

Señor

SUPERINTENDENTE DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

84
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SUPERINTENDENCIA Y COMERCIO
Radicación: 01011998 00000002 Folios: 99
Fecha (AMD): 2001-05-30 16:50:42
Trámite: 002 PATENTES D 1 REGISTRO/ 444 REPUESTA
Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

E _____ S. _____ U. _____

Re P1 THE GILLETTE COMPANY. Solicitud de Patente de Invención para
BANDA AUXILIAR DE LA AFEITADA PARA CARTUCHO DE
AFEITADORA Clase B. 26 Expediente número 01-011 998.

1 Me refiero a la solicitud de patente arriba nombrada de 15 de Febrero de 2001 y al requerimiento hecho por este despacho notificado por fijación en lista de fecha 5 de Abril del mismo año

2 Anexos me permito presentar a usted

- (1) En dos (2) hojas de papel copia formal de los dibujos de la solicitud
- (2) En original y dos copias una de ellas de 6cm x 6cm Arte Final de la figura característica de la invención para la publicación en la Gaceta de la Propiedad Industrial
- (3) Copias autenticas (2) de las primeras solicitudes de patente presentadas para el invento arriba nombrado respecto de las cuales reclamo prioridad a saber
 - (a) Copia autentica debidamente certificada de la solicitud estadounidense número 09/506 629 de 18 de Febrero de 2000 junto con su traducción correspondiente a las legalizaciones y reivindicaciones de dicho documento

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(b) Copia autentica debidamente certificada de la solicitud estadinense número 09/737 267 de 14 de Diciembre de 2000 junto con su traducción correspondiente a las legalizaciones y reivindicaciones de dicho documento

(4) Documentos que acreditan el traspaso que los autores del invento de la referencia hacen a favor de mi representando de sus derechos sobre el mismo debidamente apostillados junto con sus traducciones oficiales numero 463 y 464 debidamente legalizadas hasta por el Ministerio de Relaciones Exteriores de Colombia bajo los números 317721 y 116201 de 12 de Marzo y 13 de Marzo de 2001 respectivamente correspondientes a las legalizaciones y partes pertinentes de dicho documento de traspaso

3 Copia debidamente autenticada por el Notario Sexto del Circulo de Bogotá de los documentos que acreditan la calidad de Traductor Oficial del señor Gabnel Rueda Chadid quien elaboró las traducciones de las legalizaciones y las reivindicaciones de las solicitudes estadinenses número 09/506 629 y 09/737 267 de 18 de Febrero y 14 de Diciembre de 2000 respectivamente

4 Ruego a usted tomar atenta nota de lo anterior y proceder de conformidad

Señor Superintendente



JOSE ANTONIO LLOREDA
T P 10 784
Código 231

FORMATO DE DIGITALIZACION
RELACION DE ANEXOS



Royal
Technologies S.A.
Integrating Product Management & CRM

33

Expediente No		No de Follo
61011998		
Item	No de unidades	
1 CD		✓
2 DVD		
3 REVISTA		
4 LIBRO		
5 PERIODICO		
6 DISQUETES		
7 SOBRE DE MANILA	✓	1
8 SOBRE BLANCO TAMAÑO CARTA		
9 SOBRE BLANCO TAMAÑO OFICIO		
10 OTROS:		

Observaciones: Arte final

EL SUSCRITO JEFE DEL AREA DE
LEGALIZACIONES DE MINISTERIO DE
RELACIONES EXTERIORES.

HACE CONSTAR

Que el señor Gabriel Rueda se encuentra debidamente
registrado ante este Ministerio como traductor e
interprete oficial para los idiomas INGLES ESPANOL
ESPANOL - INGLES

Para efectos de esta certificación se ha presentado
copia autenticada de la certificación del Ministerio de
Justicia acerca de la vigencia de la resolución 5098
1982

Dada en Santafe de Bogota, D.C., a los nueve dias
(19) del mes de diciembre de 1982

Neilson Sanchéz Torres
Jefe Area de Legalizaciones

NST/gtm

MINISTERIO DE RELACIONES EXTERIORES
SANTAFE DE BOGOTA
HACE CONSTAR
QUE LA FOTOCOPIA CONDE CON LA RESOLUCION 5098
AUTENTICA QUE HE TENIDO A LA VISTA
13 DIC 2000

MINISTERIO DE JUSTICIA
SANTAFE DE BOGOTA
HACE CONSTAR
QUE LA FOTOCOPIA CONDE CON LA RESOLUCION 5098
AUTENTICA QUE HE TENIDO A LA VISTA
21 FEB 2001
21 AGO 1998

MINISTERIO DE RELACIONES EXTERIORES
SANTAFE DE BOGOTA
HACE CONSTAR
QUE LA FOTOCOPIA CONDE CON LA RESOLUCION 5098
AUTENTICA QUE HE TENIDO A LA VISTA
01 JUL 1998

01 SEV 2000

MINISTERIO DE RELACIONES EXTERIORES
SANTAFE DE BOGOTA
HACE CONSTAR
QUE LA FOTOCOPIA CONDE CON LA RESOLUCION 5098
AUTENTICA QUE HE TENIDO A LA VISTA
18 ENE 2000



Ministerio de Justicia y del Derecho

EL SECRETARIO GENERAL DEL MINISTERIO DE JUSTICIA Y DEL DERECHO

CERTIFICA

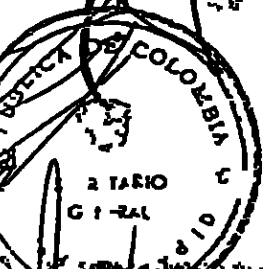
Que por Resolución 5996 del 29 de noviembre de 1982 le fue expedida licencia para ejercer funciones de Traductor e Interpreté Oficial en los idiomas INGLÉS ESPAÑOL ESPAÑOL INGLÉS. GABRIEL RUEDA CHADID identificado con C.C. No 17 124 145 expedida en Bogotá. Que dicha HAGO CONSTAR se encuentra vigente en la fecha

A solicitud del interesado en Santafé de Bogotá D.C. a los 17 días mes de noviembre de 1994

JORGE LOIS SABOGAL SABOGAL

COMO NOTARIO SEXTO DE SANTAFÉ DE BOGOTÁ
HAGO CONSTAR
QUE LA FOTOCOPIA CONCORDA CON LA FOTOCOPIA AUTÉNTICA QUE HE TENIDO A LA VISTA
13 JUL 2000

COMO NOTARIO SEXTO DE SANTAFÉ DE BOGOTÁ
HAGO CONSTAR
QUE LA FOTOCOPIA CONCORDA CON LA FOTOCOPIA AUTÉNTICA QUE HE TENIDO A LA VISTA
17 AGO 1998



17 JUL 1998
01 SET 2000
HAGO CONSTAR
QUE LA FOTOCOPIA CONCORDA CON LA FOTOCOPIA AUTÉNTICA QUE HE TENIDO A LA VISTA

TRIBUNAL SUPERIOR DEL DISTRITO JUDICIAL DE SANTAFE DE BOGOTA
SECRETARIA GENERAL

LA SUSCRITA SECRETARIA DEL H TRIBUNAL SUPERIOR DEL DISTRITO JUDICIAL
DE SANTAFE DE BOGOTA

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COMO NOTARIO DEL DISTRITO JUDICIAL DE SANTAFE DE BOGOTA
HAGO CONSTAR
QUE LA FOTOCOPIA CONFECCIONADA POR EL
A NOMBRE QUE HE TENIDO EN LA
BOGOTA
13 DIC 2000

CERTIFICA

Que el Acuerdo No 183 de diciembre 3 de 1998 emanado de esta Corporación por medio del cual dio posesión a **GABRIEL RUEDA CHADIO** identificado con Cedula de Ciudadanía No 1010110143 de Bogotá como **TRADUCTOR E INTERPRETE OFICIAL DE LOS IDIOMAS INGLES-ESPAÑOL-ESPAÑOL-INGLES** en virtud de la Resolución No 1996 de 1998 de la Corporación de la Magistratura es **VIGENTE**

Se expide en Santafe de Bogota a dieciseis (16) de noviembre mil novecientos noventa y cuatro (1994)

MARIA INES RODRIGUEZ TORRES
SECRETARIA

COMO NOTARIO DEL DISTRITO JUDICIAL DE SANTAFE DE BOGOTA
HAGO CONSTAR
QUE LA FOTOCOPIA CONFECCIONADA POR EL
AUTENTICA QUE HE TENIDO EN LA
BOGOTA
08 SET 1998

COMO NOTARIO DEL DISTRITO JUDICIAL DE SANTAFE DE BOGOTA
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BOGOTA
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BOGOTA
01 JUL 1998

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The Gillette Company 01.011.998

REF: LLC-0029-2001. La presente es Traducción Oficial de un documento presentado originalmente en inglés. Esta traducción es elaborada por Gabriel Rueda Chadid (Traductor Oficial).

ESTADOS UNIDOS DE AMERICA
A TODOS AQUELLOS QUE LLEGAREN A LEER EL CONTENIDO DEL
PRESENTE DOCUMENTO LES CERTIFICAMOS:
DEPARTAMENTO DE COMERCIO DE LOS ESTADOS UNIDOS

Oficina de Marcas y Patentes de los Estados Unidos

Marzo 3, 2001

Se certifica que anexo se encuentra fiel copia de los Registros de la Oficina de Marcas y Patentes de los Estados Unidos correspondientes a los documentos de la patente solicitada y cuya identificación aparece más adelante, la cual cumplió con los requerimientos exigidos para que se otorgue una fecha de presentación de acuerdo con los dispuesto en la Sección 35 USC 111.

Número de Solicitud: 09/506.629
Fecha de presentación: Febrero 18, 2000

Por autorización del
COMISIONADO DE MARCAS REGISTRADAS Y PATENTES

T. LAWRENCE

Funcionario Encargado de Certificaciones (Hay firma y sello)

GABRIEL RUEDA CHADID
TRADUCTOR OFICIAL
RESOLUCION 5994 DE NOV. 29-83
MINISTERIO DE JUSTICIA

AK
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Expediente No. 8071

Box Patent Application

Assistant Commissioner for Patents

Washington, DC 20231

PRESENTACION DE NUEVA SOLICITUD

Apreciados Señores:

1. Les presentamos la solicitud de patente de Invención para su correspondiente radicación:

Michael J. Kwiecien

Vicent P. Walker, Jr.

Para el invento titulado: **Banda de Ayuda a la Afeitada Instalada en Cartuchos de Afeitadoras**

Incluye: 8 Páginas de Especificaciones Técnicas

1 Página de Resumen

2 Páginas de Reivindicaciones

1 Hoja de Dibujos

2. Una declaración no otorgada

3. La citación de divulgación de información será presentada posteriormente.

4. El traspaso del invento a The Gillette Company se suministrará posteriormente.

5. Calculo de derechos:

(a) Derechos básicos de presentación (\$690) \$690

(b) Reivindicaciones superiores a 20 (1x\$18 cada una) \$ 18

(c) Reivindicaciones independientes superiores a 3
(\$78 cada una) \$

39

(d) Reivindicaciones dependientes múltiples (\$260) \$260

Derechos Totales \$ 268

6. El Comisionado queda autorizado para cobrar el derecho de presentación de \$268, más los derechos de que trate el numeral 37 CFR 1.16 y 1.17, para Consignarlos en la Cuenta No. 07-1350. Se adjunta duplicado de esta autorización.

Atentamente,

Firmado por: Stephan P. Williams

Registro No. 28,546

Representante Legal de los Solicitantes

(617) 421-7886

Patent Department

The Gillette Company

Prudential Tower Building

Boston, MA 02199

CERTIFICADO DE ENVIO POR CORREO EXPRESO (37 CFR 1.10)

Certifico que los siguientes documentos en relación con la solicitud mencionada fueron depositados en el servicio postal de los Estados Unidos, correo Expreso "Oficina Postal al Destinatario" en Washington, D.C. 20231.

Fecha: Febrero 18, 2000. Firmado por: Carren Mundee

No. de Etiqueta de Correo Expreso: EL246466412US.

REIVINDICACIONES

1. Un cartucho que se instala en la máquina de afeitar conformado por una hoja y una porción que hace contacto con la piel cerca de la mencionada hoja de afeitar, y donde la parte que hace contacto con la piel contiene una banda que ayuda a la afeitada hecha de un material polimérico sólido que presenta una superficie expuesta en su parte superior, y dicha banda de ayuda para la afeitada está conformada por una primera porción expuesta que se extiende a todo lo largo y que contiene un polímero lubricante e hidrosoluble y otra porción adyacente, que se extiende a lo largo y que contiene un polímero lubricante hidrosoluble, donde la primera porción mencionada comprende una gran cantidad del mencionado polímero lubricante e hidrosoluble, en un porcentaje por peso, superior a la segunda porción, y donde la primera de las porciones mencionadas se adapta a un funcionamiento más rápido que la segunda porción durante la afeita.

2. El cartucho para la afeitadora descrito en la reivindicación 1 donde la mencionada primera porción está conformada por 0% a 30% aproximadamente por peso del polímero insoluble en agua y aproximadamente del 65% al 95% aproximadamente de óxido de polietileno, y donde la segunda porción comprende del 10% al 40% aproximadamente del polímero insoluble en agua y del 50% al 80% aproximadamente de óxido de polietileno.

3. El cartucho que se instala en la afeitadora descrito en la reivindicación 1 donde la primera porción

comprende del 10% al 25% aproximadamente por peso de polímero insoluble en agua y del 70% al 90% aproximadamente de óxido de polietileno, y donde la segunda porción comprende del 20% al 35% aproximadamente de polímero insoluble en agua y del 55% al 75% aproximadamente de óxido de polietileno.

4. El cartucho para la afeitadora descrito en la reivindicación 3 donde el mencionado óxido de polietileno comprende una mezcla de por lo menos un óxido de polietileno que tiene un peso molecular dentro del rango de 100.000 hasta 500.000 y por lo menos un óxido de polietileno que tiene un peso molecular dentro del rango de 3 a 8 millones.

5. El cartucho para la afeitadora descrito en la reivindicación 4 donde el mencionado polímero insoluble en agua comprende polietileno, polipropileno, polistireno, copolímero de butadien-estireno (polistireno de medio y alto impacto), poliacetal, copolímero de acrilonitrilo-butadien-estireno, copolímero de acetato de etilenvinilo, poliuretano y sus combinaciones.

6. El cartucho para la afeitadora descrito en las reivindicaciones 1 o 5 donde la primera porción presenta una superficie expuesta superior que comprende del 55% al 85% aproximadamente del área de superficie de la superficie superior expuesta de la mencionada banda de ayuda a la afeitada.

