

103/108

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 07-011453-00003-0000

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TAXA PATENTE 578 FASE NACIONAL
ANEXO 08 AL VOUCHER 00003-2

AS: 103.172

Señores

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

DIVISION DE NUEVAS CREACIONES

E. S. D.

REF.: Expediente No. 07 011.453 - Solicitud de Patente FASE NACIONAL

Corresp. a la Solicitud Internacional PCT/US2005/028400.

a nombre de: **COLGATE-PALMOLIVE COMPANY.**

Titulada: INSTRUMENTO PARA EL CUIDADO ORAL.

JUAN PABLO CADENA SARMIENTO, vecino de Bogotá, portador de la tarjeta profesional No. 57492 del Consejo Superior de la Judicatura, obrando como apoderado de la Sociedad **COLGATE-PALMOLIVE COMPANY**, según lo acredita el documento de poder presentado en esa División, de acuerdo con el Artículo 44 de la Decisión 486 de la Comisión de la Comunidad Andina, me permito solicitar que se examine si la invención contenida en la solicitud en referencia es patentable.

De acuerdo con lo anterior, me permito anexar el recibo oficial de caja No. 08-17,991 por valor de \$420.000.

De la Señora Jefe atentamente,

JUAN PABLO CADENA SARMIENTO

C.C. No. 80.410.337 de Usaquén

T.P. No. 57492 del C.S.J.

Cra 7 No. 71-21 Torre B, Piso 4

Bogotá, 31 de marzo de 2008

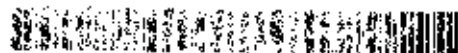
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RESPONSABLE : _____

RECIBO DE CASH APLICADO AL EXPEDIENTE No. _____

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Superintendencia de Industria y Comercio



Nº. 07-011453-000003-0000

Superintendencia de Industria y Comercio
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Bogotá, D.C. 110002

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FECHA : FEBRERO 20 DE 2009

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
ISARD & CASTRO LTDA	CONSIGNACION	BANCO DE BOGOTA	062754387	3535362	20/02/2009	23,935,600.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01	SOLICITUDES	
		05 EXPEN DE PATENTABILIDAD DE INVEN	420,000.00
		TOTAL :	\$ 420,000.00

SON: CUATROCIENTOS VEINTE MIL PESOS

DIVISIÓN DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No. 07-11453

EL EXTRACTO DE LA PRESENTE SOLICITUD DE **PATENTE DE INVENCION**

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No **587** DE

FECHA **18 DE ENERO DE 2008** EL TÉRMINO HÁBIL SEÑALADO POR LA LEY

EXPIRA EL **16 DE ABRIL DE 2008**

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO X



US006352545B1

(12) **United States Patent**
Wagner

(10) **Patent No.:** **US 6,352,545 B1**
(45) **Date of Patent:** **Mar. 5, 2002**

(54) **BREATH SYSTEM APPLIANCE WITH
DORSAL APPLICATOR AND SCRAPER**

(76) **Inventor:** **Eugene C. Wagner, c/o Dental
Concepts LLC 100 Clearbrook Rd.,
Elmsford, NY (US) 10523**

(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/422,313**

(22) **Filed:** **Oct. 21, 1999**

Related U.S. Application Data

(63) **Continuation-in-part of application No. 09/307,705, filed on
May 10, 1999, now Pat. No. 6,083,235.**

(51) **Int. Cl.:** **A61B 17/24**

(52) **U.S. Cl.:** **606/161; 15/111**

(58) **Field of Search:** **606/1, 160, 161;
600/56; 604/77; 424/435, 439; D24/101,
135, 136; D1/105; 15/110, 111, 114**

(56) **References Cited**

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* cited by examiner

Primary Examiner—Henry J. Recla

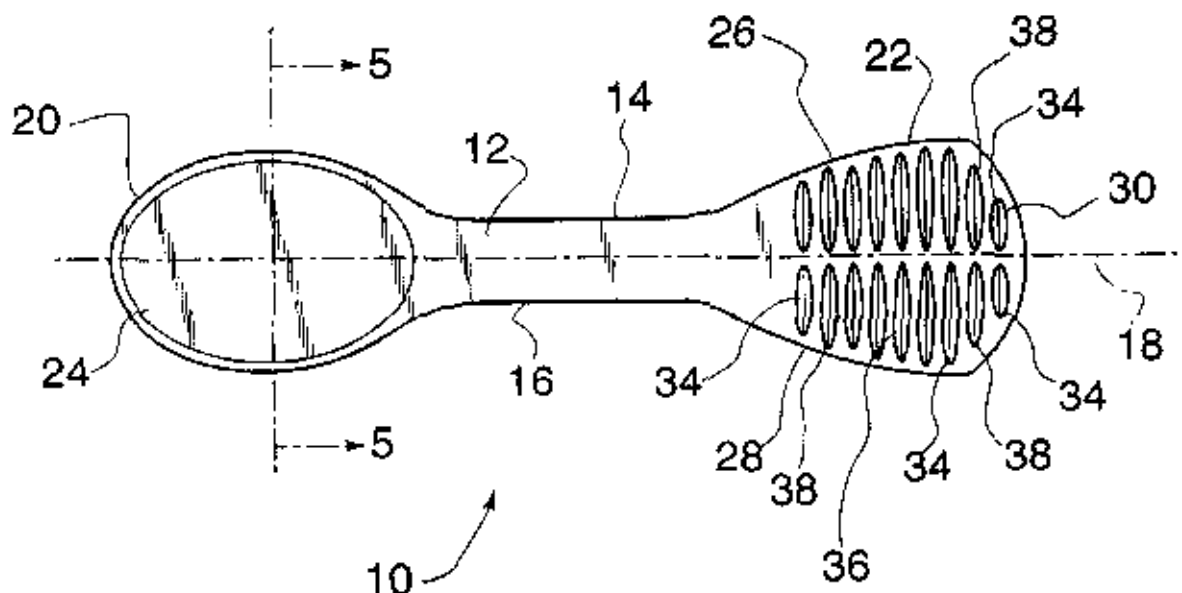
Assistant Examiner—William W. Lewis

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(57) **ABSTRACT**

A breath system appliance includes a planar thin elongate body having an applicator head at one end and a scraper head at the other end. The applicator head carries a troche having an oral hygiene and/or breath freshening active constituent. The active constituent may include an antibacterial agent, an antiseptic agent, a flavoring agent, an oxidizing agent and an anesthetizing agent. The active constituent is applied as a coating to dorsal surfaces of a user. The scraper head is applied against dorsal surfaces of the user to dislodge food debris and other odor generating matter from the dorsum of the user after application of the troche, before application of the troche, or both before and after. The appliance may be packaged in a sealed packet.

18 Claims, 3 Drawing Sheets



106
107

Fig. 3

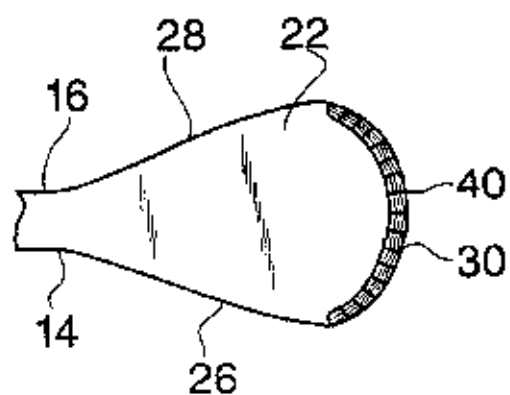


Fig. 4

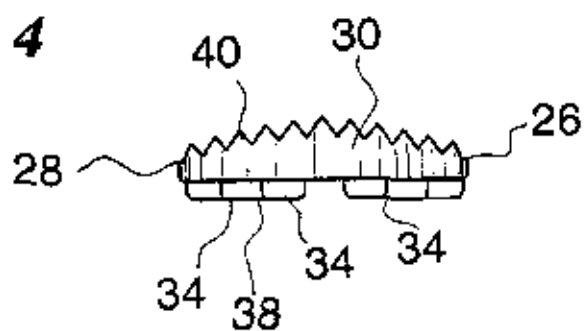
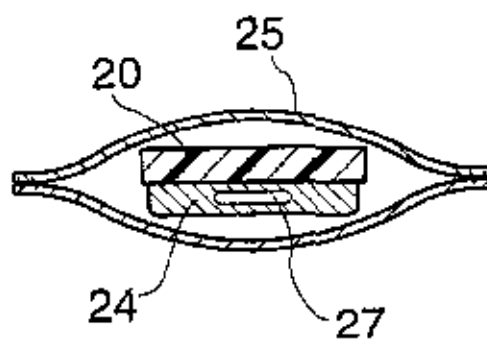


Fig. 5



BREATH SYSTEM APPLIANCE WITH DORSAL APPLICATOR AND SCRAPER

RELATED APPLICATION

This is a continuation-in-part of Application Ser. No. 09/307,705 filed May 10, 1999, now U.S. Pat. No. 6,083,235 entitled BREATH SYSTEM APPLIANCE WITH DORSAL APPLICATOR AND SCRAPER.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to oral hygiene appliances and more specifically to devices which promote oral hygiene by removing debris from one's tongue.

