



No. 03-060684- -00012-0000

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AS. 91.324

Señor

SUPERINTENDENTE DE INDUSTRIA Y COMERCIO

E. S. D.

REF: Expediente No. 03 060.684- Solicitud de Patente de Invención a favor de
COLGATE PALMOLIVE COMPANY.

Titulada: "UN ANTITRANSPIRANTE/DESODORANTE EN BARRA, DE ALTA
EFICACIA".

JUAN PABLO CADENA SARMIENTO, portador de la tarjeta profesional No. 57.492 del C.S.J., obrando en calidad de apoderado de la Sociedad COLGATE PALMOLIVE COMPANY, domiciliada en los Estados Unidos, manifiesto a usted que debidamente notificado de la Resolución No. 4827, interpongo contra ella en debido término, RECURSO DE REPOSICIÓN, para que sea revocada en su totalidad, y en su lugar se conceda el Privilegio de Patente, para el objeto de la solicitud en referencia.

Respaldo el RECURSO en los siguientes

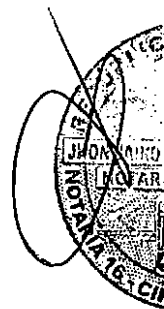
HECHOS:

1. La Resolución arriba citada No. 4827 niega el Privilegio exclusivo de Patente de Invención para el objeto de la solicitud de la referencia considerando que el pliego reivindicatorio carece de nivel inventivo. Lo anterior, de acuerdo con las siguientes consideraciones:

i. Determinación del Estado de la Técnica

Consultadas las fuentes de información con que se cuenta se encontró el siguiente documento, anterior a la fecha de prioridad invocada y relacionado con la materia de la solicitud en estudio.

No.	Documento	Título	Fecha de Publicación
D1	WO00/61080	"Cosmetic compositions"	19 de octubre de 2000



Nivel Inventivo

El Examinador considera que el producto en barra reivindicado carece de nivel inventivo porque a los ojos de una persona del oficio normalmente versada en la materia técnica es obvio y se deriva de manera evidente a partir de la información enseñada por el estado del arte.

RESUELVE:

ARTICULO PRIMERO: Denegar la patente de invención a la creación titulada "UN ANTITRANSPIRANTE/DESODORANTE EN BARRA, DE ALTA EFICACIA".

FUNDAMENTOS:

En desacuerdo a lo manifestado por su Despacho en cuanto a la falta de nivel inventivo de la presente solicitud en vista de D1, ponemos de presente que el producto en barra que reivindica mi representada no se deriva de forma obvia de las enseñanzas del documento D1 porque dicha anterioridad no presenta la información suficiente para obtener un producto sólido más eficiente en la reducción de sudor en comparación con una barra hecha de alcohol esteril. Lo anterior, por cuanto dicho documento no enseña ni sugiere una mezcla de polietileno, cera y silicona. De forma específica, el documento D1 no presenta un polietileno tan específico como el de la solicitud en referencia que sea por lo menos 90% lineal con un peso molecular de 300 a 3000, un punto de fusión de 50 a 129°C y con 10 a 106 unidades de etileno en la cadena de polímero con unidades de etileno a cada uno de los extremos del polímero.

Por otro lado, D1 además de no incluir el polietileno específico que se requiere en la presente solicitud, no enseña o sugiera la combinación de dicho polietileno específico con 0.3-7% de cera con un punto de fusión de 40 a 97°C en una relación de peso entre cera:polietileno de 1:1 a 1:10 y además en combinación con ciclometicona volátil. A este respecto, ponemos de presente que el documento D1 enseña en la página 37, línea 18 que no es de preferencia la inclusión de una cera y es silencioso en cuanto a la presencia de una cera con un punto de fusión en el rango de 40 a 97°C en una concentración de 0.3 a 7%.

Por lo anterior, no existe una enseñanza o sugerencia clara en el estado del arte previo que le permita a la persona versada en la materia a obtener una composición sólida con mejores resultados antitraspirantes gracias a la

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combinación específica de los ingredientes y concentraciones reivindicadas por la presente solicitud.