7. El cartucho para la afeitadora descrito en la reivindicación 6 donde la mencionada primera porción presenta

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una superficie superior expuesta que comprende del 60% al 80% aproximadamente del área de superficie de la superficie superior expuesta de la banda para la ayuda de la afeitada.

8. El cartucho para la afeitadora descrito en la reivindicación 6 donde la mencionada segunda porción se extiende por lo menos parcialmente por debajo de la mencionada primera porción y brinda su soporte.

9. El cartucho para la afeitadora descrito en la reivindicación 8 donde el límite entre la mencionada segunda porción y la primera porción se aproxima a un plano inclinado.

10. El cartucho para la afeitadora descrito en la reivindicación 6 donde la superficie mas elevada de la primera porción se extiende ligeramente por encima de la superficie mas elevada de la mencionada segunda porción.

11. El cartucho para la afeitadora descrito en la reivindicación 6 donde la primera porción contiene un colorante de manera que haga contraste con la mencionada segunda porción.

12. El cartucho para la afeitadora descrito en la reivindicación 6 donde la mencionada banda de ayuda a la afeitada incluye además una porción de conexión que se extiende por debajo de las mencionadas primera y segunda porciones.

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13. El cartucho para la afeitadora descrito en la reivindicación 12 la mencionada porción de conexión tiene la misma composición que la segunda porción ya mencionada.

La anterior es Traducción Oficial de un documento presentado originalmente en inglés. Esta traducción fue realizada por GABRIEL RUEDA CHADID (Traductor Oficial). Resolución 5996 d l Minjusticia, por lo cual estampo mi Sello y Firmo.

Bogotá D.C., Marzo 26 del 2001.

GABRIEL RUEDA CHADID
TRADUCTOR OFICIAL
RESOLUCION 5996 DE NOV. 29-83
MINISTERIO DE JUSTICIA

SE LLOPADA CANAGRO 800
The Gillette Comp.
01.011.998 44

HA 372770



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

March 03, 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: 09/506,629

FILING DATE: February 18, 2000



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

T. Lawrence

**T. LAWRENCE
Certifying Officer**

02/18/00

2-22-00

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Docket No.: 8071

Box Patent Application
Assistant Commissioner for Patents
Washington, DC 20231

JCSAS U.S. PTO
09/506629
02/18/00

NEW APPLICATION TRANSMITTAL

Honorable Sir:

1. Transmitted herewith for filing is the patent application of Inventor(s):

Michael J. Kwiecien
Vincent P. Walker, Jr.

For: Shaving Aid Strip For Razor Cartridge

Including:

- 8 Pages of Specification
- 1 Page of Abstract
- 2 Pages of Claims
- 1 Sheet of Drawing

- 2. An unexecuted Declaration is enclosed herewith.
- 3. An information disclosure citation will be submitted later.
- 4. An Assignment of the invention to The Gillette Company will be submitted later.

EXPRESS MAIL CERTIFICATE (37 CFR 1.10)

I hereby certify that this New Application Transmittal and the documents referred to as enclosed herewith are being deposited with the United States Postal Service as "Express Mail/Post Office to Addressee" on the date shown below in an envelope addressed to the Assistant Commissioner of Patents, Washington, D.C. 20231.

Feb 18 2000
FL246466412US
Express Mail Label No.

Carren Munde
Carren Munde

49
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5. Fee calculation:

(a) Basic filing fee (\$690)	\$ <u>690</u>
(b) Claims in excess of 20 (1 x \$18 each)	\$ <u>18</u>
(c) Independent claims in excess of 3 (\$78 each)	\$ <u> </u>
(d) Multiple dependent claims (\$260)	\$ <u>260</u>

Total Fees \$ 968

6. The Commissioner is hereby authorized to charge the filing fee of \$ 968, plus any fees under 37 CFR 1.16 and 1.17, to Deposit Account No. 07-1350. A duplicate copy of this authorization is enclosed.

Respectfully submitted,



Stephan P. Williams
Reg. No. 28,546
Attorney for Applicants
(617) 421-7886

Patent Department
The Gillette Company
Prudential Tower Building
Boston, MA 02199

008120-62990560

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SHAVING AID STRIP FOR RAZOR CARTRIDGE

Background of the Invention

This invention relates to a shaving aid strip (or composite) for a razor cartridge.

It is now well known that shaving comfort can be enhanced by affixing to a razor cartridge a shaving aid composite, also known as a lubricating strip, which continuously releases a shaving aid, typically a lubricant, during the shaving process. See, for example, U.S. 4,170,821 and GB 2,024,082. The shaving aid strip generally comprises a water-insoluble polymer matrix, typically polystyrene, and a water-soluble shaving aid, typically polyethylene oxide, which leaches out of the composite during shaving to enhance shave comfort.

Unfortunately, conventional shaving aid strips suffer from the disadvantage that they release an insufficient amount of the shaving aid, particularly after the first four or five shaves where release of the shaving aid may drop off to negligible quantities. In addition, the amount of shaving aid that may be included in the shaving aid strip may be limited because high levels of shaving aid are difficult to process and can adversely affect the structural integrity of the strip. Accordingly, recent efforts have been made to improve shaving aid strips so as to enhance and prolong release of the shaving aid.

Such efforts have resulted in improved shaving aid strips which include the following features: incorporation of a low molecular weight release enhancing agent, such as polyethylene glycol, into the matrix (US 5,113,585); the use of ethylene vinyl acetate copolymer as the matrix material (US 5,349,750); incorporation of a compatibilizer material such as polyethylene oxide-polypropylene oxide copolymer (e.g. Poloxamer 182) (US 5,454,164); incorporation of a water-swellaible polymer such as Salsorb 84, a cross-linked polyacrylic (US 5,626,154); coextrusion of a core comprising a water-leachable shaving aid within a sheath of water-insoluble polymer, wherein the sheath has a plurality of openings to facilitate release of the shaving aid (WO 96/13360, which corresponds to U.S. Ser. No. 08/497,194); and coextrusion of adjacent shaving aid portions (US 5,956,848). Also known are shaving aid strips which include an essential oil

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(US 5,095,619) or a non-volatile cooling agent (US 5,713,131), and injection molded strips which include a plasticizer (US 4,850,106). All of the aforementioned patents or published applications are incorporated herein by reference.

5 **Summary of the Invention**

10 The present invention is directed to a razor cartridge with a solid polymeric shaving aid strip. The razor cartridge has a blade (one or more) and a skin-engaging portion in proximity to the blade. The skin-engaging portion includes a solid polymeric shaving aid strip having an upper exposed surface which contacts the skin during shaving. The shaving aid strip includes a first exposed lengthwise-extending portion containing a lubricious water-soluble polymer and an adjacent, second exposed lengthwise-extending portion containing a lubricious water-soluble polymer. The first portion contains a greater amount of the lubricious water-soluble polymer than the second portion, and the first portion is adapted to wear at a faster rate than the second portion during shaving. This construction enables the strip to release more of the lubricious water-soluble polymer for a longer time period (i.e., for more shaves) than conventional shaving aid strips.

15 The shaving aid strip is typically located at the rear (or cap) portion of the cartridge (i.o. behind the blade or blades), but may also be located at the front (or guard) portion of the cartridge (i.e., in front of the blade or blades), or a shaving aid strip may be placed at both positions on the cartridge. The razor cartridge is generally affixed to a handle for use in shaving. The razor cartridge may be designed to be removably affixed to a handle in the case of razor systems in which the handle is reused and the cartridge is disposed of after one or more uses. Or the razor cartridge may be permanently affixed to a handle (or integral with the handle) in the case of disposable razors in which the handle and cartridge are disposed of together as a unit after one or more uses. The term razor cartridge is thus intended to apply to both types of cartridge.

20 **Description of the Drawings**

30 Fig. 1 is a perspective view of a razor cartridge which includes a shaving aid strip of the present invention.

 Fig. 2 is a sectional view taken along line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the shaving aid strip included in the razor cartridge depicted in Fig. 1.

Fig. 4 is a side elevation view of the shaving aid strip of Fig. 3.

Detailed Description of the Invention

5 Referring to Figs. 1 and 2, the razor cartridge 14 includes housing 16, which carries three blades 18, a finned elastomeric guard 20, and a solid polymeric shaving aid strip 22 located on a skin-engaging portion (in this case the cap) of the cartridge. The shaving aid strip (or composite) is locked in an opening in the rear of the cartridge and includes a lubricious water-soluble polymer shaving aid that is released by the strip during shaving to improve shave attributes. While shown at the rear portion of this particular razor cartridge, the shaving aid strip may be located at any skin-engaging portion of the cartridge and may be fabricated in any size or shape deemed appropriate. For example, the strip can be incorporated into razor cartridges such as the Mach 3®, Sensor Excel®, Atra Plus® and Custom Plus® razors sold by The Gillette Company, as well as in other commercial razor cartridges.

10 Referring to Figs. 3 and 4, shaving aid strip 22 includes a first exposed lengthwise-extending portion 24 and an adjacent, second exposed lengthwise-extending portion 26, each portion being in the shape of a rounded lobe with a lengthwise-extending exposed surface. Second portion 26 preferably extends at least partially under first portion 24 and provides support for first portion 24. The boundary between first portion 24 and second portion 26 will preferably approximate an inclined plane as shown. Strip 22 also includes connecting portion 28, which extends below portions 24 and 26 and also optionally serves to lock the strip into a mating receiving portion of the cartridge. Second portion 26 and connecting portion 28 preferably have the same composition. The upper surface of first portion 24 preferably comprises about 55% to about 85%, more preferably about 60% to 80%, of the surface area of the upper surface of the shaving aid strip. In addition, the uppermost surface of first portion 24 preferably extends slightly above the uppermost surfaces of second portion 26. It is also preferred that first portion 24 comprises a greater amount (in percent by weight) of shaving aid than second portion 26. The shaving aid strip typically may be about 2.5 cm to about 3.7 cm in length, and about 0.15 cm to about 0.35 cm in width.

A shaving aid strip constructed as described above may be inserted into a razor cartridge with first portion 24 facing forward (i.e., in the direction of shaving) as shown in Fig. 2. Alternatively, the strip may be inserted with first portion 24 facing rearward (not shown). Since first portion 24 contains a greater proportion of shaving aid than the rest of the strip, and optionally contains other ingredients that may contribute to its faster wear characteristics, it will tend to wear away slightly faster than second portion 26. This faster wear tends to present a fresh surface of shaving aid, which is present in high proportion in that portion, and thus provides more lubrication over a longer period of time. At the same time, portion 26 wears more slowly and maintains the proper shaving geometry.

Each portion of the shaving aid strip will include a lubricious water-soluble polymer as the main shaving aid and, optionally, a water-insoluble polymer to serve as a matrix in which the water-soluble polymer is dispersed. Preferably, the first portion will comprise about 0% to about 30%, more preferably about 10% to about 25%, by weight water-insoluble polymer, and about 65% to about 95%, more preferably about 70% to about 90%, lubricious water-soluble polymer. The second portion will preferably comprise about 10% to about 40%, more preferably about 20% to about 35%, water-insoluble polymer, and about 50% to about 80%, more preferably about 55% to about 75%, lubricious water-soluble polymer.

Typical lubricious water-soluble polymers include polyethylene oxide, polyvinyl pyrrolidone, polyacrylamide, modified hydroxyalkyl cellulose, polyvinyl imidazoline, polyvinyl alcohol, polysulfone and polyhydroxyethylmethacrylate. The preferred lubricious water-soluble polymer is polyethylene oxide. The more preferred polyethylene oxides generally are known as POLYOX (available from Union Carbide Corporation) or ALKOX (available from Meisei Chemical Works, Kyoto, Japan). These polyethylene oxides will preferably have molecular weights of about 100,000 to 8 million daltons, most preferably about 300,000 to 5 million daltons. It is preferred to use a blend of polyethylene oxides, typically a blend having at least one polyethylene oxide having a molecular weight in the range of 100,000 to 500,000 and at least one polyethylene oxide having a molecular weight in the range of 3 million to 8 million. The most preferred polyethylene oxide comprises a blend of about 40% to 80% by weight of polyethylene oxide having an average molecular weight of about 5 million (e.g. POLYOX COAGULANT) and about 60% to

20% of polyethylene oxide having an average molecular weight of about 300,000 (e.g. POLYOX WSR-N-750). A 60:40 bland of these two polyethylene oxides (5 million:300,000) is especially preferred.

Suitable water-insoluble polymers which can be used include polyethylene, polypropylene, polystyrene, butadiene-styrene copolymer (e.g. medium and high impact polystyrene), polyacetal, acrylonitrile-butadiene-styrene copolymer, ethylene vinyl acetate copolymer, polyurethane and blends thereof such as polypropylene/polystyrene blend or polystyrene/impact polystyrene blend. The more preferred water-insoluble polymer is polystyrene, preferably a general purpose polystyrene, such as NOVA C2345A, or a high impact polystyrene (i.e. polystyrene-butadiene), such as BASF 495F KG21. The strip or any portion should contain a sufficient quantity of water-insoluble polymer to provide adequate mechanical strength, both during production and use.

The first portion of the shaving aid strip will also preferably include a material which allows it to wear more quickly than the second portion and/or which facilitates the inclusion of relatively high levels of water-soluble polymer. One such material is polycaprolactone, as described in a copending application (Docket No. 8070) filed of even date herewith. Preferably, the polycaprolactone will be included in an amount of about 1% to about 10% by weight. Polycaprolactones are available from Union Carbide Corporation under the name TONE® polymers (e.g., P-737, P-767, P-787, and polyol 1270). Preferably, the polycaprolactone will have a molecular weight between about 1000 and about 80,000 daltons, more preferably between about 30,000 and 60,000 daltons, and most preferably about 50,000 daltons.

The shaving aid strip, or any portion, also may contain other conventional shaving aid ingredients, such as low molecular weight water-soluble release enhancing agents such as polyethylene glycol (MW<10,000, e.g., 1-10% by weight PEG-100), water-swellaable release enhancing agents such as cross-linked polyacrylics (e.g., 2-7% by weight), colorants, antioxidants, preservatives, botanical oils, vitamin E, aloe, cooling agents, essential oils, beard softeners, astringents, medicinal agents, etc. Portions that contain a colorant can be designed to release the colorant (e.g., by leaching or abrasion), and thereby cause the strip to change color during shaving. A portion may contain, for example, between about 0.1% and about 5.0% (preferably between about 0.5% and 3%) colorant by weight.

Preferably, the first portion contains a colorant so as to contrast with the second portion, whereby wear of the first portion during shaving provides a visual indication to the user that the shaving aid strip and/or the razor cartridge has reached the end of its effective life or the end of its optimum performance.

