fixedly attached to, such as by being removably snapped thereto, or integrally formed with a body portion 17 of handle 16 and may be transparent for displaying figurine 28 housed within compartment 22. Although cover 24 may be configured to be removable, if cover 24 is fixedly attached to handle 16, an access opening for compartment 22 should be provided where neck 12 connects to handle 16 (as described more fully below with

reference to Fig. 11). An indicia band 30 may additionally be provided for displaying a toy logo.

Since the embodiment of the handle 16 shown in Figs. 1-5 is shaped like a rocket ship, it preferably includes fins 32 which simulate rocket ship fins, but also act as support feet for holding toothbrush 10 in an upright position for easy storage or display.

5 Fig. 5 further shows that ventilation may be provided to compartment 22 by forming openings 33 at the bottom of body portion 17. Openings 33 may be in the form of perforations, slots, slits, holes, etc. formed through the material making up body portion 17. Openings 33 may be provided at other locations of body portion 17 and/or may be formed in cover 24. Such ventilation would permit compartment 22 to rapidly air dry when moisture, atmospheric particles
10 (e.g., food particles), and organisms enter the compartment 22. Moisture, particles, and organisms create an unsanitary environment if they are not rapidly air dried. Thus, openings 33 provide sanitary protection to compartment 22 by preventing moisture, particles, and organisms from accumulating in compartment 22.

Alternatively, as shown in Fig. 5A, openings 33 may be replaced with a breathable
15 membrane 31 or a plurality of such membranes 31 formed at the bottom of body portion 17. Breathable membranes 31 may be provided at other locations of body portion 17 and/or may be provided in cover 24. Breathable membranes 31 may be made of a material such as the material sold under the trademark GORE-TEX or another equivalent material. Such material allows air and water vapor to move across it, but does not allow water in liquid form to move across it. If
20 moisture enters compartment 22 through, for example, removable cover 24, breathable membranes 31 would permit compartment 22 to rapidly air dry as well as prevent water in liquid form from entering compartment 22. Any combination of ventilation openings 33 and breathable membranes 31 may also be provided in body portion 17 and/or cover 24.

Ventilation openings 33, breathable membranes 31, and/or combinations thereof may be
25 provided in the other embodiments of the toothbrush assembly of the present invention, as shown

in Figs. 6-15 and discussed below.

Figs. 6-10 show various ways an openable cover may be arranged over an opening provided in a body portion 17 of handle 16, as opposed to the fixedly attached cover 24 shown in Figs. 1-5. Fig. 6 shows a handle body portion 17 with an opening 34 provided therein for receiving a removable and replaceable cover 36 held in place by two snap-in latches 38. Snap-in latches 38 are received and retained in respective receptacles 40 formed in body portion 17 of handle 16, as best shown in Fig. 7. Latches 38 may be engaged to remove cover 36 from opening 34, permitting removal or insertion of figurine 28 from or within compartment 22 of handle 16.

Fig. 8 shows a handle body portion 17 with an opening 34 provided therein for receiving a cover 42 hingedly connected to body portion 17 with a pair of hinges 44. A snap-in latch 38 is provided on an edge of cover 42 opposing the edge attached to hinges 44. Snap-in latch 38 may be received and retained in a receptacle 40 formed in body portion 17. Latch 38 may be engaged to pivot cover 42 away from opening 34, permitting removal or insertion of figurine 28 from or within compartment 22 of handle 16.

Fig. 9 shows a handle body portion 17 with an opening 34 provided therein for receiving a two-piece cover 46 hingedly connected in a vertical direction to body portion 17 with two pairs of hinges 44. Snap-in latches 38 are provided on an edge of each piece of cover 46 opposing the edge attached to hinges 44. Snap-in latches 38 may be received and retained in respective receptacles 40 formed in body portion 17. Latches 38 may be engaged to pivot two-piece cover 46 away from opening 34, permitting removal or insertion of figurine 28 from or within compartment 22 of handle 16.

Fig. 10 shows a handle body portion 17 with an opening 48 provided therein for receiving a two-piece cover 50 hingedly connected in a horizontal direction to body portion 17 with two pairs of hinges 44. Snap-in latches 38 are provided on an edge of each piece of cover 50

opposing the edge attached to hinges 44. Snap-in latches 38 may be received and retained in respective receptacles 40 formed in body portion 17. Latches 38 may be engaged to pivot two-piece cover 50 away from opening 34, permitting removal or insertion of figurine 28 from or within compartment 22 of handle 16.

5 Although hinges 40 and latches 38 are shown in specific quantities and at specific locations in Figs. 6-10, more or less hinges 40 and latches 38 may be provided, at a variety of locations on handle 16 in accordance with the broad teachings of the present invention. Likewise, the covers shown in Figs. 6-10 may have a variety of other shapes than shown in Figs. 6-10, in accordance with the broad teachings of the present invention. Furthermore, other
10 mechanisms may be used to connect and pivot the covers to the handles of the present invention.

Figs. 11-13 show one version of how neck 12 and head 14 of toothbrush 10 may be removably connected to the handle of toothbrush 10. An alternate version of handle 16A is also shown in Figs. 11-13. Handle 16A as shown may be shaped like a vehicle, such vehicles may include a race car, a submarine or an all terrain vehicle and includes a body portion 17A fixedly
15 connected to or integrally formed with a transparent cover or window 24A. Window 24A displays a figurine 28, such as an action figure, that may be provided in a compartment 22A provided in handle 16A.

As further shown in Figs. 11-13, a lower portion of neck 12 includes a retainer button 52 integrally connected to a spring arm 54, and a stiffener arm 56. Neck 12 and head 14 may be
20 removably attached to handle 16A by depressing retainer button 52 in a direction as shown by arrow 53, moving neck 12 in a direction as shown by arrow 55, sliding stiffener arm 56 and the button 52/spring arm 54 combination into an opening 60 provided in body portion 17A of handle 16A, and releasing retainer button 52. Retainer button 52 extends through a retainer slot 58 provided in body portion 17A, and remains in slot 58 due to the spring force provided by spring
25 arm 54. Neck 12 and head 14 may be removed from handle 16A by depressing retainer button

52, and pulling neck 12 and head 14 away from handle 16A.

As shown in Figs. 14 and 15, the handle of the present invention need not be shaped like a toy, but rather may be configured as a conventional generally cylindrical toothbrush handle to act as display case for figurine 28 contained therein. As shown in Fig. 14, toothbrush 10 includes a neck section 12 interposed between a head 14 and a handheld display handle 62. Handle 62 preferably includes a hollowed-out compartment 64 with a transparent window 66 for retaining a figurine 28 (e.g., an action figure) therein. In this embodiment, handle 62 includes two separate sections, a top section 62A and a bottom section 62B, which are threadably connectable with an indicia band 68 (similar to indicia band 30), via mating threads 70 provided on indicia band 68 and sections 62A, 62B. When top section 62A or bottom section 62B is unscrewed from indicia band 70, figurine 28 may be removed from or inserted in compartment 64 of handle 62.

As shown in Fig. 15, toothbrush 10 includes a neck section 12 interposed between a head 14 and a handheld display handle 72. Handle 72 preferably includes a hollowed-out compartment 74 with a transparent window 76 for retaining a figurine 28 (e.g., an action figure) therein. In this embodiment, handle 72 either threadably connects with a screw off top 78 (having neck 12 connected thereto), via mating threads 80, threadably connects with a screw off base 82, via mating threads 84, or threadably connects with screw off top 78 and screw off base 82. When screw off top 78 or screw off base 82 are unscrewed from handle 72, figurine 28 may be removed from or inserted in compartment 74 of handle 72.

Any embodiment of the toothbrush handles 16, 16A, 62, 72 of the present invention may be permanently attached to neck 12 and head 14, or may be removably attached to neck 12 or head 14 using any of the attachment configurations shown in Figs. 11-15. Preferably, however, the toothbrush handles of the present invention are removably attached to neck 12 and head 14 so that the handles may function more easily as a separate toy.

Preferably, handles 16, 16A, 62, 72 and figurines 28 of the present invention are "child-

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safe". As used herein, the term "child-safe" shall mean that handles 16, 16A, 62, 72 and figurines 28 are of large enough dimensions that they are not choking hazards to children less than three years of age, as set forth in ASTM International Standard F963-96a⁴² Standard Consumer Safety Specification on Toy Safety ("ASTM F963-96a^{42a}"). Section 4.6.1 of ASTM F963-96a⁴² requires, in part, that no toy (including removable liberated components, or fragments of toys) shall be small enough without being compressed to fit entirely within a cylinder 90 of the specified dimensions as shown in Figs. 16 and 17. As shown in Figs. 16 and 17, cylinder 90 includes a wall 92 and a sloped bottom surface 94. Cylinder 90 also has a 1.25-inch inner diameter A, and two heights—a shorter height B of 1.00 inches and a longer height C of 2.25 inches, as defined by sloped bottom surface 94. Thus, handles 16, 16A, 62, 72 and figurines 28 should have dimensions large enough that they do not entirely fit, without being compressed, into the cylinder 90 shown in Figs. 16 and 17.

Head 14 of the present invention may have a generally flat face 18 that holds a plurality of tufts or bristles 20. Head 14 may have variety of shapes, including but not limited to circular, oval, square, rectangular, various regular or irregular shapes, etc.

Bristles 20 extending from face 18 may be coplanar with each other so that the outer surface of bristles 20 lie in a single plane. The invention, however, could be practiced where some or all of the bristles 20 extend outwardly a different distance than other bristles 20 to result in a stepped effect for the outer surface of bristles. In the illustrated embodiment as best shown in Fig. 2, bristles 20 extend outwardly from an outer surface 26 of head 14 approximately the same distance to create a generally flat surface or flat bristle trim for receiving the toothpaste.

While Figs. 2, 4, 11, 14, and 15 illustrate conventional fiber form bristles, the term "bristles" as used herein is intended to be used in a generic sense as cleaning elements or massage elements and could include, for example, elastomeric fingers or walls arranged in a circular cross-section shape or any type of desired shape, including straight portions or sinusoidal

portions.

The bristles 20 could be mounted to the tuft blocks or sections by extending through suitable openings in face 18 so that the base of bristles 20 is mounted within or below the surface of face 18 using conventional staple or in-mold tufting technology for mounting therein. If
5 desired, the bristles could be embedded in an elastomeric material which would permit the bristles to have an independent motion. Such various forms of bristles may thus be used for the bristles used in any section of head 14.

It is to be understood that the specific illustration of the bristles is merely for exemplary purposes. The invention can, however, be practiced with various combinations of the same or
10 different bristle configurations as disclosed in U.S. Patent Nos. 5,609,890, 5,390,984, and 5,533,791, the disclosures of which being incorporated by reference herein in their entirety, and/or with the same or different bristle materials, such as nylon bristles, spiral bristles, rubber bristles, etc. Similarly, while Figs. 1-7 illustrate the bristles to be generally perpendicular to face 18 of head 14, some or all of the bristles may be angled at various angles with respect to the outer
15 surface of the bristle head. It is thereby possible to select the combination of bristle configurations, bristle materials and bristle orientations to achieve specific intended results, such as to create as much movement from the oscillating tuft heads to deliver additional oral health benefits like enhanced cleaning, tooth polishing, tooth whitening and/or massaging of the gums.

It is to be understood that the invention can be practiced by locating tufts of bristles in
20 any otherwise open area of toothbrush head 14. Such tufts of bristles could be fixed bristles perpendicularly mounted or mounted at an angle to the exposed outer surface 26 of the head 14 or could be bristles mounted on an elastomeric base with a Shore A durometer in the range of about 0 to about 90, so as to be independently movable when pressure is applied. Such bristles in their normal condition could be either perpendicular or at an angle to the face 18 of head 14.

25 The invention may also be practiced where different sets of bristles have different

colors. It is to be understood, however, that any combination of colors including only one color could be used for bristles 20. Likewise, neck 12 and handle 16 may have a variety of colors, and may be opaque, transparent, translucent, clear, etc.

WHAT IS CLAIMED IS:

1. A toothbrush assembly, comprising:

a head connected to a neck, said head having a plurality of bristles extending

5 outwardly therefrom;

a handle connected to said neck, said handle having a compartment provided therein; and

a vehicle, figurine, other toy or sundry product being provided in the compartment and being sized according to the requirements of Section 4.6.1 of ASTM F963-96a².

10 2. A toothbrush assembly as recited in claim 1, wherein said vehicle, figurine, other toy or sundry product fails to choke children under the age of three years.

3. A toothbrush assembly as recited in claim 1, wherein said vehicle, figurine, other toy or sundry product is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches.

15 4. A toothbrush assembly as recited in claim 1, wherein the compartment has a cover which may be opened and reclosed whereby said vehicle, figurine, other toy or sundry product may be removed and replaced in the compartment.

5. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a rocket ship.

20 6. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of

a vehicle.

7. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a display case.

8. A toothbrush assembly as recited in claim 1, wherein when said neck removably
5 connects to said handle.

9. A toothbrush assembly as recited in claim 8, wherein said neck retains said figurine within the compartment.

10. A toothbrush assembly as recited in claim 8, wherein a lower portion of said neck includes a stiffener arm and a retainer button integrally connected to a spring arm, the retainer
10 button, spring arm, and stiffener arm removably connecting to the opening of said handle.

11. A toothbrush assembly as recited in claim 10, wherein the retainer button extends through a retainer slot provided in said handle, and remains in the retainer slot due to a spring force provided by the spring arm.

12. A toothbrush assembly as recited in claim 4, wherein the cover is transparent to
15 make said figurine visible within the compartment of said handle.

13. A toothbrush assembly as recited in claim 12, wherein the cover permanently connects to a body portion of said handle.

14. A toothbrush assembly as recited in claim 4, wherein the cover removably connects to a body portion of said handle via at least one snap-in latch.

15. A toothbrush assembly as recited in claim 4, wherein the cover connects to a body portion of said handle with at least one hinge and at least one snap-in latch.

5 16. A toothbrush assembly as recited in claim 15, wherein the cover comprises two pieces, each cover piece connecting to the body portion of said handle via at least one hinge and at least one snap-in latch.

17. A toothbrush assembly as recited in claim 1, wherein said handle comprises two sections connected together with an indicia band.

10 18. A toothbrush assembly as recited in claim 17, the indicia band has threads that mate with threads provided on each section of said handle.

19. A toothbrush assembly as recited in claim 1, wherein a top end of said handle threadably connects to a screw off top integrally connected to said neck, the screw off top providing access to the opening of said handle.

15 20. A toothbrush assembly as recited in claim 1, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to the opening of said handle.

20 21. A toothbrush assembly as recited in claim 19, wherein a bottom end of said handle

threadably connects to a screw off base, the screw off base providing access to another opening of said handle.

22. A toothbrush assembly as recited in claim 1, wherein said handle is transparent to
5 make said vehicle, figurine, other toy or sundry product visible within the compartment of said handle.

23. A toothbrush assembly, comprising:
a head connected to a neck, said head having a plurality of bristles extending
outwardly therefrom;

10 a handle connected to said neck, said handle having a ventilated compartment provided therein; and

a vehicle, figurine, other toy or sundry product being provided in the compartment.

15 24. A toothbrush assembly as recited in claim 23, wherein at least one opening is provided in the handle to ventilate the compartment.

25. A toothbrush assembly as recited in claim 23, wherein at least one breathable
membrane is provided in the handle to ventilate the compartment.

20 26. A toothbrush assembly as recited in claim 23, wherein at least one opening and at least one breathable membrane are provided in the handle to ventilate the compartment.

27. A toothbrush assembly as recited in claim 23, wherein the compartment has a

cover which may be opened and reclosed whereby said vehicle, figurine, other toy or sundry product may be removed and replaced in the compartment.

28. A toothbrush assembly as recited in claim 27, wherein at least one opening is provided in the cover to ventilate the compartment.

29. A toothbrush assembly as recited in claim 27, wherein at least one breathable membrane is provided in the cover to ventilate the compartment.

30. A toothbrush assembly as recited in claim 27, wherein at least one opening and at least one breathable membrane are provided in the cover to ventilate the compartment.

31. A toothbrush assembly as recited in claim 23, wherein said handle is in the shape of a rocket ship.

32. A toothbrush assembly as recited in claim 23, wherein said handle is in the shape of a vehicle.

33. A toothbrush assembly as recited in claim 23, wherein said handle is in the shape of a display case.

34. A toothbrush assembly as recited in claim 23, wherein when said neck removably connects to said handle.

35. A toothbrush assembly as recited in claim 34, wherein said neck retains said

figurine within the compartment.

36. A toothbrush assembly as recited in claim 34, wherein a lower portion of said neck includes a stiffener arm and a retainer button integrally connected to a spring arm, the retainer button, spring arm, and stiffener arm removably connecting to the opening of said handle.

37. A toothbrush assembly as recited in claim 36, wherein the retainer button extends through a retainer slot provided in said handle, and remains in the retainer slot due to a spring force provided by the spring arm.

38. A toothbrush assembly as recited in claim 27, wherein the cover is transparent to make said figurine visible within the compartment of said handle.

39. A toothbrush assembly as recited in claim 38, wherein the cover permanently connects to a body portion of said handle.

40. A toothbrush assembly as recited in claim 27, wherein the cover removably connects to a body portion of said handle via at least one snap-in latch.

41. A toothbrush assembly as recited in claim 27, wherein the cover connects to a body portion of said handle with at least one hinge and at least one snap-in latch.

42. A toothbrush assembly as recited in claim 41, wherein the cover comprises two pieces, each cover piece connecting to the body portion of said handle via at least one hinge and



at least one snap-in latch.

43. A toothbrush assembly as recited in claim 23, wherein said handle comprises two sections connected together with an indicia band.

44. A toothbrush assembly as recited in claim 43, the indicia band has threads that
5 mate with threads provided on each section of said handle.

