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SUPERINTENDENCIA Y COMERCIO 0902200
Radicación : 02112848 00000001
Fecha (MM/AA): 2003-05-28 17:11:36 Folios: 16
Trámite : VII FASE NACIONAL DE FASE NACIONAL DE FASE NACIONAL
Dependencia: 2020 DIVISION DE NUEVAS CREACIONES astro.com.co

AS: 89.300

Señores

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

E. S. D.

REF: Expediente No. 02 112.848 - Solicitud de Patente FASE NACIONAL
a favor de COLGATE – PALMOLIVE COMPANY
Titulada: SAQUITO DE CAMARA DUAL DE DISPENSADO
UNIFORME

RAMIRO CASTRO DUQUE, vecino de Bogotá, portador de la tarjeta profesional No. 1003, obrando como apoderado de la Sociedad COLGATE – PALMOLIVE COMPANY, según lo acredita el documento de Poder presentado en esa División bajo el No. 131, me permito anexar al presente escrito los siguientes documentos:

1. Copia certificada por la Oficina de Patentes de Estados Unidos de la primera solicitud presentada para la misma invención, de la cual REIVINDICAMOS PRIORIDAD.

De la señora jefe atentamente,

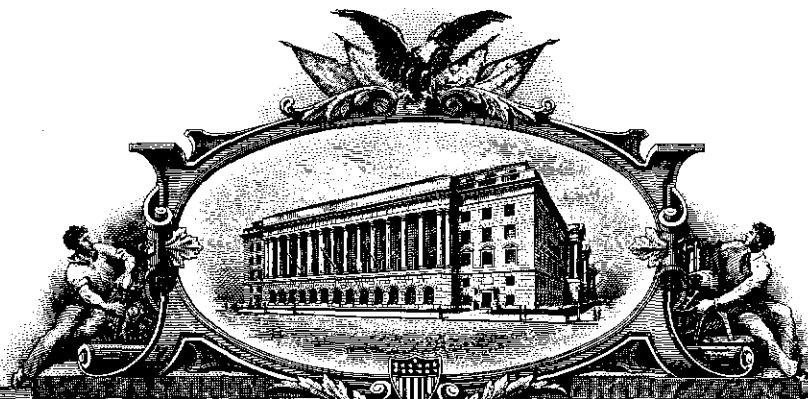

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Bogotá, Mayo 28, 2003
CHP/hsr

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United States Patent and Trademark Office

May 21, 2001

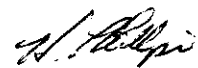
THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: 09/569,664

FILING DATE: May 12, 2000



**By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS**


H. PHILLIPS
Certifying Officer

05-15-00

CERTIFICATE OF EXPRESS MAILING

I hereby certify that this document and all its noted attachments listed below are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231 Via Express Mail Label EL424690725 on May 12, 2000.

Signature: Virginia Forno-Sorrentino

May 12, 2000.
Date

TRANSMITTAL FOR FILING A NEW UTILITY PATENT APPLICATION

Box: New Patent Application
Assistant Commissioner of Patents
U.S. Patent and Trademark Office
Washington, D.C. 20231

Case Docket No. 6446

Transmitted herewith for filing is the UTILITY patent application of:

Inventor(s): Orlando Fuquen
For (title): UNIFORM DISPENSING DUAL CHAMBER SACHET
Docket No.: 6446
Deposited for Filing: Via Express Mail Label EL424690725 on May 12, 2000.

Enclosed are:

- ☒ Utility Patent Application consisting of 9 Total Pages including 12 Total Claims consisting of 6 pages of specification, 2 pages of claims, 1 page of abstract.
- ☒ Executed Declaration
- ☒ An assignment of the invention to the Colgate-Palmolive Company. A separate "Recordation Form Cover Sheet - PTO Form-1595" is also attached.
- ☒ FORMAL drawings No. of Sheets: 1 Figures: 4

CALCULATIONS FOR PATENT APPLICATION FEE				Other Than a Small Entity	
FOR	CLAIMS		EXTRA NO.	RATE	FEE
Basic Fee					\$690.00
	Column 1 Total Claims	Column 2 Extra Claims			
Total Claims	12 - 20	= <>	<>	X18	<>
Independent Claims	1 - 3	= <>	<>	X78	<>
Multiple Dependent Claims Presented	<>			+ 260	<>
			TOTAL FEES		\$690.00

- ☒ Please charge my deposit Account No. 03-2455, the amount of \$690.00. A duplicate copy of this sheet is enclosed.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 03-2455. A duplicate copy of this sheet is enclosed.
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- ☒ The Commissioner is hereby authorized to charge payment of the following fees during the pendency of this application or credit any overpayment to Deposit Account No. 03-2455. A duplicate copy of this sheet is enclosed.
 - ☒ Any patent application processing fees under 37 CFR 1.17.
 - ☒ Any filing fees under 37 CFR 1.16 for presentation of extra claims.