2. Antecedents of the Invention

The general public has been highly conscious of oral hygiene, not only from a social standpoint, but additionally in its relationship to overall health. While basic oral hygiene devices such as toothbrushes, toothpaste, tooth powder, interdental stimulators, interproximal brushes, dental floss, toothpicks and dental picks, e.g. U.S. Pat. No. 4,326,548, have been in use through the years, in recent years there has been a proliferation of do-it-yourself oral hygiene cosmetic products, including various tooth whitening preparations, e.g. U.S. Pat. No. 5,084,268 as well as tooth polishers, for improvement of the appearance of one's mouth.

The public has also been cognizant of the need to combat mouth malodor in daily social encounters. Various factors have been attributed to the generation of oral malodor including improper brushing, failure to brush and/or failure to floss. Other factors include the presence of various compounds in the oral cavity which are alleged to cause malodor, such as hydrogen sulfide.

It has also been recognized that minute food particles and debris as well as odor producing bacteria resided on the tongue, particularly on the dorsal (upper) surface thereof, i.e. the dorsum.

The dorsum has been characterized as a rough surface which is covered with papillae. The anterior of the dorsum is covered with fungiform papillae and the posterior (pharyngeal) surface is covered with fungiform papillae interspersed with filiform papillae.

Food particles and the breakdown products of foods became lodged in crevices between the papillae. Dense bacterial populations and the many bacterial species resident on the dorsum have been known to colonize. It is believed that the dorsum is the source of most of the bacteria in the oral cavity and the source of oral malodor.

The prevalent use of mouthwashes, breath mints and breath sprays did not alleviate or reduce the source of malodor, but merely served to mask the condition.

Various tongue scrapers such as those disclosed in the patents to Heisinger (U.S. Pat. No. 5,735,864), Andrews (U.S. Pat. No. 4,079,478), Naek (U.S. Pat. No. 5,226,179) and Bhaskar (U.S. Pat. No. 3,943,592) are among the devices which have been suggested for cleaning the tongue to remove food debris and other material accumulated on the dorsum.

Although such devices were capable of scraping the dorsum and loosening debris accumulated thereon, absent was the ability to adequately scrape the pharyngeal tissue surface due to the tendency of any scraping appliance to induce a gag reflex. Additionally, treatment of existing malodor conditions required the employment of a mouth-

wash or other breath freshener since tongue scrapers provided primarily prophylactic, rather than immediate relief.

Further, none of the prior devices gained a measure consumer acceptance, either because they were too difficult to use, too costly to manufacture, or were otherwise unsuited for general use.

SUMMARY OF THE INVENTION

A breath system appliance with a dorsal troche applicator and a scraper includes a generally flat, relatively thin, elongate body. Projecting transversely from the longitudinal axis of the body at one end thereof is a generally planar, relatively thin troche applicator head while a scraper head projects transversely from the other end of the body.

Adhered to a face of the applicator head is a thin troche having oral hygiene and/or breath freshening active constituents. The troche is applied by rubbing over dorsal surfaces whereby the active constituents are released when the troche dissolves in saliva.

The troche may be applied to the dorsal surfaces either before or after scraping the dorsal surfaces with an array of ribs and/or teeth which project from the scraper head.

The lower face of the scraper head includes the ribs, while the opposite face carries a peripheral array of teeth.

From the foregoing compendium, it will be appreciated that it is an aspect of the present invention to provide a breath system appliance of the general character described which is not subject to the disadvantages of the antecedents of the invention aforementioned.

A feature of the present invention is to provide a breath system appliance of the general character described which is well suited to promote overall oral hygiene and to reduce the rate of plaque formation in the oral cavity.

A further aspect of the present invention is to provide a breath system appliance of the general character described which is simple to use.

Another further feature of the present invention is to provide a self-contained oral hygiene appliance of the general character described which is well suited to effectively dislodge debris from surfaces of the dorsum.

To provide a breath system appliance of the general character described which reduces the tendency of a user to gag is a still further aspect of the present invention.

Another consideration of the present invention is to provide a breath system appliance of the general character described which is portable and well suited for carrying about one's person for routine usage away from home.

Yet another feature of the present invention is to provide a breath system appliance of the general character described which is disposable and thus well suited for one time usage by hotel guests, at health spas, and the like.

It is a further aspect of the present invention to provide a breath system appliance of the general character described which is relatively low in cost and well suited for economic mass production fabrication.

Yet another consideration of the present invention is to provide a breath system appliance of the general character described wherein dorsal surfaces are coated with a breath freshening and/or oral hygiene medium for effective removal of food debris, bacteria and other risk factors associated with oral odor as well as for providing immediate alleviation of oral malodor.

Yet another aspect of the present invention is to provide a breath system appliance of the general character described

which is well suited to utilize any of a number of active constituents or combinations thereof for efficacious treatment of oral malodor.

An additional feature of the present invention is to provide a breath system appliance of the general character described which is capable of dispensing a coating of active constituents over dorsal surfaces for enhanced freshening of dorsal surfaces.

A still further consideration of the present invention is to provide a breath system appliance of the general character described which is highly efficacious for both immediate and long term alleviation of oral malodor.

Other aspects, features and considerations of the present invention in part will be obvious and in part will be pointed out hereinafter.

With these ends in view, the invention finds embodiment and certain combinations of elements, arrangements of parts and series of steps by which the aforesaid aspects, features and considerations and certain other aspects, features and considerations are attained, or with reference to the accompanying drawings and the scope of which will be more particularly pointed out and indicated in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings in which is shown one of the various possible exemplary embodiments of the invention:

FIG. 1 is a bottom view of a breath system appliance constructed in accordance with and embodying the invention and showing an elongate planar body having at one end, an enlarged troche applicator head with a troche fixed to its lower face and at the other end of the body, an enlarged scraper head with an array of ribs projecting downwardly;

FIG. 2 is an enlarged scale side elevational view of the appliance and showing a plurality of teeth projecting from the upper face of the scraper head adjacent the periphery thereof;

FIG. 3 is a fragmentary top plan view showing the peripheral teeth;

FIG. 4 is an enlarged scale right end view of the appliance showing the peripheral teeth projecting upwardly and the ribs projecting downwardly from opposite faces of the scraper head;

FIG. 5 is an enlarged sectional view through the appliance, the same being taken along line 5-5 of FIG. 1 and through a packet in which the appliance is wrapped;

FIG. 6 is a fragmentary bottom view of an alternate embodiment wherein a troche is carried within a peripheral wall; and

FIG. 7 is an enlarged scale side elevational view of the alternate embodiment showing the peripheral wall and an alternate array of ribs.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now in detail to the drawings, the reference numeral 10 denotes generally a breath system appliance constructed in accordance with and embodying the invention. The appliance comprises a generally flat relatively thin elongate body 12 having a pair of longitudinal side edges 14, 16 substantially parallel to a longitudinal axis, 18. Projecting transversely from the axis 18 at one end of the body 12 is an enlarged elliptical troche applicator head 20. At the opposite

end of the body 12 is an enlarged paddle shaped scraper head 22 which also extends transversely from the longitudinal axis 18.

Adhered to the lower face of the applicator head 20 is a troche 24. In accordance with the invention, the troche 24 is formed with one or more active constituents having breath freshening and/or oral hygiene characteristics including anesthetic, antiseptic and astringent characteristics. Anesthetizing properties are particularly beneficial if the troche 24 is applied prior to scraping dorsal surfaces in order to retard a gag reflex.