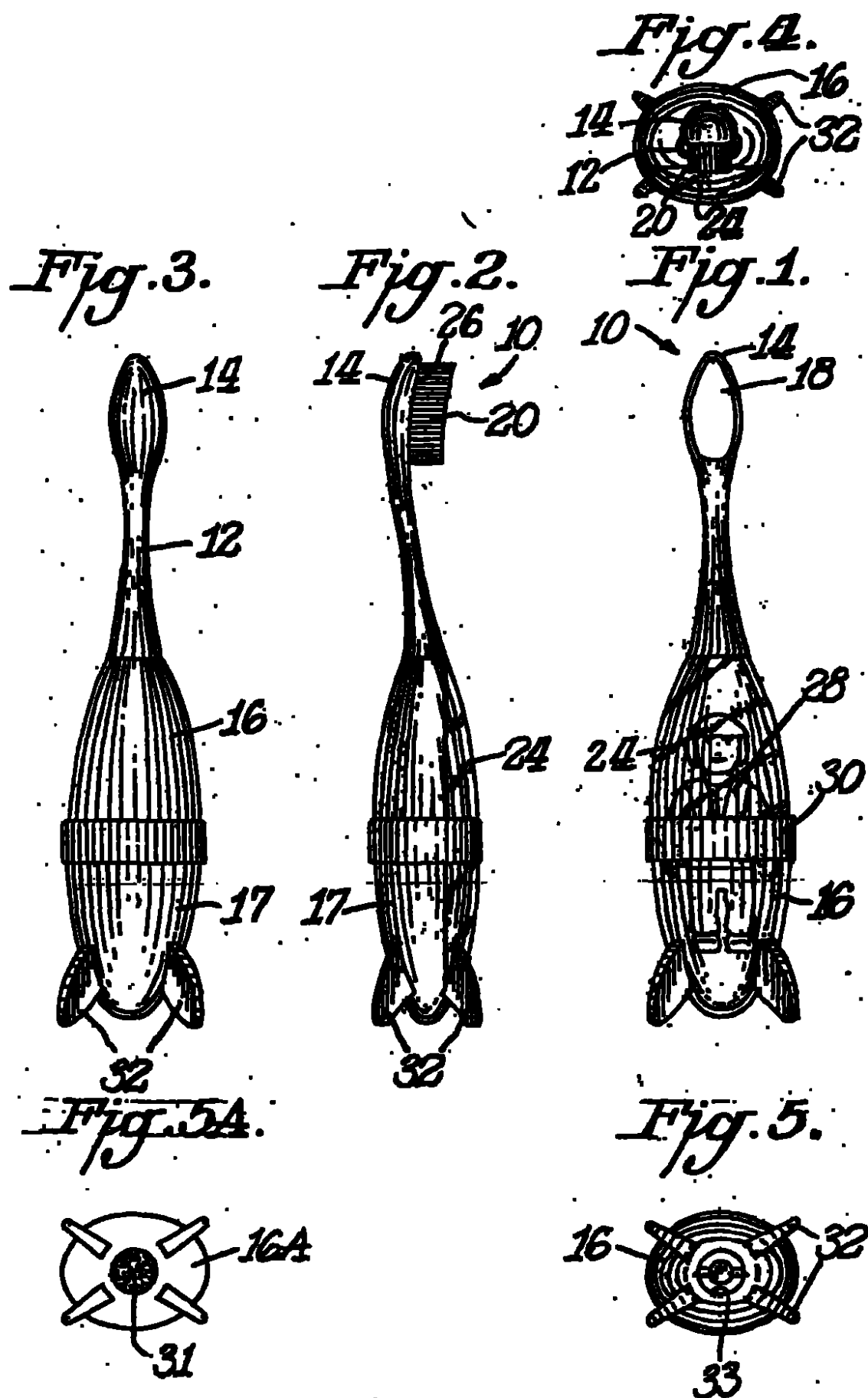
45. A toothbrush assembly as recited in claim 23, wherein a top end of said handle threadably connects to a screw off top integrally connected to said neck, the screw off top providing access to the opening of said handle.

46. A toothbrush assembly as recited in claim 23, wherein a bottom end of said handle
10 threadably connects to a screw off base, the screw off base providing access to the opening of said handle.

47. A toothbrush assembly as recited in claim 45, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to another opening of said handle.

15 48. A toothbrush assembly as recited in claim 23, wherein said handle is transparent to make said vehicle, figurine, other toy or sundry product visible within the compartment of said handle.

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Fig. 6.

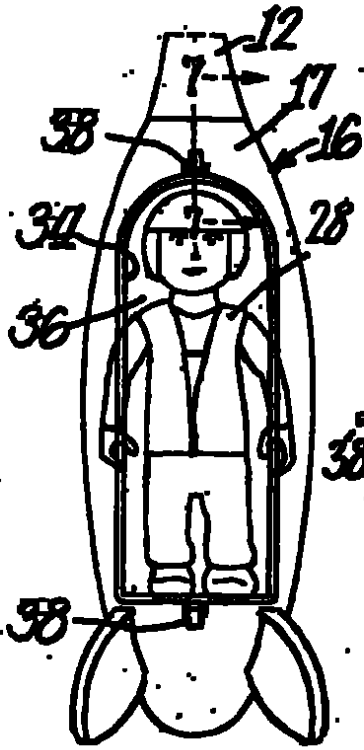


Fig. 8.

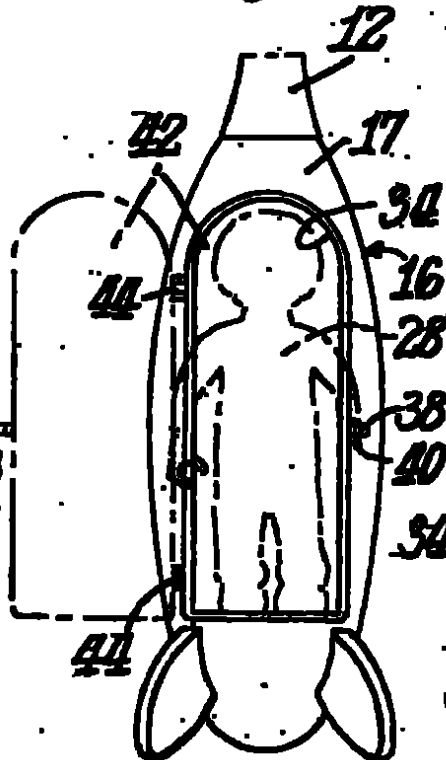


Fig. 9.

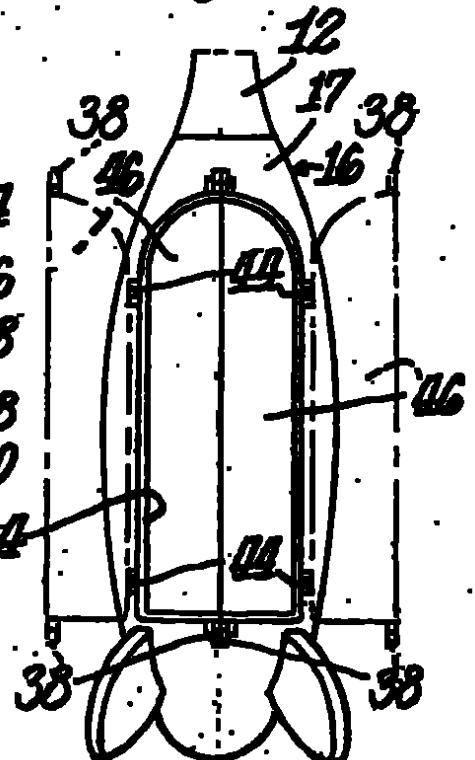


Fig. 7.

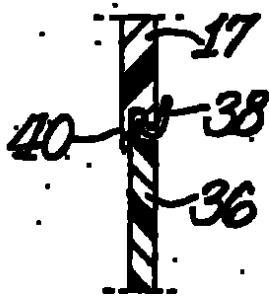
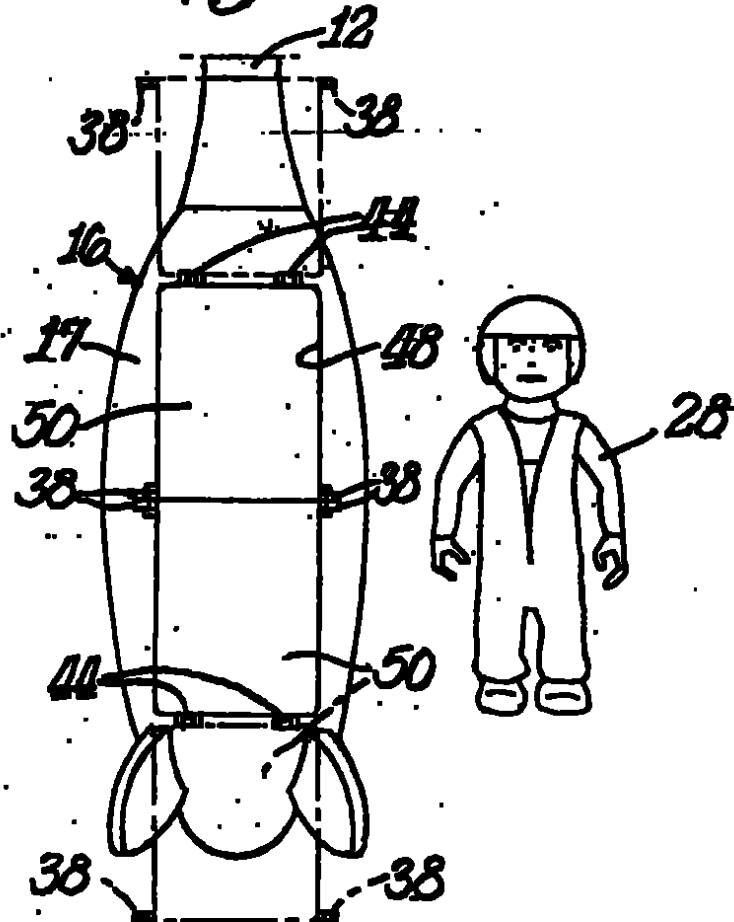


Fig. 10.



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Fig. 11.

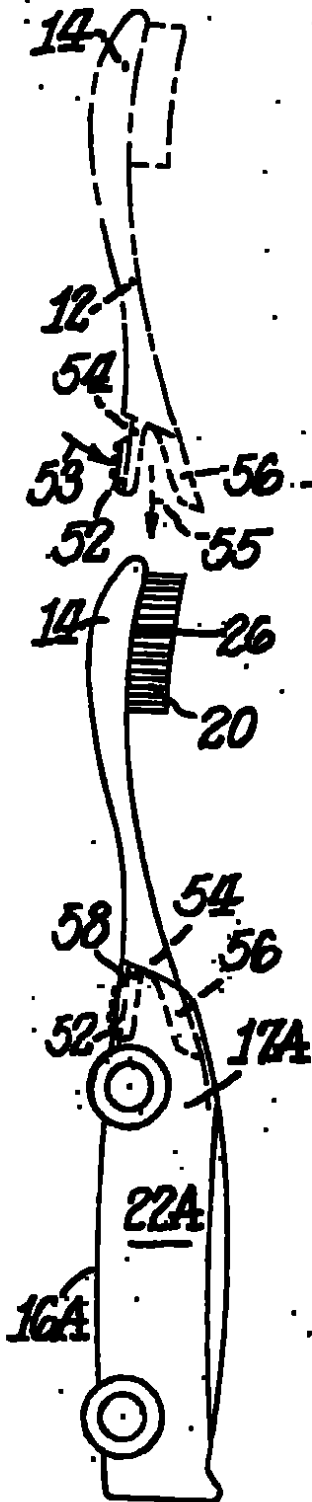


Fig. 12.

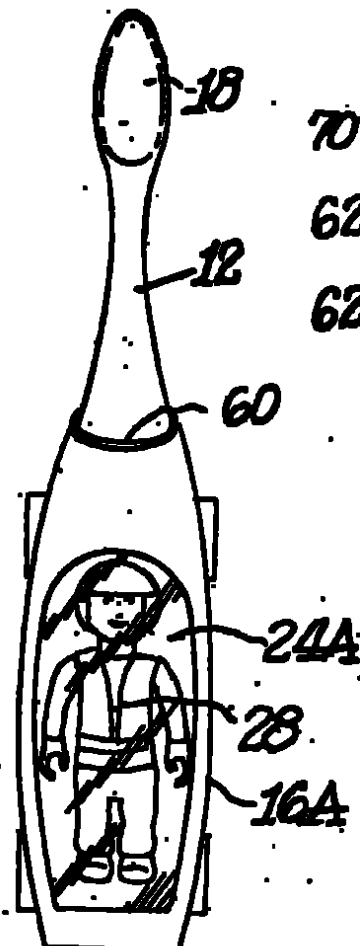


Fig. 13.

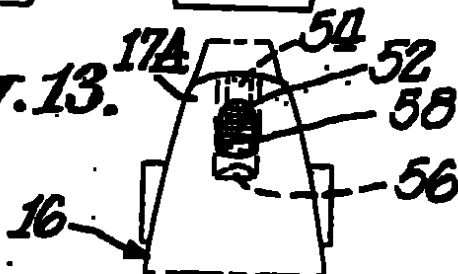


Fig. 14. Fig. 15.

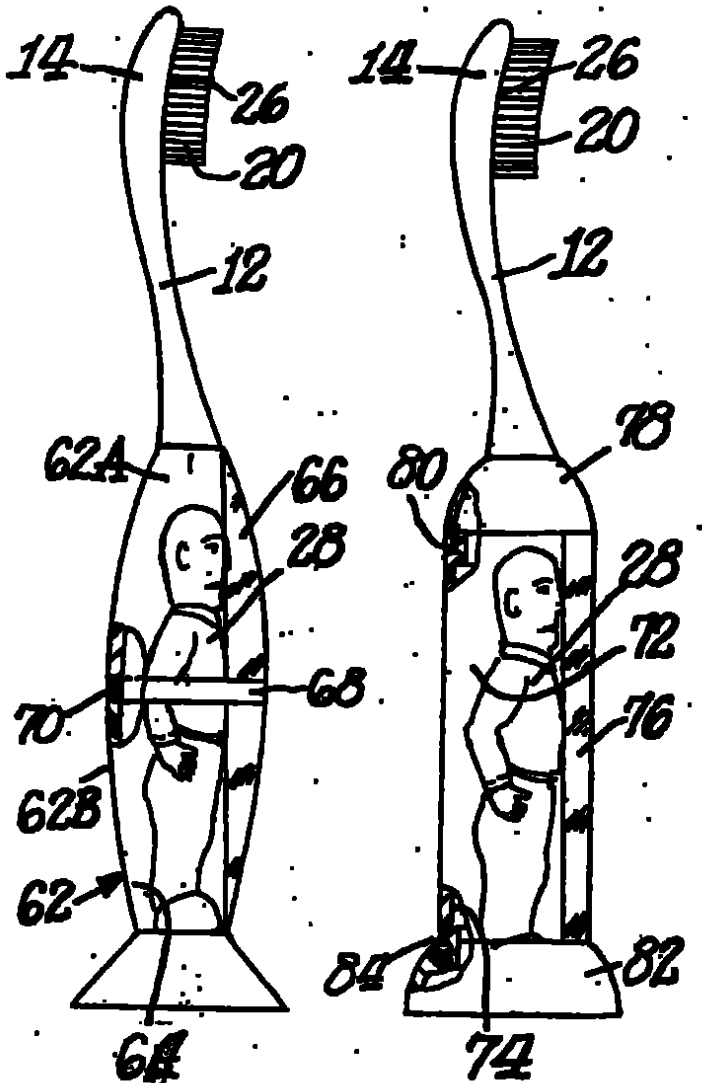


Fig. 16.

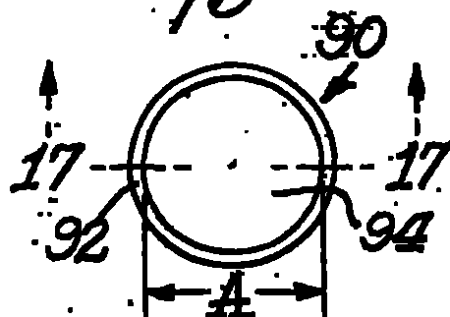
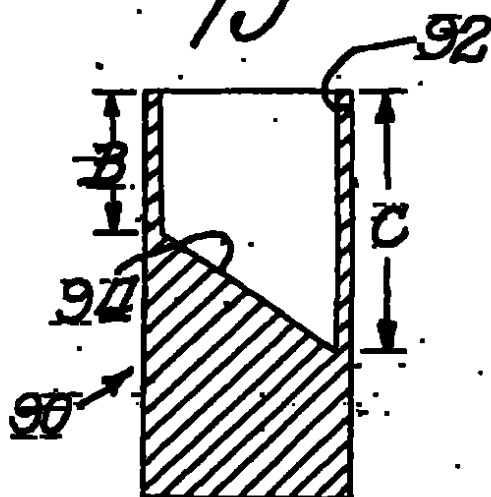


Fig. 17.



INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US2004/015474

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A46B5/00 A46B15/00 A46B7/04

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A46B

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

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

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A Y	US 2003/019063 A1 (ABRAHAM PAULETTE) 30 January 2003 (2003-01-30) the whole document US 5 836 803 A (HAMLIN JOHN) 17 November 1998 (1998-11-17) the whole document -/-	1,4,7, 12,13,22 2,3,5,6, 23,24, 27,28, 31-33, 38,39,48 8-11, 14-21, 34-37, 40-47 2,3

☒ Further documents are listed in the continuation of box C.

☒ Patent family numbers are listed in annex.

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- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to substantiate the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- *Z* document member of the same patent family

Date of the actual completion of the international search

23 September 2004

Date of mailing of the international search report

05/10/2004

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INTERNATIONAL SEARCH REPORT

23 33
International Application No.
POT/US2004/015474

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 1 408 900 A (HILARY PAGE SENSIBLE TOYS LTD) 8 October 1975 (1975-10-08)	23,24, 27,28, 33,38, 39,48
A		25,26, 29,30
Y	US D 237 659 S (MEYERS) 18 November 1975 (1975-11-18) cited in the application the whole document	5,31
Y	DE 71 43 294 U (PASCHAKARNIS) 23 March 1972 (1972-03-23) the whole document	6,32
A	US 5 590 436 A (WRIGHT JOHN R ET AL) 7 January 1997 (1997-01-07) cited in the application the whole document	1-48
A	US D 170 680 S (DELMAS) 27 October 1953 (1953-10-27) cited in the application the whole document	1,23

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

101/US2004/015474

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003019063	A1	30-01-2003	NONE
US 5836803	A	17-11-1998	CA 2294180 A1 30-12-1998 EP 0996489 A1 03-05-2000 PL 343870 A1 10-09-2001 WO 9858719 A1 30-12-1998
GB 1408900	A	08-10-1975	HK 49276 A 06-08-1976
US D237659	S		NONE
DE 7143294	U		NONE
US 5590436	A	07-01-1997	GB 2299499 A 09-10-1996 EP 0818966 A1 21-01-1998 WO 9631145 A1 10-10-1996
US D170680	S		NONE

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(19) Organización Mundial de Propiedad
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9 de diciembre de 2004 (09.12.2004)

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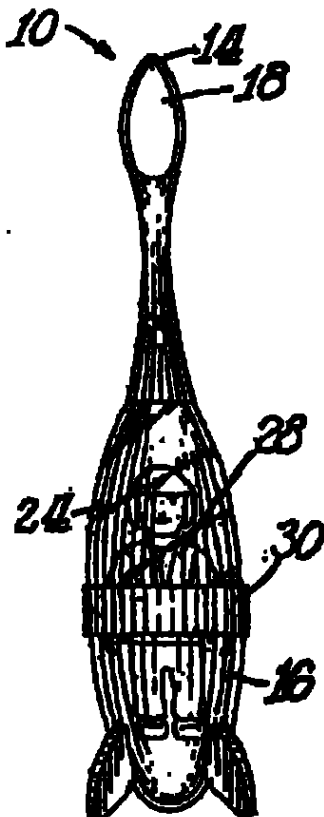
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(51) Estados Designados (a menos que se
indique lo contrario, para todo tipo de
protección nacional disponible): AE, AG, AL,
AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ,
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KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
MK.

[Continúa en la siguiente página]

(54) Título: ENSAMBLAJE DE CEPILLO DE DIENTES



(57) Resumen: Un cepillo de dientes para niños incluye un mango en forma de una juguete ventilado seguro para niños, tal como un cohete o vehículo, y contiene un vehículo, figurilla, u otro juguete o artículo vario removible seguro para niños allí, y en donde la cabeza del cepillo de dientes puede separarse del mango.

MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UAM UG, UZ, VN, YU, ZA, ZM, ZW

- (84) **Estados Designados** (a menos que se indique lo contrario, para todo tipo de protección regional disponible): patente ARIPO (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Patente Euroasiática (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Patente europea (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, RO, SE, SK, TR), Patente OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaraciones bajo la regla 4.17

- en cuanto al derecho del solicitante para solicitar y que se le conceda una patente (Regla 4.17(i)) para todas las designaciones.
— en cuanto al derecho del solicitante a reivindicar la prioridad de la solicitud más temprana (Regla 4.17(ii)) para todas las designaciones

Publicado:

- con el informe de búsqueda internacional
—

Para códigos de dos letras y otras abreviaciones, referirse a las "Notas de guía sobre Códigos y Abreviaturas" que aparecen al comienzo de cada edición de la Gaceta del PCT

Caso N° 20.294

Memoria Descriptiva**de solicitud de****Patente de Invención****Relativa a:****ENSAMBLAJE DE CEPILLO DE DIENTES*****A favor de:*****COLGATE-PALMOLIVE COMPANY,
UNA CORPORACIÓN DEL ESTADO DE DELAWARE.****Ceslonaria de: James KEMP, Brett TRAFICANT, Eduardo GIMENEZ, Al
SPROSTA, Tau DAI y Nancy WON MEE PAK.**

ENSAMBLAJE DE CEPILLO DE DIENTES**ANTECEDENTES DE LA INVENCION****A Campo de la Invención**

La presente invención se refiere en general a cepillos de dientes, y, de manera particular, a un ensamblaje de cepillo de dientes que tiene un mango en forma de juguete, ventilado, seguro para los niños, con un compartimiento para guardar de manera removible una figurilla u otro juguete separado, seguro para los niños.

B. Descripción del Arte Relacionado

Varios tipos de cepillos de dientes que tienen mangos en forma de objetos son generalmente conocidos en el arte, y están diseñados para ser atractivos para los niños para estimularlos a cepillarse los dientes para una salud oral mejorada. Unos ejemplos de tales cepillos de dientes que son atractivos para los niños incluyen las Patentes de Diseño de EE.UU. Nos. 237.659, 443.765, 452.381 y 452.382 que describen cepillos de dientes que tienen mangos en forma de vehículos (por ejemplo carros de carrera, cohetes, aviones a chorro, etc.). Las Patentes de Diseño de EE.UU. Nos. 329.948, 347.146, 347.147, 347.148, 363.166, 402.119, 434.907 y 452.380, y las Patentes de EE.UU. Nos. 5.353.464 y 6.026.532, describen cepillos de dientes que tienen mangos en forma de animales. Unos mangos de cepillos de dientes que tienen otras formas son también posibles, como se observa en las Patentes de Diseño de EE.UU. Nos. 113.744, 155.668, 175.198 y 209.574.

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Muchos juguetes para los niños son sostenidos con la mano, y, especialmente en el caso de los juguetes de mano tipo vehículo, contienen un compartimiento con una tapa para retener figurillas, tales como personas de juguete, en el mismo. Por ejemplo, la Compañía LEGO® de Dinamarca ofrece diversos juguetes de mano tipo vehículo que tienen un compartimiento con una tapa transparente para retener una figurilla de LEGO®, tal como un conductor, dentro del vehículo. No se tiene conocimiento de que tales juguetes de mano hayan sido usados como mangos de cepillos de dientes.

El arte más cercano sobre cepillos de dientes que ofrece mangos basados en juguetes con compartimientos para retener figurillas adicionales puede ser encontrado en las Patentes de EE.UU. Nos. 5.353.464, 5.887.601 y 5.590.436, y la Patente de Diseño de EE.UU. N° 170.680. La Patente de EE.UU. N° 5.353.464 describe un cepillo de dientes que tiene un mango con la forma general de un animal. Si se desea, el mango puede contener un compartimiento ahuecado para el almacenaje de una cabeza de cepillo de dientes separable/unible. El compartimiento puede ser equipado con una cubierta o tapa adecuada para encerrar la cabeza de cepillo de dientes entera dentro del mango. Sin embargo, el compartimiento de la Patente de EE.UU. N° 5.353.464 está adaptado para retener solamente la cabeza de cepillo de dientes separable, y no hay mención de proporcionar una figurilla segura para los niños dentro del mango. La Patente de EE.UU. N° 5.353.464 tampoco describe la provisión de un mango en forma de juguete ventilado, seguro para los niños.

Similarmente, la Patente de EE.UU. N° 5.887.601 describe un cepillo

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de dientes que tiene un mango con un compartimiento. El compartimiento, sin embargo, es para almacenaje de anillos de retención usados en dispositivos retenedores dentales. La Patente de EE.UU. N° 5.887.601 no describe un mango en forma de juguete, que proporciona una figurilla en el compartimiento, ni tampoco un mango en forma de juguete, ventilado, seguro para los niños, con un compartimiento para almacenar de manera removible una figurilla separada, segura para los niños.

La Patente de EE.UU. N° 5.590.436 describe un cepillo de dientes que tiene un mango que porta una figurilla formada de manera separada pero unida al mango. La figurilla puede ser unida directamente al mango del cepillo de dientes o puede ser unida primero a un portador el cual es entonces unido al mango. El mango del cepillo de dientes de la Patente de EE.UU. N° 5.590.436 no tiene un compartimiento con una cubierta o tapa para retener la figurilla, y no es seguro para los niños ni ventilado.

La Patente de Diseño de EE.UU. N° 170.680 muestra una figurilla unida a un mango de cepillo de dientes. Sin embargo, no se puede determinar si la figurilla está en un compartimiento formado en el mango del cepillo de dientes o es moldeada en una porción visible del mango. El mango del cepillo de dientes de la Patente de Diseño N° 170.680 no tiene un compartimiento con una cubierta o tapa para retener la figurilla. Así, la referencia no describe un mango en forma de juguete, ventilado, seguro para los niños, con un compartimiento para guardar de manera removible una figurilla separada, segura para los niños.

Aunque no forma parte del arte sobre cepillos de dientes, la Patente de EE.UU. N° 5.713.664 describe un agitador de bebida que tiene un

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artículo saliente tal como una figurilla, un logotipo o una réplica de producto. El artículo saliente puede ser montado a un extremo de un mecanismo deslizante y puede ser configurado para extenderse hacia afuera de un extremo abierto de una envoltura a medida que la bebida es agitada. Desafortunadamente, la Patente de EE.UU. N° 5.713.664 no sugiere que tal configuración de artículo saliente pueda ser usada para un mango de cepillo de dientes.

Así, existe en el arte la necesidad de atraer a los niños con un mango de cepillo de dientes en forma de juguete, ventilado, seguro para los niños, que tenga un compartimiento y una cubierta o tapa para guardar de manera removible una figurilla u otro juguete infantil en el mismo, en donde el mango pueda funcionar como un juguete con o sin una cabeza de cepillo de dientes separable para estimular a los niños a cepillarse los dientes.

SUMARIO DE LA INVENCION

La presente invención resuelve los problemas del arte relacionado proporcionando un cepillo de dientes que tiene una cabeza y un cuello que pueden ser conectados de manera separable a un mango en forma de juguete, ventilado, seguro para los niños, tal como un cohete o un vehículo o una figurilla. El mango incluye un compartimiento con una cubierta o tapa para guardar de manera removible un vehículo, una figurilla, otro juguete o un producto misceláneo separado, seguro para los niños, tal como caramelo o un tubo de pasta dental en miniatura en el mismo. El mango es preferiblemente un diseño de juguete de mano que funciona como un juguete ya sea que esté o no separado de la cabeza del cepillo de dientes. La presente invención es segura para los niños debido a que ni el mang ni

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la figurilla contenida en el mismo presentan un riesgo de asfixia para niños menores de tres años. El mango de la presente invención es ventilado con fines sanitarios para proporcionar un secado rápido cuando la humedad infiltra el compartimiento. La ventilación impide la acumulación de bacterias, tales como moho, que acompañan a la humedad estancada. Los inventores de la presente invención han encontrado que tales diseños de juguete de mano, que contienen un compartimiento con un juguete o producto misceláneo adicional en el mismo, representan un mango de cepillo de dientes ideal que ofrece una forma divertida, segura, sanitaria y excitante para que los niños se cepillen los dientes. Tal excitación motiva a los niños a cepillarse los dientes con frecuencia, para implementar hábitos de buena higiene oral para toda la vida.

Tal como se concibe y se describe ampliamente en la presente, la presente invención se dirige de manera amplia a un ensamblaje de cepillo de dientes, que comprende: una cabeza conectada a un cuello, la cabeza teniendo una superficie externa expuesta; una pluralidad de cerdas montadas a la cabeza, las cerdas estando agrupadas en pequeños haces de cerdas que se extienden hacia afuera desde la superficie externa expuesta; un mango ventilado, seguro para los niños, conectado al cuello, el mango teniendo un compartimiento provisto en el mismo y una abertura que proporciona acceso al compartimiento; y un vehículo, una figurilla, otro juguete o producto misceláneo seguro para los niños proporcionado de manera removible dentro del compartimiento del mango, el vehículo, figurilla, otro juguete o producto misceláneo siendo proporcionado de manera removible y guardable dentro del compartimiento por medio de la

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abertura proporcionada en el mango.

En varias puestas en práctica de la presente invención, el mango del cepillo de dientes adopta la forma de un cohete que tiene un compartimiento y una cubierta o tapa para retener una figurilla segura para los niños, tal como una figura de acción, en el mismo. Preferiblemente, la cubierta es transparente de tal modo que la figurilla pueda ser visualizada dentro del mango en forma de cohete. La cubierta, preferiblemente, puede ser abierta y cerrada, o removida y colocada nuevamente de tal modo que la figurilla pueda ser removida y guardada en el compartimiento del mango.

En otro aspecto de la presente invención, el mango del cepillo de dientes adopta la forma de un vehículo (por ejemplo un vehículo de rescate) que tiene un compartimiento y una cubierta transparente para retener una figurilla, tal como un conductor de juguete, en el mismo. La cubierta transparente del mango en forma de vehículo puede funcionar como un parabrisas para el vehículo, y puede ser preferiblemente abierta y cerrada, o removida y colocada nuevamente de tal modo que la figurilla pueda ser removida y guardada en el compartimiento del mango.

En otro aspecto más de la presente invención, el mango del cepillo de dientes puede tener una forma de cepillo de dientes más convencional, no una forma de juguete, pero aún actuar como un estuche de almacenaje y exhibición para la figurilla contenida en un compartimiento proporcionado en el mismo. Un mango totalmente transparente o translúcido o un mango opaco con una cubierta transparente o translúcida puede ser provisto para permitir que la figurilla sea mostrada, y puede ser preferiblemente abierta y cerrada, o removida y colocada nuevamente de modo que la figurilla pueda

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ser removida y guardada en el compartimiento del mango.

Un alcance adicional de aplicabilidad de la presente invención será evidente a partir de la descripción detallada proporcionada a continuación. Sin embargo, debe quedar entendido que la descripción detallada y los ejemplos específicos, aunque indican realizaciones preferidas de la invención, son proporcionados a modo de ilustración solamente, ya que varios cambios y modificaciones dentro del espíritu y alcance de la invención serán evidentes para aquéllos versados en el arte a partir de esta descripción detallada. Debe quedar entendido que tanto la descripción general precedente como la descripción detallada siguiente son ilustrativas y explicativas solamente y no restringen la invención tal como se reivindica.

BREVE DESCRIPCIÓN DE LOS DIBUJOS

La presente invención será mejor comprendida a partir de la siguiente descripción detallada proporcionada más adelante y los dibujos acompañantes que son proporcionados a modo de ilustración solamente, y así no son limitativos de la presente invención, y en los cuales:

la Fig. 1 es una vista en elevación frontal de un cepillo de dientes que tiene una cabeza y un mango en forma de cohete que tiene una cubierta removible y recolocable que permite el acceso a un compartimiento para guardar una figurilla en el mismo, de acuerdo con una realización de la presente invención;

la Fig. 2 es una vista en elevación lateral del cepillo de dientes mostrado en la Fig. 1;

la Fig. 3 es una vista en elevación posterior del cepillo de dientes

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mostrado en las Figs. 1 y 2;

la Fig. 4 es una vista plana superior del cepillo de dientes mostrado en las Figs. 1-3;

la Fig. 5 es una vista plana inferior del cepillo de dientes mostrado en las Figs. 1-4;

la Fig. 5A es una vista plana inferior alternativa del cepillo de dientes mostrado en las Figs. 1-4 y que muestra un mecanismo alternativo para proporcionar ventilación al mango del cepillo de dientes;

la Fig. 6 es una vista en elevación frontal del mango del cepillo de dientes mostrado en las Figs. 1-5, y que muestra una cubierta removible y recolocable retenida en su lugar por un pestillo de presión;

la Fig. 7 es una vista en sección transversal en elevación del mango del cepillo de dientes mostrado en las Figs. 1-6, tomada a lo largo de la línea 7-7 de la Fig. 6 y mostrando un pestillo de presión proporcionado en un rebajo receptor;

la Fig. 8 es una vista en elevación frontal del mango del cepillo de dientes mostrado en las Figs. 1-5, y que muestra una realización alternativa con una cubierta completa articulada con un pestillo de presión;

la Fig. 9 es una vista en elevación frontal del mango del cepillo de dientes mostrado en las Figs. 1-5, y que muestra otra realización alternativa con una cubierta de dos piezas articulada verticalmente con pestillos de presión para cada cubierta removible y recolocable;

la Fig. 10 es una vista en elevación frontal del mango del cepillo de dientes mostrado en las Figs. 1-5, y que muestra otra realización alternativa más con una cubierta de dos piezas articulada horizontalmente con pestillos

de presión para cada cubierta removible y recolocable y una figurilla removida del compartimiento del mango del cepillo de dientes;

la Fig. 11 es una vista en elevación lateral de un cepillo de dientes que tiene una cabeza y un cuello removibles (mostrados en contorno punteado) y un mango en forma de vehículo que tiene una cubierta removible y recolocable que exhibe un compartimiento que guarda de manera removible una figurilla en el mismo, de acuerdo con otra realización más de la presente invención;

la Fig. 12 es una vista en elevación frontal del cepillo de dientes mostrado en la Fig. 11;

la Fig. 13 es una vista posterior fragmentada del cepillo de dientes mostrado en las Figs. 11 y 12, y que muestra la forma en que un botón de retención del cuello del cepillo de dientes engancha una ranura de retención formada en el mango;

la Fig. 14 es una vista en elevación lateral de un cepillo de dientes que tiene una cabeza y un cuello removibles, y un mango que tiene una cubierta que exhibe un compartimiento que guarda una figurilla en el mismo de acuerdo con otra realización más de la presente invención;

la Fig. 15 es una vista en elevación lateral de otra realización más de un cepillo de dientes de la presente invención que tiene una cabeza y un cuello removibles, y un mango que tiene una cubierta que exhibe un compartimiento que guarda una figurilla en el mismo;

la Fig. 16 es una vista plana superior de un cilindro de partes pequeñas de acuerdo con la Norma Internacional ASTM F963-96a⁴² que se refiere a la Especificación de Seguridad de Consumidor Standard sobre

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Seguridad de Juguetes, que representa los requerimientos de dimensiones para juguetes incluyendo el mango del cepillo de dientes y la figurilla de la presente invención; y

la Fig. 17 es una vista lateral en sección transversal del cilindro de partes pequeñas tomada a lo largo de la línea 17-17 de la Fig. 16.

DESCRIPCIÓN DETALLADA DE REALIZACIONES DE LA INVENCION

La siguiente descripción detallada de la invención se refiere a los dibujos acompañantes. Los mismos números de referencia en diferentes dibujos identifican elementos iguales o similares. Además, la siguiente descripción detallada no limita la invención. Más bien, el alcance de la invención es definido por las reivindicaciones anexas y equivalentes de las mismas.

Las Figs. 1-5 ilustran una puesta en práctica de la presente invención en la cual un cepillo de dientes 10 incluye una sección de cuello 12 interpuesta entre una cabeza 14 y un mango 16 sostenido con la mano. Preferiblemente, el cuello 12 y la cabeza 14 están conectados de manera integral, y están conectados en conjunto, de manera separable, al mango 16, de modo que la cabeza 14 pueda ser reemplazada a medida que las cerdas se desgastan y de modo que el mango 16 pueda funcionar por separado como un juguete cuando sea separado del cuello 12 y la cabeza 14. En una realización alternativa y menos costosa de la presente invención, la cabeza 14 y el cuello 12 son integrales y están conectados permanentemente al mango 16.

Tal como se muestra adicionalmente en las Figs. 1-5, el mango 16

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incluye preferiblemente un compartimiento ahuecado 22 con una cubierta, ventana o tapa 24 para retener una figurilla 28, tal como una figura de acción; sin embargo, debe quedar entendido que, en lugar de la figurilla, puede haber un vehículo, tal como un submarino, avión u otro juguete o producto misceláneo, tal como caramelo o un tubo de pasta dental en miniatura que sea atractivo para un niño. La cubierta 24 puede estar articulada o unida fijamente de otro modo, por ejemplo siendo ajustada a presión de manera removible, o formada de manera integral con una porción de cuerpo 17 del mango 16 y puede ser transparente para exhibir la figurilla 28 alojada dentro del compartimiento 22. Aunque la cubierta 24 puede ser configurada para ser removible, si la cubierta 24 es unida de manera fija al mango 16, una abertura de acceso para el compartimiento 22 debe ser provista en donde el cuello 12 se conecta al mango 16 (como se describe en forma más completa más adelante con referencia a la Fig. 11). Una banda de impresión 30 puede ser adicionalmente provista para mostrar un logotipo del juguete. Ya que la realización del mango 16 mostrada en las Figs. 1-5 tiene la forma de un cohete, incluye preferiblemente unas aletas 32 que simulan las aletas de un cohete, pero que también actúan como pies de soporte para sostener el cepillo de dientes 10 en una posición vertical para su fácil almacenaje o exhibición.

La Fig. 5 muestra adicionalmente que una ventilación puede ser proporcionada al compartimiento 22 formando unas aberturas 33 en la parte inferior de la porción de cuerpo 17. Las aberturas 33 puede tener la forma de perforaciones, ranuras, hendiduras, agujeros, etc. formados a través del material que conforma la porción de cuerpo 17. Las aberturas 33

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pueden ser provistas en otros lugares de la porción de cuerpo 17 y/o pueden ser formadas en la cubierta 24. Tal ventilación permitiría que el compartimiento 22 se seque rápidamente al aire cuando la humedad, las partículas atmosféricas (por ejemplo, partículas de alimentos) y los organismos entren al compartimiento 22. La humedad, las partículas y los organismos crean un ambiente no sanitario si no son rápidamente secadas al aire. Así, las aberturas 33 proporcionan protección sanitaria al compartimiento 22 impidiendo que la humedad, las partículas y los organismos se acumulen en el compartimiento 22.

Alternativamente, tal como se muestra en la Fig. 5A, las aberturas 33 pueden ser reemplazadas con una membrana respirable 31 o una pluralidad de tales membranas 31 formadas en la parte inferior de la porción de cuerpo 17. Las membranas respirables 31 pueden ser elaboradas a partir de un material tal como el material vendido bajo la marca de fábrica GORE-TEX u otro material equivalente. Tal material permite que el aire y el vapor de agua se muevan a través del mismo, pero no permite que el agua en forma líquida se mueva a través del mismo. Si entra humedad al compartimiento 22 a través de, por ejemplo, la cubierta removible 24, las membranas respirables 31 permitirían que el compartimiento 22 se seque rápidamente al aire y también impedirían que el agua en forma líquida entrara al compartimiento 22. Cualquier combinación de aberturas de ventilación 33 y membranas respirables 31 puede ser también provista en la porción de cuerpo 17 y/o la cubierta 24.