Además, resaltamos el interés de mi representada en la concentración específica de 40 a 50% de ciclometicona volátil de acuerdo al contenido de la descripción de la solicitud y a las pruebas de eficiencia que se adjuntan al presente memorial. Lo anterior, por cuanto dicha concentración es óptima en el efecto logrado por la solicitud para solucionar un problema persistente en la técnica con una nueva y ventajosa composición que permiten la obtención de mejores resultados antitraspirantes gracias a la mezcla específica reivindicada, tal y como se demuestra en los datos adjuntos de comparación de efectos de varios antitraspirantes.

En resumen, concluimos que la materia reivindicada por la presente solicitud resuelve el problema técnico que no se encuentra enseñado o sugerido por D1 porque dicho documento:

- No enseña o sugiere una mezcla de polietileno, cera y silicona.
- No presenta una mezcla con los anteriores ingredientes en donde la relación cera:polietileno sea de 1:1 a 1:10 y la silicona se ciclometicona con una concentración específica de 40 a 50%.
- No le indica a la persona versada en la materia que se requiere la presencia de una cera con un punto de fusión en el rango de 40 a 97°C en una concentración de 0.3 a 7% para lograr un efecto antitraspirante mejorado.
- No presenta un polietileno con las características requeridas por la presente solicitud.
- No trata ni resuelve el problema de proporcionar una barra con un efecto antitraspirante mejorado en comparación a las barras que presentan alcohol estearil.

Por las razones mencionadas anteriormente, no se puede concluir que el contenido de la referencia citada por su Despacho afecte el nivel inventivo de la presente solicitud.

Lo anterior tiene fundamento en las siguientes normas,



DERECHO:

1. Artículo 14 de la Decisión 486 de la Comunidad Andina, el cual, a la letra dice:

"Artículo 14: Los Países Miembros otorgarán patentes para las invenciones, sean de producto o de procedimiento, en todos los campos de la tecnología, siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial".

2. El Artículo 48 del mismo estatuto que establece:

"Artículo 48.- Si el examen definitivo fuere favorable, se otorgará el título de la patente. Si fuere parcialmente favorable, se otorgará el título solamente para las reivindicaciones aceptadas. Si fuere desfavorable se denegará"

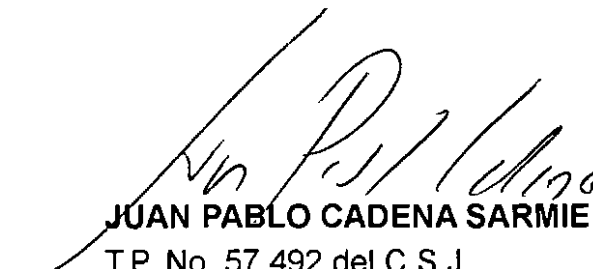
Por las razones anteriormente expuestas, solicito a ese despacho REPONER la decisión tomada mediante Resolución No. 4827 y tendiente a obtener la concesión del Privilegio de Patente de conformidad con el Artículo 48 de la Decisión 486 de la Comunidad Andina, arriba citado.

NOTIFICACIONES

Recibiré notificaciones en la Secretaría General de la Superintendencia de Industria y Comercio, o en su defecto, en mi Oficina de Abogado, situada en la Calle 70A No. 4-41 de esta ciudad de Bogotá.

Del Señor Superintendente,

Atentamente,


JUAN PABLO CADENA SARMIENTO
T.P. No. 57.492 del C.S.J.
C.C. 80.410.337 de Usaquén
Calle 70A No. 4-41



Bogotá, 21 de febrero de 2011
MXB/LMA

Anexo

**COMPARECENCIA PERSONAL Y
AUTENTICACION DE FIRMA**

NOTARIA 16 DEL CIRCULO DE BOGOTA D.C.

La Notaria 16 de Bogotá, D.C da fe que el
anterior escrito dirigido a:

**SUPERINTENDENTE DE INDUSTRIA Y
COMERCIO**
fue presentado personalmente por:

CADENA SARMIENTO JUAN PABLO

Identificado con: C.C. 80410337

Tarjeta Profesional 57492

y declaro que su contenido es cierto y que es
suya la firma puesta en el.