Among active constituents are antibacterial agents, antiseptic agents, plaque inhibiting agents and flavoring agents. Typical constituents include thymol, eucalyptus oil, zinc chloride, menthol, microencapsulated peroxides and/or stabilized chlorine dioxide and polydimethylsiloxane-poloxamer 407.

While the troche 24 maybe formulated in accordance with traditional techniques, e.g. *The Dispensatory of the United States of America*, 24th Edition, 1947 J. B. Lippencott Co., Page 1243, incorporated herein by reference, one or more of the active constituents may be incorporated in a hard candy or mint for example, with or without a center envelope 27 which encapsulates one or more active constituents in liquid form. The term "troche" should be interpreted as including not only troches in the conventional sense but also lozenges, pastilles, hard candies as well as semi soft candies, mints and the like.

As illustrated in FIG. 5, the appliance may be individually wrapped in a sealed packet 25 for ease in carrying in one's pocket for example without the danger of contaminant contact.

The troche 24 is applied to dorsal surfaces by rubbing over the surfaces, whereby the troche is dissolved in saliva and the active constituents are released to coat the dorsal surfaces. Such troche application may take place either before or after scraping dorsal surfaces with the scraper head 22 or both before and after scraping.

To apply the troche, the appliance 10 is grasped at the mid-portion of the body 12 and the applicator head 20 is inserted into the oral cavity with the troche 24 facing the user's tongue. The troche 24 is pressed against and moved across the dorsal surfaces of the user's tongue with saliva dissolving the troche to release a coating of active constituents over surfaces of the dorsum.

After the dorsum has been coated with the active constituents, the applicator head 20 is removed from the oral cavity and the scraper head 22, at the opposite end of the body 12, is inserted.

It should be noted that the scraper head 22 differs from the applicator head 20. In lieu of having an elliptical plan configuration, the scraper head 22 has a generally paddle shaped configuration with a pair of diverging side edges 26, 28. A curved end surface 30, having a radius of curvature significantly larger than the radius of curvature of the end of the applicator head 20 is also found on the scraper head 22.

Symmetrically positioned along a lower face of the scraper head 22 is an array 32 of ribs 34, 38. As will be noted from an examination of FIG. 3, the array 32 is symmetric about the longitudinal axis 18. The array 32 includes rows of downwardly projecting transverse ribs 34, 38 with alternate ribs 34 having a relatively keen scraping edge 36 and with adjacent ribs 38 having terminal surfaces which are blunt.

It should be noted that alternating rows of keen and blunted edge ribs are but one of any number of rib configura-

rations suitable for employment in the invention. All ribs could have blunted or keen edges and various combinations in between. Further, the array pattern, as well as the number of ribs may be varied without departing from the invention.

On the opposite or upper face of the scraper head 22 is a peripheral array of teeth 40.

In use, after the dorsum has been coated with the troche active constituents, the scraper head 22 is inserted into the oral cavity and either the array 32 of ribs 34, 38 on the lower face or the array of teeth 40 on the upper face are wiped against the dorsum in a back and forth, circular, oval or irregular scraping pattern.

The appliance 10 is then rotated about its axis 18 so that the opposite face of the scraper head 22 engages the dorsum and the wiping procedure is repeated.

It should be appreciated that the entire breath system appliance 10 can be suitably molded of one piece construction, with the exception of the troche 24, from any of a number of known thermoplastics which are suited for use within the oral cavity including, but not limited to, polyethylene, polypropylene, acetals, polycarbonates, acrylonitrile-butadiene-styrene, etc.

By way of example and not limitation, the appliance body 12 has length in the range of approximately 3 inches (75 mm.) to 4 inches (100 mm.) and preferably 3½ inches (90 mm.). The applicator and scraper heads may be dimensioned with a maximum transverse width in the order of ¾ to 1 inches (16 to 23 mm.) and the thickness of the body 12 may range between 1 to 2 mm.

In FIGS. 6 and 7, there is illustrated an alternate embodiment of the invention wherein like numerals have been employed to denote like components of the previous embodiment, however, bearing the suffix "a". The alternate embodiment differs from the embodiment previously described in that a troche is circumscribed by a peripheral wall and further in that an array of ribs includes ribs with substantially uniform transverse cross section.

Referring now in detail to FIGS. 6 and 7, it will be seen that an appliance 10a includes a thin elongate body 12a having a pair of substantially parallel longitudinal side edges 14a, 16a. At one end of the body 12a, there is an elliptical applicator head 20a which carries a troche 24a within a peripheral wall 42a. The wall 42a is substantially elliptical except for a truncation end wall 44a transverse to the longitudinal axis of the ellipse.

As seen from an examination of FIG. 7, the height of the peripheral wall 42a is slightly less than the thickness of the troche 24a such that a surface of the troche 42a is exposed for contact against the user's dorsal surfaces.

It should also be noted that the body 12a includes, at its opposite end, a scraper head 22a having a peripheral array of teeth 40a projecting from one face thereof and, projecting from the opposite face an array 32a of ribs 34a, each having a uniform transverse cross section with a longitudinal edge 36a. The edge 36a is slightly rounded, e.g. having a radius of 0.2 mm.

In all other aspects, the appliance 10a of the alternate embodiment is identical to that of the embodiment previously disclosed.

It should be understood that the troche active constituent serves manifold functions; one of its purposes is to provide a source of immediate breath freshening which benefit is derived from its flavoring constituents. It additionally serves to destroy odor causing bacteria and sulphides by conjunctive action of antiseptic and oxidizing agents. Further, the

employment of anesthetizing agents is beneficial in reducing the gag reflex which may be encountered when the applicator and scraper heads approach and contact the pharyngeal surfaces of the dorsum. Gag reflex is also significantly reduced due to the overall low profile of the appliance.

A further significant function of the troche active constituents is to facilitate the dislodgement and removal of food and other debris which has accumulated on dorsal surfaces between the papillae. The active constituent thus enhances the efficacious results to be achieved through implementation of the scraper head.

Thus it will be seen that there is provided a breath system appliance which achieves the various aspects, features and considerations of the present invention and which is well-suited to meet the conditions of practical usage.

Since various possible embodiments might be made of the present invention and since various changes might be made in the exemplary embodiment shown herein without departing from the spirit of invention, it should be understood that all matter herein described or shown in the accompanying drawings should be interpreted as illustrative and not in a limiting sense.

Having thus described the invention, there is claimed as new and desired to be secured by Letters Patent:

1. An appliance for alleviation of oral malodor, the appliance comprising a generally planar thin elongate body, an applicator head at one end of the body and a dorsal scraper head at the other end of the body, the applicator head including a troche carrying an active constituent, the active constituent being released from the troche and applied as a coating to the dorsal surfaces of a user, the dorsal scraper head including at least one scraping element for scraping dorsal surfaces of the user, the scraping element projecting outwardly from the planar body.

2. An appliance for alleviation of oral malodor as constructed in accordance with claim 1 including a plurality of scraping elements comprising ribs.

3. An appliance for alleviation of oral malodor as constructed in accordance with claim 2 wherein the ribs include relatively keen scraping edges, whereby effective dislodgement of debris carried on dorsal surfaces is achieved.

4. An appliance for alleviation of oral malodor as constructed in accordance with claim 3 wherein selected ribs include keen edges and selected ribs include blunt edges.

5. An appliance for alleviation of oral malodor as constructed in accordance with claim 4 wherein alternate ribs are provided with keen edges and ribs adjacent the alternate ribs are provided with blunt edges.

6. An appliance for alleviation of oral malodor as constructed in accordance with claim 5 wherein the teeth are positioned adjacent a peripheral edge of the dorsal scraper head.

7. An appliance for alleviation of oral malodor as constructed in accordance with claim 2 wherein the ribs include blunt edges.

8. An appliance for alleviation of oral malodor as constructed in accordance with claim 2 including a plurality of scraping elements comprising teeth.

9. An appliance for alleviation of oral malodor as constructed in accordance with claim 1 wherein the active constituent is carried in a liquid center of the troche.

10. An appliance for alleviation of oral malodor as constructed in accordance with claim 1 wherein the active constituent comprises an antiseptic.

11. An appliance for alleviation of oral malodor as constructed in accordance with claim 1 wherein the active constituent comprises an anesthetic.