5 Shaving aid strips of the present invention may be fabricated by any appropriate method, including injection molding and extrusion, the latter being preferred. All of the components of the strip are blended prior to molding or extrusion. For best results, it is preferred that the components are dry.

10 The blended components may be extruded through a Haake System 90, 3/4 inch diameter extruder with a barrel pressure of about 1000-2000 psi, a rotor speed of about 10 to 50 rpm, and a temperature of about 150°-185°C and a die temperature of about 170°-185°C. Alternatively, a 1 1/4 inch single screw extruder may be employed with a processing temperature of 175°-200°C, preferably 185°-190°C, a screw speed of 20 to 50 rpm, preferably 25 to 35 rpm, and an extrusion pressure of 1800 to 5000 psi, preferably 2000 to 3500 psi. The extruded strip is air cooled to about 25°C. To injection mold the strips it is preferred to first extrude the powder blend into pellets. This can be done on a 1 1/4 or 1 1/2 inch single screw extruder at a temperature of 120°-180°C, preferably 140°-150°C, with a screw speed of 20 to 100 rpm, preferably 45 to 70 rpm. The pellets are then molded in either a single material molding or multi-material molding machine, which may be single cavity or multi-cavity, optionally equipped with a hotrunner system. The process temperature can be from 165° to 250°C, preferably from 180° to 225°C. The injection pressure should be sufficient to fill the part completely without flashing. Depending on the cavity size, configuration and quantity, the injection pressure can range from 300 to 2500 psi. The cycle time is dependent on the same parameters and can range from 3 to 30 seconds, with the optimum generally being about 6 to 15 seconds.

The invention may be further described by the following examples in which all parts and percentages are by weight.

Examples 1 to 4

Shaving aid strips with a cross-section like that of strip 22 shown in Fig. 4 are fabricated from the blends of components indicated below by coextruding the blends in the following manner. The components for each portion (portion 24 and

portion 26, 28) may be supplied by two separate melting/pumping (plastics extruders), each consisting of a heated barrel, a pumping screw, a motor drive for that screw and a control system for the entire system. The materials are fed in powder form into their respective extruders (e.g., single screw type manufactured by Davis Standard). The extruders can operate at the same or different speeds and the same or different temperatures. The barrel temperature for each extruder can be ramped in three zones from 165°C to 190°C; a fourth heater at the die/barrel connection can also be set to 190°C, and a fifth heater at the die can range from 190°C to 205°C. Via rugged weldments the molten streams of the components are brought together to form the strip. Portion 24 can be precisely located on portion 26, 28 through accurately machined pathways in the die head. Because they have different compositions, the two molten materials are brought together at the last possible moment before exiting the die. Both materials exit the die head in a size and shape approximating that of the final product. The final dimensions are achieved using a series of forming rollers as the extrudate is cooled. The strip is typically extruded at a rate of about 50 feet per minute. The combined molten materials are drawn from the die head into the sizing/cooling device at a constant speed such that its cross section is always constant. Under a bath of cool dry air the molten material is cooled until no longer pliable. Once cooled, the strips can be cut to the appropriate length and attached to razor cartridges like cartridge 14.

Component		Weight Percent			
		Example 1		Example 2	
		Portion 26, 28	Portion 24	Portion 26, 28	Portion 24
	Polyethylene oxide ¹	60.0	75.0	60.0	70.0
25	Polystyrene ²		10.2		15.2
	H. I. Polystyrene ³	32.5		32.5	
	PEG-100	5.0	5.0	5.0	5.0
	White Color ⁴ /Preserv.	1.5		1.5	
	Blue Color ⁴ /Preserv.		4.0		4.0
30	Vitamin E		0.8		0.8
	Polycaprolactone ⁵	1.0	5.0	1.0	5.0

Component		Weight Percent			
		Example 3		Example 4	
		Portion 26,28	Portion 24	Portion 26,28	Portion 24
	Polyethylene oxide ¹	58.0	77.0	60.0	80.0
5	Polystyrene ²		14.0		8.2
	H. I. Polystyrene ³	35.5		33.5	
	PEG-100	5.0	5.0	5.0	
	White Color ⁴ /Preserv.	1.5		1.5	
	Blue Color ⁴ /Preserv.		4.0		4.0
10	Vitamin E				0.8
	Polycaprolactone ⁵				7.0

¹ 60:40 blend of Coagulant:WSR-N-750 (mol. wt. 5 million:300,000)

² NOVA C2345A

³ BASF 495F KG21

⁴ Color concentrate contains 65-95% polystyrene

⁵ Tone® P-767, P-737, polyol 1270, or P-787 (Union Carbide)

While particular embodiments of the invention have been shown and described for illustrative purposes, it will be apparent to those skilled in the art that various changes and modifications may be made without departing from the spirit and scope of the invention, which is defined by the claims which follow.

What is claimed is:

Claims

1. A razor cartridge comprising a blade and a skin-engaging portion in proximity to said blade, said skin-engaging portion including a solid polymeric shaving aid strip having an upper exposed surface, said shaving aid strip comprising a first exposed lengthwise-extending portion containing a lubricious water-soluble polymer and an adjacent, second exposed lengthwise-extending portion containing a lubricious water-soluble polymer, wherein said first portion comprises a greater amount of said lubricious water-soluble polymer, in percent by weight, than said second portion, and wherein said first portion is adapted to wear at a faster rate than said second portion during shaving.
2. The razor cartridge of claim 1 wherein said first portion comprises about 0% to about 30% by weight water-insoluble polymer and about 65% to about 95% polyethylene oxide, and said second portion comprises about 10% to about 40% water-insoluble polymer and about 50% to about 80% polyethylene oxide.
3. The razor cartridge of claim 1 wherein said first portion comprises about 10% to about 25% by weight water-insoluble polymer and about 70% to about 90% polyethylene oxide, and said second portion comprises about 20% to about 35% water-insoluble polymer and about 55% to about 75% polyethylene oxide.
4. The razor cartridge of claim 3 wherein said polyethylene oxide comprises a blend of at least one polyethylene oxide having a molecular weight in the range of 100,000 to 500,000 and at least one polyethylene oxide having a molecular weight in the range of 3 million to 8 million.
5. The razor cartridge of claim 4 wherein said water-insoluble polymer comprises polyethylene, polypropylene, polystyrene, butadiene-styrene copolymer (medium and high impact polystyrene), polyacetal, acrylonitrile-butadiene-styrene copolymer, ethylene vinyl acetate copolymer, polyurethane and blends thereof.
6. The razor cartridge of claim 1 or 5 wherein said first portion has an upper exposed surface that comprises about 55% to about 85% of the surface area of the upper exposed surface of the shaving aid strip.
7. The razor cartridge of claim 6 wherein said first portion has an upper exposed surface that comprises about 60% to about 80% of the surface area of the upper exposed surface of the shaving aid strip.

8. The razor cartridge of claim 6 wherein said second portion extends at least partially under said first portion and provides support therefor.
9. The razor cartridge of claim 8 wherein the boundary between said second portion and said first portion approximates an inclined plane.
10. The razor cartridge of claim 6 wherein the uppermost surface of said first portion extends slightly above the uppermost surface of said second portion.
11. The razor cartridge of claim 6 wherein said first portion contains a colorant so as to contrast with said second portion.
12. The razor cartridge of claim 6 wherein said shaving aid strip also includes a connecting portion which extends below said first and second portions.
13. The razor cartridge of claim 12 wherein said connecting portion has the same composition as said second portion.

00506629-021800

Abstract of the Disclosure

The present invention is directed to a razor cartridge with a solid polymeric shaving aid strip. The razor cartridge has a blade (one or more) and a skin-engaging portion in proximity to the blade. The skin-engaging portion includes a solid polymeric shaving aid strip having an upper exposed surface which contacts the skin during shaving. The shaving aid strip includes a first exposed lengthwise-extending portion containing a lubricious water-soluble polymer and an adjacent, second exposed lengthwise-extending portion containing a lubricious water-soluble polymer. The first portion contains a greater amount of the lubricious water-soluble polymer than the second portion, and the first portion is adapted to wear at a faster rate than the second portion during shaving. This construction enables the strip to release more of the lubricious water-soluble polymer for a longer time period (i.e., for more shaves) than conventional shaving aid strips.

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COMBINED DECLARATION AND POWER OF ATTORNEY

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 the subject matter which is claimed and for which a patent is sought on the invention entitled:

Shaving Aid Strip For Razor Cartridge

the specification of which

_____ is attached hereto.
XX was filed on February 18, 2000 as Application
Serial No. _____
_____ was filed as PCT International Application
No. _____ on _____

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 information which I know is material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate or PCT application(s) (not designating U.S.) listed below and have also identified below any foreign application(s) for patent or inventor's certificate or PCT application(s) (not designating U.S.) filed by me on the same subject matter having a filing date before that of the application on which priority is claimed:

<u>Country</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Priority Claimed</u>
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I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

<u>Provisional Application Number</u>	<u>Filing Date</u>
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09506629-021300

I hereby claim the benefit under 35 U.S.C. §120 or §365(c) of any United States application(s) or PCT application (designating U.S.) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior application(s) in the manner provided by 35 U.S.C. §112(a), I acknowledge the duty to disclose material information as defined in 37 C.F.R. §1.56 which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
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I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and to file and prosecute national, international, and regional applications which claim priority from this application:

Donal B. Tobin (Reg. No. 25,711)	Chester Cekala (Reg. No. 32,971)
Paul I. Douglas (Reg. No. 31,244)	Stephan P. Williams (Reg. No. 28,546)
Edward S. Podszus (Reg. No. 35,983)	David A. Howley (Reg. No. 34,624)
Thomas G. Krivulka (Reg. No. 38,525)	Joseph H. Handelman (Reg. No. 26,179)
Charles P. Boukus, Jr. (Reg. No. 24,754)	Peter D. Galloway (Reg. No. 27,885)

Direct communications to Stephan P. Williams at (617) 421-7886 or address to:

Patent Counsel
The Gillette Company
Prudential Tower Bldg. - 39th Floor
Boston, MA 02199

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 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.

Name of first or sole inventor: Michael J. Kwiecien

Inventor's signature: _____

Citizenship: United States Date: _____

Postal Address 148 Old Oaken Bucket Road

Scituate, MA 02066

Residence Address same

UNCLASSIFIED - CONFIDENTIAL

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Name of second joint inventor: Vincent P. Walker, Jr.

Inventor's signature: _____

Citizenship: United States Date: _____

Postal Address 20 Twinbrook Drive

Bridgewater, MA 02324

Residence Address Same

008120-62990560

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The Gillette Company 01.011.988

REF: LLC-0037-2001. La presente es Traducción Oficial de un documento presentado originalmente en inglés. Esta traducción es elaborada por Gabriel Rueda Chadid (Traductor Oficial).

ESTADOS UNIDOS DE AMERICA
A TODOS AQUELLOS QUE LLEGAREN A LEER EL CONTENIDO DEL
PRESENTE DOCUMENTO LES CERTIFICAMOS:
DEPARTAMENTO DE COMERCIO DE LOS ESTADOS UNIDOS

Oficina de Marcas y Patentes de los Estados Unidos

Abril 23, 2001

Se certifica que anexo se encuentra fiel copia de los Registros de la Oficina de Marcas y Patentes de los Estados Unidos correspondientes a los documentos de la patente solicitada y cuya identificación aparece más adelante, la cual cumplió con los requerimientos exigidos para que se otorgue una fecha de presentación de acuerdo con los dispuesto en la Sección 35 USC 111.

Número de Solicitud: 09/737.267

Fecha de presentación: Diciembre 14, 2000

Por autorización del

COMISIONADO DE MARCAS REGISTRADAS Y PATENTES

N. WILLIAMS

Funcionario Encargado de Certificaciones (Hay firma y sello)

[Handwritten signature]
GABRIEL RUEDA CHADID
TRADUCTOR OFICIAL
RESOLUCION 5996 DE NOV. 21-00
MINISTERIO DE JUSTICIA

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Expediente N . 8071-A

Box Patent Application
Assistant Commissioner for Patents
Washington, DC 20231

PRESENTACION DE NUEVA SOLICITUD

Apreciados Señores:

1. Les presentamos la solicitud de patente de Invención para su correspondiente radicación:

Michael J. Kwiecien

Vicent P. Walker, Jr.

Para el invento titulado: **Banda Auxiliar de Afeitada para Cartucho de Afeitadora**

Incluye: 11 Páginas de Especificaciones Técnicas

1 Página de Resumen

2 Páginas de Reivindicaciones

2 Hoja de Dibujos

2. Declaración sin otorgar

3. La citación de divulgación de información será presentada posteriormente.

4. El traspaso del invento a The Gillette Company se suministrará posteriormente.

5. Calculo de derechos:

(a) Derechos básicos de presentación (\$710) \$710

(b) Reivindicaciones superiores a 20 (9x\$18 cada una) \$162

(c) Reivindicaciones independientes superiores a 3

(\$80 cada una)

\$__

GABRIEL RUEDA CHADIN
TRADUCTOR OFICIAL
RESOLUCION 3996 DE NOV. 29-81
MINISTERIO DE JUSTICIA

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(d) Reivindicaciones dependientes múltiples (\$270) \$270

Derechos Totales \$ 1142

6. El Comisionado queda autorizado para cobrar el derecho de presentación de \$1142, más los derechos de que trat el numeral 37 CFR 1.16 y 1.17, para Consignarlos en la Cuenta No. 07-1350. Se adjunta duplicado de esta autorización.

Atentamente,

Firmado por: Stephan P. Williams

Registro No. 28,546

Representante Legal de los Solicitantes

(617) 421-7886

Patent Department

The Gillette Company

Prudential Tower Building

Boston, MA 02199

CERTIFICADO DE ENVIO POR CORREO EXPRESO (37 CFR 1.10)

Certifico que los siguientes documentos en relación con la solicitud mencionada fueron depositados en el servicio postal de los Estados Unidos, correo Expreso "Oficina Postal al Destinatario" en Washington, D.C. 20231.

Fecha: Diciembre 14, 2000 Firmado por: Stephan P. Williams

No. de Etiqueta de Correo Expreso: EL157819254US.

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REIVINDICACIONES

1. Un cartucho de afeitadora conformado por una hoja y una porción que hace contacto con la piel cercana a dicha hoja de afeitar, donde la mencionada porción que hace contacto con la piel incluyendo una banda auxiliar para la afeitada, sólida y en polímero tiene una superficie superior expuesta, y dicha banda auxiliar para la afeitada comprende con anterioridad al primer uso del cartucho, una primera porción expuesta a todo lo largo que contiene un polímero con lubricante hidrosoluble y una segunda porción adyacente expuesta que se extiende a todo lo largo y que contiene un polímero lubricante hidrosoluble, donde la primera porción comprende una cantidad superior del mencionado polímero lubricante hidrosoluble, en valor porcentual por peso, superiores a la segunda porción, y donde la primera porción se adapta a un desgaste mas rápido que la segunda porción durante la afeitada.