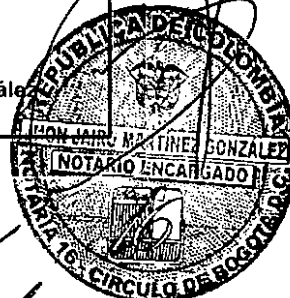
Bogotá D.C 21/02/2011

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Jhon Jairo Martínez González
Notario 16 (E)



Jhon Jairo Martínez González



Docket No.: 00144-00401

#12

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: 6503491

Group Art Unit: 1616

Application No.: 90/006,628

Filed: May 6, 2003

Examiner: Marina Lamm

For: Elastomer Free, High
Efficiency Antiperspirant StickCommissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**Rule 1.132 Declaration of Dr. Mattai**

Sir:

I, Jairajh Mattai, reside at 280 River Rd, Apt. 21B Piscataway, New
Jersey.

EDUCATION

1. From 1969-1973, I attended University of Guyana, Greater Georgetown, Guyana and received my Bachelor of Science (major - chemistry, minor - math). From 1974-1975, I attended University of Guyana, Turkeyen, Greater Georgetown, Guyana and received my Diploma in Education. From 1976-1978, I attended Acadia University, in Wolfville, Nova Scotia, Canada and received my Masters in Science in organic/analytical chemistry. From 1978-1982, I attended Dalhousie University, Halifax, Nova Scotia, Canada and received my Ph.D in physical chemistry.

WORK EXPERIENCE

2. From May 1982 - October 1983, I was a Post-doctoral fellow at Dalhousie University, Halifax, Nova Scotia, Canada. My research involved (a) electron spin resonance studies of magnetically aligned surfactants.
3. From Nov. 1983 - May 1987: I was a Research Associate, Biophysics Institute, Boston University School of Medicine, Boston, MA.
4. From June 1, 1987 - Present, I am employed by Colgate-Palmolive Company, Advanced Technology, Personal Care, 909 River Rd., Piscataway, New Jersey. My current job title is Senior Technical Associate. I have worked on a number of projects relating to the development of consumer products in the personal care categories, specifically in antiperspirant technology.
5. I am one of the coinventors of U.S. Patent No. 6,503,491 ("491 patent") which is the subject of this re-examination. I am a coauthor on one publication and a co-inventor on 13 U.S. patents relating to antiperspirants (see Appendix).
6. For the above reasons, I feel I am a qualified expert in the antiperspirant art.
7. I am familiar with the '491 patent. I have read U.S. Patent No. 6,177,066 (" '066 patent") which is applied against the claims in this re-examination proceeding.

EXPERIMENT

8. I supervised the following experiments.

9. An experimental protocol was used to simulate in vivo conditions of active release from antiperspirant sticks. This was achieved by applying a clinical dose of the antiperspirant (0.50 grams) on an area comparable to the underarm area of application (38 cm²). In addition a limited quantity of water was available for release of the active (12 ml) and an adequate agitation was provided during the course of the experiment.

a. Sample preparation

10. Disks of cotton pads (7 cm of diameter), made of WEBRIL® cotton pads (Kleantest), were cut. The disks were placed in individual petri dishes. A thin layer of product (0.5 mm) was removed from the top of the antiperspirant stick, using a clean paper towel. Doses of 0.5 gram of antiperspirant product were applied onto the WEBRIL® pad using a spatula. The product was spread to form a continuous layer. Then a weighted quantity of water was added (12 grams) at the bottom of the dish. The level of water was sufficient to cover completely the cotton support and fill some of the dish, but was not sufficient to cover the cotton disk and the layer of product applied. This was especially required to mimic the unidirectional or one-sided release from the slab of product. The petri dish was then covered to prevent evaporation and to simulate the semi-occluded conditions of the underarm.

b. Methods

11. The samples were agitated gently at regular intervals (25 rpm) using an automatic shaker (Orbit Environ Shaker, LabLine, Barnstead, Dubuque,

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Iowa, USA) and were sampled at several time intervals using a positive displacement pipette.