12. An appliance for alleviation of oral malodor as constructed in accordance with claim 1 wherein the active constituent is selected from the group consisting of zinc chloride, thymol, eucalyptus oil, menthol, peroxides and chlorine dioxide.

13. An appliance for alleviation of oral malodor as constructed in accordance with claim 1 wherein the active constituent is in dry form, the active constituent being activated by a liquid.

14. An appliance for alleviation of oral malodor as constructed in accordance with claim 13 wherein the liquid comprises saliva.

15. A treatment for alleviation of oral malodor in a person, the treatment comprising:

- a) providing a troche secured to a thin elongate body, the troche carrying an active constituent selected from the group consisting of zinc chloride, thymol, eucalyptus oil, menthol, peroxides and chlorine dioxide,
- b) inserting the troche in the person's mouth while grasping the thin elongate body in the person's hand,
- c) coating the dorsal surfaces of the person's tongue with the active constituent by placing the troche in contact with the dorsal surfaces, and
- d) thereafter scraping the coated dorsal surfaces.

16. A treatment for alleviation of oral malodor in accordance with claim 15 wherein the thin elongate body includes a scraper and step d) is performed utilizing the scraper.

17. A treatment for alleviation of oral malodor in a person, the treatment comprising:

- a) providing a troche secured to a thin elongate body, the troche carrying an active constituent selected from the group consisting of zinc chloride, thymol, eucalyptus oil, menthol, peroxides and chlorine dioxide,
- b) scraping the dorsal surfaces of the person's tongue,
- c) thereafter inserting the troche in the person's mouth while grasping the thin elongate body in the person's hand, and
- d) coating the dorsal surfaces of the person's tongue with the active constituent by placing the troche in contact with the dorsal surfaces.

18. A treatment for alleviation of oral malodor in accordance with claim 17 wherein the thin elongate body includes a scraper and step b) is performed utilizing the scraper.

* * * * *

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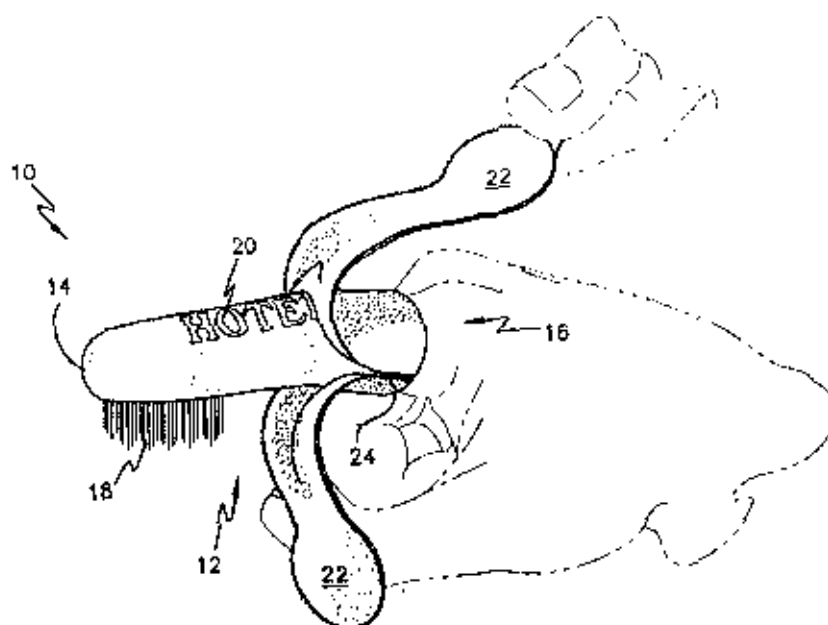
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DISPOSABLE, FINGER WORN TOOTHBRUSH



(57) Abstract: A flexible, disposable toothbrush and hygiene kit incorporating the same. The toothbrush (10) comprises an elastomeric sheath (12) which can be slipped over the user's finger. A patch of bristles (18) is located on the closed end of the sheath (12). Constituent material of the sheath (12) is thin, flexible, and capable of receiving and maintaining indicia printed (20) in ink. The constituent material of the sheath (12) or the bristles (18) or both is impregnated with a flavoring agent. The toothbrush (10) may be incorporated into a kit providing dentifrice stored in a readily frangible capsule (26) and dental floss (204).

WO 02/15736 A1

-1-

DISPOSABLE, FINGER WORN TOOTHBRUSH**BACKGROUND OF THE INVENTION****1. FIELD OF THE INVENTION**

5 The present invention relates to disposable toothbrushes of the type having structure enabling the toothbrush to be slipped over and supported on one finger.

2. DESCRIPTION OF THE PRIOR ART

10 Non-rigid personal hygiene articles such as toothbrushes are quite useful in certain situations. If adapted to fit over a person's finger and rely upon the finger for form holding support, a toothbrush may be quite compact when folded for storage, and may be quite inexpensive. Flexible, disposable toothbrushes have
15 been proposed in the prior art. Examples are seen in my prior patents 5,068,941, issued December 3, 1991, and 5,107,562, issued April 28, 1992, and in other prior patents. A representative selection of the latter includes United States Patent Numbers 3,070,102, issued
20 to Harold B. MacDonald on December 25, 1962, 3,298,507 and 3,368,668, issued to Frank Micciche on January 17,

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1967 and February 13, 1968, and 4,134,172, issued to Oscar A. Arce on January 16, 1979.

These prior art patents lack the improvements of the present invention, these being impregnation of the constituent material with a flavoring agent, fabrication from a printable material and inclusion of indicia on the disposable toothbrush, and the kit of the present invention. The kit includes ancillary hygienic devices, such as dental floss and a frangible capsule of dentifrice. Dental floss is described in United States Patent Number 3,675,264, issued to Duane L. Storandt on July 11, 1972, but not as an element separate and apart from a disposable toothbrush, as seen in the present invention. A capsule of dentifrice is shown in United States Patent Number 3,952,867, issued to William F. McCord on April 27, 1976, but not as part of a kit as shown herein. In McCord's toothbrush, the capsule is located apart from the bristles, and must be applied to the teeth or to that portion of the mouth receiving hygienic attention. By contrast, the capsule of the present invention is disposed adjacent the bristles, requiring only breaking of the encapsulating membrane to render the dentifrice fully and immediately usable.

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None of the above inventions and patents, taken either singly or in combination, is seen to describe the instant invention as claimed.

SUMMARY OF THE INVENTION

5 The present invention sets forth a disposable toothbrush which improves over prior art flexible, disposable toothbrushes in several ways, and a kit incorporating the same. Disposable toothbrushes are desirable in certain situations. For example, a
10 toothbrush comprising a flexible sheath may be folded for storage quite compactly. This characteristic serves well in situations such as packing a MRE (meal ready to eat) for military personnel. The need for personal hygiene is frequently overlooked or regarded as a
15 dispensable luxury when military considerations have priority over personal desires. Compactness of a foldable toothbrush formed from thin walled stock material substantially overcomes unfeasibility of including a toothbrush with a MRE. Flaccidity is also
20 useful in providing a toothbrush to incarcerated prisoners which cannot readily be converted into a pointed weapon. In the latter instance, both flaccidity and compactness are useful.

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The novel toothbrush provides the ability to print indicia thereon. This may be useful in various situations. Where an inexpensive disposable toothbrush is provided as a premium for advertising purposes, identity of the supplier or of that party conducting the advertising is thereby disseminated to consumers. The indicia may also be useful in institutional situations. For example, instructions may be printed thereon.

Another feature of the novel toothbrush is impregnating the constituent material of the brush or bristles or both with a flavoring agent. The flavoring agent may serve to induce those not normally inclined to practice adequate personal hygiene to engage in such hygiene. The flavoring may also overcome inhibitions regarding employing a dentifrice having an unpleasant taste, or may be used to overcome taste of other agents included with the dentifrice. For example, antibacterial materials may be rendered palatable by the flavoring agent.

The invention may be practiced as a kit incorporating the novel toothbrush in addition to other supplies. These other supplies may include dental floss and dentifrice separately packaged. Where the

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dentifrice is separately packaged, it is preferably furnished in a readily frangible capsule.

5 / Accordingly, it is one object of the invention to provide a toothbrush which is highly compact when stored and inexpensive to manufacture.

It is another object of the invention that the toothbrush be maintained in a sanitary state prior to use.

10 It is a further object of the invention to enable display of indicia upon the toothbrush.

Still another object of the invention is to provide a flavoring agent integral with the toothbrush.