Respectfully submitted,

Michael J. McGreal
Attorney for Applicant(s)
Registration No. 25,356

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UNIFORM DISPENSING DUAL CHAMBER SACHET

Field of the Invention

5 This invention relates to a dual chamber sachet that substantially uniformly dispenses the substances from each chamber when the sidewalls of the sachet are depressed. More particularly, this invention relates to a construction of a dual chamber sachet that provides for the uniform dispensing of the substances stored in each chamber of the dual sachet.

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Background of the Invention

15 Sachets are small packets that are used for supplying small doses of a product. These are used to dispense single or a small number of doses of adhesives, lubricants, medicines, cosmetics, shampoos, conditioners, liquid soaps, lotions and dentifrices. In some instances a single dose is a sample amount. Regardless such sachets are commonly used to deliver a single dose of a substance.

20 In most instances the sachets will be used to deliver a single dose of a single substance. However, in some instances they will be used to dispense doses of two different substances. Further, in most instances in the delivery of two different substances, these substances must be delivered substantially uniformly. That is, each of the substances should be dispensed in about equal amounts. This is needed for the effective use of the substances being dispensed. When the
25 substances are components of an adhesive they are reactive and must be dispensed and used in a certain reactive ratio. Medications also must be used in a certain ratio. The same is the case for a dentifrice that is comprised of two non-compatible components. These types of substances need sachets that will reliably dispense the substances from each chamber in substantially uniform amounts. The
30 present sachet is directed to solving this problem.

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Brief Summary of the Invention

5 The present dual chamber sachet has a construction to facilitate the uniform dispensing of substances. The sachet is comprised of a front wall, a rear wall and an intermediate divider wall. The peripheral edges of a first and second side edge and of a lower and upper edge of the walls are bonded together to provide a container with two separate chambers. The chambers have rounded corners at a lower end of each chamber and in an upper part of each chamber sidewalls which taper to a tapered exit channel. The exit channel has less of a
10 taper than the upper part of the chamber sidewalls. The exit channel extends a distance from the top of the chambers. The exit channel will have a notch adjacent the product chambers for the removal of a part of the exit channel and to thereby open the exit channel at about the commencement of the exit channel.

15 The chambers of the sachet are sized so that the width of a person's thumb will extend across a substantial portion of the width of the sachet. This in combination with an orifice that is about 75% to 100% the width of a toothbrush, and about 35% to 65% of the width of the product chambers, provides for a uniform dispensing from the sachet. In addition, the sachet opens
20 at about the commencement of the tapered wall exit channel. This provides for a comparatively wide exit opening for the more uniform delivery of the products from each of the chambers of the sachet. Further, the sachet is symmetrical about a vertical plane through the peripheral edges of the sachet.

25 The intermediate divider wall will have a thickness of about 10% to about 70% of that of either the front wall or rear wall, and preferably about 25% to about 50%. Further, the intermediate divider wall will have good barrier properties and will contain a film such as one selected from the group comprising polyethylene terephthalate, polypropylene, biaxially oriented polypropylene, metal
30 foils, polyethylene, low density polyethylene, ethylene vinyl acetate copolymers, ethylene vinyl alcohol copolymers and polyacrylonitrile/styrene polymer resins. The front and rear walls will be comprised of a film selected from the same polymers and copolymers. These will be used primarily in various laminate structures.

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Brief Description of the Drawings

Figure 1 is a plan view of a prior art dual chamber sachet.

5 Figure 2 is a plan view of the present dual chamber sachet.

Figure 3 is a cross-sectional view of the dual chamber sachet of Figure 2 along line 3-3.

10 Figure 4 is a side elevational view of the dual chamber sachet.

Detailed Description of the Drawings

15 The sachet of this invention will now be described in its preferred embodiments with reference to the drawings.

20 Figure 1 shows a prior art design for a dual chamber sachet. The sachet 10 has a peripheral seal area 12, a substance container 14 with an exit channel 16. The exit channel 16 extends up into tab 20. Adjacent the exit channel there are notches 18 in the peripheral seal area. These notches define a weakened area where in a tearing motion the tab 20 can be removed from the sachet. This opens the sachet for dispensing. The lower walls of this sachet are angled at about 90° at corners 22. The sidewalls 24 are essentially straight with a tapering section 26 prior to a relatively narrow exit channel 16. Further, this sachet is
25 opened near the end of the exit channel a distance from the product chambers.