12. A quantity of 1.00 ml was removed from the dish and replaced immediately with fresh medium. Deionized water was used as a diffusion medium after degassing under vacuum and agitation.

13. To the 1 ml of collected samples, 9 ml of a 10% Nitric acid solution (made with nitric acid, ACS reagent, 69.0-70.0%, J.T. Baker, Phillipsburg, NJ 08865) were then added. The samples were then stored as stock solutions for later analysis.

14. 0.5 ml of these stock solutions were placed in disposable culture tubes (Kimax® 51, borosilicate glass 16x100), and 9.5 ml of a 10% (w/w) nitric acid solution in water were added to provide complete solubility of the Al species.

15. The samples were then analyzed by Inductively Coupled Plasma (ICP), using the program named AlZr100. This program was able to detect concentration of Aluminum in a linear range of 0-100 ppm, also silicon up to 50 ppm and Hafnium (possible contaminant of Zirconium) of up to 10 ppm. Standards of Aluminum and Zirconium 50 ppm and 100 ppm, Hafnium 10 ppm, Silicon 50 ppm were used for calibration.

Results and discussion

16. The results are expressed as a function of the % Al released based on the total dose of Aluminum contained in the products. The concentration measured by ICP (C_{icp} in micrograms per ml) were converted to total aluminum amount released (Q_{icp} in micrograms):

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$$Q_{icp} = C_{icp} \times 12^* \times 10^{**} \times 20^{***}$$

* release medium (1mil of the 12 grams was removed (paragraph 12 above))

** first dilution (1 ml + 9 ml of HNO₃ (paragraph 13 above))

*** second dilution (paragraph 14 above)

- The % released is a function of the amount of aluminum released and the total aluminum present in the sample as per the formula:

$$\% \text{ released} = 100 Q_{icp}/Q_o$$

- The original amount of the aluminum in the dose (in grams) applied (Q_o, in micrograms) can be calculated using the following formula:

$$Q_o = \% \text{ aluminum in salt (from Certificate Of Analysis)} \times \% \text{ salt in formula} \times \text{applied dose} \times 1,000,000/10,000.$$

17. Product characteristics

The products tested had three different levels of cyclomethicone as shown below in Table 1.

Table 1

Ingredients	According to invention	Low	High
Cyclomethicone DC-345	46.8%	30%	70%
Polyethylene Perf. 400	5%	5%	3.4%
Polyethylene Perf. 500 PL	5%	5%	3.4%
Lexfeel 7- neopentyl glycol diheptanoate	2%	19.8%	0
Hydrogenated Castor Oil MP-70	5%	5%	0
C12-15 Alkyl Benzoate	9%	8%	0
Z-576 Aluminum Zirconium			
Tetrachlorohydrax glycine	22%	22%	22%
PEG-8 Distearate	4%	4%	0
Whisperbreeze 157 Perfume IFF - Fragrance	1.2%	1.2%	1.2%
Total	100%	100%	100%

18. The first column is according to the invention with an amount of 46.8% by weight cyclomethicone. The second column is a low amount of cyclomethicone, 30% by weight according to the examples in the '066 patent (examples 1, 2 and comparative examples A and B). The third column is a high amount of cyclomethicone 70% by weight.

19. The following characterization of the salt prior to release determination provided information relative to its potential efficacy. This information should be taken into account when reporting results. Table 2 below is a synopsis of the product tested, dose applied and aluminum content.

Table 2

Product	Active %	Al %	Dose (g)	Al (microgram) (Qo)
according to the invention	22.0	13.5	0.50	14850
Low cyclomethicone	22.0	13.5	0.50	14850
High cyclomethicone	22.0	13.5	0.50	14850

20. The active release was monitored from the three products by tracking the release of the aluminum salt portion of the aluminum zirconium tetrachlorohydrate glycine salts. Table 3, below, clearly indicated that the release of aluminum from the sample according to the invention (46.8% cyclomethicone) was significantly greater over four hours than the sample containing low concentration of cyclomethicone (30%) according to the examples of '066 patent, or high concentration of cyclomethicone (70%). It is assumed that the sample with the greater quantity of aluminum released (representative of active

ingredient) will show greater efficacy. The subject of the patent is a “ high efficacy antiperspirant stick”.