15 An additional object of the invention is to provide a personal hygiene kit offering amenities in addition to just a toothbrush.

It is again an object of the invention to provide dentifrice in a readily usable condition.

It is an object of the invention to provide improved elements and arrangements thereof in an

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-6-

apparatus for the purposes described which is inexpensive, dependable and fully effective in accomplishing its intended purposes.

5 These and other objects of the present invention will become readily apparent upon further review of the following specification and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

10 Various other objects, features, and attendant advantages of the present invention will become more fully appreciated as the same becomes better understood when considered in conjunction with the accompanying drawings, in which like reference characters designate the same or similar parts throughout the several views, and wherein:

15 Fig. 1 is an environmental, perspective view of the novel toothbrush.

Fig. 2 is an environmental, side elevational detail view of an alternative embodiment of Fig. 1.

20 Fig. 3 is a side elevational view of a kit incorporating the novel toothbrush.

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Fig. 4 is a side elevational view of an alternative embodiment of a kit incorporating the novel toothbrush.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The novel disposable toothbrush 10 is shown in Fig. 1 to comprise a sheath 12 having a circumferential wall having a closed proximal end 14 and an open distal end 16. Bristles 18 of any suitable type are disposed upon sheath 12 at closed proximal end 14. Bristles 18 may, for example, comprise individual filaments, or may take another form, such as patches of artificial sponge or open cell material having greater rigidity than that of sheath 12. Sheath 12 and bristles 18 may be of a type shown in either one of my prior patents 5,068,941, issued December 3, 1991, and 5,107,562, issued April 28, 1992, both of which are explicitly incorporated herein by reference. While the overall structure and configuration of toothbrush 10 may be as shown in my prior patents, sheath 12 of the present invention is formed from a resilient, flexible elastomer capable of receiving and retaining indicia 20 which is printed in ink thereon. Of course, indicia 20 may be printed on a surface of sheath 12 which is visible prior to opening or unfolding sheath 12.

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In the embodiment depicted in Fig. 1, sheath 12 is formed to include flaps 22 joined by frangible seams 24. Seams 24 may be formed by adhesive, by ultrasonic or thermal welding, or in any other suitable manner. Flaps 22 enclose sheath 12 to form a flexible extension wrapped around and enclosing sheath 12 against exposure to the exterior. Seams 24 serve the function of providing a removable closure enabling sheath 12 to be made accessible for use as a toothbrush. It will be appreciated from examining Fig. 1 that the interior surface of sheath 12 in the initial, unopened condition becomes an exterior surface after sheath 12 is opened or unfolded by pulling back flaps 22.

The constituent elastomer or other material of sheath 12 and bristles 18 is impregnated with a flavoring agent (not separately shown). A suitable flavoring agent is available from Flavor Materials International of Avenel, New Jersey. For example, natural spearmint flavoring is available in powder form as product PK-19159 SD or as an oil soluble liquid as product PK-1951.

Optionally, as shown in Fig. 2, a frangible capsule 26 of toothpaste or any other suitable dentifrice is provided on sheath 12 at bristles 18. Capsule 26 is

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fabricated from a thin material, such as cellulosic films, which will break responsive to bristles 18 being pressed against the teeth or gums of the user's mouth (not shown) with sufficient force to bend bristles 18.

5 The invention may take the form of a kit 100 or 200, as shown respectively in Figs. 3 and 4. In kit 100, a flexible covering or outer envelope 102 formed integrally with sheath 110 protects contents from contamination. Envelope 102 is similar to that provided
10 by flaps 22 of the embodiment of Fig. 1, but is enlarged to accommodate other contents in a single compartment. These contents include a length of dental floss 104, depicted in a coiled condition, and a capsule 126 of dentifrice.

15 In the embodiment of Fig. 4, kit 200 has a flexible covering or outer envelope 202 which is separate and apart from any part of toothbrush 210. Toothbrush 210 is essentially similar to toothbrush 10 of the embodiment of Fig. 1. Kit 200 includes dental floss 204
20 essentially similar to dental floss 104 of the embodiment of Fig. 3, and a capsule 226 of dentifrice which is essentially similar to capsule 126 of the embodiment of Fig. 3.

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Kits 100, 200 employ thin walled, flexible materials, with the exception of bristles, which must be of rigidity greater than that of sheath 10, 110, or 210 and the envelope 102 or 202, dental floss 104 or 204, and capsule 126 or 226. Kits 100, 200 are therefore very compact when folded for storage, inexpensive, and may be regarded as disposable.

It is to be understood that the present invention is not limited to the embodiments described above, but encompasses any and all embodiments within the scope of the following claims.

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CLAIMS

I claim:

1. A disposable kit enabling a person to practice oral hygiene, comprising:

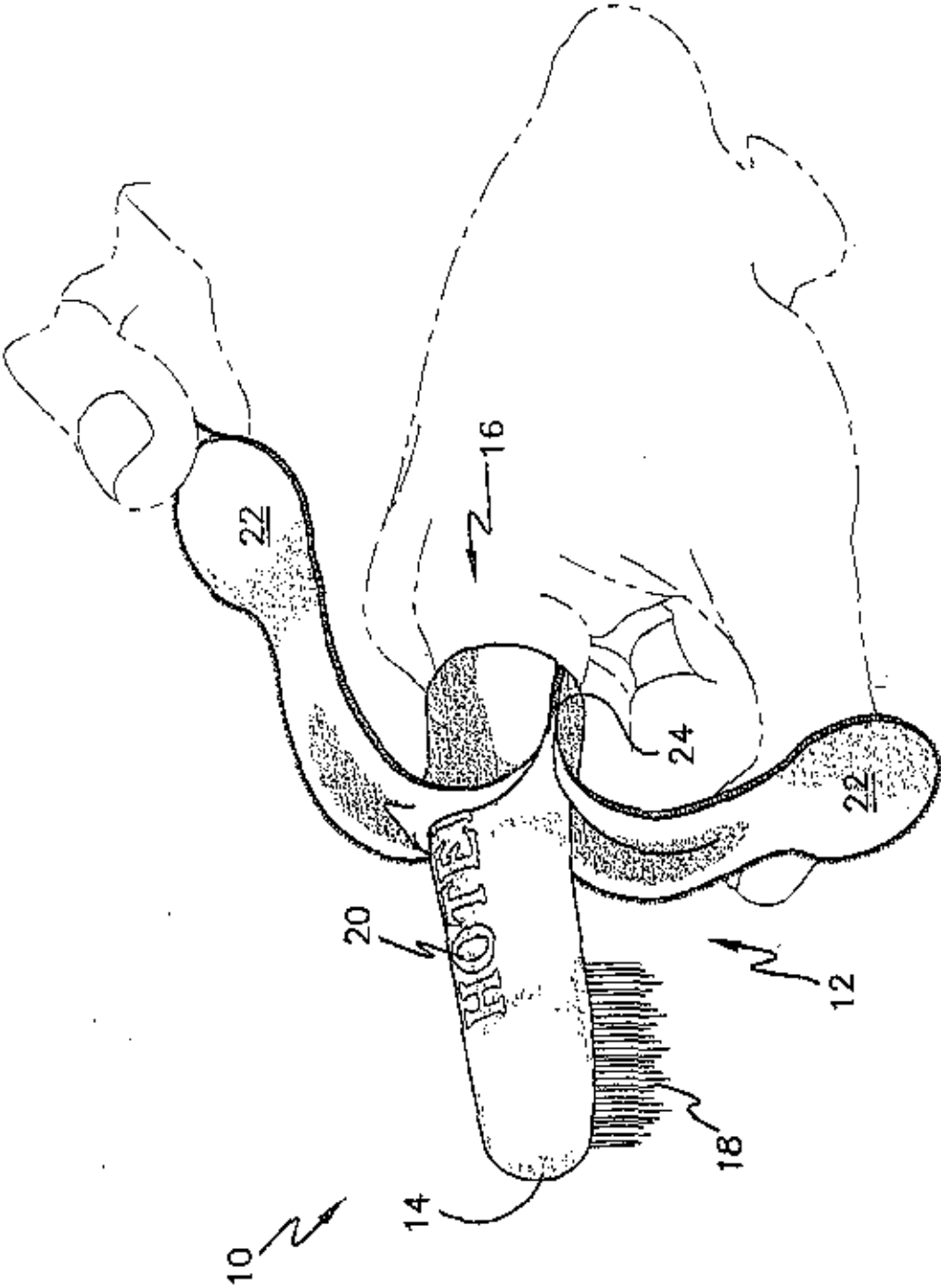
a toothbrush comprising a sheath having a circumferential wall enclosing an interior, a closed proximal end and an open distal end, and bristles disposed upon said closed proximal end, said sheath formed from a resilient, flexible elastomer, and wherein said bristles have rigidity greater than that of said sheath;

a length of dental floss;