30 A problem with this sachet design is that as the sachet walls are depressed to dispense substances from each chamber of the sachet some of the substances will be forced downward into areas of corners 22 of the sachet. This substance will not be dispensed. This is the result of the essentially 90° angle to the lower corners, the straight sidewalls and relatively narrow dispensing opening. Further, depending on how the sachet is being held during dispensing, more of the substance in one chamber will be flowed into the corners than that in another chamber. The result is non-uniform dispensing.

35 In Figure 2 there is shown a sachet that overcomes these problems of non-uniform dispensing. The sachet 30 has a peripheral area 32 and a substance

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chamber area 34. There is a dispensing channel 36 and a tab 40. Notches 38 provide a weakened point for the removal of tab 20 to thereby open exit channel 36 for dispensing the substances from the chamber area 34. The chamber has rounded lower corners 42, tapering lower sidewalls 44 and increased tapering upper sidewalls 46. The rounded corners 42 prevent the substance in each chamber from flowing into the corners during a dispensing. The wide exit channel results in a decreased resistance to flow of product from the sachet. The exit channel has a width of about 35% to about 65% of the width of the substance chambers at their widest point.

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Figure 3 shows the sachet in cross-section. There is shown a front wall 50, intermediate divider wall 48 and a rear wall 52. This structure forms chambers 54 and 56.

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The sachet has a chamber area that has a width of about 50% to about 100% of the width of a person's thumb. This, in combination, with round lower edges, tapering sidewalls, and an exit channel having a width that is about 75% to about 100% of the width of a toothbrush provides a uniform dispensing from the sachet. Further, in a preferred embodiment the sachet is symmetrical about a vertical plane through the peripheral area 32. This all contributes to the uniform dispensing from the sachet.

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Figure 4 shows the sachet in a side elevational view. This view shows the sachet as being symmetrical about a plane through the peripheral area 32. The divider wall 18 lies in this plane. This divider wall forms the chambers 54 and 56. This view shows the rounder, lower corners 42, first tapered sidewalls 44 and second tapered sidewalls 46. The second tapered sidewalls have a greater taper than the first tapered sidewalls.

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The outer walls 50 and 52 will usually be the same material. These walls can be of a monolayer or a multilayer film structure. Suitable films are set out in the following Table 1 where PET is polyethylene, terephthalate; Barex is polyacrylonitrile and polystyrene resin; BOPP is biaxially oriented polypropylene; LDPE is low density polyethylene; PE is polyethylene; and EVOH is ethylene-vinyl alcohol copolymer.

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Table 1
PET/Aluminum Foil /Barex
PET/Aluminum Foil /LDPE
BOPP /Aluminum Foil /Barex
BOPP /Aluminum Foil /LDPE
LDPE/EVOH/LDPE
PET/EVOH/LDPE
BOPP/EVOH/LDPE
LPDE Based Monolayer Or Polyefins Blend
Sealable PET Based Monolayer
PET/PE/ Sealable PET
PET/Foil/ Sealable PET
Nylon/ Foil/PE
Nylon/PE/ Sealable PET

The intermediate divider wall is comprised of a barrier film which likewise can be of a monolayer or a multilayer structure. Suitable films are set out in
5 Table 2.

Table 2
LPDE Based Or Polyefins Blend Monolayer
Barex Monolayer
LDPE/Aluminum Foil /LDPE
Barex/Aluminum Foil /Barex
LDPE/EVOH/ LDPE
Sealable PET/PE/ Sealable PET
Sealable PET/Foil/ Sealable PET
PE /Nylon/ PE

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Claims

What is claimed is:

- 5
1. A dual chamber sachet for uniform dispensing of substances comprising a front wall, rear wall and an intermediate divider wall, front wall and rear wall peripheral edges of a first and second side edge, a lower edge and an upper edge bonded together to form a container with two chambers with lower corners, the lower corners of said chambers being rounded, an upper portion of said chambers having edges that taper to an exit channel whereby upon depressing the front wall and rear wall of the sachet the substances in the chambers are substantially uniformly dispensed.
- 10
2. A dual chamber sachet as in claim 1 wherein the upper edge portion of said chambers have a first taper from said lower corners and a second taper adjacent said exit channel, said second taper being at a greater angle than said first taper.
- 15
3. A dual chamber sachet as in claim 1 wherein said exit channel extends upwardly from said two chambers, an end of said exit channel distant from said two chambers closed by the peripheral seal of the upper edge.
- 20
4. A dual chamber sachet as in claim 3 wherein adjacent said exit channel there is at least one notch in at least one of the first and second side edge whereby a portion of said channel at said at least one notch can be removed to thereby open said exit channel.
- 25
5. A dual chamber sachet as in claim 4 wherein said notch is at the commencement of said exit channel.
- 30
6. A dual chamber sachet as in claim 4 wherein the exit channel has a width of about 35% to 65% that of the chambers at their widest point.
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7. A dual chamber sachet as in claim 1 wherein said intermediate divider wall has a thickness that is from about 10% to about 70% of that of either of the rear wall or front wall.

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8. A dual chamber sachet as in claim 7 wherein said intermediate divider wall has a thickness that is from about 25% to about 50% of that of either of the rear wall or front wall.
- 5 9. A dual chamber sachet as in claim 1 wherein the intermediate divider wall is comprised of a barrier film selected from the group consisting of monolayer and laminate films.
- 10 10. A dual chamber sachet as in claim 9 wherein the front wall and the rear wall are comprised of a film selected from the group consisting of monolayer and laminate films.
11. A dual chamber sachet as in claim 1 wherein ratio of the length of the container to the width of the container is about 1:1 to about 4:1.
- 15 12. A dual chamber sachet as in claim 11 wherein ratio of the length of the container to the width of the container is about 1.5:1 to about 3:1.

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COMBINED DECLARATION AND POWER OF ATTORNEY

Attorney Docket No.
6446

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of subject matter which is claimed and for which a patent is sought on the invention entitled **UNIFORM DISPENSING DUAL CHAMBER SACHET**

the specification of which (check one)

- ☒ is attached hereto and identified as Attorney Docket No. 6446.
- ☐ was filed on <INSERT FILING DATE> as Application Serial No. < INSERT USSN HERE>
- ☐ deposited for filing under Attorney Docket No. <INSERT ATTY DOCKET NO.> via Express Mail No. <INSERT EXP MAIL #> ; Serial No. not yet known, and including all the amendments through the date hereof.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

PRIOR FOREIGN APPLICATIONS - PRIORITY CLAIMED			
NUMBER	COUNTRY	DAY/MONTH/YEAR FILED	PRIORITY CLAIMED (YES OR NO)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112. I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application

U.S. PRIORITY		
APPLICATION SERIAL NO.	FILING DATE	STATUS-PATENTED, PENDING, ABANDONED

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: Richard Ancel, Reg. No. 26,438; Bernard Lieberman, Reg. No. 26,194; Michael M. McGreal, Reg. No. 25,356; Richard E. Nanfeldt, Reg. No. 27,050; Paul Shapiro, Reg. No. 22,322; Martin Barancik, Reg. No. 25,189; who will have full power of substitution and revocation.

Send Correspondence To: Colgate-Palmolive Company 909 River Road P.O. Box 1343 Piscataway, New Jersey 08855-1343		Direct Telephone Calls To: (732) 878-7152	
FULL NAME OF SOLE OR FIRST INVENTOR Orlando Fuquen	INVENTOR'S SIGNATURE 		DATE 5/12/2000
RESIDENCE 507 Grand Street, Trenton, New Jersey 08611		CITIZENSHIP USA	
POST OFFICE ADDRESS ☒ same as residence (check if applicable) (If different than residence....insert here)			



2020
Bogotá, D.C.,

Doctor:
RAMIRO CASTRO DUQUE
Apoderado
COLGATE-PALMOLIVE COMPANY

Oficio N° 05543

ASUNTO:	Radicación N°	02-112848
	Solicitud internacional	PCT/US2001/014955
	Fecha inicio fase nacional	12/12/2002
	Trámite	011
	Evento	379
	Actuación	330
	Folios	001

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:

- ☐ La solicitud no contiene la traducción de los anexos del reporte de examen preliminar internacional (Art. 36.2.b) del tratado PCT).
- ☐ Los dibujos adjuntos no son legibles o copiables para trámites posteriores de publicación y título.
- ☐ La solicitud no contiene la copia del documento en que consta la cesión del derecho a la patente del inventor al solicitante o a su causante. (Art. 26-k) Decisión 486).

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 N° 10 de 2001.


ALIX CARMENZA CESPEDES DE VERGEL
Jefe de la División de Nuevas Creaciones.

El anterior requerimiento fue notificado por fijación en lista de fecha, 18 JUL 2003.