2. El cartucho para la afeitada descrito en la reivindicación 1 donde la mencionada primera porción comprende aproximadamente 0% a 30% por peso del polímero insoluble en agua y aproximadamente 65% a 95% aproximadamente de polímero hidrosoluble, y donde esta segunda porción comprende 10% a 40% aproximadamente del polímero insoluble en agua y 50% a 80% aproximadamente de polímero hidrosoluble.

3. El cartucho para la afeitada descrito en la reivindicación 1 donde la mencionada primera porción comprende del 10% al 25% aproximadamente por peso de polímero

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insoluble en agua y del 65% al 90% aproximadamente de óxido de polietileno, y donde la segunda porción mencionada comprende del 20% al 35% aproximadamente de polímero insoluble en agua y del 55% al 75% aproximadamente de óxido de polietileno.

4. El cartucho de la afeitadora descrito en la reivindicación 3 donde el mencionado óxido de polietileno comprende una mezcla de por lo menos un óxido de polietileno que tiene un peso molecular dentro del rango de 100.000 a 500.000 y por lo menos un óxido de polietileno que tiene un peso molecular dentro del rango de 3 millones a 8 millones.

5. El cartucho de la afeitadora descrito en la reivindicación 4 donde el mencionado polímero insoluble en agua comprende polietileno, polipropileno, polistireno, copolímero de butadien-estireno (polistireno de medio y alt impacto), poliacetal, copolímero de acrilonitrilo-butadien-estireno, copolímero de vinil acetato de etileno, poliuretan y sus mezclas.

6. El cartucho de la afeitadora descrito en las reivindicaciones 1 o 5 donde la mencionada primera porción tiene una superficie expuesta superior que comprende 55% a 85% aproximadamente del área de superficie de la superficie expuesta superior de la banda auxiliar para la afeitada.

7. El cartucho de la afeitadora descrito en la reivindicación 6 donde la mencionada primera porción tiene una superficie expuesta superior que comprende 60% a 80%

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aproximadamente del área de superficie de la superficie superior expuesta de la banda auxiliar de la afeitada.

8. El cartucho de la afeitadora descrito en la reivindicación 6 donde la mencionada segunda porción se extiende por lo menos parcialmente por debajo de la mencionada primera porción y le brinda soporte a la misma.

9. El cartucho de la afeitadora descrito en la reivindicación 8 donde el límite entre la mencionada segunda porción y la primera porción mencionada se aproxima a un plano inclinado.

10. El cartucho de la afeitadora descrito en la reivindicación 8 donde la segunda porción mencionada se extiende sustancialmente por debajo de la primera porción mencionada y le proporciona soporte.

11. El cartucho para la afeitadora descrito en la reivindicación 6 donde el límite entre la mencionada segunda porción y la primera porción es curvilínea o arqueada..

12. El cartucho para la afeitadora descrito en la reivindicación 8 donde la superficie máxima superior de la primera porción mencionada se extiende ligeramente por encima de la superficie máxima superior de la segunda porción mencionada.

13. El cartucho para la afeitadora descrito en la reivindicación 11 donde la superficie de grado máximo de la

mencionada primera porción se extiende ligeramente por encima de la superficie de grado máximo de la segunda porción mencionada.

14. El cartucho para la afeitadora descrito en la reivindicación 6 donde la mencionada primera porción contiene un colorante para que haga contraste con la segunda porción mencionada.

15. El cartucho para la afeitadora descrito en la reivindicación 14 donde la mencionada banda auxiliar de afeitada se orienta sobre el mencionado cartucho para la afeitadora, de tal manera que la primera porción mencionada quede hacia atrás de la segunda porción mencionada.

16. El cartucho para la afeitadora descrito en la reivindicación 6 donde la mencionada banda auxiliar para la afeitada incluye además una porción de conexión que se extiende por debajo de las mencionadas primera y segunda porciones.

17. El cartucho para la afeitadora descrito en la reivindicación 16 donde la mencionada porción de conexión tiene la misma composición que la segunda porción ya mencionada.

GABRIEL RUEDA CHADE
TRADUCTOR OFICIAL
RESOLUCION 1996 DE NOV. 29-81
MINISTERIO DE JUSTICIA

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Expediente No. B071-A

**DECLARACION Y PODER DE REPRESENTACION PARA
SOLICITUD DE PATENTE**

En mi condición de inventor, declaro lo siguiente:

Mi lugar de residencia, dirección postal y ciudadanía son las que aparecen al pie de mi firma. Considero que soy el inventor original, primero y único (si tan solo aparece en la lista un nombre) o bien soy el inventor original, primero y en conjunto (si aparecen varios nombres en la lista a continuación) del asunto que se reivindica y para el cual se solicita patente del invento titulado:

BANDA AUXILIAR DE AFEITADA PARA CARTUCHO DE AFEITADORA

Cuya especificación (indicar uno)

[X] Se presentó el día Diciembre 14 del 2000 como Solicitud con No. Serial _____

Declaro mediante el presente escrito que he revisado y comprendido el contenido de la especificación antes identificada, incluyendo sus reivindicaciones, modificadas por los actos señalados anteriormente.

Reconozco mi obligatoriedad de divulgar la información que sea material para la tramitación de la patente según la definición dada en el numeral 37 CFR 1.56.

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Mediante el presente escrito reivindico beneficios de prioridad en el exterior bajo el numeral 35 U.S.C. 119(a)-(d) o 365(b) de solicitud o solicitudes en el extranjero para patentes o certificados de inventor, o solicitud PCT (sin designar los Estados Unidos) cuyo nombre aparece a continuación con identificación de solicitudes en el exterior para patentes o certificado de inventor, o solicitud PCT (sin designar a los Estados Unidos) presentados por mí sobre el mismo tema con fecha de radicación anterior a la fecha de solicitud para la cual se reivindica prioridad.

<u>País</u>	<u>Solicitud No.</u>	<u>Fecha de Radicación</u>	<u>Prioridad Reivindicada</u>
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Reivindico el beneficio de acuerdo con lo especificado en el numeral 35 U.S.C. 119(e) de la solicitud o solicitudes provisionales en los Estados Unidos como se indica a continuación.

<u>No. Provisional de Solicitud</u>	<u>Fecha de Radicación</u>
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Reivindico el beneficio de acuerdo con lo expuesto en el Título 35, Código de los Estados Unidos, 120 o 365(c) de la solicitud o solicitudes de los Estados Unidos, o solicitud PCT (designando a los Estados Unidos) cuya lista aparece a continuación, en lo que respecta al asunto de cada uno de las reivindicaciones de la presente solicitud no divulgada en alguna solicitud anterior según lo ordena Título 35 U.S.C. 112(a), y reconozco mi obligatoriedad de dar a conocer información material según se define en el numeral 37 CFR 1.56 que resultase entre la fecha de presentación de la solicitud anterior y la fecha de presentación nacional

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Internacional PCT de la presente solicitud:

<u>Solicitud con No.Serial</u>	<u>Fecha de Presentación</u>	<u>Estado</u>
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Mediante el presente escrito nombro a los siguientes apoderados para que presenten esta solicitud y lleven a término todos los procedimientos ante la Oficina de Marcas y Patentes en relación con lo aquí tratado, como también para que radiquen y presenten solicitudes regionales, nacionales internacionales que reivindiquen prioridad a partir de esta solicitud.

Donal B. Tobin (Reg.No.25.711)	Chester Cekala (Reg.No.32.971)
Paul I. Douglas (Reg.No.31.244)	Stephan P. Williams (Reg.No.28.546)
Edward S. Podszus (Reg.No. 35.983)	David A. Howley (Reg.No.34.624)
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Dirigir las comunicaciones al Doctor Stephan P. Williams al (617) 421-7886 o a la siguiente dirección:

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Declaro que todas las manifestaciones hechas con base en mis conocimientos son ciertas y que las que se hacen con base en información y opiniones son de buena fe; por otra parte estas

GABRIEL RUEDA CRADO
TRADUCTOR OFICIAL
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declaraciones se hicieron con el conocimiento de que las declaraciones en falso y similares son penalizadas con multa o pena privativa de la libertad, o ambas, según lo dispuesto en el Numeral 1001 del Título 18 del Código de los Estados Unidos y que tales declaraciones en falso hechas voluntariamente pueden obstaculizar la validez de la solicitud o de la patente que se expida con base en tal información falsa.

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La anterior es Traducción Oficial de un documento presentado originalmente en inglés. Esta traducción fue realizada por GABRIEL RUEDA CHADID (Traductor Oficial). Resolución 5986 del Minjusticia, por lo cual estampo mi Sello y Firmo.

Bogotá D.C., Mayo 9 del 2001.

PA 308514



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

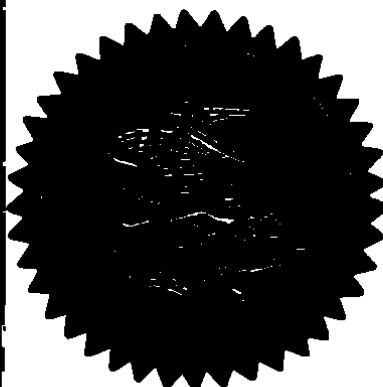
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April 23, 2001

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: 09/737,267

FILING DATE: December 14, 2000



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

N. Williams
N. WILLIAMS

Certifying Officer

12-15-00

A 74

10962 U.S. PTO
12/14/00

Docket No.: 8071-A

Box Patent Application
Assistant Commissioner for Patents
Washington, DC 20231

10925 U.S. PTO
09/13/267
12/14/00

NEW APPLICATION TRANSMITTAL

Honorable Sir:

1. Transmitted herewith for filing is the patent application of Inventor(s):

Michael J. Kwiecien
Vincent P. Walker, Jr.

For: Shaving Aid Strip For Razor Cartridge

Including:

<u>11</u>	Pages of Specification
<u>1</u>	Page of Abstract
<u>2</u>	Pages of Claims
<u>2</u>	Sheets of Drawing (formal)

2. An unexecuted Declaration is enclosed herewith.
3. An information disclosure citation will be submitted later.
4. An Assignment of the invention to The Gillette Company will be submitted later.

EXPRESS MAIL CERTIFICATE (37 CFR 1.10)

I hereby certify that this New Application Transmittal and the documents referred to as enclosed herewith are being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" on the date shown below in an envelope addressed to the Assistant Commissioner of Patents, Washington, D.C. 20231.

Dec. 14, 2000

Date

EL157819254 US

Express Mail Label No.

Stephen P. Williams

75

5. Fee calculation:

(a) Basic filing fee (\$710)	\$ 710
(b) Claims in excess of 20 (9 x \$18 each)	\$ 162
(c) Independent claims in excess of 3 (\$80 each)	\$ ____
(d) Multiple dependent claims (\$270)	\$ 270

Total Fees \$ 1142

6. The Commissioner is hereby authorized to charge the filing fee of \$ 1142, plus any fees under 37 CFR 1.16 and 1.17, to Deposit Account No. 07-1350. A duplicate copy of this authorization is enclosed.

Respectfully submitted,



Stephan P. Williams
Reg. No. 28,546
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Customer No. 000027199
Patent and Trademark Counsel
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27199

PATENT, TRADEMARK OFFICE

000027199-121400

SHAVING AID STRIP FOR RAZOR CARTRIDGE

This application is a continuation-in-part of application U.S. Ser. No. 09/506,629 filed on February 18, 2000.

Background of the Invention

This invention relates to a shaving aid strip (or composite) for a razor cartridge.

It is now well known that shaving comfort can be enhanced by affixing to a razor cartridge a shaving aid composite, also known as a lubricating strip, which continuously releases a shaving aid, typically a lubricant, during the shaving process. See, for example, U.S. 4,170,821 and GB 2,024,082. The shaving aid strip generally comprises a water-insoluble polymer matrix, typically polystyrene, and a water-soluble shaving aid, typically polyethylene oxide, which leaches out of the composite during shaving to enhance shave comfort.

Unfortunately, conventional shaving aid strips suffer from the disadvantage that they release an insufficient amount of the shaving aid, particularly after the first four or five shaves where release of the shaving aid may drop off to negligible quantities. In addition, the amount of shaving aid that may be included in the shaving aid strip may be limited because high levels of shaving aid are difficult to process and can adversely affect the structural integrity of the strip. Accordingly, recent efforts have been made to improve shaving aid strips so as to enhance and prolong release of the shaving aid.

Such efforts have resulted in improved shaving aid strips which include the following features: incorporation of a low molecular weight release enhancing agent, such as polyethylene glycol, into the matrix (US 5,113,585); the use of ethylene vinyl acetate copolymer as the matrix material (US 5,349,750); incorporation of a compatibilizer material such as polyethylene oxide-

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polypropylene oxide copolymer (e.g. Poloxamer 182) (US 5,454,164); incorporation of a water-swellaable polymer such as Salsorb 84, a cross-linked polyacrylic (US 5,626,154); coextrusion of a core comprising a water-leachable shaving aid within a sheath of water-insoluble polymer, wherein the sheath has a plurality of openings to facilitate release of the shaving aid (WO 96/13360, which corresponds to U.S. Ser. No. 08/497,194); and coextrusion of adjacent shaving aid portions (US 5,956,848). Also known are shaving aid strips which include an essential oil (US 5,095,619) or a non-volatile cooling agent (US 5,713,131), and injection molded strips which include a plasticizer (US 4,850,106). All of the
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Summary of the Invention

The present invention is directed to a razor cartridge with a solid polymeric shaving aid strip. The razor cartridge has a blade (one or more) and a skin-engaging portion in proximity to the blade. The skin-engaging portion includes a solid polymeric shaving aid strip having an upper exposed surface which contacts the skin during shaving. The shaving aid strip includes a first exposed lengthwise-extending portion containing a lubricious water-soluble polymer and an adjacent, second exposed lengthwise-extending portion containing a lubricious water-soluble polymer. The first portion contains a greater amount of the lubricious water-soluble polymer than the second portion, and the first portion is adapted to wear at a faster rate than the second portion during shaving. This construction enables the strip to release more of the lubricious water-soluble polymer for a longer time period (i.e., for more shaves) than conventional shaving aid strips.