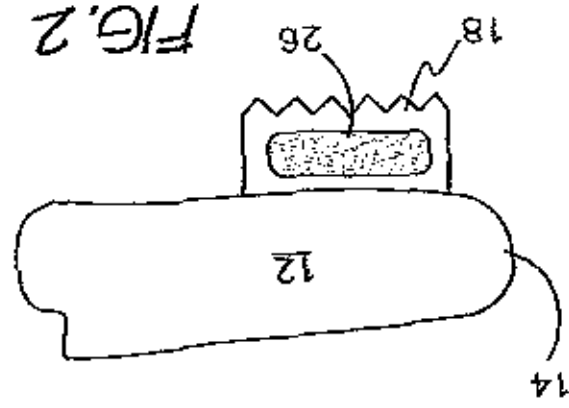
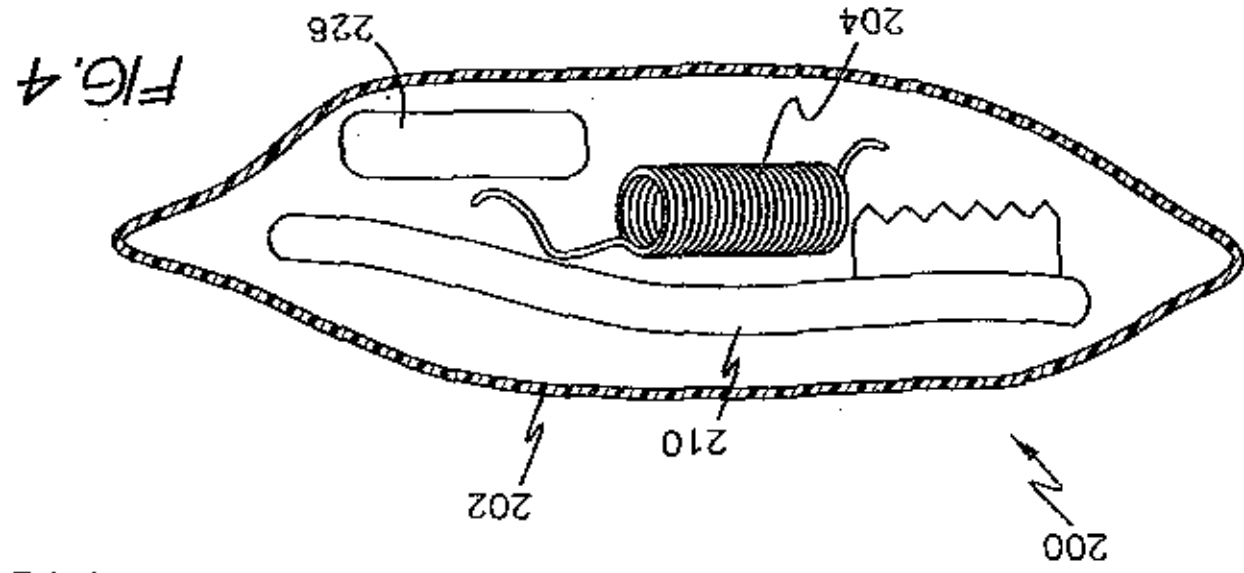
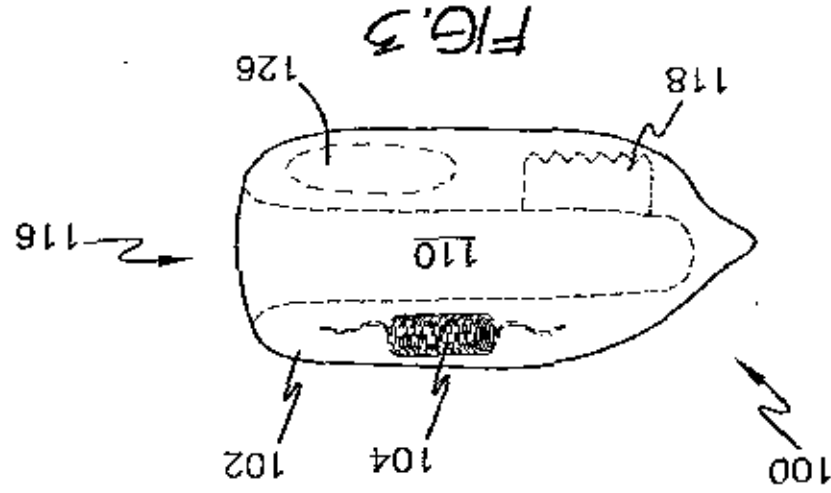
a capsule of toothpaste which will break under pressure sufficient to bend said bristles; and

a flexible covering entirely enclosing and sealing said dental floss, said capsule of toothpaste, and the closed proximal end of said sheath in a single, common compartment, wherein said covering includes a plurality of flaps joined at one end by frangible seams disposed to form a flexible extension wrapped around and enclosing said dental floss, and said capsule and the closed proximal end of said sheath, thereby providing a removable closure having a single compartment and enabling said sheath to be made accessible for use as a

FIG. 1



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/20786

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A45D 44/18; A46B 9/04; B65D 83/10

US CL : 132/309, 308; 15/167.1, 188, 186, 227; 206/362.2, 362.4

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)

U.S. : 132/309, 308; 15/167.1, 188, 186, 227; 206/362.2, 362.4

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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,909,739 A (Masrou-Rad) 08 June 1999, fig. 1, whole document	1-2
A	US 5,819,765 A (Mittiga) 13 October 1998, fig. 2, whole document	1-2
A	US 5,678,273 A (Porcelli) 21 October 1997, fig. 1, whole document	1-2
A	US 5,487,201 A (Hansen et al) 30 January 1996, fig. 1, whole document	1-2

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	* 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
* A* document defining the general state of the art which is not considered to be of particular relevance	* 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
* B* earlier document published on or after the international filing date	* 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
* 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)	* G	document member of the same patent family
* 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		

Date of the actual completion of the international search

21 OCTOBER 2000

Date of mailing of the international search report

06 DEC 2000

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**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCION DE NUEVAS CREACIONES**

2020
Bogotá, D.C.,

Abogado
Dr. JUAN PABLO CADENA SARMIENTO.

ASUNTO	Radicación	07 - 11453
	Trámite	011
	Evento	378
	Actuación	519
	Oficio	114398
	Folios	21

Patente de Invención ☒ Patente de Modelo de Utilidad ☐

Vía Nacional ☐

Vía PCT (fase nacional) ☒ Cap. I ☒ Cap. II ☐

No. Sol. Internacional PCT/US2005/028400
Fecha de Presentación Interna. 2005/08/10

Como resultado del examen de fondo, realizado con fundamento en el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se comunica:

1. Documentos estudiados

<u>Descripción:</u>	Folios: 31 a 45	Como se radico inicialmente.
<u>Reivindicaciones:</u>	Folios: 46 a 50	Como se radico inicialmente.
<u>Dibujos:</u>	Folios: 51 a 58	Como se radico inicialmente.
<u>Prioridad:</u>	Folios: 1	(US) 2004-60/600.701 (2004/08/11). (US) 2004-10/986.809 (2004/11/15).

2. Objeto de la invención

Título de la invención: **"INSTRUMENTO PARA EL CUIDADO ORAL". (Folio 1).**

Problema Técnico Planteado:

- Indicar al usuario una experiencia de cepillado refrescante en la limpieza e higiene oral de la lengua y los tejidos de la boca por medio de un cepillo de dientes que tiene un dispositivo con un agente refrescante o antibacterial impregnado que genere una respuesta sensorial química al usuario de una óptima limpieza oral.