Las aberturas de ventilación 33, las membranas respirables 31 y/o combinaciones de las mismas pueden ser provistas en las otras

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realizaciones del ensamblaje de cepillo de dientes de la presente invención como se muestra en las Figs. 6-15 y se discute a continuación.

Las Figs. 6-10 muestran varias formas en que una cubierta capaz de ser abierta puede ser dispuesta sobre una abertura proporcionada en una porción de cuerpo 17 del mango 16, en oposición a la cubierta 24 fijamente unida mostrada en las Figs. 1-5. La Fig. 6 muestra una porción de cuerpo 17 del mango con una abertura 34 proporcionada en la misma para recibir una cubierta removible y recolocable 36 sostenida en su lugar por dos pestillos de presión 38. Los pestillos de presión 38 son recibidos y retenidos en receptáculos 40 respectivos formados en la porción de cuerpo 17 del mango 16, como se muestra mejor en la Fig. 7. Los pestillos 38 pueden ser enganchados para remover la cubierta 36 de la abertura 34, permitiendo la remoción de la figurilla 28 desde el compartimiento 22 del mango 16 o la inserción dentro del mismo.

La Fig. 8 muestra una porción de cuerpo 17 del mango con una abertura 34 proporcionada en la misma para recibir una cubierta 42 conectada a la porción de cuerpo 17 con un par de bisagras 44. Un pestillo de presión 38 es provisto sobre un borde de la cubierta 42 opuesto al borde unido a las bisagras 44. El pestillo de presión 38 puede ser recibido y retenido en un receptáculo 40 formado en la porción de cuerpo 17. El pestillo 38 puede ser enganchado para girar la cubierta 42 desde la abertura 34, permitiendo la remoción de la figurilla 28 desde el compartimiento 22 del mango 16 o la inserción dentro del mismo.

La Fig. 9 muestra una porción de cuerpo 17 del mango con una abertura 34 proporcionada en el mismo para recibir una cubierta de dos

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piezas 46 conectada de manera articulada en una dirección vertical a la porción de cuerpo 17 con dos pares de bisagras 44. Unos pestillos de presión 38 son proporcionados sobre un borde de cada pieza de cubierta 46 opuesto al borde unido a las bisagras 44. Los pestillos de presión 38 pueden ser recibidos y retenidos en receptáculos 40 respectivos formados en la porción de cuerpo 17. Los pestillos 38 pueden ser enganchados para girar la cubierta 46 de dos piezas desde la abertura 34, permitiendo la remoción de la figurilla 28 desde el compartimiento 22 del mango 16 o la inserción dentro del mismo.

La Fig. 10 muestra una porción de cuerpo 17 del mango con una abertura 48 proporcionada en el mismo para recibir una cubierta de dos piezas 50 conectada de manera articulada en una dirección horizontal a la porción de cuerpo 17 con dos pares de bisagras 44. Unos pestillos de presión 38 son proporcionados sobre un borde de cada pieza de cubierta 50 opuesto al borde unido a las bisagras 44. Los pestillos de presión 38 pueden ser recibidos y retenidos en receptáculos 40 respectivos formados en la porción de cuerpo 17. Los pestillos 38 pueden ser enganchados para girar la cubierta 50 de dos piezas desde la abertura 34, permitiendo la remoción de la figurilla 28 desde el compartimiento 22 del mango 16 o la inserción dentro del mismo.

Aunque las bisagras 40 y los pestillos 38 son mostrados en cantidades específicas y en lugares específicos en las Figs. 6-10, se puede proporcionar una cantidad mayor o menor de bisagras 40 y pestillos 38, en una variedad de lugares sobre el mango 16 de acuerdo con las amplias enseñanzas de la presente invención. Similarmente, las cubiertas mostradas

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en las Figs. 6-10 pueden tener una variedad de otras formas diferentes a aquéllas mostradas en las Figs. 6-10, de acuerdo con las amplias enseñanzas de la presente invención. Adicionalmente, otros mecanismos pueden ser usados para conectar las cubiertas a los mangos de la presente invención y girar las mismas.

Las Figs. 11-13 muestran una versión de la forma en que el cuello 12 y la cabeza 14 del cepillo de dientes 10 pueden ser conectados de manera removible al mango del cepillo de dientes 10. Una versión alternativa del mango 16A es también mostrada en las Figs. 11-13. El mango 16A, tal como se muestra, puede tener una forma similar a un vehículo, tales vehículos pudiendo incluir un carro de carreras, un submarino o un vehículo todo terreno, e incluye una porción de cuerpo 17A conectada de manera fija o formada de manera integral con una cubierta o ventana transparente 24A. La ventana 24A exhibe una figurilla 28, tal como una figura de acción, que puede ser provista en un compartimiento 22A proporcionado en el mango 16A.

Tal como se muestra adicionalmente en las Figs. 11-13, una porción inferior del cuello 12 incluye un botón de retención 52 conectado de manera integral a un brazo elástico 54, y un brazo atiesador 56. El cuello 12 y la cabeza 14 pueden ser unidos de manera removible al mango 16A presionando el botón de retención 52 en una dirección mostrada por la flecha 53, moviendo el cuello 12 en una dirección mostrada por la flecha 55, deslizando el brazo atiesador 56 y la combinación de botón 52/brazo elástico 54 a una abertura 60 proporcionada en la porción de cuerpo 17A del mango 16A, y soltando el botón de retención 52. El botón de retención

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52 se extiende a través de una ranura de retención 58 proporcionada en la porción de cuerpo 17A, y permanece en la ranura 58 debido a la fuerza de resorte proporcionada por el brazo elástico 54. El cuello 12 y la cabeza 14 pueden ser removidos del mango 16A presionando el botón de retención 52, y halando el cuello 12 y la cabeza 14 desde el mango 16A.

Tal como se muestra en las Figs. 14 y 15, el mango de la presente invención no necesita tener la forma de un juguete, sino que puede ser configurado como un mango de cepillo de dientes generalmente cilíndrico convencional para actuar como un estuche de exhibición para la figurilla 28 contenida en el mismo. Tal como se muestra en la Fig. 14, el cepillo de dientes 10 incluye una sección de cuello 12 interpuesta entre una cabeza 14 y un mango de exhibición 62 sostenido con la mano. El mango 62 incluye preferiblemente un compartimiento ahuecado 64 con una ventana transparente 66 para retener una figurilla 28 (por ejemplo una figura de acción) en el mismo. En esta realización, el mango 62 incluye dos secciones separadas, una sección superior 62A y una sección inferior 62B, que pueden ser conectadas de manera roscada con una banda de impresión 68 (similar a la banda de impresión 30), por medio de roscas hermanables 70 provistas sobre la banda de impresión 68 y las secciones 62A, 62B. Cuando la sección superior 62A o la sección inferior 62B son desenroscadas de la banda de impresión 70, la figurilla 28 puede ser removida desde o insertada en el compartimiento 64 del mango 62.

Tal como se muestra en la Fig. 15, el cepillo de dientes 10 incluye una sección de cuello 12 interpuesta entre una cabeza 14 y un mango de exhibición 72 sostenido con la mano. El mango 72 incluye preferiblemente

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un compartimiento ahuecado 74 con una ventana transparente 76 para retener una figurilla 28 (por ejemplo una figura de acción) en el mismo. En esta realización, el mango 72 puede estar conectado de manera roscada con un tope de desenroscado 78 (que tiene el cuello 12 conectado al mismo), por medio de roscas hermanables 80, conectado de manera roscada con una base de desenroscado 82, por medio de roscas hermanables 84, o conectado de manera roscada con el tope de desenroscado 78 y la base de desenroscado 82. Cuando el tope de desenroscado 78 o la base de desenroscado 82 son desenroscados del mango 72, la figurilla 28 puede ser removida desde o insertada en el compartimiento 74 del mango 72.

Cualquier realización de los mangos 16, 16A, 62, 72 de cepillo de dientes de la presente invención puede estar unida permanentemente al cuello 12 y la cabeza 14, o puede ser unida de manera removible al cuello 12 o la cabeza 14 usando cualquiera de las configuraciones de unión mostradas en las Figs. 11-15. Preferiblemente, sin embargo, los mangos de cepillo de dientes de la presente invención son unidos de manera removible al cuello 12 y la cabeza 14, de modo que los mangos puedan funcionar más fácilmente como un juguete separado.

Preferiblemente, los mangos 16, 16A, 62, 72 y las figurillas 28 de la presente invención son "seguros para los niños". Según se usa en la presente, el término "seguro para los niños" significa que los mangos 16, 16aA, 62, 72 y las figurillas 28 son de dimensiones suficientemente grandes para no representar un riesgo de asfixia para niños menores de tres años, según se expone en la Norma Internacional ASTM F963-96a⁵² que se refiere a la Especificación de Seguridad de Consumidor Standard sobre

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Seguridad de Juguetes ("ASTM F963-96a²"). La Sección 4.6.1 de ASTM F963-96a² requiere, en parte, que ningún juguete (incluyendo componentes removibles liberados, o fragmentos de juguetes) sea suficientemente pequeño sin estar comprimido para ajustar por entero dentro de un cilindro 90 de las dimensiones especificadas como se muestra en las Figs. 16 y 17. Tal como se muestra en las Figs. 16 y 17, el cilindro 90 incluye una pared 92 y una superficie inferior inclinada 94. El cilindro 90 también tiene un diámetro interno A de 1,25 pulgada, y dos alturas, una altura más corta B de 1,00 pulgada y una altura más larga C de 2,25 pulgadas, según lo definido por la superficie inferior inclinada 94. Así, los mangos 16, 16A, 62, 72 y las figurillas 28 deben tener unas dimensiones suficientemente grandes de modo que no encajen por entero, sin estar comprimidos, en el cilindro 90 mostrado en las Figs. 16 y 17.

La cabeza 14 de la presente invención puede tener una cara 18 generalmente plana que sostiene una pluralidad de pequeños haces de cerdas 20. La cabeza 14 puede tener una variedad de formas, incluyendo, pero no limitadas a, circular, ovalada, cuadrada, rectangular, varias formas regulares o irregulares, etc.

Las cerdas 20 que se extienden desde la cara 18 pueden ser coplanares entre sí, de modo que la superficie externa de las cerdas 20 esté situada en un solo plano. La invención, sin embargo, podría ser puesta en práctica con algunas o todas las cerdas 20 extendiéndose hacia afuera en una distancia diferente a las otras cerdas 20, para resultar en un efecto escalonado para la superficie externa de las cerdas. En la realización ilustrada en la Fig. 2, las cerdas 20 se extienden hacia afuera desde una

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superficie externa 26 de la cabeza 14 en aproximadamente la misma distancia, para crear una superficie generalmente plana o corte de cerdas plano para recibir la pasta dental.

Aunque las Figs. 2, 4, 11, 14 y 15 ilustran cerdas en forma de fibras convencionales, el término "cerdas" según se usa en la presente está destinado a ser usado en un sentido genérico como elementos de limpieza o elementos de masaje y podría incluir, por ejemplo, dedos o paredes elastoméricos dispuestos en una forma de sección transversal circular o cualquier tipo de forma deseada, incluyendo porciones rectas o porciones sinusoidales.

Las cerdas 20 podrían ser montadas a los bloques o secciones de pequeños haces extendiéndose a través de aberturas adecuadas en la cara 18, de modo que la base de las cerdas 20 esté montada dentro o por debajo de la superficie de la cara 18, usando tecnología convencional de formación de haces en molde o grapa para su montaje en la misma. Si se desea, las cerdas podrían ser empotradas en un material elastomérico, lo cual permitiría que las cerdas tuvieran un movimiento independiente. Tales formas variadas de cerdas pueden ser así usadas en cualquier sección de la cabeza 14.

Debe quedar entendido que la ilustración específica de las cerdas es meramente con fines de ejemplo. La invención, sin embargo, puede ser puesta en práctica con varias combinaciones de configuraciones de cerdas iguales o diferentes como se describe en las Patentes de EE.UU. Nos. 5.609.890, 5.390.984 y 5.533.791, cuyas descripciones son incorporadas por referencia en la presente en su totalidad, y/o con materiales de cerdas

iguales o diferentes, tales como cerdas de nylon, cerdas en espiral, cerdas de goma, etc. Similarmente, aunque las Figs. 1-7 ilustran que las cerdas son generalmente perpendiculares a la cara 18 de la cabeza 14, algunas o todas las cerdas pueden estar a varios ángulos con respecto a la superficie externa de la cabeza de cerdas. Por lo tanto es posible seleccionar la combinación de configuraciones de cerdas, materiales de cerdas y orientaciones de cerdas para lograr unos resultados propuestos específicos, tales como crear mucho movimiento a partir de las cabezas de haces oscilantes para suministrar beneficios adicionales de salud oral, tales como limpieza mejorada, pulitura de dientes, blanqueo de dientes y/o masaje de las encías.

Debe quedar entendido que la invención puede ser puesta en práctica localizando los pequeños haces de cerdas en cualquier área abierta de la cabeza 14 del cepillo de dientes. Tales haces de cerdas podrían ser cerdas fijas montadas perpendicularmente o montadas a cierto ángulo a la superficie externa expuesta 26 de la cabeza 14 o podrían ser cerdas montadas sobre una base elastomérica con un durómetro Shore A en el intervalo de aproximadamente 0 hasta aproximadamente 90, de modo a ser independientemente movibles cuando se aplica presión. Tales cerdas en su condición normal podrían ser perpendiculares o estar a cierto ángulo con respecto a la cara 18 de la cabeza 14.

La invención puede ser también puesta en práctica con juegos diferentes de cerdas que tienen colores diferentes. Debe quedar entendido, sin embargo, que cualquier combinación de colores, incluyendo un solo color, podría ser usada para las cerdas 20. Similarmente, el cuello 12 y el

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mango 16 pueden tener una variedad de colores, y pueden ser opacos, transparentes, translúcidos, claros, etc.

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REIVINDICACIONES

1. Un ensamblaje de cepillo de dientes, caracterizado porque comprende:

una cabeza conectada a un cuello, dicha cabeza teniendo una pluralidad de cerdas que se extienden hacia afuera desde la misma;

un mango conectado a dicho cuello, dicho mango teniendo un compartimiento proporcionado en el mismo; y

un vehículo, una figurilla, otro juguete o producto misceláneo que es proporcionado en el compartimiento y que es dimensionado de acuerdo con los requerimientos de la Sección 4.6.1 de ASTM F963-96a².

2. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, caracterizado porque dicho vehículo, figurilla, otro juguete o producto misceláneo no representa un riesgo de asfixia para niños menores de tres años.

3. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, caracterizado porque dicho vehículo, figurilla, otro juguete o producto misceláneo es mayor que un cilindro que tiene un diámetro interno de 1,25 pulgada, una primera altura de 1,00 pulgada y una segunda altura de 2,25 pulgadas.

4. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, caracterizado porque el compartimiento tiene una cubierta que puede ser abierta y cerrada nuevamente, con lo cual dicho vehículo, figurilla, otro juguete o producto misceláneo puede ser removido y colocado nuevamente en el compartimiento.

5. Un ensamblaje de cepillo de dientes como se cita en la reivindicación

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- 1, **caracterizado** porque dicho mango tiene la forma de un cohete.
 6. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, **caracterizado** porque dicho mango tiene la forma de un vehículo.
 7. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, **caracterizado** porque dicho mango tiene la forma de un estuche de exhibición.
 8. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, **caracterizado** porque dicho cuello está conectado de manera removible a dicho mango.
 9. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 8, **caracterizado** porque dicho cuello retiene dicha figurilla dentro del compartimiento.
 10. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 8, **caracterizado** porque una porción inferior de dicho cuello incluye un brazo atiesador y un botón de retención conectado de manera integral a un brazo elástico, el botón de retención, el brazo elástico y el brazo atiesador conectándose de manera removible a la abertura de dicho mango.
 11. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 10, **caracterizado** porque el botón de retención se extiende a través de una ranura de retención proporcionada en dicho mango, y permanece en la ranura de retención debido a una fuerza de resorte proporcionada por el brazo elástico.
 12. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 4, **caracterizado** porque la cubierta es transparente para hacer que dicha figurilla sea visible dentro del compartimiento de dicho mango.

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13. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 12, **caracterizado** porque la cubierta se conecta de manera permanente a una porción de cuerpo de dicho mango.
14. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 4, **caracterizado** porque la cubierta se conecta de manera removible a una porción de cuerpo de dicho mango por medio de por lo menos un pestillo de presión.
15. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 4, **caracterizado** porque la cubierta se conecta a una porción de cuerpo de dicho mango con por lo menos una bisagra y por lo menos un pestillo de presión.
16. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 15, **caracterizado** porque la cubierta comprende dos piezas, cada pieza de la cubierta conectándose a la porción de cuerpo de dicho mango por medio de por lo menos una bisagra y por lo menos un pestillo de presión.
17. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, **caracterizado** porque dicho mango comprende dos secciones conectadas entre sí con una banda de impresión.
18. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 17, **caracterizado** porque la banda de impresión tiene unas roscas que hermanan con roscas proporcionadas sobre cada sección de dicho mango.
19. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, **caracterizado** porque un extremo superior de dicho mango se conecta de manera roscada a una parte superior de desenroscado conectada de manera integral a dicho cuello, la parte superior de desenroscad

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proporcionando acceso a la abertura de dicho mango.

20. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, caracterizado porque un extremo inferior de dicho mango se conecta de manera roscada a una base de desenroscado, la base de desenroscado proporcionando acceso a la abertura de dicho mango.

21. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 19, caracterizado porque un extremo inferior de dicho mango se conecta de manera roscada a una base de desenroscado, la base de desenroscado proporcionando acceso a otra abertura de dicho mango.

22. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 1, caracterizado porque dicho mango es transparente para hacer que dicho vehículo, figurilla, otro juguete o producto misceláneo sea visible dentro del compartimiento de dicho mango.

23. Un ensamblaje de cepillo de dientes, caracterizado porque comprende:

una cabeza conectada a un cuello, dicha cabeza teniendo una pluralidad de cerdas que se extienden hacia afuera desde la misma;

un mango conectado a dicho cuello, dicho mango teniendo un compartimiento ventilado proporcionado en el mismo; y

un vehículo, una figurilla, otro juguete o producto misceláneo que es proporcionado en el compartimiento.

24. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, caracterizado porque por lo menos una abertura es provista en el mango para ventilar el compartimiento.

25. Un ensamblaje de cepillo de dientes como se cita en la reivindicación

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23, **caracterizado** porque por lo menos una membrana respirable es provista en el mango para ventilar el compartimiento.

26. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, **caracterizado** porque por lo menos una abertura y por lo menos una membrana respirable son provistas en el mango para ventilar el compartimiento.

27. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, **caracterizado** porque el compartimiento tiene una cubierta que puede ser abierta y cerrada nuevamente, con lo cual dicho vehículo, figurilla, otro juguete o producto misceláneo puede ser removido y colocado nuevamente en el compartimiento.

28. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 27, **caracterizado** porque por lo menos una abertura es provista en la cubierta para ventilar el compartimiento.

29. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 27, **caracterizado** porque por lo menos una membrana respirable es provista en la cubierta para ventilar el compartimiento.

30. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 27, **caracterizado** porque por lo menos una abertura y por lo menos una membrana respirable son provistas en la cubierta para ventilar el compartimiento.

31. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, **caracterizado** porque dicho mango tiene la forma de un cohete.

32. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, **caracterizado** porque dicho mango tiene la forma de un vehículo.

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33. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, **caracterizado** porque dicho mango tiene la forma de un estuche de exhibición.
34. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, **caracterizado** porque dicho cuello está conectado de manera removible a dicho mango.
35. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 34, **caracterizado** porque dicho cuello retiene dicha figurilla dentro del compartimiento.
36. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 34, **caracterizado** porque una porción inferior de dicho cuello incluye un brazo atiesador y un botón de retención conectado de manera integral a un brazo elástico, el botón de retención, el brazo elástico y el brazo atiesador conectándose de manera removible a la abertura de dicho mango.
37. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 36, **caracterizado** porque el botón de retención se extiende a través de una ranura de retención proporcionada en dicho mango, y permanece en la ranura de retención debido a una fuerza de resorte proporcionada por el brazo elástico.
38. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 27, **caracterizado** porque la cubierta es transparente para hacer que dicha figurilla sea visible dentro del compartimiento de dicho mango.
39. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 38, **caracterizado** porque la cubierta se conecta de manera permanente a una porción de cuerpo de dicho mango.

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40. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 27, caracterizado porque la cubierta se conecta de manera removible a una porción de cuerpo de dicho mango por medio de por lo menos un pestillo de presión.
41. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 27, caracterizado porque la cubierta se conecta a una porción de cuerpo de dicho mango con por lo menos una bisagra y por lo menos un pestillo de presión.
42. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 41, caracterizado porque la cubierta comprende dos piezas, cada pieza de la cubierta conectándose a la porción de cuerpo de dicho mango por medio de por lo menos una bisagra y por lo menos un pestillo de presión.
43. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, caracterizado porque dicho mango comprende dos secciones conectadas entre sí con una banda de impresión.
44. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 43, caracterizado porque la banda de impresión tiene unas roscas que hermanan con roscas proporcionadas sobre cada sección de dicho mango.
45. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, caracterizado porque un extremo superior de dicho mango se conecta de manera roscada a una parte superior de desenroscado conectada de manera integral a dicho cuello, la parte superior de desenroscado proporcionando acceso a la abertura de dicho mango.
46. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, caracterizado porque un extremo inferior de dicho mango se conecta

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de manera roscada a una base de desenroscado, la base de desenroscado proporcionando acceso a la abertura de dicho mango.

47. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 45, caracterizado porque un extremo inferior de dicho mango se conecta de manera roscada a una base de desenroscado, la base de desenroscado proporcionando acceso a otra abertura de dicho mango.

48. Un ensamblaje de cepillo de dientes como se cita en la reivindicación 23, caracterizado porque dicho mango es transparente para hacer que dicho vehículo, figurilla, otro juguete o producto misceláneo sea visible dentro del compartimiento de dicho mango.

BUENOS AIRES, MAYO DE 2004.

RESUMEN

ENSAMBLAJE DE CEPILLO DE DIENTES

Un cepillo de dientes para niños incluye un mango en forma de juguete ventilado, seguro para los niños, tal como un cohete o un vehículo, y contiene en el mismo un vehículo, una figurilla, otro juguete o un producto misceláneo removible y seguro para los niños, y en donde la cabeza del cepillo de dientes puede ser separable del mango.

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**AMENDED
CLAIMS**

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PCT/US2004/015474 National Phase Claims

1. A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to said neck, said handle having a compartment provided therein; and a removable vehicle, figurine, or other toy being provided in the compartment and being sized such that said vehicle, figurine, or other toy, without being compressed, is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches.

2. A toothbrush assembly as recited in claim 1, wherein said vehicle, figurine, or other toy fails to choke children under the age of three years.

3. A toothbrush assembly as recited in claim 1, wherein said handle compartment comprises a figurine.

4. A toothbrush assembly as recited in claim 1, wherein the compartment has a cover which may be opened and re-closed whereby said vehicle, figurine, or other toy may be removed and replaced in the compartment.

5. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a rocket ship and said handle compartment comprises a figurine.

6. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a vehicle and said handle compartment comprises a figurine.

7. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a display case.

8. A toothbrush assembly as recited in claim 1, wherein when said neck removably connects to said handle.

9. A toothbrush assembly as recited in claim 8, wherein said neck retains said figurine within the compartment.

10. A toothbrush assembly as recited in claim 8, wherein a lower portion of said neck includes a stiffener arm and a retainer button integrally connected to a spring arm, the retainer button, spring arm, and stiffener arm removably connecting to the opening of said handle.

11. A toothbrush assembly as recited in claim 10, wherein the retainer button extends through a retainer slot provided in said handle, and remains in the retainer slot due to a spring force provided by the spring arm.

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12. A toothbrush assembly as recited in claim 4, wherein the cover is transparent to make said vehicle, figurine, or other toy visible within the compartment of said handle.

13. A toothbrush assembly as recited in claim 12, wherein the cover permanently connects to a body portion of said handle.

14. A toothbrush assembly as recited in claim 4, wherein the cover removably connects to the body portion.

15. A toothbrush assembly as recited in claim 4, wherein the cover connects to a body portion of said handle with at least one hinge and at least one snap-in latch, said cover rotates about its respective hinge along an axis that is not parallel to the longitudinal axis of the toothbrush.

16. A toothbrush assembly as recited in claim 1, wherein the cover comprises two pieces, each cover piece connecting to the body portion of said handle via at least one hinge and at least one snap-in latch, each cover piece rotates about its respective hinge along an axis that is not parallel to the longitudinal axis of the toothbrush.

17. A toothbrush assembly as recited in claim 1, wherein said handle comprises two sections connected together with an indicia band.

18. A toothbrush assembly as recited in claim 17, the indicia band has threads that mate with threads provided on each section of said handle.

19. A toothbrush assembly as recited in claim 1, wherein a top end of said handle threadably connects to a screw off top integrally connected to said neck, the screw off top providing access to the opening of said handle.

20. A toothbrush assembly as recited in claim 1, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to the opening of said handle.

21. A toothbrush assembly as recited in claim 19, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to another opening of said handle.

22. A toothbrush assembly as recited in claim 1, wherein said handle is transparent to make said vehicle, figurine, or other toy visible within the compartment of said handle.

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23. A toothbrush assembly as recited in claim 1, said handle having a ventilated compartment provided therein; wherein at least one breathable membrane is provided in the handle to ventilate the compartment.

24. A toothbrush assembly as recited in claim 23, wherein at least one opening is provided in the handle to ventilate the compartment.

25. A toothbrush assembly as recited in claim 23, wherein at least one opening and at least one breathable membrane are provided in the handle to ventilate the compartment.

26. A toothbrush assembly as recited in claim 23, wherein the compartment has a cover which may be opened and re-closed whereby said vehicle, figurine, other toy or sundry product may be removed and replaced in the compartment.

27. A toothbrush assembly as recited in claim 26, wherein at least one opening is provided in the cover to ventilate the compartment.



**REIVINDICACIONES
MODIFICADAS**

REIVINDICACIONES

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1. Un ensamblaje de cepillo de dientes, que comprende: una cabeza conectada a un cuello, dicha cabeza tiene una pluralidad de cerdas que se extienden hacia fuera de la misma; un mango conectado a dicho cuello, dicho mango tiene un compartimiento proporcionado en él; y un vehículo, figurilla u otro juguete removible proporcionado en el compartimiento y de tamaño tal que dicho vehículo, figurilla u otro juguete, sin comprimirlo, es más grande que un cilindro que tiene un diámetro de 3.18 cm, una primera altura de 2.54 cm, y una segunda altura de 5.72 cm.
2. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho vehículo, figurilla, u otro juguete falla en ahogar a un niño menor de tres años.
3. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho compartimiento del mango comprende una figurilla.
4. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde el compartimiento tiene una cubierta la cual puede ser abierta y vuelta a cerrar por lo que dicho vehículo, figurilla, u otro juguete puede ser removido y colocado en su lugar en el compartimiento.
5. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho mango es en forma de un cohete y dicho compartimiento del mango comprende una figurilla.
6. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho mango es en forma de un vehículo y dicho compartimiento del mango comprende una figurilla.
7. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho mango es en forma de caja de exhibición.
8. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho cuello se conecta de manera removible a dicho mango.
9. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 8, en donde dicho cuello retiene dicha figurilla dentro del compartimiento.
10. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 8, en donde una porción inferior del cuello incluye un brazo de soporte y un botón retenedor conectado integralmente a un brazo de resorte, el

botón retenedor, el brazo de resorte, y el brazo de soporte se conectan de manera removible a la abertura de dicho mango.

11. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 10, en donde el botón retenedor se extiende a través de una ranura retenedora proporcionada en dicho mango, y permanece en la ranura retenedora debido a la fuerza del resorte proporcionada por el brazo de resorte.

12. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 4, en donde la cubierta es transparente para hacer que dicho vehículo, figurilla, u otro juguete sea visible desde el interior del compartimiento de dicho mango.

13. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 12, en donde la cubierta contacta permanentemente una porción del cuerpo de dicho mango.

14. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 4, en donde la cubierta se conecta de manera removible a la porción de cuerpo.

15. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 4, en donde la cubierta se conecta a una porción del cuerpo de dicho mango con al menos una bisagra y al menos una lengüeta de presión, dicha cubierta rota alrededor de su respectiva bisagra a lo largo de un eje que no es paralelo al eje longitudinal del cepillo de dientes.

16. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde la cubierta comprende dos piezas, cada pieza de la cubierta se conecta a la porción del cuerpo de dicho mango por medio de al menos una bisagra y al menos una lengüeta de presión, cada pieza de la cubierta rota alrededor del eje de su bisagra a lo largo de un eje que no es paralelo al eje longitudinal del cepillo de dientes.

17. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho mango comprende dos secciones conectadas con una cinta indicadora.

18. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 17, en donde la cinta indicadora tiene hilos que se unen con empatan los hilos proporcionados en cada sección de dicho mango.

19. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde un extremo superior de dicho mango se conecta por medio de un hilo a una parte alta de desatornillar conectada integralmente a dicho cuello, la parte alta de desatornillar proporciona acceso a la abertura de

dicho mango.

20. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde el extremo de la base de dicho mango se conecta por medio de un hilo a una base de desatornillar, la base de desatornillar proporciona acceso a la abertura de dicho mango.

21. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 19, en donde un extremo de la base de dicho mango se conecta por medio de un hilo a una base de desatornillar, la base de desatornillar proporciona acceso a la abertura de dicho mango.

22. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho mango es transparente para hacer que dicho vehículo, figurilla, u otro juguete sea visible desde el interior del compartimiento de dicho mango.

23. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 1, en donde dicho mango tiene un compartimiento ventilado proporcionado allí; en donde se proporciona al menos una membrana respirable en el mango para ventilar el compartimiento.

24. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 23, en donde se proporciona al menos una abertura en el mango para ventilar el compartimiento.

25. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 23, en donde se proporcionan al menos una abertura y al menos una membrana respirable en el mango para ventilar el compartimiento.

26. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 23, en donde el compartimiento tiene una cubierta la cual puede ser abierta y vuelta a cerrar por lo que dicho vehículo, figurilla, u otro juguete puede ser removido y colocado en su lugar en el compartimiento.

27. Un ensamblaje de cepillo de dientes como se declara en la reivindicación 26, en donde se proporciona al menos una abertura en el mango para ventilar el compartimiento.

PATENT COOPERATION TREATY

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From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

COLGATE-PALMOLIVE COMPANY
Attn. Wilkins, Clifford E.
909 River Road
P.O. Box 1343
Piscataway, NJ 08855-1343
UNITED STATES OF AMERICA

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing
(day/month/year)

05/10/2004

Applicant's or agent's file reference

6896-05

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/US2004/015474

International filing date
(day/month/year)

18/05/2004

Applicant

COLGATE-PALMOLIVE COMPANY

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

Shortly after the expiration of 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within 18 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 30 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 18 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT Applicant's Guide, Volume II, National Chapters and the WIPO Internet site.

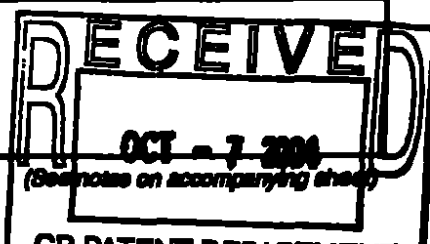
Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patenteaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Elisabeth Vonk



Form PCT/IB/220 (January 2004)

CB PATENT DEPARTMENT

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6896-05	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2004/015474	International filing date (day/month/year) 18/05/2004	(Earliest) Priority Date (day/month/year) 21/05/2003
Applicant COLGATE-PALMOLIVE COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequences disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A46B5/00 A46B15/00 A46B7/04

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A46B

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

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

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A Y	US 2003/019063 A1 (ABRAHAM PAULETTE) 30 January 2003 (2003-01-30) the whole document US 5 836 803 A (HAMLIN JOHN) 17 November 1998 (1998-11-17) the whole document -/-	1,4,7, 12,13,22 2,3,5,6, 23,24, 27,28, 31-33, 38,39,48 8-11, 14-21, 34-37, 40-47 2,3

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

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

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

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

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

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

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

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

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

"A" document member of the same patent family

Date of the actual completion of the international search

23 September 2004

Date of mailing of the international search report

05/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5816 Patentkan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Triantaphillou, P

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US2004/015014

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G.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 1 408 900 A (HILARY PAGE SENSIBLE TOYS LTD) 8 October 1975 (1975-10-08)	23, 24, 27, 28, 33, 38, 39, 48
A		25, 26, 29, 30
Y	US D 237 659 S (MEYERS) 18 November 1975 (1975-11-18) cited in the application the whole document	5, 31
Y	DE 71 43 294 U (PASCHAKARNIS) 23 March 1972 (1972-03-23) the whole document	6, 32
A	US 5 590 436 A (WRIGHT JOHN R ET AL) 7 January 1997 (1997-01-07) cited in the application the whole document	1-48
A	US D 170 680 S (DELMAS) 27 October 1953 (1953-10-27) cited in the application the whole document	1, 23

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/015474

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003019063	A1	30-01-2003	NONE
US 5836803	A	17-11-1998	CA 2294180 A1 30-12-1998 EP 0996489 A1 03-05-2000 PL 343870 A1 10-09-2001 WO 9858719 A1 30-12-1998
GB 1408900	A	08-10-1975	HK 49276 A 06-08-1976
US D237659	S	NONE	
DE 7143294	U	NONE	
US 5590436	A	07-01-1997	GB 2299499 A 09-10-1996 EP 0818966 A1 21-01-1998 WO 9631145 A1 10-10-1996
US D170680	S	NONE	

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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2004/015474

International filing date (day/month/year)
18.05.2004

Priority date (day/month/year)
21.05.2003

International Patent Classification (IPC) or both national classification and IPC
A46B500, A46B1500, A46B704

Applicant
COLGATE-PALMOLIVE COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 68.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA220.

3. For further details, see notes to Form PCT/ISA220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Triantaphyllou, P

Telephone No. +31 70 340-2785



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**


International application No.
PCT/US2004/015474

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/015474

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	8-11, 14-21, 25, 26, 29, 30, 34-37, 40-47
	No: Claims	1-7 12 13 22-24 27 28 31-33 36 39
Inventive step (IS)	Yes: Claims	
	No: Claims	1-48
Industrial applicability (IA)	Yes: Claims	1-48
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

1 The following documents are referred to in this communication:

- D1: US 2003/019063 A1 (ABRAHAM PAULETTE) 30 January 2003 (2003-01-30)**
- D2: US-A-5 836 803 (HAMLIN JOHN) 17 November 1998 (1998-11-17)**
- D3: GB-A-1 408 900 (HILARY PAGE SENSIBLE TOYS LTD) 8 October 1975 (1975-10-08)**
- D4: US D 237 659 S (MEYERS) 18 November 1975 (1975-11-18)**
- D5: DE 71 43 294 U (PASCHAKARNIS) 23 March 1972 (1972-03-23)**
- D6: US-A-5 590 436 (WRIGHT JOHN R ET AL) 7 January 1997 (1997-01-07)**
- D7: US D 170 680 S (DELMAS) 27 October 1953 (1953-10-27)**

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.

2.2 Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses (the references in parenthesis applying to this document):

"A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to said neck, said handle having a compartment provided therein; and a [vehicle, figurine, other toy or] sundry product being provided in the compartment [and being sized according to the requirements of Section 4.6.1 of ASTM F963-96a²]."

2.3 The subject-matter of independent claim 23 differs from the disclosure of D1 in that : The product is sized according to the requirements of Section 4.6.1 of ASTM F963-96a².

2.4 The problem to be solved by the present invention may therefore be regarded as that: [the] product fails to choke children under the age of three years.

- 2.5 In view of D2 the solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

D2 exemplifies a toy figurine[...] wherein all of the components of the figurine are larger than a throat entry of a person, for use by children under the age of three years and for the purpose of avoiding choking, which may be regarded as general knowledge since it forms the subject of international standards .

- 2.6 Therefore the features disclosed in D1 and D2 would be combined by the skilled person, without exercise of any inventive skills in order to solve the problem posed. The proposed solution in independent claim 1 thus cannot be considered inventive (Article 33(3) PCT).

3 INDEPENDENT CLAIM 23

- 3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 23 does not involve an inventive step in the sense of Article 33(3)PCT.

- 3.2 Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 23, discloses (the references in parenthesis applying to this document):

A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to said neck, said handle having a [ventilated] compartment provided therein; and a [vehicle, figurine, other toy or] sundry product being provided in the compartment.

- 3.3 The subject-matter of independent claim 23 differs from the disclosure of D1 in that : the handle compartment provided is ventilated.

- 3.4 The problem to be solved by the present invention may therefore be regarded as:
[the] product fails to choke children under the age of three years.

- 3.5 In view of D3 the solution proposed in claim 23 of the present application cannot

be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

D3 exemplifies a ventilated handle for use by children under the age of three years and for the purpose of avoiding choking.

- 3.6 Therefore the features disclosed in D1 and D3 would be combined by the skilled person, without exercise of any inventive skills in order to solve the problem posed. The proposed solution in independent claim 23 thus cannot be considered inventive (Article 33(3) PCT).

4 DEPENDENT CLAIMS 2-7, 12, 13, 22, 24, 27, 28, 31-33, 38, 39, 48

- 4.1 Dependent claims 2-7, 12, 13, 22, 24, 27, 28, 31-33, 38, 39, 48 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT). These features are disclosed in documents D1-D5.

5 DEPENDENT CLAIMS 8-11, 14-21, 34-37, 40-47

- 5.1 The combination of the features of dependent claims 8-11, 14-21, 25, 26, 29, 30, 34-37, 40-47 refer to modes of closure for a container and retaining therein of a product which are merely some of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed.

6 DEPENDENT CLAIMS 25, 26, 29, 30

- 6.1 The combination of the features of dependent claims 25, 26, 29, 30 are merely straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed.

7. OTHER REMARKS

- 7.1 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D2, D3 & D5 is not mentioned in the description, nor are these documents identified therein.
- 7.2 Independent claims 1 & 23 are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 7.3 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- 7.4 Although claims 1 & 23 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and/or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.
- 7.5 Claim 1 makes indirect reference to the description by referring to *the requirements of Section 4.6.1 of ASTM F963-96a²* (Rule 6.2(a) PCT). This could be remedied by incorporating the subject matter of claims 2 and 3 into claim 1 in order to avoid or clarify the reference. Furthermore, it should be noted that the aforementioned standard is no longer in force, having been substituted by ANSI/ASTM F963-03 since the 1st of October 2003.