The shaving aid strip is typically located at the rear (or cap) portion of the cartridge (i.e. behind the blade or blades), but may also be located at the front (or guard) portion of the cartridge (i.e., in front of the blade or blades), or a shaving aid strip may be placed at both positions on the cartridge. The razor cartridge is

generally affixed to a handle for use in shaving. The razor cartridge may be designed to be removably affixed to a handle in the case of razor systems in which the handle is reused and the cartridge is disposed of after one or more uses. Or the razor cartridge may be permanently affixed to a handle (or integral with the handle) in the case of disposable razors in which the handle and cartridge are disposed of together as a unit after one or more uses. The term razor cartridge is thus intended to apply to both types of cartridge.

Description of the Drawings

Fig. 1 is a perspective view of a razor cartridge which includes a shaving aid strip of the present invention.

Fig. 2 is a sectional view taken along line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the shaving aid strip included in the razor cartridge depicted in Fig. 1.

Fig. 4 is a side elevation view of the shaving aid strip of Fig. 3.

Fig. 5 is a sectional view of a razor cartridge identical to Fig. 2, but depicting a second embodiment of the shaving aid strip of the present invention.

Fig. 6 is a perspective view of the shaving aid strip depicted in Fig. 5.

Fig. 7 is a side elevation view of the shaving aid strip of Fig. 6.

Detailed Description of the Invention

Referring to Figs. 1, 2 and 5, the razor cartridge 14 includes housing 16, which carries three blades 18, a finned elastomeric guard 20, and a solid polymeric shaving aid strip 22 (or 22') located on a skin-engaging portion (in this case the cap) of the cartridge. The shaving aid strip (or composite) is locked in an opening in the rear of the cartridge and includes a lubricious water-soluble polymer shaving aid that is released by the strip during shaving to improve shave attributes. While shown at the rear portion of this particular razor cartridge, the

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shaving aid strip may be located at any skin-engaging portion of the cartridge and may be fabricated in any size or shape deemed appropriate. For example, the strip can be incorporated into razor cartridges such as the Mach 3®, Sensor Excel®, Atra Plus® and Custom Plus® razors sold by The Gillette Company, as well as in other commercial razor cartridges.

Referring to Figs. 3 and 4, shaving aid strip 22 includes a first exposed lengthwise-extending portion 24 and an adjacent, second exposed lengthwise-extending portion 26, each portion being approximately in the shape of a rounded lobe with a lengthwise-extending exposed surface. Second portion 26 preferably extends at least partially under first portion 24 and provides support for first portion 24. The boundary between first portion 24 and second portion 26 may approximate an inclined plane as shown. Strip 22 also includes connecting portion 28, which extends below portions 24 and 26 and also optionally serves to lock the strip into a mating receiving portion of the cartridge. Second portion 26 and connecting portion 28 preferably have the same composition. The upper surface of first portion 24 preferably comprises about 55% to about 85%, more preferably about 60% to 80%, of the surface area of the upper surface of the shaving aid strip. In addition, the uppermost surface of first portion 24 preferably extends slightly above the uppermost surface of second portion 26. It is also preferred that first portion 24 comprises a greater amount (in percent by weight) of shaving aid than second portion 26. The shaving aid strip typically may be about 2.5 cm to about 3.7 cm in length, and about 0.15 cm to about 0.35 cm in width.

A second embodiment of the shaving aid strip of the present invention is depicted in Figs. 6 and 7. In this embodiment, like the one previously described, shaving aid strip 22' includes a first exposed lengthwise-extending portion 24' and an adjacent, second exposed lengthwise-extending portion 26', each portion being approximately in the shape of a rounded lobe with a lengthwise-extending exposed surface. Second portion 26' extends substantially under first portion 24' and provides support for first portion 24'. The boundary between first portion 24' and

second portion 26' is curvilinear (approximately S-shaped) as shown. Of course, the boundary may also be arcuate, either convex or concave. Strip 22' also includes connecting portion 28', which extends below portions 24' and 26' and also optionally serves to lock the strip into a mating receiving portion of the cartridge.

5 Second portion 26' and connecting portion 28' preferably have the same composition. The upper surface of first portion 24' preferably comprises about 55% to about 85%, more preferably about 60% to 80%, of the surface area of the upper surface of the shaving aid strip. In addition, the uppermost surface of first portion 24' preferably extends slightly above the uppermost surface of second portion 26'.

10 It is also preferred that first portion 24' comprises a greater amount (in percent by weight) of shaving aid than second portion 26'. The shaving aid strip typically may be about 2.5 cm to about 3.7 cm in length, and about 0.15 cm to about 0.35 cm in width.

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15 A shaving aid strip constructed as described above may be inserted into a razor cartridge with first portion 24 (or 24') facing forward (i.e., in the direction of shaving) as shown in Fig. 2. Alternatively, the strip may be inserted with first portion 24 (or 24') facing rearward as shown in Fig. 5. Since first portion 24 (or 24') contains a greater proportion of shaving aid than the rest of the strip, and optionally contains other ingredients that may contribute to its faster wear characteristics, it will tend to wear away slightly faster than second portion 26 (or 26'). This faster wear tends to present a fresh surface of shaving aid, which is present in high proportion in that portion, and thus provides more lubrication over a longer period of time. At the same time, portion 26 (or 26') wears more slowly and maintains the proper shaving geometry.

25 Each portion of the shaving aid strip will include a lubricious water-soluble polymer as the main shaving aid and, optionally, a water-insoluble polymer to serve as a matrix in which the water-soluble polymer is dispersed. Preferably, the first portion will comprise about 0% to about 30%, more preferably about 10% to about 25%, by weight water-insoluble polymer, and about 65% to about 95%, more

preferably about 65% to about 90%, lubricious water-soluble polymer. The second portion will preferably comprise about 10% to about 40%, more preferably about 20% to about 35%, water-insoluble polymer, and about 50% to about 80%, more preferably about 55% to about 75%, lubricious water-soluble polymer.

5 Typical lubricious water-soluble polymers include polyethylene oxide, polyvinyl pyrrolidone, polyacrylamide, modified hydroxyalkyl cellulose, polyvinyl imidazoline, polyvinyl alcohol, polysulfone and polyhydroxyethylmethacrylate. The preferred lubricious water-soluble polymer is polyethylene oxide. The more preferred polyethylene oxides generally are known as POLYOX (available from
10 Union Carbide Corporation) or ALKOX (available from Meisei Chemical Works, Kyoto, Japan). These polyethylene oxides will preferably have molecular weights of about 100,000 to 8 million daltons, most preferably about 300,000 to 5 million daltons. It is preferred to use a blend of polyethylene oxides, typically a blend having at least one polyethylene oxide having a molecular weight in the range of
15 100,000 to 500,000 and at least one polyethylene oxide having a molecular weight in the range of 3 million to 8 million. The most preferred polyethylene oxide comprises a blend of about 40% to 80% by weight of polyethylene oxide having an average molecular weight of about 5 million (e.g. POLYOX COAGULANT) and about 60% to 20% of polyethylene oxide having an average molecular weight of about 300,000 (e.g.
20 POLYOX WSR-N-750). A 60:40 blend of these two polyethylene oxides (5 million:300,000) is especially preferred.

Suitable water-insoluble polymers which can be used include polyethylene, polypropylene, polystyrene, butadiene-styrene copolymer (e.g. medium and high impact polystyrene), polyacetal, acrylonitrile-butadiene-styrene copolymer,
25 ethylene vinyl acetate copolymer, polyurethane and blends thereof such as polypropylene/polystyrene blend or polystyrene/impact polystyrene blend. The more preferred water-insoluble polymer is polystyrene, preferably a general purpose polystyrene, such as NOVA C2345A, or a high impact polystyrene (i.e. polystyrene-butadiene), such as BASF 495F KG21. The strip or any portion

should contain a sufficient quantity of water-insoluble polymer to provide adequate mechanical strength, both during production and use.

The first portion of the shaving aid strip will also preferably include a material which allows it to wear more quickly than the second portion and/or which facilitates the inclusion of relatively high levels of water-soluble polymer. One such material is polycaprolactone, as described in copending application U.S. Ser. No. 09/506,628 (Docket No. 8070) filed on February 18, 2000. Preferably, the polycaprolactone will be included in an amount of about 1% to about 10% by weight. Polycaprolactones are available from Union Carbide Corporation under the name TONE® polymers (e.g., P-737, P-767, P-787, and polyol 1270). Preferably, the polycaprolactone will have a molecular weight between about 1000 and about 80,000 daltons, more preferably between about 30,000 and 60,000 daltons, and most preferably about 50,000 daltons.

The shaving aid strip, or any portion, also may contain other conventional shaving aid ingredients, such as low molecular weight water-soluble release enhancing agents such as polyethylene glycol (MW<10,000, e.g., 1-10% by weight PEG-100), water-swellaible release enhancing agents such as cross-linked polyacrylics (e.g., 2-7% by weight), colorants, antioxidants, preservatives, botanical oils, vitamin E, aloe, cooling agents, essential oils, beard softeners, astringents, medicinal agents, etc. Portions that contain a colorant can be designed to release the colorant (e.g., by leaching or abrasion), and thereby cause the strip to change color during shaving. A portion may contain, for example, between about 0.1% and about 5.0% (preferably between about 0.5% and 3%) colorant by weight. Preferably, the first portion contains a colorant so as to contrast with the second portion, whereby wear of the first portion during shaving provides a visual indication to the user that the shaving aid strip and/or the razor cartridge has reached the end of its effective life or the end of its optimum performance.

Shaving aid strips of the present invention may be fabricated by any appropriate method, including injection molding and extrusion, the latter being

preferred. All of the components of the strip are blended prior to molding or extrusion. For best results, it is preferred that the components are dry.

5 The blended components may be extruded through a Haake System 90, 3/4 inch diameter extruder with a barrel pressure of about 1000-2000 psi, a rotor speed of about 10 to 50 rpm, and a temperature of about 150°-185°C and a die temperature of about 170°-185°C. Alternatively, a 1 1/4 inch single screw extruder may be employed with a processing temperature of 175°-200°C, preferably 185°-190°C, a screw speed of 20 to 50 rpm, preferably 25 to 35 rpm, and an extrusion pressure of 1800 to 5000 psi, preferably 2000 to 3500 psi. The extruded strip is air cooled to about 25°C. To injection mold the strips it is preferred to first extrude the powder blend into pellets. This can be done on a 1 1/4 or 1 1/2 inch single screw extruder at a temperature of 120°-180°C, preferably 140°-150°C, with a screw speed of 20 to 100 rpm, preferably 45 to 70 rpm. The pellets are then molded in either a single material molding or multi-material molding machine, which may be single cavity or multi-cavity, optionally equipped with a hotrunner system. The process temperature can be from 165° to 250°C, preferably from 180° to 225°C. The injection pressure should be sufficient to fill the part completely without flashing. Depending on the cavity size, configuration and quantity, the injection pressure can range from 300 to 2500 psi. The cycle time is dependent on the same parameters and can range from 3 to 30 seconds, with the optimum generally being about 6 to 15 seconds.

The invention may be further described by the following examples in which all parts and percentages are by weight.

Examples 1 to 4

25 Shaving aid strips with a cross-section like that of strip 22 shown in Fig. 4 are fabricated from the blends of components indicated below by coextruding the blends in the following manner. The components for each portion (portion 24 and

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portion 26, 28) may be supplied by two separate melting/pumping (plastics extruders), each consisting of a heated barrel, a pumping screw, a motor drive for that screw and a control system for the entire system. The materials are fed in powder form into their respective extruders (e.g., single screw type manufactured by Davis Standard). The extruders can operate at the same or different speeds and the same or different temperatures. The barrel temperature for each extruder can be ramped in three zones from 165°C to 190°C; a fourth heater at the die/barrel connection can also be set to 190°C, and a fifth heater at the die can range from 190°C to 205°C. Via rugged weldments the molten streams of the components are brought together to form the strip. Portion 24 can be precisely located on portion 26, 28 through accurately machined pathways in the die head. Because they have different compositions, the two molten materials are brought together at the last possible moment before exiting the die. Both materials exit the die head in a size and shape approximating that of the final product. The final dimensions are achieved using a series of forming rollers as the extrudate is cooled. The strip is typically extruded at a rate of about 50 feet per minute. The combined molten materials are drawn from the die head into the sizing/cooling device at a constant speed such that its cross section is always constant. Under a bath of cool dry air the molten material is cooled until no longer pliable. Once cooled, the strips can be cut to the appropriate length and attached to razor cartridges like cartridge 14.

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Component		Weight Percent			
		Example 1		Example 2	
		Portion 26.28	Portion 24	Portion 26.28	Portion 24
5	Polyethylene oxide ¹	60.0	75.0	60.0	70.0
	Polystyrene ²		10.2		15.2
	H. I. Polystyrene ³	32.5		32.5	
	PEG-100	5.0	5.0	5.0	5.0
	White Color ⁴ /Preserv.	1.5		1.5	
10	Blue Color ⁴ /Preserv.		4.0		4.0
	Vitamin E		0.8		0.8
	Polycaprolactone ⁵	1.0	5.0	1.0	5.0

Component		Weight Percent			
		Example 3		Example 4	
		Portion 26.28	Portion 24	Portion 26.28	Portion 24
15	Polyethylene oxide ¹	58.0	77.0	60.0	80.0
	Polystyrene ²		14.0		8.2
	H. I. Polystyrene ³	35.5		33.5	
	PEG-100	5.0	5.0	5.0	
	White Color ⁴ /Preserv.	1.5		1.5	
20	Blue Color ⁴ /Preserv.		4.0		4.0
	Vitamin E				0.8
	Polycaprolactone ⁵				7.0

¹ 60:40 blend of Coagulant:WSR-N-750 (mol. wt. 5 million:300,000)
² NOVA C2945A
³ BASF 495F KG21
⁴ Color concentrate contains 65-95% polystyrene
⁵ Tone® P-767, P-737, polyol 1270, or P-787 (Union Carbide)

Examples 5 and 6

Shaving aid strips with a cross-section like that of strip 22' shown in Fig. 7 are fabricated from the blends of components indicated below by coextruding the

blends in the manner described above with respect to Examples 1 to 4. Once cooled, the strips are cut to the appropriate length and attached to razor cartridges like cartridge 14.