Solución:

- La solución a los problemas técnicos planteados es proporcionar un instrumento de limpieza para el cuidado oral, como un cepillo de

dientes, que incluye un material sensorial que invoca una respuesta sensorial selectiva al estar en contacto con los tejidos y superficies de la boca de un usuario, permitiendo generar una respuesta sensorial química al usuario de una óptima limpieza oral. Este cepillo tiene un material químico que es capaz de desprenderse, la cual tiene el agente refrescante o antibacterial que ocasiona una respuesta bioquímica durante su empleo por parte del usuario, igualmente en otra disposición *el cepillo de dientes emplea un limpiador de tejidos conjuntamente con el material desprendible que tiene igualmente el agente refrescante o antibacterial*, asimismo este cepillo de diente también tiene un elemento comunicativo en forma bidimensional o tridimensional la cual es visualmente representativo para el usuario que igualmente tiene impregnado el agente refrescante o antibacterial.

IPC: A46B11/00, A46B9/04, A61B17/24, A46B9/00.

3. Unidad de invención (artículo 25 D 486).

En la solicitud en estudio, se evidencia que se exponen dos grupos inventivos ilustrados en el capítulo reivindicatorio (ver folios No.46 a 50), en donde:

- El primer grupo esta comprendido, por las reivindicaciones No.1 a No.10 y No.16 a la No.35 (Ver folios 46. a 47 y 48 a 50), en donde se ilustra las características técnicas esenciales de *"un instrumento para el cuidado oral que incluye un material sensorial trigeminal, junto con su un método para generar una respuesta sensorial trigeminal en la cavidad oral de un usuario"*.
- El segundo grupo esta comprendido, por las reivindicaciones No.1 y No.11 a la No.15 (ver folios. 46, 47 y 48), en donde se ilustra las características técnicas esenciales de *"un instrumento para el cuidado oral referente a una cabeza de cepillo de dientes"*.

Se evidencia que tal como están formuladas estas reivindicaciones independientes junto con sus reivindicaciones dependientes expuestas en cada uno de estos dos grupos, se observa que sus características técnicas que definen la forma, configuración, disposición, ubicación y constitución de cada una de las partes del *"instrumento para el cuidado oral"*, son diferentes e independientes entre si entre cada grupo y no tienen características en común, no conforman un único concepto inventivo. Por lo que se concluiría que la solicitud en estudio no cumpliría con el concepto de unidad de invención estipulado en el artículo en el artículo 25 de la decisión 486.

Se le sugiere al solicitante nuevamente redactar el capítulo reivindicatorio ilustrando la característica o las características técnicas esenciales novedosas de la invención que compartan entre si las reivindicaciones No.1 junto con sus dependientes y la reivindicación dependiente No.11, presentando esta característica o estas características técnicas esenciales compartidas conformando un único concepto inventivo en la invención, e igualmente mostrando que estas características técnicas esenciales que van hacer protegidas establezcan la novedad frente al objeto conocido del estado de la técnica y que lo hacen diferente frente a este.

Pese a las anteriores observaciones enunciadas con respecto a los dos grupos inventivos, se realizara el examen de patentabilidad a cada grupo inventivo.

4. Análisis de la solicitud de Patente

Titulo

Claridad:

- Se evidencia que el titulo de la invención *"instrumento para el cuidado oral"*, según como esta expuesto, es muy general y no esta definiendo de manera clara y concreta la materia que se esta exponiendo y que se desea proteger de la invención, con base en lo ilustrado en su capitulo descriptivo junto con su graficas o dibujos y su capitulo reivindicatorio.

Se le sugiere al solicitante que redacte nuevamente el titulo de la invención colocándolo de manera claro, concreto y especifico, de tal manera que defina la materia en particular que esta exponiendo y que se desea proteger de la invención, como por ejemplo *"cepillo de dientes provisto de un dispositivo elastomerico que esta impregnado con un agente saborizante o refrescante"*.

Reivindicaciones (artículo 30 D 486, Art 22 PCT).

Claridad:

- Se evidencia que la reivindicación independiente No.1 presenta las siguientes falencias, así:
 - Se evidencia que según como esta redactada, se encuentra mal estructurada, no presenta de forma clara su preámbulo y su parte caracterizante, asimismo su preámbulo se encuentra mal formulado.
 - En esta reivindicación no ilustra de forma clara y concreta cuales son los elementos o las características técnicas esenciales que se desean proteger de la invención.
 - En esta reivindicación, se exponen los elementos o características técnicas llamadas *"instrumento para el cuidado oral"* y *"material sensorial"*, se evidencia que estos elementos o características no son claras y concretas, debido a que según como se ilustra son muy ambiguas y muy generales y pueden pertenecer a varias configuraciones establecidas e ilustradas en el estado de la técnica.
 - En esta reivindicación se ilustra es una utilización o empleo del instrumento para el cuidado oral junto con un material sensorial y su posterior efecto en la boca del usuario.

Se le sugiere al solicitante presentar una nueva reivindicación independiente No.1, que se encuentra bien redactada y estructurada que contenga su preámbulo de manera correcta y bien formulado junto con su parte caracterizante.

Se le sugiere al solicitante presentar una nueva reivindicación independiente No.1, que contenga en el preámbulo los elementos conocidos en el estado de la técnica y en la parte caracterizadora presentar

los elementos y/o características novedosas que lo hacen diferente del estado de la técnica.

Se le sugiere al solicitante presentar una nueva reivindicación independiente No.1, que contenga un único concepto inventivo con respecto a sus reivindicaciones dependientes.

Se le sugiere al solicitante que coloque de manera específica y concreta a que *"instrumento para el cuidado oral"* y *"material sensorial"* se esta refiriendo, colocando al frente de la característica o del elemento, el numero de referencia guardando correspondencia con el capítulo descriptivo, las graficas o dibujos y dicho capítulo reivindicatorio, con el objetivo de comprender mejor la invención al momento de hacer el análisis y distinguir los elementos de dicha invención

Se le recuerda al solicitante que las ventajas, usos o funcionamientos no son características patentables.

Se le recuerda al solicitante que en la reivindicación independiente, la parte caracterizadora, que suele seguir al preámbulo precedida por la frase **"caracterizado por"**, recoge las características técnicas que van hacer protegidas y que constituyen la novedad frente al objeto conocido del estado de la técnica.

- En los siguientes grupos de reivindicaciones independientes y dependientes, se evidencia que ilustran elementos, características, componentes o términos, que no son claros, no se definen de manera específica y concreta a que elementos se están refiriendo y/o cuales elementos pertenecen, así:

- No.1. "Trigeminal", "Instrumento para el cuidado oral", "Cavidad".
- No.2 y 4 "Material sensorial", "Material elastomérico".
- No.3. "Recubrimiento de la superficie de material".
- No.6. "Material sensorial", "Agente de sabor".
- No.7 y 8. "Aspecto comunicativo indicativo", "Trigeminal".
- No.8. "Sensación refrescante".
- No.9. "Sensación de calentamiento".
- No.10. "Sensación de hormigueo".
- No.11. "Cepillo de dientes", "Primer lado", "Material sensorial".
- No.11. "Cabeza de cepillo de dientes".
- No.12 y 14. "Pluralidad de elementos de limpieza".
- No.12. "Segundo lado opuesto".
- No.13 y 14. "Limpiador de tejidos", "Protuberancias".
- No.14. "Cabeza", "Elementos de limpieza".
- No.15. "Limpiador de tejidos", "Abertura", "Material sensorial".
- No.19 y 20. "Agente de sabor".
- No.21. "Elemento comunicativo".
- No.34. "Característica tridimensional del instrumento".
- No.35. "Limpiador de tejidos blandos".

Se le sugiere al solicitante que coloque de manera específica y concreta a que elementos, características, componentes o términos, se esta refiriendo, colocando al frente de la característica o del elemento, el numero de referencia guardando correspondencia con el capítulo descriptivo, las

graficas o dibujos y dicho capitulo reivindicatorio, con el objetivo de comprender mejor la invención al momento de hacer el análisis y distinguir los elementos de dicha invención.

- En los siguientes grupos de reivindicaciones dependientes, se evidencia que tal como están reivindicadas, exponen el mismo contenido o son similares, así:

- No.2, No.4, No.24 y No.32.
- No.3, No.23 No.33.
- No.4 y No.22.
- No.5 y No.18.
- No.6 y No.19.
- No.7 y No.28.
- No.8 y No.29.
- No.9 y No.30.
- No.10 y No.31.