Attorney Docket No.: 6896-05

IN THE EUROPEAN PATENT OFFICE - IPEA/EP

Applicant : Colgate-Palmolive Company
Application Number : PCT/US2004/015474
Int'l Filing Date : 18 May 2004 (18.05.2004)
Priority Date : 21 May 2003 (21.05.2003)
Title : Toothbrush Assembly

18 March 2005 (18.05.2005)

European Patent Office
P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Fax: +31 70 340 3016

REPLY TO THE WRITTEN OPINION OF THE ISA

Sir:

In response to the Written Opinion of the International Searching Authority dated 5 October 2004 (05.10.2004), Applicant is amending the claims of the subject application as follows, with substitute claim sheets 15-20, including re-numbered claims 1-46, being provided herein:

Marked-Up Claim Amendments

1. A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to said neck, said handle having a compartment provided therein; and a removable vehicle, figurine, or other toy or sundry product being provided in the compartment and being sized according to the requirements of Section 4.6.1 of ASTM F963-96a² such that said vehicle, figurine, or other toy, without being compressed, is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches.

2. (canceled)

SAO

8/89

32. A toothbrush assembly as recited in claim 1, wherein said handle compartment comprises a vehicle, figurine, other toy or sundry product is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches.

43. A toothbrush assembly as recited in claim 1, wherein the compartment has a cover which may be opened and ~~reopened~~re-closed whereby said vehicle, figurine, or other toy or sundry product may be removed and replaced in the compartment.

54. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a rocket ship and said handle compartment comprises a figurine.

65. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a vehicle and said handle compartment comprises a figurine.

76. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a display case.

87. A toothbrush assembly as recited in claim 1, wherein when said neck removably connects to said handle.

98. A toothbrush assembly as recited in claim 87, wherein said neck retains said figurine within the compartment.

109. A toothbrush assembly as recited in claim 87, wherein a lower portion of said neck includes a stiffener arm and a retainer button integrally connected to a spring arm, the retainer button, spring arm, and stiffener arm removably connecting to the opening of said handle.

110. A toothbrush assembly as recited in claim 109, wherein the retainer button extends through a retainer slot provided in said handle, and remains in the retainer slot due to a spring force provided by the spring arm.

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1211. A toothbrush assembly as recited in ~~claim 1~~ claim 1, wherein the cover is transparent to make said vehicle, figurine, or other toy visible within the compartment of said handle.

1312. A toothbrush assembly as recited in claim ~~1211~~, wherein the cover permanently connects to a body portion of said handle.

1413. A toothbrush assembly as recited in ~~claim 3~~ claim 3, wherein the cover removably connects to the body portion of said handle via at least one snap-in latch.

1514. A toothbrush assembly as recited in ~~claim 3~~ claim 3, wherein the cover connects to a body portion of said handle with at least one hinge and at least one snap-in latch, said cover rotates about its respective hinge along an axis that is not parallel to the longitudinal axis of the toothbrush.

1615. A toothbrush assembly as recited in ~~claim 14~~ claim 14, wherein the cover comprises two pieces, each cover piece connecting to the body portion of said handle via at least one hinge and at least one snap-in latch, each cover piece rotates about its respective hinge along an axis that is not parallel to the longitudinal axis of the toothbrush.

1716. A toothbrush assembly as recited in claim 1, wherein said handle comprises two sections connected together with an indicia band.

1817. A toothbrush assembly as recited in claim ~~1716~~, the indicia band has threads that mate with threads provided on each section of said handle.

1918. A toothbrush assembly as recited in claim 1, wherein a top end of said handle threadably connects to a screw off top integrally connected to said neck, the screw off top providing access to the opening of said handle.

2019. A toothbrush assembly as recited in claim 1, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to the opening of said handle.

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2120. A toothbrush assembly as recited in claim 1918, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to another opening of said handle.

2221. A toothbrush assembly as recited in claim 1, wherein said handle is transparent to make said vehicle, figurine, or other toy or sundry product visible within the compartment of said handle.

2322. A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to said neck, said handle having a ventilated compartment provided therein; and a vehicle, figurine, other toy or sundry product being provided in the compartment; wherein at least one breathable membrane is provided in the handle to ventilate the compartment.

2423. A toothbrush assembly as recited in claim 2322, wherein at least one opening is provided in the handle to ventilate the compartment.

25. (canceled)

2624. A toothbrush assembly as recited in claim 2322, wherein at least one opening and at least one breathable membrane are provided in the handle to ventilate the compartment.

2725. A toothbrush assembly as recited in claim 2322, wherein the compartment has a cover which may be opened and ~~reopened~~ re-closed whereby said vehicle, figurine, other toy or sundry product may be removed and replaced in the compartment.

2826. A toothbrush assembly as recited in claim 2725, wherein at least one opening is provided in the cover to ventilate the compartment.

2927. A toothbrush assembly as recited in claim 2725, wherein at least one breathable membrane is provided in the cover to ventilate the compartment.

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3028. A toothbrush assembly as recited in claim **2725**, wherein at least one opening and at least one breathable membrane are provided in the cover to ventilate the compartment.

3129. A toothbrush assembly as recited in claim **2322**, wherein said handle is in the shape of a rocket ship.

3230. A toothbrush assembly as recited in claim **2322**, wherein said handle is in the shape of a vehicle.

3331. A toothbrush assembly as recited in claim **2322**, wherein said handle is in the shape of a display case.

3432. A toothbrush assembly as recited in claim **2322**, wherein when said neck removably connects to said handle.

3533. A toothbrush assembly as recited in claim **3432**, wherein said neck retains said figurine within the compartment.

3634. A toothbrush assembly as recited in claim **3432**, wherein a lower portion of said neck includes a stiffener arm and a retainer button integrally connected to a spring arm, the retainer button, spring arm, and stiffener arm removably connecting to the opening of said handle.

3735. A toothbrush assembly as recited in claim **3634**, wherein the retainer button extends through a retainer slot provided in said handle, and remains in the retainer slot due to a spring force provided by the spring arm.

3836. A toothbrush assembly as recited in claim **2725**, wherein the cover is transparent to make said figurine visible within the compartment of said handle.

3937. A toothbrush assembly as recited in claim 3836, wherein the cover permanently connects to a body portion of said handle.

4038. A toothbrush assembly as recited in claim 2725, wherein the cover removably connects to a body portion of said handle via at least one snap-in latch.

4139. A toothbrush assembly as recited in claim 2725, wherein the cover connects to a body portion of said handle with at least one hinge and at least one snap-in latch.

4240. A toothbrush assembly as recited in claim 4139, wherein the cover comprises two pieces, each cover piece connecting to the body portion of said handle via at least one hinge and at least one snap-in latch.

4341. A toothbrush assembly as recited in claim 2322, wherein said handle comprises two sections connected together with an indicia band.

4442. A toothbrush assembly as recited in claim 4341, the indicia band has threads that mate with threads provided on each section of said handle.

4543. A toothbrush assembly as recited in claim 2322, wherein a top end of said handle threadably connects to a screw off top integrally connected to said neck, the screw off top providing access to the opening of said handle.

4644. A toothbrush assembly as recited in claim 2322, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to the opening of said handle.

4745. A toothbrush assembly as recited in claim 4543, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to another opening of said handle.

4846. A toothbrush assembly as recited in claim 2322, wherein said handle is transparent to make said vehicle, figurine, other toy or sundry product visible within the compartment of said handle.

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REMARKS

A Written Opinion was issued on 5 October 2004 (05.10.2004). Claims 1-48 are pending.

INDEPENDENT CLAIM 1

Claim 1 is indicated as lacking an inventive step under Article 33(3)PCT in view of Document D1 (US Patent Publication 2003/019063 to Abraham) and Document D2 (US Patent 5,836,803 to Hamlin).

Responsive thereto, Applicant has amended claim 1 and the claims dependent therefrom by incorporating the dimensional limitations of the disclosed ASTM standard (Rule 6.2(a)PCT) into the claim and by limiting the contained object to a vehicle, figurine or other toy. In view of such amendments, Applicant respectfully disagrees with the ISA Examiner that Claim 1 and the claims dependent therefrom lack an inventive step under Article 33(3)PCT.

D1 is directed to a picture display toothbrush having a chamber for insertion of a pattern, picture or photograph. Such D1 is clearly limited in disclosure and scope to an included object in the nature of a photograph as set forth in paragraph [0006]:

[0006] Accordingly, it is desirable to provide a toothbrush that can be configured with a pattern, picture, or photograph of the consumer's choice, so as to make the toothbrush aesthetically pleasing and uniquely identifiable, and to provide a toothbrush that allows for the pattern, picture, or photograph to be easily changed, thereby helping to maintain a user's interest in the toothbrush, particularly in the case of a child's toothbrush.

D1 does not recite, contemplate or consider the inclusion of any item other than an item in the nature of a photograph. A photograph clearly does not constitute a removable vehicle, figurine, or other toy that, without being compressed, is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches. In fact, a pattern, picture or photograph as used in D1 would fail to meet the dimensional limitations set forth in Claim 1. Furthermore, pictures or photographs usually do not constitute choking hazards as contemplated by the disclosed ASTM standard as such items usually do not become lodged in a child's throat or block the throat airway. In fact, such items are generally easily ingestible and digestible. Thus, D1 lacks any teaching or suggestion of a removable vehicle, figurine, or other toy that, without

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being compressed, is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches.

Applicant respectfully submits that a skilled person would not look to Document D2 to transform the pattern, picture or photograph of D1 into a removable vehicle, figurine, or other toy that, without being compressed, is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches. D2 merely discloses a figurine with a movable limb that does not present a choking hazard to young children.

More importantly, however, there is no suggestion or motivation to incorporate the figurine of D2 into the toothbrush of D1 to arrive at the claimed invention, without the application of improper hindsight. In fact, there is no suggestion to incorporate the figurine of D2 into any household- or consumer-type product such as a toothbrush or the like. While the figurine of D2 may not constitute a choking hazard, and may therefore inherently satisfy the dimensional limitations set forth in Claim 1, one skilled in the art would have absolutely no reason to incorporate such figurine into the toothbrush receptacle of D1, which is particularly suited to house a pattern, picture or photograph. Applicant respectfully submits that the Examiner proffers a problem (Paragraph 2.4 of the Written Opinion) that is narrowly tailored to the figurine of D2, while overlooking the requirement of incorporating such an object into a toothbrush assembly. Following the Examiner's reasoning would lead one skilled in the art to unreasonably conclude that any known object could be placed into the receptacle of D1 as long as such object satisfies the dimensional limitations of Claim 1. However, Applicant respectfully submits that such a conclusion goes beyond the inherent teachings of D1 and the obviousness standard as set forth in Article 33(3)PCT.

Accordingly, Applicant respectfully submits that Claim 1 and the claims dependent therefrom also meet the requirements of Article 33(2)-33(4)PCT.

INDEPENDENT CLAIM 23

Claim 23 is indicated as lacking an inventive step under Article 33(3)PCT in view of Document D1 (US Patent Publication 2003/019063 to Abraham) and Document D3 (GB 1 408 900 to Chisnall). Claim 23 has been amended by incorporating the subject matter of Claim 25:

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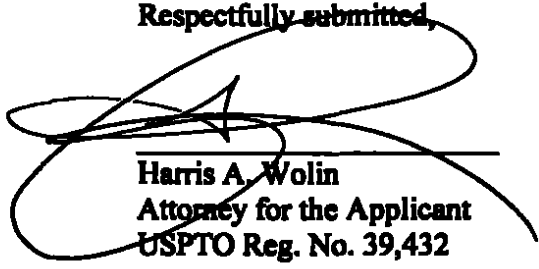
23. A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to said neck, said handle having a ventilated compartment provided therein; and a vehicle, figurine, other toy or sundry product being provided in the compartment; wherein at least one breathable membrane is provided in the handle to ventilate the compartment.

It should be noted that none of the "X" or "Y" references cited in the International Search Report were cited as being relevant to Claim 25.

D1 is discussed in connection with Claim 1. D3 relates to a rattle toy having a lower channel part 12 that provides an air passage. Such channel part is nothing more than a sculpted feature. Amended Claim 23 requires ventilation of a toothbrush assembly by a breathable membrane, which breathable membrane is completely absent from D1 and D3.

Accordingly, Applicant respectfully submits that Claim 23 and the claims dependent therefrom also meet the requirements of Article 33(2)-33(4)PCT, and therefore requests the issuance of a favorable IPER.

Respectfully submitted,



Harris A. Wolin
Attorney for the Applicant
USPTO Reg. No. 39,432

COLGATE-PALMOLIVE COMPANY
PHONE: (732) 878-6341
FAX: (732) 878-6770
DOCKET NO.: 6896-05

a/b 9B

WHAT IS CLAIMED IS:

1. A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to said neck, said handle having a compartment provided therein; and a removable
5 vehicle, figurine, or other toy being provided in the compartment and being sized such that said vehicle, figurine, or other toy, without being compressed, is larger than a cylinder having an inner diameter of 1.25 inches, a first height of 1.00 inches, and a second height of 2.25 inches.
- 10 2. A toothbrush assembly as recited in claim 1, wherein said handle compartment comprises a figurine.
3. A toothbrush assembly as recited in claim 1, wherein the compartment has a cover which may be opened and re-closed whereby said vehicle, figurine, or other
15 toy may be removed and replaced in the compartment.
4. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a rocket ship and said handle compartment comprises a figurine.
- 20 5. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a vehicle and said handle compartment comprises a figurine.
6. A toothbrush assembly as recited in claim 1, wherein said handle is in the shape of a display case.
- 25 7. A toothbrush assembly as recited in claim 1, wherein when said neck removably connects to said handle.
8. A toothbrush assembly as recited in claim 7, wherein said neck retains said
30 figurine within the compartment.

9. A toothbrush assembly as recited in claim 7, wherein a lower portion of said neck includes a stiffener arm and a retainer button integrally connected to a spring arm, the retainer button, spring arm, and stiffener arm removably connecting to the opening of said handle.

5

10. A toothbrush assembly as recited in claim 9, wherein the retainer button extends through a retainer slot provided in said handle, and remains in the retainer slot due to a spring force provided by the spring arm.

10

11. A toothbrush assembly as recited in claim 1, wherein the cover is transparent to make said vehicle, figurine, or other toy visible within the compartment of said handle.

15

12. A toothbrush assembly as recited in claim 11, wherein the cover permanently connects to a body portion of said handle.

13. A toothbrush assembly as recited in claim 3, wherein the cover removably connects to the body portion.

20

14. A toothbrush assembly as recited in claim 3, wherein the cover connects to a body portion of said handle with at least one hinge and at least one snap-in latch, said cover rotates about its respective hinge along an axis that is not parallel to the longitudinal axis of the toothbrush.

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15. A toothbrush assembly as recited in claim 14, wherein the cover comprises two pieces, each cover piece connecting to the body portion of said handle via at least one hinge and at least one snap-in latch, each cover piece rotates about its respective hinge along an axis that is not parallel to the longitudinal axis of the toothbrush.

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16. A toothbrush assembly as recited in claim 1, wherein said handle comprises two sections connected together with an indicia band.

17. A toothbrush assembly as recited in claim 16, the indicia band has threads
5 that mate with threads provided on each section of said handle.

18. A toothbrush assembly as recited in claim 1, wherein a top end of said handle threadably connects to a screw off top integrally connected to said neck, the screw off top providing access to the opening of said handle.
10

19. A toothbrush assembly as recited in claim 1, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to the opening of said handle.

20. A toothbrush assembly as recited in claim 18, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to another opening of said handle.
15

21. A toothbrush assembly as recited in claim 1, wherein said handle is
20 transparent to make said vehicle, figurine, or other toy visible within the compartment of said handle.

22. A toothbrush assembly, comprising: a head connected to a neck, said head having a plurality of bristles extending outwardly therefrom; a handle connected to
25 said neck, said handle having a ventilated compartment provided therein; and a vehicle, figurine, other toy or sundry product being provided in the compartment; wherein at least one breathable membrane is provided in the handle to ventilate the compartment.

23. A toothbrush assembly as recited in claim 22, wherein at least one
30 opening is provided in the handle to ventilate the compartment.

24. A toothbrush assembly as recited in claim 22, wherein at least one opening and at least one breathable membrane are provided in the handle to ventilate the compartment.

5

25. A toothbrush assembly as recited in claim 22, wherein the compartment has a cover which may be opened and re-closed whereby said vehicle, figurine, other toy or sundry product may be removed and replaced in the compartment.

10

26. A toothbrush assembly as recited in claim 25, wherein at least one opening is provided in the cover to ventilate the compartment.

27. A toothbrush assembly as recited in claim 25, wherein at least one breathable membrane is provided in the cover to ventilate the compartment.

15

28. A toothbrush assembly as recited in claim 25, wherein at least one opening and at least one breathable membrane are provided in the cover to ventilate the compartment.

20

29. A toothbrush assembly as recited in claim 22, wherein said handle is in the shape of a rocket ship.

30. A toothbrush assembly as recited in claim 22, wherein said handle is in the shape of a vehicle.

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31. A toothbrush assembly as recited in claim 22, wherein said handle is in the shape of a display case.

32. A toothbrush assembly as recited in claim 22, wherein when said neck removably connects to said handle.

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33. A toothbrush assembly as recited in claim 32, wherein said neck retains said figurine within the compartment.

5 34. A toothbrush assembly as recited in claim 32, wherein a lower portion of said neck includes a stiffener arm and a retainer button integrally connected to a spring arm, the retainer button, spring arm, and stiffener arm removably connecting to the opening of said handle.

10 35. A toothbrush assembly as recited in claim 34, wherein the retainer button extends through a retainer slot provided in said handle, and remains in the retainer slot due to a spring force provided by the spring arm.

15 36. A toothbrush assembly as recited in claim 25, wherein the cover is transparent to make said figurine visible within the compartment of said handle.

37. A toothbrush assembly as recited in claim 36, wherein the cover permanently connects to a body portion of said handle.

20 38. A toothbrush assembly as recited in claim 25, wherein the cover removably connects to a body portion of said handle via at least one snap-in latch.

39. A toothbrush assembly as recited in claim 25, wherein the cover connects to a body portion of said handle with at least one hinge and at least one snap-in latch.

25 40. A toothbrush assembly as recited in claim 39, wherein the cover comprises two pieces, each cover piece connecting to the body portion of said handle via at least one hinge and at least one snap-in latch.

30 41. A toothbrush assembly as recited in claim 22, wherein said handle comprises two sections connected together with an indicia band.

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42. A toothbrush assembly as recited in claim 41, the indicia band has threads that mate with threads provided on each section of said handle.

5 43. A toothbrush assembly as recited in claim 22, wherein a top end of said handle threadably connects to a screw off top integrally connected to said neck, the screw off top providing access to the opening of said handle.

10 44. A toothbrush assembly as recited in claim 22, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to the opening of said handle.

15 45. A toothbrush assembly as recited in claim 43, wherein a bottom end of said handle threadably connects to a screw off base, the screw off base providing access to another opening of said handle.

46. A toothbrush assembly as recited in claim 22, wherein said handle is transparent to make said vehicle, figurine, other toy or sundry product visible within the compartment of said handle.