Component		Weight Percent			
5		Example 5		Example 6	
		Portion 26',28'	Portion 24'	Portion 26',28'	Portion 24'
	Polyethylene oxide ¹	63.0	69.0	63.0	74.0
	Polystyrene ²		16.0		11.0
	H. I. Polystyrene ³	30.5		30.5	
10	PEG-100	5.0	5.0	5.0	5.0
	White Color ⁴ /Preserv.	1.5		1.5	
	Blue Color ⁴ /Preserv.		4.2		4.2
	Vitamin E		0.8		0.8
	Polycaprolactone ⁵		5.0		5.0

¹ 60:40 blend of Coagulant:WSR-N-750 (mol. wt. 5 million:300,000)
² NOVA C2345A
³ BASF 495F KG21
⁴ Color concentrate contains 65-95% polystyrene
⁵ Tone® P-767 (Union Carbide)

While particular embodiments of the invention have been shown and described for illustrative purposes, it will be apparent to those skilled in the art that various changes and modifications may be made without departing from the spirit and scope of the invention, which is defined by the claims which follow.

What is claimed is:

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Claims

1. A razor cartridge comprising a blade and a skin-engaging portion in proximity to said blade, said skin-engaging portion including a solid polymeric shaving aid strip having an upper exposed surface, said shaving aid strip comprising, prior to first use of said cartridge, a first exposed lengthwise-extending portion containing a lubricious water-soluble polymer and an adjacent, second exposed lengthwise-extending portion containing a lubricious water-soluble polymer, wherein said first portion comprises a greater amount of said lubricious water-soluble polymer, in percent by weight, than said second portion, and wherein said first portion is adapted to wear at a faster rate than said second portion during shaving.
2. The razor cartridge of claim 1 wherein said first portion comprises about 0% to about 30% by weight water-insoluble polymer and about 65% to about 95% water-soluble polymer, and said second portion comprises about 10% to about 40% water-insoluble polymer and about 50% to about 80% water-soluble polymer.
3. The razor cartridge of claim 1 wherein said first portion comprises about 10% to about 25% by weight water-insoluble polymer and about 65% to about 90% polyethylene oxide, and said second portion comprises about 20% to about 35% water-insoluble polymer and about 55% to about 75% polyethylene oxide.
4. The razor cartridge of claim 3 wherein said polyethylene oxide comprises a blend of at least one polyethylene oxide having a molecular weight in the range of 100,000 to 500,000 and at least one polyethylene oxide having a molecular weight in the range of 3 million to 8 million.
5. The razor cartridge of claim 4 wherein said water-insoluble polymer comprises polyethylene, polypropylene, polystyrene, butadiene-styrene copolymer (medium and high impact polystyrene), polyacetal, acrylonitrile-butadiene-styrene copolymer, ethylene vinyl acetate copolymer, polyurethane and blends thereof.
6. The razor cartridge of claim 1 or 5 wherein said first portion has an upper exposed surface that comprises about 55% to about 85% of the surface area of the upper exposed surface of the shaving aid strip.
7. The razor cartridge of claim 6 wherein said first portion has an upper exposed surface that comprises about 60% to about 80% of the surface area of the upper exposed surface of the shaving aid strip.

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8. The razor cartridge of claim 6 wherein said second portion extends at least partially under said first portion and provides support therefor.
9. The razor cartridge of claim 8 wherein the boundary between said second portion and said first portion approximates an inclined plane.
10. The razor cartridge of claim 6 wherein said second portion extends substantially under said first portion and provides support therefor.
11. The razor cartridge of claim 10 wherein the boundary between said second portion and said first portion is curvilinear or arcuate.
12. The razor cartridge of claim 6 wherein the uppermost surface of said first portion extends slightly above the uppermost surface of said second portion.
13. The razor cartridge of claim 11 wherein the uppermost surface of said first portion extends slightly above the uppermost surface of said second portion.
14. The razor cartridge of claim 6 wherein said first portion contains a colorant so as to contrast with said second portion.
15. The razor cartridge of claim 14 wherein said shaving aid strip is oriented on said razor cartridge such that said first portion is rearward of said second portion.
16. The razor cartridge of claim 6 wherein said shaving aid strip also includes a connecting portion which extends below said first and second portions.
17. The razor cartridge of claim 16 wherein said connecting portion has the same composition as said second portion.

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Abstract of the Disclosure

The present invention is directed to a razor cartridge with a solid polymeric shaving aid strip. The razor cartridge has a blade (one or more) and a skin-engaging portion in proximity to the blade. The skin-engaging portion includes a solid polymeric shaving aid strip having an upper exposed surface which contacts the skin during shaving. The shaving aid strip includes a first exposed lengthwise-extending portion containing a lubricious water-soluble polymer and an adjacent, second exposed lengthwise-extending portion containing a lubricious water-soluble polymer. The first portion contains a greater amount of the lubricious water-soluble polymer than the second portion, and the first portion is adapted to wear at a faster rate than the second portion during shaving. This construction enables the strip to release more of the lubricious water-soluble polymer for a longer time period (i.e., for more shaves) than conventional shaving aid strips.

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COMBINED DECLARATION AND POWER OF ATTORNEY

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 the subject matter which is claimed and for which a patent is sought on the invention entitled:

Shaving Aid Strip For Razor Cartridge

the specification of which

is attached hereto.
☒ was filed on December 14, 2000 as Application
Serial No.
☐ was filed as PCT International Application
No. _____ on _____

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 information which I know is material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate or PCT application(s) (not designating U.S.) listed below and have also identified below any foreign application(s) for patent or inventor's certificate or PCT application(s) (not designating U.S.) filed by me on the same subject matter having a filing date before that of the application on which priority is claimed:

<u>Country</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Priority Claimed</u>
----------------	------------------------	--------------------	-------------------------

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

<u>Provisional Application Number</u>	<u>Filing Date</u>
---------------------------------------	--------------------

91

I hereby claim the benefit under 35 U.S.C. §120 or §365(c) of any United States application(s) or PCT application (designating U.S.) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior application(s) in the manner provided by 35 U.S.C. §112(a), I acknowledge the duty to disclose material information as defined in 37 C.F.R. §1.56 which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
-------------------------------	--------------------	---------------

I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and to file and prosecute national, international, and regional applications which claim priority from this application:

Donal B. Tobin (Reg. No. 25,711)	Chester Cekala (Reg. No. 32,971)
Paul I. Douglas (Reg. No. 31,244)	Stephan P. Williams (Reg. No. 28,546)
Edward S. Podszus (Reg. No. 35,983)	David A. Howley (Reg. No. 34,624)
Thomas G. Krivulka (Reg. No. 38,525)	Joseph H. Handelman (Reg. No. 26,179)
Charles P. Boukus, Jr. (Reg. No. 24,754)	Peter D. Galloway (Reg. No. 27,885)

Direct communications to Stephan P. Williams at (617) 421-7886 or address to:

Customer No. 000027199
Patent and Trademark Counsel
The Gillette Company
Prudential Tower Bldg. - 39th Floor
Boston, MA 02199

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 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.

Name of first or sole inventor:	<u>Michael J. Kwiecien</u>
Inventor's signature:	_____
Citizenship: <u>United States</u>	Date: _____
Postal Address	<u>148 Old Oaken Bucket Road</u>
	<u>Scituate, MA 02066</u>
Residence Address	<u>same</u>

09737267-121400

~~96~~
92

Name of second joint inventor: Vincent P. Walker, Jr.

Inventor's signature: _____

Citizenship: United States Date: _____

Postal Address 20 Twinbrook Drive

Bridgewater, MA 02324

Residence Address Same

09737267-121400

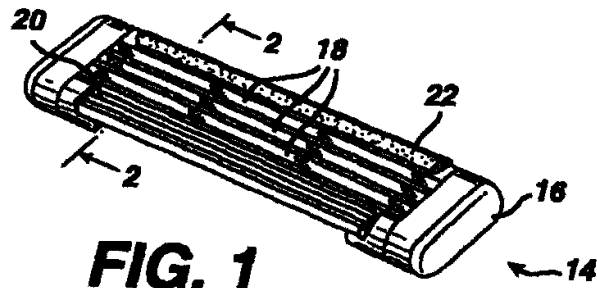


FIG. 1

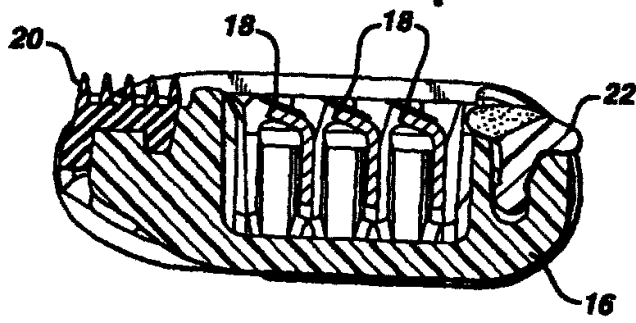


FIG. 2

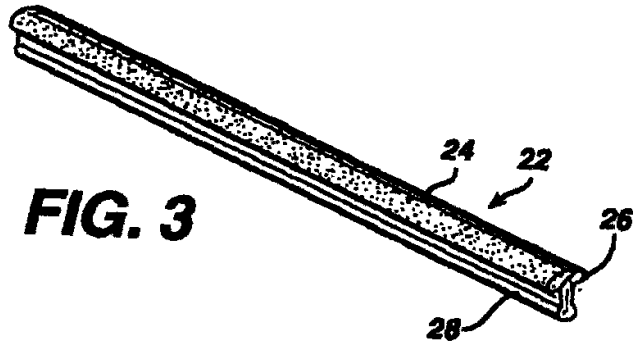


FIG. 3

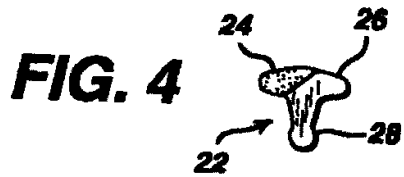


FIG. 4

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FIG. 5

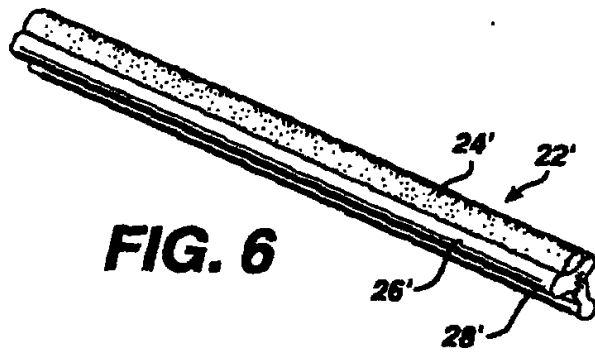
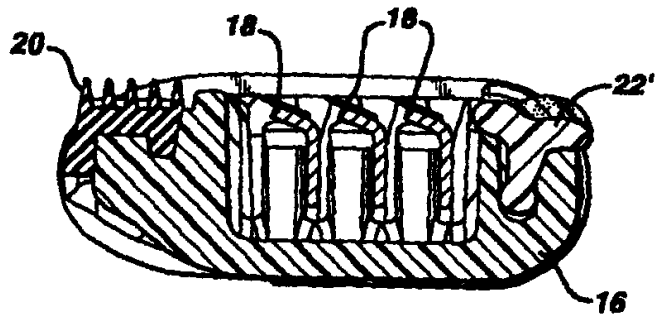


FIG. 6

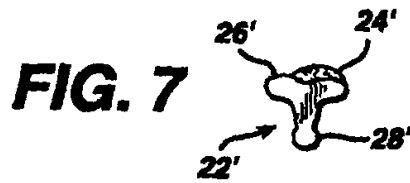


FIG. 7

09737267-121400

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**TRADUCCION DE UN DOCUMENTO PRESENTADO EN INGLES. TRASPASO
INVENCION BANDA AUXILIAR DE AFEITADA PARA CARTUCHO DE
AFEITADORA A FAVOR DE THE GILLETTE COMPANY.**

**DEPARTAMENTO DE COMERCIO DE LOS ESTADOS UNIDOS
Oficina de Patentes y Marcas
Subsecretario y Comisionado de Patentes y Marcas
Washington, D.C. 20231**

Agosto 04, 2000

**THE GILLETTE COMPANY
STEPHAN P. WILLIAMS
PRUDENTIAL TOWER BUILDING
39TH FLOOR
BOSTON, MA 02199**

**OFICINA DE PATENTES Y MARCAS DE LOS ESTADOS UNIDOS
NOTIFICACION DE REGISTRO DE DOCUMENTO DE TRASPASO**

**EL DOCUMENTO ADJUNTO HA SIDO REGISTRADO POR LA DIVISION DE
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UNIDOS. UNA COPIA COMPLETA MICROFILMADA ESTA A DISPOSICION EN
LA SALA DE BUSQUEDA DE TRASPASOS EN EL NUMERO DE CARRETE Y
MARCO A QUE SE HACE REFERENCIA MAS ABAJO.**


**ESTADO DE CALIFICACION DE DOCUMENTOS
TRADUCCION OFICIAL
DEB. NIXON/CLIC 2200**

107
96

FAVOR REVISAR TODA LA INFORMACION CONTENIDA EN ESTA NOTIFICACION. LA INFORMACION CONTENIDA EN ESTA NOTIFICACION DE REGISTRO REFLEJA LOS DATOS PRESENTES EN EL SISTEMA DE TRASPASO DE PATENTES Y MARCAS. SI ENCUENTRA ALGUN ERROR O TIENE PREGUNTAS EN RELACION CON ESTA NOTIFICACION, PUEDE CONTACTAR AL EMPLEADO CUYO NOMBRE APARECE EN ESTA NOTIFICACION AL 703-308-9723. FAVOR ENVIAR SOLICITUD DE CORRECCION A: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

FECHA DE REGISTRO: 05/23/2000

CARRETE/MARCO: 010 840/0334

NUMERO DE PAGINAS: 3

RESUMEN: TRASPASO DE INTERES DEL CEDENTE (VER DOCUMENTO PARA LOS DETALLES)

CEDENTE:

KWIECIEN, MICHAEL J.

FECHA DOC: 03/10/2000

CEDENTE:

WALKER, VINCENT P. JR.

FECHA DOC: 03/14/2000

CESIONARIO:

GILLETTE COMPANY, THE
(CORPORACION DE DELAWARE)
PRUDENTIAL TOWER BUILDING
BOSTON, MASSACHUSETTS 02199

SERIE NUMERO: 09506629

FECHA REGISTRO: 02/18/2000

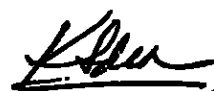
PATENTE NUMERO:

FECHA EXPEDICION: Agosto, 2000

Sello: RECIBIDO

Agosto, 2000

Oficina Asesor de Patentes


ATA SALONADA DE ASESOR
TRADUCCION DE A.
DAS. MEXICANA L.L.C.