Se le sugiere al solicitante que unifique aquellas reivindicaciones dependientes que exponen el mismo o similar contenido.

- En las reivindicaciones dependientes No.5, 6, 8, 9 y No.10, esta exponiendo es un efecto que causa la característica llamada "*material sensorial*" para la No.5 y No.6, "*aspecto comunicativo indicativo*" para la No.8 y "*sensación de calentamiento*" para la No.9 y "*sensación de hormigueo*" para la No.10, en la cual no están ilustrando una característica técnica particular que contiene el instrumento para el cuidado oral.

Se le sugiere al solicitante que suprima o elimine estas reivindicaciones. Se le recuerda al solicitante que las ventajas, usos o funcionamientos no son características patentables.

- Se evidencia que las reivindicaciones dependientes No.11 a No.15 no presenta un único concepto inventivo con respecto a su reivindicación independiente No.1, se evidencia que esta adicionando otra aplicación y concepto sobre una cabeza de cepillo de dientes.

Se le sugiere al solicitante eliminar o redactar nuevamente estas reivindicaciones dependientes donde contenga un único concepto inventivo con respecto a su reivindicación independiente.

- En la reivindicación dependiente No.16, se evidencia que es una compilación de las reivindicaciones No.8, 9, y la No.10.

Se le sugiere al solicitante que suprima o elimine esta reivindicación.

- En la reivindicación independiente No.17, esta exponiendo es un efecto que causa la característica llamada "*material sensorial*" y "*elemento comunicativo*", en la cual no están ilustrando una característica técnica particular que contiene el instrumento para el cuidado oral.

Se le sugiere al solicitante que suprima o elimine esta reivindicación.

- En la reivindicación dependiente No.21, se evidencia que es una compilación de las reivindicaciones No.19 y la No.20.

Se le sugiere al solicitante que suprima o elimine esta reivindicación.

- En las reivindicaciones dependientes No.25 y No.26, se evidencia que no es clara como es la separación física entre el "material sensorial" y "el elemento comunicativo".

Se le sugiere al solicitante que suprima o redacte estas reivindicaciones donde ilustre como es la disposición de la separación física entre estos dos elementos.

- En la reivindicación independiente No.27 y sus reivindicaciones dependientes No.28 a No.35, exponen un "método para generar una respuesta sensorial trigeminal en la cavidad oral de un usuario", se evidencia que según como están reivindicadas no ilustran un método, debido a que un método o procedimiento es un conjunto de pasos o etapas de fabricación y/o manufactura para llegar a "Un instrumento para el cuidado oral", en esta reivindicación y sus dependientes hacen referencias a los pasos de utilización y operación del "Instrumento para el cuidado oral", asimismo esta exponiendo son los efectos que causan las características técnicas como "Material sensorial", "Instrumento para el cuidado oral", "elemento comunicativo", "elastómero" y "limpiador de tejidos blandos".

Se le sugiere al solicitante que suprima o elimine esta reivindicación junto con sus dependientes.

Se le sugiere al solicitante, que en el nuevo capítulo reivindicatorio coloque los números de referencia al frente de todos los componentes, elementos y/o características técnicas esenciales que hacen parte o conforman la invención, guardando una correspondencia entre las graficas y/o dibujos, el capítulo descriptivo y dicho capítulo reivindicatorio, con el objetivo de comprender mejor la invención al momento de hacer el análisis, y a su vez distinguir los elementos de dicha invención.

5. Determinación del Estado de la Técnica

Teniendo en cuenta la fecha de presentación nacional, con fecha del 29 de Diciembre del 2006, se encontraron los siguientes documentos relevantes:

Nº	Documento	Título	Fecha de Publicación
D1	US6352545	BREATH SYSTEM APPLIANCE WITH DORSAL APPLICATOR AND SCRAPER	05/03/2002
D2	WO0215736	DISPOSABLE FINGER WORN TOOTHBRUSH	28/02/2002

1. Respecto al estado de la técnica:

El documento **D1 US6352545** ilustra un sistema que cuenta con dos aplicadores en forma de cabeza para la limpieza de la lengua y encías como implemento para higiene oral y que al mismo tiempo libera un constituyente activo como un agente antibacterial, agente antiséptico, un agente saborizante u oxidante que va ubicado en la otra cabeza para aplicarla sobre las superficies de la lengua y encías para proporcionar una sensación de

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~~120~~
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refrescante en la boca al usuario. (Ver "Abstract, Columnas 1 a 8" y las "figuras No.1 a 7").

El documento **D2 WO0215736** ilustra un kit de limpieza oral, donde comprende un cepillo de dientes que se coloca en un dedo, en donde dicho cepillo tiene un almohadilla de cerdas, en donde estas cerdas están impregnadas de un agente saborizante. (Ver "Abstract, Hoja 1 a 12" y las "figuras No.1 a 4").

6. Análisis de Patentabilidad (Art 14 D486):

Novedad (Art 16 D486)

1. Respecto a la solicitud en estudio:

La reivindicación No.1 dice: "Se reivindica un instrumento para el cuidado oral que incluye un material sensorial que genera una respuesta sensorial trigeminal cuando dicho instrumento para el cuidado oral es insertado en la cavidad oral del usuario". (Ver folio 46).

La reivindicación No.11 dice: "El instrumento para el cuidado de acuerdo a la reivindicación No.1, el cual adicionalmente incluye una cabeza de un cepillo de dientes que tiene un primer lado, donde el material sensorial está ubicado en el primer lado de la cabeza del cepillo de dientes". (Ver folio 47).

Para efectos del examen, se toma en cuenta como características técnicas esenciales las que se encuentran subrayadas por el examinador.

2. Análisis de las diferencias con respecto al estado de la técnica:

En la tabla No.1 y No.2, se ilustran en las casillas de comparación, la explicación de Afirmativa si las reivindicaciones están comprendidas dentro del estado de la técnica (documento D1 y D2), en caso contrario se enunciará como No es Afirmativa.

Tabla No.1.

ESTUDIO DE NOVEDAD	
Características esenciales de la Solicitud en estudio	Documento D1
"....., un material sensorial que genera una respuesta sensorial trigeminal cuando dicho instrumento para el cuidado oral es insertado en la cavidad oral del usuario"	Afirmativa (Ver "Abstract" columna 2 (lin 10 a 67), columna 3 (lin 1 a 23), columna 3 (lin 60 a 67), columna 4 (lin 1 a 67), columna 5 (lin 1 a 67), figuras 1 a 7).

Tabla No.2.

ESTUDIO DE NOVEDAD	
Características esenciales de la Solicitud en estudio	Documento D2
".....incluye una cabeza de un cepillo de dientes que tiene un primer lado, donde el material sensorial esta ubicado en el primer lado de la cabeza del cepillo de dientes".	Afirmativa (Ver "Abstract" hoja 4 (lin 9 a 19) hoja 7 (lin 4 a 23) hoja 8 (lin 14 a 24) hoja 9 (lin 1 a 24) hoja 11 (lin 1 a 22) figuras 1 a 3).

3. Realizada la comparación y el análisis del documento D1, mediante la tabla No.1 con respecto a la solicitud en estudio donde se presenta la reivindicación No.1, se evidencia que D1 contiene todas las características esenciales de la reivindicación No.1. Por lo que se concluiría que la reivindicación No.1 de la solicitud en estudio no es nueva y no cumpliría con lo estipulado en el artículo 16 de la decisión 486.

Realizada la comparación y el análisis del documento D2, mediante la tabla No.2 con respecto a la solicitud en estudio donde se presenta la reivindicación No.11, se evidencia que D2 contiene todas las características esenciales de la reivindicación No.11. Por lo que se concluiría que la reivindicación No.11 de la solicitud en estudio no es nueva y no cumpliría con lo estipulado en el artículo 16 de la decisión 486.

Conclusión:

Los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

Nº	Documento Nº	Reivindicaciones Afectadas	Requisito que Afecta
D1	US6352545	1 a 10 y 16 a 35	Novedad
D2	WO0215736	11 a 15	Novedad

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En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

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 del 2001.


ALIX CESPEDES DE VERGEL
Directora de Nuevas Creaciones (C)

7 5 NOV 2010

El anterior requerimiento fue notificado por fijación en lista, de fecha

CONCEPTO TECNICO Numero: 2854	EXAMINADOR TECNICO Código No. 202072
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