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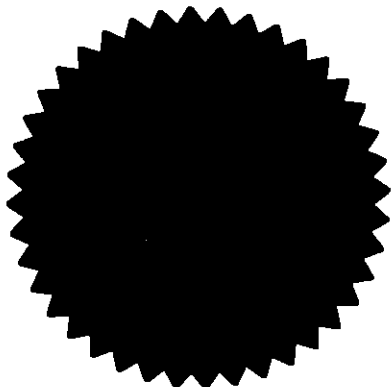
APOSTILLE

(CONVENTION DE LA HAYE DU 5 OCTOBRE 1961)

1. COUNTRY: UNITED STATES OF AMERICA
2. THIS PUBLIC DOCUMENT HAS BEEN SIGNED BY:
ELAINE M FLYNN
3. ACTING IN THE CAPACITY OF:
COUNTY CLERK
4. BEARS THE SEAL/STAMP OF:
COUNTY OF MIDDLESEX

CERTIFIED

5. AT TRENTON, NEW JERSEY
6. THE 4TH DAY OF OCTOBER 2005
7. BY: John E McCormac, CPA, NEW JERSEY TREASURER
8. NO. A240362
9. SEAL/STAMP:
10. SIGNATURE



John E McCormac

STATE OF NEW JERSEY } ss.
County of Middlesex



I, ELAINE M. FLYNN, Clerk of the County of Middlesex, do hereby certify that

CAROL M STANLEY

whose name is subscribed to the annexed certificate or proof of acknowledgment of the annexed instrument was at the time of taking the same a

NOTARY PUBLIC OF NEW JERSEY

acting in and for said county, duly commissioned and sworn, and qualified to act as such; that as such

NOTARY PUBLIC OF NEW JERSEY

he was duly authorized by the laws of the State of New Jersey to take and certify depositions; to administer oaths and affirmations; to take affidavits and certify the acknowledgment and proof of deeds and other written instruments for lands, tenements and hereditaments to be read in evidence or recorded in this state; and further, that I am well acquainted with the handwriting of such

NOTARY PUBLIC OF NEW JERSEY

and verify that the signature to such proof or acknowledgment is genuine.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the County of Middlesex, this 23 day of ~~SEPTEMBER~~ 20 63

Elaine M. Flynn CLERK.

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107

COUNTY OF MIDDLESEX

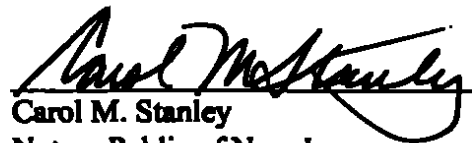
STATE OF NEW JERSEY

UNITED STATES OF AMERICA

I, Harris A. Wolin, of COLGATE-PALMOLIVE COMPANY, do hereby declare that the copy attached hereto is a true photocopy of the Assignment executed by the inventors in support of U.S. Serial No. 10/442,905 filed May 21, 2003.


Harris A. Wolin
Senior Patent Attorney

Subscribed and sworn to
before me this 21 day
of September, 2005.


Carol M. Stanley
Notary Public of New Jersey
My Commission Expires November 18, 2005

Colgate

108 107

ASSIGNMENT

WHEREAS, we, James KEMP, Al SPROSTA, Brett TRAFICANT, Tau DAI, Eduardo JIMENEZ and Nancy Won Mee PAK (below referred to as ASSIGNOR(S)), residing, respectively, as set forth hereinafter, have made an invention for which application for Letters Patent of the United States was filed in the United States Patent and Trademark Office as Application Serial No. 10/442,905 filed May 21, 2003, naming the ASSIGNOR(S) as an inventor, and entitled TOOTHBRUSH ASSEMBLY; and

WHEREAS, Colgate-Palmolive Company, a corporation duly organized and existing under the laws of the State of Delaware, United States of America and having its principal office and place of business at 300 Park Avenue, New York, New York 10022, and offices and place of business at 909 River Road, Piscataway, New Jersey 08855 (below referred to as "ASSIGNEE"), is desirous of obtaining the entire right, title and interest in and to the aforesaid invention and patent application and corresponding patent rights worldwide;

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNORS, by these presents do sell, assign and transfer to ASSIGNEE, the full and exclusive right, title and interest in and to the aforesaid invention, the aforesaid U.S. and all corresponding foreign patent applications, all divisional, continuation, continuation-in-part, reissue and reexamination applications of the aforesaid U.S. application, and all Letters Patent or comparable rights issuing thereon in the United States and in all foreign countries, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and the ASSIGNORS hereby authorize and request the U.S. Commissioner of Patents and Trademarks and all foreign Patent Offices to issue all Letters Patent or comparable rights issuing on any application as aforesaid to ASSIGNEE, or to its successors, assigns or legal representatives;

ASSIGNORS hereby covenant that ASSIGNORS have full right to convey the entire interest herein assigned, and that ASSIGNORS have not executed, and will not execute, any agreement in conflict herewith;

ASSIGNORS agree to communicate to ASSIGNEE or to its successors, assigns or legal representatives any and all facts known to them or any of them respecting said invention, and without further remuneration to testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and reexamination applications, make all rightful oaths and generally do all lawful acts to aid ASSIGNEE or its successors, assigns or legal representatives to obtain and enforce proper patent protection for said invention in all countries and to enhance or perfect ASSIGNEE's title in and to the invention and patent rights therein.

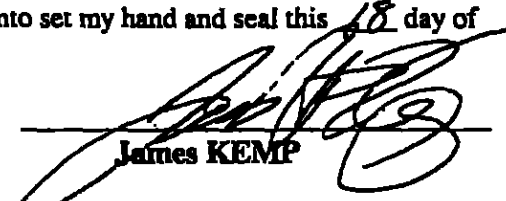
ASSIGNORS hereby authorize attorneys for ASSIGNEE to enter on this document any applicable serial numbers and filing dates after ASSIGNORS' execution of this document.

This Assignment is effective as of May 21, 2003.
(Date of Filing)

(Assignment con't)

197 108

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 18 day of September 2003.


James KEMP

Address: 14 Staudt Court
Somerset, NJ 08873

State of New Jersey
County of Middlesex

On this 18 day of September 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.

CAROL M. STANLEY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES NOV. 18, 2005


NOTARY PUBLIC

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 18 day of September 2003.


AL SPRÖSTA

Address: 1004 Redspire Drive
Union, NJ 07083

State of New Jersey
County of Middlesex

On this 18 day of September 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.


NOTARY PUBLIC

CAROL M. STANLEY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES NOV. 18, 2005

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 17th day of SEPTEMBER 2003. 108 109

Brett Traficant
Brett TRAFICANT

Address: 28 Coldevin Road
Clark, NJ 07066

State of New Jersey
County of Middlesex

On this 17 day of September 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.

CAROL M. STANLEY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES NOV. 18, 2005

Carol M. Stanley
NOTARY PUBLIC

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 18 day of September 2003.

Tau Dai
Tau DAI

Address: 45 Foley Avenue
Edison, NJ 08820

State of New Jersey
County of Middlesex

On this 18 day of September 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.

Carol M. Stanley
NOTARY PUBLIC

CAROL M. STANLEY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES NOV. 18, 2005

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 18 day of September 2003. 104 110


Eduardo JIMENEZ

Address: 21 Manor Drive
Manalapan, NJ 07726

State of New Jersey
County of Middlesex

On this 18 day of September 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.

CAROL M. STANLEY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES NOV. 18, 2005


NOTARY PUBLIC

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this ____ day of _____ 2003.

Nancy Won Mee PAK

Address: 111 West 94th Street #4C
New York, NY 10025

State of
County of

On this ____ day of _____ 2003, before me, a Notary Public in and for the State and County aforesaid, personally appeared the above signatory, known to me to be the person of that name, who executed the foregoing instrument in my presence.

NOTARY PUBLIC

Colgate-Palmolive Company accepts this Assignment.

COLGATE-PALMOLIVE COMPANY

By 
Michael J. McGreal
Senior Associate Patent Counsel

Docket No. IR 6896-05

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this ____ day of
_____ 2003.

Eduardo JIMENEZ

Address: 21 Manor Drive
Manalapan, NJ 07726

State of
County of

On this ____ day of _____ 2003, before me, a Notary Public in
and for the State and County aforesaid, personally appeared the above signatory, known to
me to be the person of that name, who executed the foregoing instrument in my presence.

NOTARY PUBLIC

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 21st day of
November 2003.

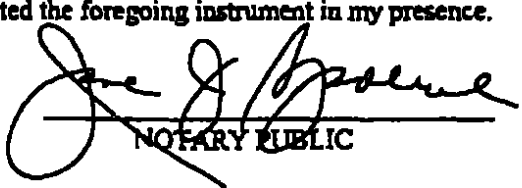

Nancy Won MuePAK

Address: 111 West 94th Street #4C
New York, NY 10025

State of
County of

On this 21st day of November 2003, before me, a Notary Public in
and for the State and County aforesaid, personally appeared the above signatory, known to
me to be the person of that name, who executed the foregoing instrument in my presence.

JANE J. SPOEREL
Notary Public, State of New York
No. 01SP5004675
Qualified in Nassau County
Certificate Filed in New York County
Commission Expires - November 21, 2006
Company accepts this Assignment.


NOTARY PUBLIC

COLGATE-PALMOLIVE COMPANY

By _____

(Sheet 4 of 4)

211 112

**TRADUCCIÓN AL ESPAÑOL del Documento de Cesión de solicitud de patente a
Colgate-Palmolive Company, firmado por los cedentes y el cesionario.**

APOSTILLA

(Convención de La Haya del 5 de Octubre de 1961)

- 1. PAÍS: ESTADOS UNIDOS DE AMERICA**
- 2. ESTE DOCUMENTO PÚBLICO HA SIDO FIRMADO POR:
ELAINE M. FLYNN**
- 3. ACTUANDO EN CAPACIDAD DE:
FUNCIONARIO DEL CONDADO**
- 4. LLEVA EL SELLO/TIMBRE DE:
CONDADO DE MIDDLESEX**

CERTIFICADO

- 5. EN TRENTON, NEW JERSEY**
- 6. EL 4 DE OCTUBRE DE 2005**
- 7. POR John E. McCormac, CPA, TESORERO DE NEW JERSEY**
- 8. NO. A240362**
- 9. SELLO/TIMBRE**
- 10. FIRMA**

John E. McCormac (Firma)

112 113

CONDADO DE MIDDLESEX

ESTADO DE NEW JERSEY

ESTADOS UNIDOS DE AMERICA

Yo, Harris A. Wolin, de COLGATE-PALMOLIVE COMPANY, declaro que las copias anexas al presente son fotocopias verdaderas de la cesión como base de U.S. número de serie 10/422,905 presentada el 21 de mayo de 2003.

(Firma)
Harris A. Wolin
Abogado principal de patentes

Suscrito y jurado
Ante mí este 21
de septiembre de 2005.

Carol M. Stanley (Firma)
Carol M. Stanley
Notario Público de New Jersey
Mi comisión expira el 18 de Noviembre de 2005.

ESTADO DE NEW JERSEY
Condado de Middlesex

Yo, Elaine M. Flinn, Funcionario del Condado de Middlesex, certifico que

CAROL M. STANLEY

Cuyo nombre aparece suscrito al certificado de prueba de reconocimiento del Instrumento adjunto era al momento de tomar el mismo un

NOTARIO PUBLICO DE NEW JERSEY

Actuando en y para dicho condado, debidamente comisionada y juramentada, y calificada para actuar como tal; que como tal

NOTARIO PUBLICO DE NEW JERSEY

Estaba debidamente autorizada por las leyes del Estado de New Jersey para tomar y certificar declaraciones; para administrar juramentos y promesa solemnes; para tomar declaraciones juradas por escrito y certificar el reconocimiento y la prueba de instrumentos jurídicos y otros instrumentos escritos para tierras, arrendamientos y herencias ser leídos como evidencia o registrados en este estado; y además, que estoy familiarizada con la firma de tal

NOTARIO PUBLICO DE NEW JERSEY

Y verifico que la firma de tal prueba o reconocimiento es genuina.

EN TESTIMONIO DE LO CUAL, e firmado el presente y fijado el sello del Condado de Middlesex este 23 de septiembre de 2005.

Elaine M. Flinn (Firma)

113 114

CESION

CONSIDERANDO QUE, nosotros, James KEMP, Al SPROSTA, Brett TRAFICANT Tau DAI, Eduardo JIMENEZ y Nancy Won Mee PAK (referidos debajo como CEDENTE(S)), residiendo, respectivamente, como se establece más adelante, hemos hecho una invención para la cual se presentó solicitud de patente de los Estados Unidos en la Oficina de Marcas y Patentes de los Estados Unidos como solicitud con número de serie 10/442,905, presentada el 21 de mayo de 2003, nombrando a los CEDENTES como Inventores, y titulada ENSAMBLAJE DE CEPILLO DE DIENTES; y

CONSIDERANDO QUE, Colgate-Palmolive Company, una corporación debidamente organizada y existente bajo las leyes del Estado de Delaware, Estados Unidos de América y que tiene sus oficinas principales y lugar de operación en 300 Park Avenue, New York, New York 10022, y oficinas y lugar de operación en 909 River Road, Piscataway, New Jersey 08855 (referido debajo como CESIONARIO), tiene deseos de obtener la totalidad del derecho, título e intereses en y para la invención y solicitud de patente mencionadas arriba y los correspondientes derechos de patente alrededor del mundo.

AHORA, POR LO TANTO, en consideración de la consideración buena y valiosa, el recibo y la suficiencia de la cual se reconocen, los CEDENTES, por la presente venden, ceden y transfieren al CESIONARIO el derecho, título e interés completo y exclusivo en y para la invención arriba mencionada, la solicitud de patente de los Estados Unidos arriba mencionada y todas las solicitudes de patente extranjeras correspondientes, todas las solicitudes de división, continuación, continuación parcial, reemisión y reexaminación de la solicitud de patente de los estados Unidos arriba mencionada, y todas las Patentes o derechos comparables emitidos sobre la misma en los Estados Unidos y en todos los países extranjeros, junto con el derecho de prioridad bajo la Convención Internacional para la Protección de la Propiedad Industrial, la Convención Interamericana Relacionada con las Patentes, Diseños y Modelos Industriales, y cualquier otro acuerdo internacional a los cuales se adhieran los Estados Unidos de América, y los CEDENTES autorizan y solicitan al Comisionado de Marcas y Patentes de los Estados Unidos y a todas las oficinas Extranjeras de Patentes a emitir Patentes o derechos comparables emitidos sobre cualquier solicitud al arriba mencionado CESIONARIO, o sus sucesores, cesionarios o representantes legales;

Los CEDENTES acuerdan que los CESIONARIOS tienen pleno derecho para comunicar la totalidad del interés aquí cedido, y los CEDENTES no han ejecutado, y no ejecutarán, ningún acuerdo en conflicto con el presente;

Los CEDENTES acuerdan comunicar al CESIONARIO o a sus sucesores, cesionarios o representantes legales cualquiera y todos los hechos conocidos por ellos o por cualquiera de ellos respecto a dicha invención, y sin remuneración adicional testificar en cualquier proceso legal, firmar todos los papeles legales, ejecutar todas la solicitudes de división, continuación, continuación parcial, reemisión y reexaminación, hacer todos los juramentos correctos y en general hacer todos los actos legales para ayudar al CESIONARIO o sus sucesores, cesionarios o representantes legales a obtener y hacer valer la protección de patente para dicha invención en todos los países y a mejorar o perfeccionar el derecho del CESIONARIO en y para la invención y los derechos de patente de la misma.

Los CEDENTES autorizan a los abogados del CESIONARIO a incluir en este documento cualquier número de serie o fecha de solicitud después de la ejecución del documento por parte de los CEDENTES.

Esta cesión es efectiva a partir de: mayo 21 de 2003 .
(Fecha de presentación)

118 115

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 18 de septiembre de 2003.

(Firma)
James KEMP

Dirección: 14 Staudt Court
Somerset, NJ 08873

Estado de New Jersey

Condado de Middlesex

Este 18 de septiembre de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [CAROL M. STANLEY]
[NOTARIO PÚBLICO DE NEW JERSEY]
[MI COMISIÓN EXPIRA 8/8/2005]

(Firma)
NOTARIO PUBLICO

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 18 de septiembre de 2003.

(Firma)
AI SPROSTA

Dirección: 1004 Redspire Drive
Union, NJ 07083

Estado de New Jersey

Condado de Middlesex

Este 18 de septiembre de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [CAROL M. STANLEY]
[NOTARIO PÚBLICO DE NEW JERSEY]
[MI COMISIÓN EXPIRA 8/8/2005]

(Firma)
NOTARIO PUBLICO

215
116

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 18 de septiembre de 2003.

(Firma)
Brett TRAFICANT

Dirección: 28 Coldevin Road
Clark, NJ 07066

Estado de New Jersey
Condado de Middlesex

Este 18 de septiembre de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [CAROL M. STANLEY]	(Firma)
[NOTARIO PÚBLICO DE NEW JERSEY]	NOTARIO PUBLICO
[MI COMISIÓN EXPIRA 8/8/2005]	

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 18 de septiembre de 2003.

(Firma)
Tau DAI

Dirección: 45 Foley Avenue
Edison, NJ 08820

Estado de New Jersey
Condado de Middlesex

Este 18 de septiembre de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [CAROL M. STANLEY]	(Firma)
[NOTARIO PÚBLICO DE NEW JERSEY]	NOTARIO PUBLICO
[MI COMISIÓN EXPIRA 8/8/2005]	

117

116

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este 18 de septiembre de 2003.

(Firma)
Eduardo JIMENEZ

Dirección: 21 Manor Drive
Manalapan, NJ 07726

Estado de New Jersey

Condado de Middlesex

Este 18 de septiembre de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello] [CAROL M. STANLEY]
[NOTARIO PÚBLICO DE NEW JERSEY]
[MI COMISIÓN EXPIRA 8/8/2005]

(Firma)
NOTARIO PUBLICO

EN TESTIMONIO DE LO CUAL, yo pongo mi firma y sello este _____ de _____ de 2003.

Nancy Won Mee PAK

Dirección: 111 West 94th Street #4C
New York, NY 10025

Estado de New Jersey

Condado de Middlesex

Este _____ de _____ de 2003, ante mí, un Notario Público en y para el Estado y Condado referenciados arriba, apareció personalmente el arriba firmante, a quine conozco como la persona de ese nombre, quien ejecutó el instrumento anterior en mi presencia.