PEARLENE FOSTER, PARALEGAL
DIVISION DE TRASPASOS
OFICINA DE REGISTROS PUBLICOS


NATIA SOLARZOLA DE AYRES
TRADUCTORA OFICIAL
RES. DIRECTORIAL 208

06 -14 -2000

Caso de Abogado No: 8071

REGISTRO

101380011

Traspasos de Caja
Comisionado Asistente de Patentes
Washington, D.C. 20231

Favor registrar el documento original anexo

1. Nombre de la parte(s) que traspasa(n):

Michael J. Kwiecien
148 Old Oaken Bucket Road
Scituate, Mass. 02066 U.S.A.

Vincent P. Walker, Jr.
20 Twinbrook Drive
Bridgewater, Mass. 02324 U.S.A.

2. Nombre y dirección de la parte(s) que recibe(n):

THE GILLETTE COMPANY
(una Corporación de Delaware)
Prudential Tower Building
Boston, Massachusetts 02199
U.S.A.

3. Naturaleza del traspaso:


PATIA SALAMONCH DE ARRIAS
TRANSPORTES DE AL
BAG. MEXICANA 111

102
99

☒ Traspaso

Fecha de firma: Marzo 10, 2000; Marzo 14, 2000

4. Número(s) de solicitud o número(s) de patente: (en blanco)

Si este documento se registra junto con una nueva solicitud, la fecha de
firma de la solicitud es: (en blanco)

A. Solicitud de patente No.(s)

09/506,629

B. Patente No.(s): (en blanco)

5. Nombre y dirección de la parte a quien debe dirigirse la correspondencia
concerniente al documento:

Stephan P. Williams Esq.
THE GILLETTE COMPANY
Prudential Tower Building
39th Floor
Boston, Massachusetts 02199
617-421-7886

6. Número total de solicitudes y patentes incluidas: 1

7. Total derechos (37 CFR 3.41) \$ 40.00

☒ Autorizado para cargar a cuenta de depósito


LILIA SALAZAR DE ARANDA
INTERDUCTORA (37 CFR 3.1)
REC. MIN. JUSTICIA 1234

103
100

8. Número de cuenta de depósito: 07-1350

Si los derechos anteriores se cargan a la Cuenta de Depósito, se anexa una copia duplicado de esta carátula. Favor aplicar cualquier cargo o crédito adicional a nuestra Cuenta de Depósito Número 07-1350.

9. Declaración y firma

A mi leal saber y entender, la anterior información es verdadera y correcta y cualquier copia anexa es copia fiel del documento original.

Nombre de la persona que firma: Stephen P. Williams (Reg. No. 28,546)

Firma: (ilegible)

Fecha: 18 mayo, 2000

Número total de páginas incluyendo carátula, anexos y documento: 3


ANITA GONZALEZ DE GARCIA
TRABAJADORA SOCIAL
DIA. MEXICANA 2000

TRASPASO

En consideración del pago de un dólar (\$1.00) y de otras consideraciones valederas, cuyo recibo se reconoce por el presente, los Cedentes que se mencionan a continuación

Michael J. Kwiecien
148 Old Oaken Bucket Road
Scituate, Mass. 02066 U.S.A.

Vincent P. Walker, Jr.
20 Twinbrook Drive
Bridgewater, Mass. 02324 U.S.A.

Por el presente vendemos, traspasamos y transferimos al Cesionario que aparece a continuación

THE GILLETTE COMPANY
(una corporación de Delaware)
Prudential Tower Building
Boston, Massachusetts 02199
USA


ESTA DOCUMENTACIÓN HA SIDO
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AL REGISTRO DE PATENTES Y
MARCAS DE LOS ESTADOS UNIDOS

a sus sucesores y cesionarios, todo los derechos no divididos, títulos e intereses para los Estados Unidos de América y todos los demás países en y para la invención(es) descritas en la Solicitud de Patente de Los Estados Unidos Serie

Número 09/506,629 (caso No 8071), registrada en Febrero 18, 2000, titulada **Banda Auxiliar de Afeitada para Cartucho de Afeitadora**, incluyendo el presente traspaso dicha solicitud y cualquier continuación, división, sustituto, solicitud nacional, internacional, o regional en cualquier país que se derive o reclame prioridad de la misma, y cualquier registro de patente o de diseño otorgada en los Estados Unidos y todos los demás países, y autorizamos al Cesionario a registrar solicitudes de patente y registros de diseño sobre dicha invención(es) en todo el mundo en su propio nombre y a reivindicar prioridad de la mencionada Solicitud de Patente de los Estados Unidos bajo cualquier tratado o convención aplicable.

Los Cesionarios por el presente acuerdan que no se ha hecho ni se hará o celebrará ningún traspaso, venta, acuerdo, o embargo que pueda contravenir el presente traspaso y venta. Los Cedentes convienen además suministrar al Cesionario, a solicitud, todos los hechos y documentos pertinentes relacionados con dicha invención(es), solicitudes, patentes y registros de diseño de que puedan tener conocimiento y a que puedan acceder los Cedentes y a firmar y entregar oportunamente al Cesionario o a su representante legal todos los documentos, instrumentos o declaraciones juramentadas requeridas para registrar solicitudes de patente o registros de diseño sobre dicha invención(es) en todo el mundo, a obtener, mantener y hacer cumplir dichas solicitudes, patentes o registros de diseño, y a transferir la propiedad legal de dichas solicitudes, patentes o registros al Cesionario.

Los Cedentes autorizan a sus representantes legales o al representante legal del Cesionario a insertar el número de solicitud y la fecha de registro en los espacios en blanco más arriba si dicha información no está disponible en el momento de la firma.


ANITA SANCHEZ DE ALBA
TRANSECTORA OFICIAL
CAS. MINISTROS 2000

Firmado: **Michael J. Kwiecien**
Boston, Condado de Suffolk
Massachusetts

El 10 de marzo, 2000, compareció personalmente ante mi, Michael J. Kwiecien, quien firmó este documento de traspaso como un acto suyo libre y voluntario.

Firmado: **CARREN L. MUNDEE**
Sello: **CARREN L. MUNDEE**
Notario Público, Massachusetts
Mi comisión expira Noviembre 9, 2001.

Firmado: **Vincent P. Walker, Jr.**
Boston, Condado de Suffolk
Massachusetts

El 14 de marzo, 2000, compareció personalmente ante mi, Vincent P. Walker, Jr., quien firmó este documento de traspaso como un acto suyo libre y voluntario.

Firmado: **CARREN L. MUNDEE**
Sello: **CARREN L. MUNDEE**
Notario Público, Massachusetts
Mi comisión expira Noviembre 9, 2001.


EXHAUSTIVA ENCARGADA DE ASESORAR
TRANSECTORA OFICIAL
DEL MINISTRO DE LA JUSTICIA

Aceptado por el Cesionario

The Gillette Company

Por: **Donal B. Tobin**
Asesor de Patentes & Marcas

El 14 de Marzo, 2000, compareció personalmente ante mí Donal B. Tobin, a quien conozco como el Asesor de Patentes y Marcas de The Gillette Company, con plena autoridad para aceptar traspasos en su nombre, quien firmó este instrumento de traspaso como un acto voluntario de The Gillette Company.

Boston, Condado de Suffolk, Massachusetts

Firmado: **CARREN L. MUNDEE**

Sello: **CARREN L. MUNDEE**

Notario Público, Massachusetts

Mi comisión expira Noviembre 9, 2001


CARREN L. MUNDEE
NOTARIO PÚBLICO
REB. MINISTROS DE JUSTICIA

ESTADOS UNIDOS DE AMERICA

CONDADO DE SUFFOLK

SS

ESTADO DE MASSACHUSETTS

El 5 de Febrero, 2001, por el presente testifico que el documento anexo es copia fiel y verdadera del documento original de traspaso de la oficina de patentes y marcas de los Estados Unidos.

Firmado: Jill Grant
Notario Público
Mi comisión expira
Noviembre 20, 2003

Sello en altorrelieve del Notario público de Massachusetts, Jill Grant.


JILL GRANT
TRANSLADORA DE
RECORDS

ESTAD DE MASSACHUSETTS

William Francis Galvin
Secretario de Estado

APOSTILLA

(Convención de La Haya del 5 de Octubre 1961)

1. País: Estados Unidos de América

Este documento público

2. ha sido firmado por Jill Grant

3. actuando en su condición de Notario Público

4. en el estado de Massachusetts, cuya comisión expira en
Noviembre 20, 2003

Certificado

5. En Boston, Massachusetts

6. El 22 de Febrero, 2001

7. por el Secretario del Estado

8. 173638

9. firmado bajo el Gran Sello del Estado

10. Firma

31 MAR 21
Cuya firma aparece en el
documento de sepeña
las funciones indicadas

MINISTERIO DE RELACIONES
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2001 MAR 12
JEFE DE LEGALIZACIONES
SANTAE DE BOGOTA D.C.

NO SE ASUME
RESPONSABILIDAD DEL TEXTO

ANTH GALVANA DE 2000
SECRETARIA DE ESTADO
173638

107

Firmado: William Francis Galvin
Secretario del Estado

Sello en altorrelieve del Estado de Massachusetts.


JAMES H. HARRIS JR. SECRETARY
TRANSLATION OFFICE
200 N. BOSTON ST.

The Gillette comp

8071A-713

108

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth

APOSTILLE

(Convention de La Haye du 5 octobre 1961)

1. *Country:* United States of America

This public document...

2. *has been signed by*..... **Jill Grant**.....,

3. *acting in the capacity of*..... **Notary Public**.....,

4. *in the state of Massachusetts, whose commission expires on*
November 20, 2003
.....

CERTIFIED

5. *at Boston, Massachusetts*

6. *on*..... **February 22, 2001**.....,

7. *by the Secretary of the Commonwealth*

8. **173638**
.....

9. *signed under the*

Great Seal of the Commonwealth

10. *Signature:*

William Francis Galvin

William Francis Galvin
Secretary of the Commonwealth

109

J. C. 024

17 C. S. SION 1771
NOVEMBER 20



File 115
UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington D C 20231
110 SPW JWN

AUGUST 04 2000

PTAS

THE GILLETTE COMPANY
STEPHAN P WILLIAMS
PRUDENTIAL TOWER BUILDING
39TH FLOOR
BOSTON MASSACHUSETTS 02199



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RECORDATION DATE 05/23/2000

REEL/FRAME 010840/0334
NUMBER OF PAGES 3

BRIEF ASSIGNMENT OF ASSIGNOR S INTEREST (SEE DOCUMENT FOR DETAILS)

ASSIGNOR

KWIRCIEN MICHAEL J

DOC DATE 03/10/2000

ASSIGNOR

WALKER VINCENT P JR

DOC DATE 03/14/2000

ASSIGNEE

GILLETTE COMPANY THE (A DELAWARE CORPORATION)
PRUDENTIAL TOWER BUILDING
BOSTON MASSACHUSETTS 02199

SERIAL NUMBER 09506629
PATENT NUMBER

FILING DATE 02/18/2000
ISSUE DATE

111 AUG 1 2000
PATENT COUNSEL'S OFFICE

Docketed JWN 8/15/00

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111

010840/0334 PAGE 2

PEARLENE FOSTER PARALEGAL
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

112

RE

06-14-2000

T

Box Assignments
Assistant Commissioner For Patents
Washington D C 20231



101380011

Please record the attached original document.

1 Name of conveying party(ies)

Michael J Kwiecien
148 Old Oaken Bucket Road
Scituate Mass 02086 U S A

5-23-00

Vincent P Walker Jr
20 Twinbrook Drive
Bridgewater Mass 02324 U S A.

2 Name/Address of receiving party(ies)

THE GILLETTE COMPANY
(a Delaware corporation)
Prudential Tower Building
Boston Massachusetts 02199

3 Nature of conveyance

- ☒ Assignment
- ☐ Merger
- ☐ Security Agreement
- ☐ Change of Name
- ☐ Other

Execution Date March 10 2000 March 14 2000

4 Application number(s) or patent number(s)

If this document is being filed with a new application the execution date of the application is

A Patent Application No (s)
09/506 629

B Patent No (s)

5 Name and address of party to whom
corresponding concerning document
should be mailed

Stephan P Williams Esq
THE GILLETTE COMPANY
Prudential Tower Building
39th Floor
Boston Massachusetts 02199
617-421 7886

6 Total number of applications/patents
involved 1

7 Total fee (37 CFR 3.41) \$40.00
☐ Enclosed
☒ Authorized to charge Deposit Account

8 Deposit Account No. 07 1350
If the fee above is being charged to Deposit
Account, a duplicate copy of this cover sheet
is attached. Please apply any additional charges
or any credits to our Deposit Account Number
07 1350

06/13/2000 INBUYE 00000287 071350 09506629

01 FC-581

Statement and signature

To the best of my knowledge and belief the foregoing information is true and correct and the attached is the original document

Stephan P. Williams (Reg No 28,546)

Name of Person Signing

Total number of pages including cover sheet attachments and document 3

Signature

Date

18 May 2000

ASSIGNMENT

In consideration of the payment of one dollar (\$1 00) and other good and valuable consideration the receipt of which is hereby acknowledged the below listed Assignors

Michael J Kwiecien
148 Old Oaken Bucket Road
Scituate MA 02066

Vincent P Walker Jr
20 Twinbrook Drive
Bridgewater MA 02324

hereby sell assign and transfer to the below listed Assignee

THE GILLETTE COMPANY
(a Delaware corporation)
Prudential Tower Building
Boston Massachusetts 02199
USA

its successors and assigns the entire undivided right title and interest for the United States of America and all other countries in and to the invention(s) described in United States Patent Application Serial Number 09/506 629 (docket no 8071) filed on February 18, 2000 entitled **Shaving Aid Strip For Razor Cartridge** this assignment including said application and any continuation division substitute national international or regional application in any country which is derived or claims priority therefrom and any patents or design registrations granted in the United States and all other countries thereon and authorize Assignee to file patent applications and design registrations on said invention(s) worldwide in its own name and to claim priority from the aforementioned United States Patent Application under any applicable treaty or convention

Assignors hereby covenant that no assignment, sale agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale Assignors further covenant to provide Assignee upon request with all pertinent facts and documents relating to said invention(s) applications patents and design registrations as may be known and accessible to Assignors and to promptly execute and deliver to Assignee or its legal representative any and all papers instruments or affidavits required to file patent applications or design registrations on said invention(s) worldwide to obtain maintain and enforce said applications patents or design

registrations and to transfer legal ownership of said applications patents or design registrations to Assignee

Assignors authorize their legal representative or the Assignee's legal representative to insert the application number and filing date in the blank spaces above if such information is unavailable at the time of execution



Michael J Kwietcien

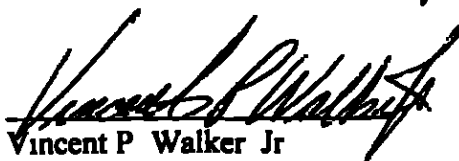
Boston Suffolk County
Massachusetts

On this 10 day of March, 2000 personally appeared before me Michael J Kwietcien who executed this instrument of assignment as his/her free act and deed