21. In addition the sample containing high concentration of cyclomethicone (70%) lacked the hardness characteristic of a commercial antiperspirant stick formulation.

22. Table 3 below shows the quantity of aluminum released for the samples according to the invention, samples with low cyclomethicone and samples with high cyclomethicone as measured by ICP, over a four hour period under the conditions described above.

Table 3

Samples	% released -1 hr	% released -2 hr	% released -4 hr
according to the invention	29	49	68
Low Cyclomethicone	10	13	37
High Cyclomethicone	1	3	6

CONCLUSION

23. The results indicate that the quantity of salt released over time dramatically varies with the composition of the formulation. The results also indicate that the formulation with 70% and 30 % of cyclomethicone do not provide an optimal release of antiperspirant active, while the sample containing 46.8 % of cyclomethicone achieved an unexpected optimal release characteristic of a high efficacy antiperspirant stick. These tests demonstrate that the compounds as disclosed in the presently invention (40 to 50% volatile silicone) have unexpected superior properties compared to antiperspirant sticks having high

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volatile silicone (70%) or low volatile silicone (30%). In addition, the sample containing high concentration of cyclomethicone (70%) lacked the hardness characteristic of a commercial antiperspirant stick formulation.

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 above-identified application or any patent issues thereon.

Jairajh Mattai
Jairajh Mattai

April 27, 2004
Date

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Appendix

PUBLICATION

1. C.T. Johnson, S.L. Hem, E. Guenin, J. Mattai and J. Afflitto, "Potentiometric/Turbidometric titration of Antiperspirant Actives", J. Cosmet. Sci., 54, 113-118 (2003)

PATENTS

1. Xiaozhong Tang, Kathy Potechin, Jairajh Mattai, Anthony Esposito and Paul Joseph Vincenti, "Antiperspirant actives and formulations made therefrom", US Patent No. 5,997,850 (1999)
2. Xiaozhong Tang, Kathy Potechin, Jairajh Mattai, Anthony Esposito and Paul Joseph Vincenti, "Antiperspirant actives and formulations made therefrom", US Patent No. 6,066,314 (2000)
3. Ortiz, Claudio, Bustos, Mardoqueo, Mattai, Jairajh, Guenin, Eric P. and Carey, 3rd; John Joseph, "Low tack cosmetic composition sticks", US Patent No. 6,180,125 (2001)
4. Mattai, Jairajh, Ortiz, Claudio, Guenin, Eric Afflitto, John, "Antiperspirant product with dibenzylidene sorbitol and elastomer in dimethicone", US Patent No. 6,338,841 (2002)
5. Chopra; Suman, Mattai; Jairajh, Fei; Lin, Guenin; Eric, Tang; Xiaozhong; Ortiz; Claudio, "High oil clear emulsion with diene elastomer", US Patent No. 6,387,357 (2002)
6. Chopra; Suman, Mattai; Jairajh, Fei; Lin, Guenin; Eric, Tang; Xiaozhong; "High oil clear emulsion with elastomer", US Patent No. 6,403,069 (2002)
7. Chopra; Suman, Mattai; Jairajh, Fei; Lin, Guenin; Eric, "Underarm gel products with water lock component", US Patent No.: 6,426,062 (2002)
8. Chopra; Suman, Fei; Lin, Guenin; Eric, Mattai; Jairajh, "Underarm products with water lock component", US Patent No.: 6,436,382 (2002)
9. Fei; Lin, Chopra; Suman, Guenin; Eric, Hilliard, Jr.; Peter, Mattai; Jairajh, Patel; Neeta "High efficacy liquid gel product", US Patent No.: 6,485,716 (2002)
10. Guenin; Eric, Mattai; Jairajh, Gale; Anne, Hall-Puzio; Patricia, Lee; Wilson "Elastomer free, high efficacy antiperspirant stick", US Patent No.: 6,503,491 (2003)