[Sello]

NOTARIO PUBLICO

Colgate-Palmolive Company acepta esta cesión

COLGATE PALMOLIVE COMPANY

Por: _____ (Firma)
Michael J. McGreal
Abogado Asociado Principal de Patentes

118



Por: _____

Apostille

(Convention de La Haye du 5 Octobre 1981)

119

1. Country: **United States of America**

This public document

2. has been signed by **Norman Goodman**

3. acting in the capacity of **County Clerk**

4. bears the seal/stamp of the county of **New York**

Certified

5. At New York, New York

6. the 30th day of October 2001

7. by Special Deputy Secretary of State, State of New York

8. No. NYC-9786540B

9. Seal/Stamp

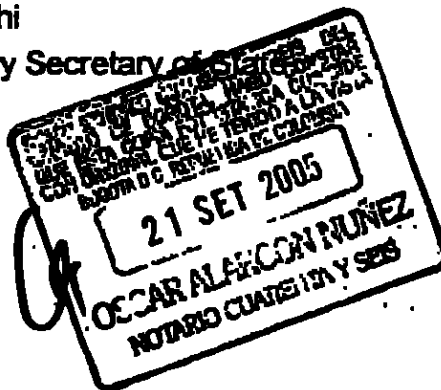
10. Signature



Aqil M. Qureshi

Aqil M. Qureshi

Special Deputy Secretary of State



Brigard & Castro

SANTA FE DE BOGOTÁ - COLOMBIA

PODER

POWER OF ATTORNEY

Yo (nosotros)

domiciliado(s) en

Nombres(as): RAMIRO CASTRO DUQUE y/o JUAN PABLO CADENA SARMIENTO y/o BEATRIZ JARAMILLO S.

de Santafé de Bogotá, Colombia, apoderados verdaderos y legales con poder especial, amplio y suficiente, para recibir de las oficinas y autoridades colombianas administrativas, judiciales y de policía, en cualquier instancia o recurso, la obtención de patentes de invención, registros de marcas, diseños industriales, modelos de utilidad, depósitos de nombres comerciales y señas, registros de derechos de autor y contratos sobre los mismos, obtención de certificados de obtentor de variedades vegetales, así como sus prórrogas, renovaciones, anotaciones de traspaso, cambios de nombre y/o domicilio; elaborar, tramitar y registrar contratos de licencia y licencias de cualesquiera clases; intervenir como demandante o como demandado en cualquier instancia y recurso ante cualquier juez, corporación, funcionario público o autoridad en acciones judiciales, administrativas y de policía tales como: oposiciones al registro de marcas; acciones de caducidad, cancelación y nulidad; acciones reivindicatorias, acciones derivadas de la obtención o explotación de licencias; acciones de competencia desleal; demandas penales; acciones de indemnización de perjuicios, reclamos y observaciones a solicitudes de patentes, diseños industriales, modelos de utilidad, en el ejercicio de medidas cautelares y en otras acciones o medidas similares.

A este efecto, le(s) faculta(mos) para elevar solicitudes, formular descripciones, enmiendas, protestas, declaraciones, oposiciones, cancelaciones, nulidades, apelaciones y reclamos; pagar impuestos, cuotas y gravámenes prescritos por la ley; renunciar o desistir a derechos concedidos o en curso de concesión; recibir toda clase de documentos y valores, dando el descargo respectivo, y, en general, para dar ante dichas autoridades todos los pasos necesarios al efecto indicado y tomar todas las medidas que creyeran conducentes al resguardo de mis (nuestros) intereses, con todas las demás facultades legales necesarias.

Este poder comprende la facultad de ratificar o confirmar en mí (nuestro) nombre lo actuado así como la facultad de desistir, transigir, comprometer, y la de sustituirlo en todo o en parte y revocar sustituciones. Asimismo nombro(lamos) a: RAMIRO CASTRO DUQUE y/o JUAN PABLO CADENA SARMIENTO y/o BEATRIZ JARAMILLO S. domiciliado(s) en la Carrera 7 No. 16-56 Piso 8, mis (nuestros) apoderados en Colombia, con facultades para recibir notificaciones y designar apoderados judiciales o extrajudiciales.

Otorgado y firmado en

hoy de

Firma

Nombre

I (We)

COLGATE-PALMOLIVE COMPANY, a Delaware domiciled corporation, of 300 Park Avenue, New York, New York 10022, U. S. A.

Hereby appoint RAMIRO CASTRO DUQUE and/or JUAN PABLO CADENA SARMIENTO and/or BEATRIZ JARAMILLO S.

of Santafé de Bogotá, Colombia, my (our) true and lawful attorneys with special, ample and sufficient power to obtain from the Colombian administrative, judicial and police offices and authorities, in any instance, privileges of patents of invention, registration of trademarks, industrial designs and utility models; registration of commercial names and emblems; registration of copyright and contracts related thereto, certificates of obtainment of vegetables varieties, as well as extensions, renewals and recordal of assignments and changes of name and domicile related to the above; to prepare, prosecute and register licenses of any kind; to act as plaintiff or defendant in any instance or recourse, and before any judge, corporation, public official or authority in judicial, administrative and police actions, such as: oppositions to the registration of trademarks; caducity, cancellation and nullity actions; claim actions derived from the obtaining or exploitation of licenses, action of unfair competition; penal demands, actions of indemnities for damages; claims or observations on patent applications, models, industrial designs and utility models; in the exercise of preventive measures; and in other actions or similar proceedings.

To that effect they are hereby empowered to file applications, formulate descriptions, amendments, protests, declarations, oppositions, cancellations, nullities, appeals and claims; to pay taxes, quotas and assessments prescribed by law, renounce or waive the rights granted or in the process of granting; to receive all kind of documents and valuables, giving the respective release of receipt, and, in general, to take before said authorities the necessary steps to such effect, and any measures that they may deem pertinent to the safeguard of my (our) interest(s) with all the other necessary legal powers.

This power includes the faculty to ratify or confirm, settle and compromise on my (our) behalf, and to substitute this power in whole or in part and to revoke substitutions. At the same time I (We) hereby appoint RAMIRO CASTRO DUQUE and/or JUAN PABLO CADENA SARMIENTO and/or BEATRIZ JARAMILLO S. of Carrera 7 No. 16-56, Piso 8, my (our) attorneys in Colombia, with powers to receive notifications judicial and extrajudicial attorneys.

New York, N.Y.

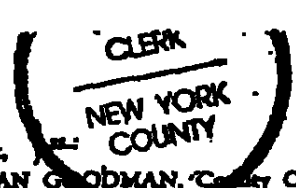
VICE PRESIDENT & ASSOCIATE GENERAL COUNSEL
TRADEMARK

OSCAR ALARCÓN
NOTARIO PUBLICO Y SECUR

Name

SCOTT E THOMPSON

120
121



252373

Notary of New York
County of New York.

I, NORMAN GOODMAN, County Clerk and Clerk of the Supreme Court of the State of New York, in and for the County of New York, a Court of Record, having by law a seal, DO HEREBY CERTIFY pursuant to the Executive Law of the State of New York, that

Rosie S. Dizon

whose name is subscribed to the annexed affidavit, deposition, certificate of acknowledgment or proof, was at the time of taking the same a NOTARY PUBLIC in and for the State of New York duly commissioned, sworn and qualified to act as such; that pursuant to law, a commission or a certificate of his official character, with his autograph signature has been filed in my office; that at the time of taking such proof, acknowledgment or oath, he was duly authorized to take the same; that I am well acquainted with the handwriting of such NOTARY PUBLIC or have compared the signature on the annexed instrument with his autograph signature deposited in my office, and I believe that such signature is genuine.

IN WITNESS WHEREOF, I have hereto set my hand affixed my official seal this

OCT 30 2001

FEE PAID \$3.00

Norman Goodman
County Clerk and Clerk of the Supreme Court, New York County



27:10:30
J. TRUJILLO J.
ME 11 7

CERTIFICADO NOTARIAL (SOCIEDAD)

NOTARIAL CERTIFICATE (CORPORATION)

122

Hoy de
personalmente comparció ante mí

a quien conozco, y de quien me consta que firmó el
anterior documento, debidamente juramentado declaró
y dijo que él es

de

Sociedad legalmente constituida para un período de
duración que aún no ha terminado; que el declarante
está autorizado por dicha compañía para conferir este
poder; que el sello estampado por él al pie de tal poder,
en nombre y representación de la expresada compañía,
es el sello oficial de ella; y que el objeto para el cual se
confiere este instrumento está comprendido dentro del
de la sociedad.

El suscrito Notario hace constar que tuvo a la vista las
pruebas de la existencia de la sociedad.

Estado de
con fecha

v. que quien confiere el presente poder es su
representante.

Notario Público (sello)

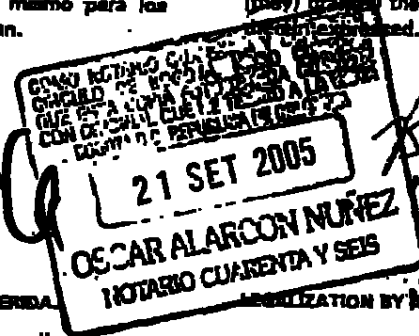
**CERTIFICADO NOTARIAL
PERSONA NATURAL**

COUNTY

Hoy de de , comparció(eron)
ante mí

a quien (es) conozco y me consta que es(son) la(s)
persona(s) firmante(s) del documento que precede y
quien(es) declara(n) que otorgan el mismo para los
fines y propósitos que en él se expresan.

Notario Público (sello)



*LEGALIZACION POR APOSTILLA ES REQUERIDA.

On this 29 day of Oct
personally appeared before me

SCOTT E THOMPSON
to me known, and known to me to be the person who
signed the foregoing instrument who being by me duly
sworn did depose and say that he (she) is the

**VICE PRESIDENT &
ASSOCIATE GENERAL COUNSEL
TRADEMARK
COLGATE-PALMOLIVE COMPANY**

Which is legally constituted for a term not yet expired,
that deponent is authorized by said Company to confer
this Power of Attorney; that the seal affixed hereunto
by the deponent in the name and on behalf of said
Corporation is the corporate seal thereof; and that the
purpose for which this instrument is granted is
included within the corporate purpose of company.

The undersigned Notary Public attests that he has seen
the documents that prove the existence of the
company.

State of Delaware
under date of May 13, 1997

and that he (she) who grants the present power of
attorney is its Representative.

Notary Public

ROSIE S. DIZON
Notary Public, State of New York
No. 31-4941117
Qualified in New York County
Commission Expires Aug. 15, 2002

On this 29 day of Oct
personally appeared before me

SCOTT E THOMPSON

who is(are) known to me and who I attest executed
the foregoing document and he (they) grants the document for the purposes
(they) grants the document for the purposes

Notary Public (sello)

ROSIE S. DIZON
Notary Public, State of New York
No. 31-4941117
Qualified in New York County
Commission Expires Aug. 15, 2002

125 123

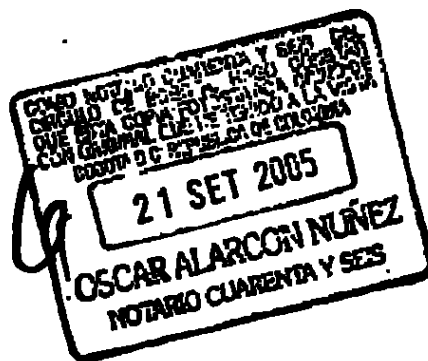
APOSTILLE

(Convención de La Haya del 5 de Octubre de 1961)

1. País: ESTADOS UNIDOS DE AMERICA
Este documento público
2. ha sido firmado por Norman Goodman
3. actuando en capacidad de Oficial del Condado
4. lleva el sello/timbre del condado de New York

CERTIFICADO

5. en New York, New York
6. el 30 de Octubre de 2001
7. por Secretario de Estado Encargado Especial, Estado de New York
8. No. NYC-9786540B
9. Sello/Timbre
10. Firma
(Firma)
Aquil M. Qureshi
Secretario de Estado Encargado Especial



127 124

Estado de New York)
) ss.
Condado de New York)

Yo, **NORMAN GOODMAN**, Oficial del Condado y Oficial de la Corte Suprema del Estado de New York, en y para el Condado de New York, un Tribunal de Registros, que tiene un sello por ley.

Rosie S. Dizon

cuyo nombre está suscrito al acta notarial, deposición, certificado de reconocimiento o prueba, era al momento de tomar el mismo NOTARIO PÚBLICO en y para el Estado de New York debidamente comisionado, juramentado y calificado para actuar como tal; que de acuerdo con la ley, una comisión o un certificado de este carácter oficial, con su firma autógrafa ha sido presentada en mi oficina; que al momento de tomar tal prueba, reconocimiento o juramento, estaba debidamente autorizado para tomar el mismo; que estoy bien familiarizado con la escritura de tal NOTARIO PÚBLICO o he comparado la firma en el instrumento anexo con la firma autógrafa depositada en mi oficina, y creo que tal firma es genuina.

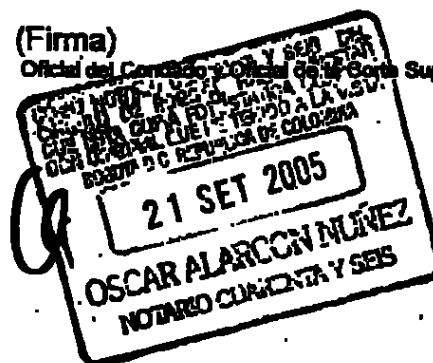
COMO TESTIGO DE LO MISMO, he fijado al presente mi firma t mi sello oficial este

30 de Octubre de 2001

TARIFA PAGADA \$3.00

(Firma)

Oficial del Condado y Oficial de la Corte Suprema, Condado de New York





ORGANIZACION ELECTORAL
REGISTRADURIA NACIONAL DEL ESTADO CIVIL

GAVIRI - A

REGISTRO CIVIL DE DEFUNCIÓN

Indicativo
Serial

5562241

Datos de la oficina de registro							
Clase de oficina:	Registraduría	Notaría	☒	Consulado	Corregimiento	Insp. de Policía	Código
País - Departamento - Municipio - Corregimiento o Inspección de Policía							
COLOMBIA CUNDINAMARCA BOGOTA D.C. NOTARIA 32.							

Datos del inscrito	
Apellido y nombres completos	
CASTRO DUQUE RAMIRO	
Documento de identificación (Clase y número)	Sexo (en Letras)
C.C. No. 170322 DE BOGOTA	MASCULINO

Datos de la defunción			
Lugar de la Defunción País - Departamento - Municipio - Corregimiento o Inspección de Policía			
COLOMBIA CUNDINAMARCA BOGOTA D.C.			
Fecha de la defunción		Hora	Número de certificado de defunción
Año	2 0 0 4	04:10 PM	A- 2094375.
Mes	1 0	Día	3 0
Presunción de muerte			
Desde que profiere la sentencia		Fecha de la sentencia	
-----		-----	
Documento presentado		Nombre y cargo del funcionario	
Autorización judicial ☐ Certificado Médico ☒		ANDRES DIAZ CAMPOS	
		R.M. No. 79982662	

Datos del denunciante	
Apellido y nombres completos	
EDGAR DAVID REGINO II.	
Documento de identificación (Clase y número)	Firma
C.C. No. 15.030.154 DE LORICA/ CORDOBA	<i>[Firma]</i>

Primer testigo	
Apellido y nombres completos	

Documento de identificación (Clase y número)	Firma
-----	-----

Segundo testigo	
Apellido y nombres completos	

Documento de identificación (Clase y número)	Firma
-----	-----

Fecha de inscripción		Notario y Firma del funcionario que actúa	
Año	2 0 0 4	BLANCA RIVERA RESTREPO	
Mes	1 1	NOTARIO	
Día	0 2		

PADRES: ALFONSO CASTRO		ESPACIO PARA NOTAS
MERCEDES DUQUE		

ORIGINAL PARA LA OFICINA DE REGISTRO

NOTARIA 32

DEL CIRCULO DE SANTA FE DE BOGOTA, D.C.

Germán Eleázar Moreno L.
Notario

COMO SECRETARIO DELEGADO DE LA NOTARIA TREINTA Y DOS (32) DEL
CIRCULO DE BOGOTA

CERTIFICO, QUE:

La presente nota es fiel copia del original tomada del registro
civil de defunciones serial indicativo número: 556224
que expido en la ciudad de Bogotá D.C. hoy: 05 NOV. 2004

SECRETARIO DELEGADO

NELSON FLORES C.
SECRETARIO DELEGADO PARA COPIAS
DECRETO 1234 DE 1999

126
125

SUPERINDUSTRIA Y COMERCIO
Radicación : 05120043 00000000 Folios: 124
Fecha (AMB): 2005-12-20 16:21:47
Trámite : 011 PCT-PATENT 379 FASE NNCI 411 PRESENTA
Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

REQUISITOS NECESARIOS PARA PRESENTACIÓN Y AGILIZACION DEL
TRAMITE

	USUARIO	RADICADOR
PATENTE DE INVENCION ✓	()	()
MODELO DE UTILIDAD	()	()
- Indicación de que se solicita la concesión de una patente. ✓	()	()
- Datos de identificación del solicitante o de la persona que se presenta la solicitud. ✓	()	()
- Descripción de la invención. ✓	()	()
- Dibujos de ser estos pertinentes. X	()	()
- Comprobante de Pago de las tasas establecidas. ✓	()	()
COMPLETA ()	INCOMPLETA ()	()
DISEÑO INDUSTRIAL ()		
- Indicación de que se solicita el registro de Diseño Industrial	()	()
- Datos de identificación del solicitante o de la persona que presenta la solicitud.	()	()
- Representación gráfica o fotográfica del Diseño Industrial o muestra del Material que incorpora el diseño.	()	()
- Comprobante de pago de las tasas establecidas	()	()
COMPLETA ()	INCOMPLETA ()	()
ESQUEMA DE TRAZADO ()		
- Indicación de que solicita el registro de un Esquema de trazado.	()	()
- Datos de identificación del solicitante o de la persona que presenta La solicitud.	()	()
- Representación gráfica del esquema de trazado	()	()
- Comprobante de pago de las tasas establecidas.	()	()
COMPLETA ()	INCOMPLETA ()	()

Firma Responsable:

[Signature]
Diciembre 20 de 2005

Fecha:

127/26

REPUBLICA DE COLOMBIA
SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

Bogotá,
2020

Doctor(a)
CADENA SARMIENTO JUAN PABLO
Apoderado(a) y/o Representante de
COLGATE PALMOLIVE COMPANY

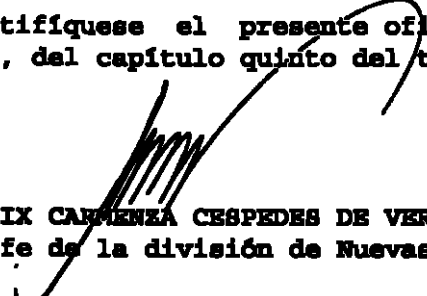
REFERENCIA	Radicación No.	5 128043
	Solicitud internacional	US2004/015474
	Fecha inicio fase nacional	21/12/2005
	Trámite	11
	Evento	379
	Actuación	430
	Oficio No.	1196

Como resultado del examen de forma, realizado con fundamento en el artículo 38 de la Decisión 486 de la Comisión de la Comunidad Andina, artículo 27 del Tratado de Cooperación en Materia de Patentes (PCT), regla 51 bis del Reglamento y Circular Única de la Superintendencia de Industria y Comercio, se le comunica que:

1. La solicitud no contiene la traducción de las reivindicaciones tal como fueron presentadas. (Numeral 5.2.5, capítulo quinto del título décimo de la Circular Única de la SIC).
2. Si fuere el caso, el solicitante debe adjuntar la traducción de los anexos del reporte de examen preliminar internacional (Art. 36.2.b) del tratado PCT.
3. La traducción de los capítulos descriptivo y reivindicatorio deberán estar acompañadas de los correspondientes dibujos para trámites posteriores de publicación y título.

En cumplimiento de lo dispuesto por el artículo 39 de la Decisión 486, se le requiere para que dentro del término de dos meses siguientes a la fecha de notificación del presente oficio, complete los requisitos anteriormente enunciados. En caso de no dar cumplimiento al presente requerimiento, la solicitud se considerará abandonada y perderá su prelación.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No.10 de 2001.


ALIX CAMENZA CESPEDES DE VERGEL
Jefe de la división de Nuevas Creaciones

El anterior requerimiento fue notificado por fijación en lista de fecha 09 FEB. 2006
adpall