Notary Public

CARLEEN L MUNDEE
Notary Public, Massachusetts
My Commission Expires November 8, 2001



Vincent P Walker Jr

Boston Suffolk County
Massachusetts

On this 14 day of March, 2000 personally appeared before me Vincent P Walker Jr who executed this instrument of assignment as his/her free act and deed

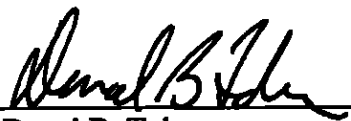


Notary Public

CARLEEN L MUNDEE
Notary Public, Massachusetts
My Commission Expires November 8, 2001

Accepted by Assignee

The Gillette Company

By 

Donal B Tobin

Patent & Trademark Counsel

Boston Suffolk County
Massachusetts

On this 14 day of March, 2000 personally appeared before me Donal B Tobin known to me to be Patent & Trademark Counsel of The Gillette Company with full authority to accept assignments on its behalf who executed this instrument of assignment as the free act and deed of The Gillette Company



Notary Public

CARLEEN L MUNDEE
Notary Public, Massachusetts
My Commission Expires November 8, 2001

TRADUCCION OFICIAL No 464

**TRADUCCION DE UN DOCUMENTO PRESENTADO EN INGLES TRASPASO
INVENCION BANDA AUXILIAR DE AFEITADA PARA CARTUCHO DE
AFEITADORA A FAVOR DE THE GILLETTE COMPANY**

Caso No 8071

TRASPASO

En consideración del pago de un dólar (\$1 00) y de otras consideraciones
valederas cuyo recibo se reconoce por el presente los Cedentes que se
mencionan a continuación

Michael J Kwiecien
148 Old Oaken Bucket Road
Scituate MA 02066

Vincent P Walker Jr
20 Twinbrook Drive
Bridgewater MA 02324

Por el presente vendemos traspasamos y transferimos al Cesionario que aparece
a continuación

THE GILLETTE COMPANY
(una corporación de Delaware)

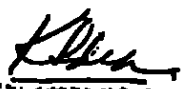

LATA REGISTRADA DE C. R. R.
TRADUCCION OFICIAL
DEL MINISTERIO DE JUSTICIA

124
116

Prudential Tower Building
Boston, Massachusetts 02199
USA

a sus sucesores y cesionarios, todo los derechos no divididos, títulos e intereses para los Estados Unidos de América y todos los demás países en y para la invención(es) descritas en la Solicitud de Patente de Los Estados Unidos Serie Número 09/737,267 (caso No 8071-A), registrada en Diciembre 14, 2000, titulada **Banda Auxiliar de Afeitada para Cartucho de Afeitadora**, incluyendo el presente traspaso dicha solicitud y cualquier continuación, división, sustituto, solicitud nacional, internacional, o regional en cualquier país que se derive o reclame prioridad de la misma, y cualquier registro de patente o de diseño otorgada en los Estados Unidos y todos los demás países, y autorizamos al Cesionario a registrar solicitudes de patente y registros de diseño sobre dicha invención(es) en todo el mundo en su propio nombre y a reivindicar prioridad de la mencionada Solicitud de Patente de los Estados Unidos bajo cualquier tratado o convención aplicable.

Los Cesionario por el presente acuerdan que no se ha hecho ni se hará o celebrará ningún traspaso, venta, acuerdo, o embargo que pueda contravenir el presente traspaso y venta. Los Cedentes convienen además suministrar al Cesionario, a solicitud, todos los hechos y documentos pertinentes relacionados con dicha invención(es), solicitudes, patentes y registros de diseño de que puedan tener conocimiento y a que puedan acceder los Cedentes y a firmar y entregar oportunamente al Cesionario o a su representante legal todos los documentos, instrumentos o declaraciones juramentadas requeridas para registrar solicitudes de patente o registros de diseño sobre dicha invención(es) en todo el mundo, a obtener, mantener y hacer cumplir dichas solicitudes, patentes o registros de


MARIA COLOMINA DE ACERB
TRADUCTORA OFICIAL
DES MINISTROS JES

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diseño, y a transferir la propiedad legal de dichas solicitudes, patentes o registros al Cesionario.

Los Cedentes autorizan a sus representantes legales o al representante legal del Cesionario a insertar el número de solicitud y la fecha de registro en los espacios en blanco más arriba si dicha información no está disponible en el momento de la firma.

Firmado: **Michael J. Kwiecien**
Boston, Condado de Suffolk
Massachusetts

El 18 de Enero, 2001, compareció personalmente ante mi, Michael J. Kwiecien, quien firmó este documento de traspaso como un acto suyo libre y voluntario.

Firmado: **Jill Grant**
Notario Público
Mi comisión expira
Noviembre 20, 2003

Firmado: **Vincent P. Walker, Jr.**
Boston, Condado de Suffolk
Massachusetts

El 12 de Enero, 2001, compareció personalmente ante mi, Vincent P. Walker, Jr., quien firmó este documento de traspaso como un acto suyo libre y voluntario.

Firmado: **Michele T. Brown-Tosi**
Sello: **Michele T. Brown-Tosi**
NOTARIO PUBLICO


MARIA SALAZAR DE AGUILO
INTERPRETE OFICIAL
DEL GOBIERNO DE LOS ESTADOS UNIDOS

Mi comisión expira Oct. 20, 2006

Aceptado por el Cesionario

The Gillette Company

Por: **Donal B. Tobin**
Asesor de Patentes & Marcas

El 18 de Enero, 2001, compareció personalmente ante mí Donal B. Tobin, a quien conozco como el Asesor de Patentes y Marcas de The Gillette Company, con plena autoridad para aceptar traspasos en su nombre, quien firmó este instrumento de traspaso como un acto voluntario de The Gillette Company.

Boston, Condado de Suffolk, Massachusetts

Firmado: **Jill Grant**
Notario Público
Mi comisión expira
Noviembre 20, 2003


LEILA SALASOLA DE ARSEN
TRADUCTORA OFICIAL
RES. MIN/OSJIA 288

ESTADOS UNIDOS DE AMERICA

CONDADO DE SUFFOLK

SS

ESTADO DE MASSACHUSETTS

El 5 de Febrero, 2001, por el presente testifico que el documento anexo es copia fiel y verdadera del documento original de traspaso de la oficina de patentes y marcas de los Estados Unidos.

Firmado: Jill Grant
Notario Público
Mi comisión expira
Noviembre 20, 2003

Sello en altorrelieve del Notario público de Massachusetts, Jill Grant.


JILL GRANT, Notario Público
MASSACHUSETTS
RECEIVED FEB. 10, 2001

120

ESTADO DE MASSACHUSETTS

**William Francis Galvin
Secretario de Estado**

APOSTILLA

(Convención de La Haya del 5 de Octubre 1961)

1. País: **Estados Unidos de América**

Este documento público

2. ha sido firmado por **Jill Grant**

3. actuando en su condición de **Notario Público**

4. en el estado de Massachusetts, cuya comisión expira en
Noviembre 20, 2003

11 MAR 2001
Kara Seduena
CIVIL FIRM APARECE EN EL
DOCUMENTO DESEMPLEA
LAS FUNCIONES INDICADAS

MINISTERIO DE RELACIONES
EXTERIORES

Certificado

5. En Boston, Massachusetts

6. El 22 de Febrero, 2001

7. por el Secretario del Estado

8. **173637**

9. firmado bajo el Gran Sello del Estado

10. Firma

2001 MAR 13 A 11:03
JEFE DE LEGALIZACION
SAGITAE DE BOGOTA P.F.

NO SE ASUME
RESPONSABILIDAD DEL TEXTO


WILLIAM FRANCIS GALVIN
SECRETARIO DE ESTADO
COMISIONADO DE NOTARIA

~~126~~
121

Firmado: **William Francis Galvin**
Secretario del Estado

Sello en altorrelieve del Estado de Massachusetts.


ANITA SALAMONCA DE ANTON
TRADUCTORA OFICIAL
RES. DISCRETION 324

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth

APOSTILLE

(Convention de La Haye du 5 octobre 1961)

1. *Country:* United States of America

This public document...

2. *has been signed by*..... **Jill Grant**.....,

3. *acting in the capacity of*..... **Notary Public**.....,

4. *in the state of Massachusetts, whose commission expires on*

..... **November 20, 2003**.....

CERTIFIED

5. *at Boston, Massachusetts*

6. *on*..... **February 22, 2001**.....,

7. *by the Secretary of the Commonwealth*

8. **173637**

.....

9. *signed under the*

Great Seal of the Commonwealth

10. *Signature:*

William Francis Galvin

William Francis Galvin
Secretary of the Commonwealth

7022

807111

737257

CO 411

Gillette

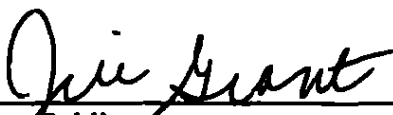
Columbus

123

UNITED STATES OF AMERICA

County of Suffolk)
) SS
Commonwealth of Massachusetts)

On this 5th day of February 2001, I do hereby attest that the attached document is a true copy of the original United States patent and trademark assignment document.



Notary Public

MY COMMISSION EXPIRES
NOVEMBER 20, 2003

ASSIGNMENT

In consideration of the payment of one dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the below listed Assignors

**Michael J. Kwiecien
148 Old Oaken Bucket Road
Scituate, MA 02066**

**Vincent P. Walker, Jr.
20 Twinbrook Drive
Bridgewater, MA 02324**

hereby sell, assign and transfer to the below listed Assignee

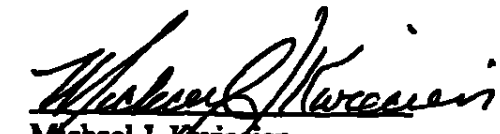
**THE GILLETTE COMPANY
(a Delaware corporation)
Prudential Tower Building
Boston, Massachusetts 02199
USA**

its successors and assigns, the entire undivided right, title and interest for the United States of America and all other countries in and to the invention(s) described in United States Patent Application Serial Number 09/737,267 (docket no. 8071-A), filed on December 14, 2000, entitled **Shaving Aid Strip For Razor Cartridge, this assignment including said application and any continuation, division, substitute, national, international, or regional application in any country which is derived or claims priority therefrom, and any patents or design registrations granted in the United States and all other countries thereon, and authorize Assignee to file patent applications and design registrations on said invention(s) worldwide in its own name and to claim priority from the aforementioned United States Patent Application under any applicable treaty or convention.**

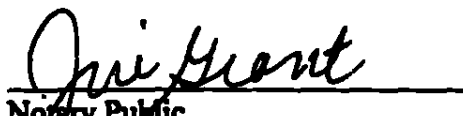
Assignors hereby covenant that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this assignment and sale. Assignors further covenant to provide Assignee, upon request, with all pertinent facts and documents relating to said invention(s), applications, patents and design registrations as may be known and accessible to Assignors and to promptly execute and deliver to Assignee or its legal representative any and all papers, instruments or affidavits required to file patent applications or design registrations on said invention(s) worldwide, to obtain, maintain and enforce said applications, patents or design

registrations, and to transfer legal ownership of said applications, patents or design registrations to Assignee.

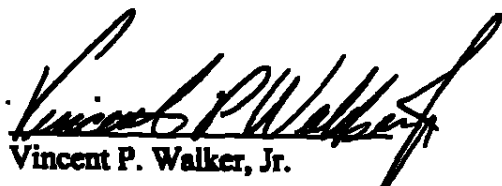
Assignors authorize their legal representative or the Assignee's legal representative to insert the application number and filing date in the blank spaces above if such information is unavailable at the time of execution.


Michael J. Kwiecien
Boston, Suffolk County
Massachusetts

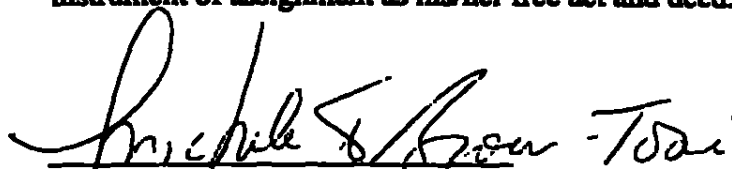
On this 18 day of January, 2001, personally appeared before me, Michael J. Kwiecien, who executed this instrument of assignment as his/her free act and deed.


Notary Public

MY COMMISSION EXPIRES
NOVEMBER 20, 2003


Vincent P. Walker, Jr.
Boston, Suffolk County
Massachusetts

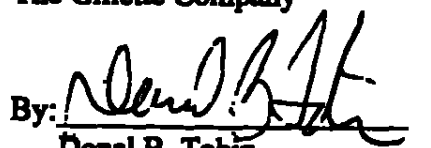
On this 12th day of January, 2001, personally appeared before me, Vincent P. Walker, Jr., who executed this instrument of assignment as his/her free act and deed.


Notary Public

Michele T. Brown-Tosi
NOTARY PUBLIC
My commission expires Oct. 23, 2005

Accepted by Assignee

The Gillette Company

By: 
Donal B. Tobin,
Patent & Trademark Counsel

Boston, Suffolk County,
Massachusetts

On this 18 day of January, 2001, personally appeared before me Donal B. Tobin, known to me to be Patent & Trademark Counsel of The Gillette Company, with full authority to accept assignments on its behalf, who executed this instrument of assignment as the free act and deed of The Gillette Company.


Notary Public

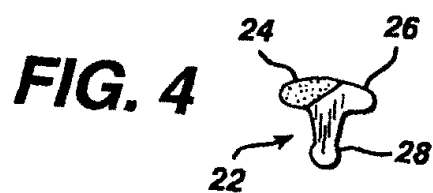
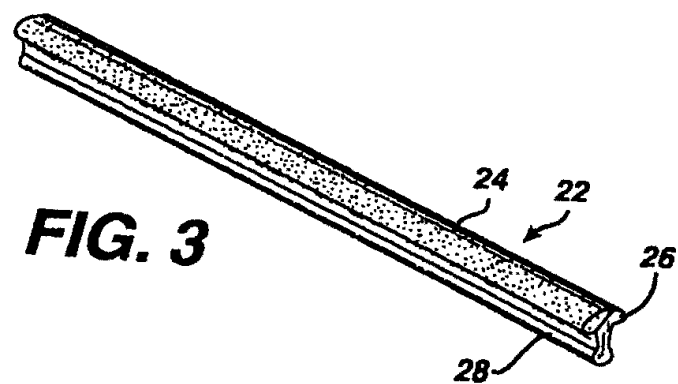
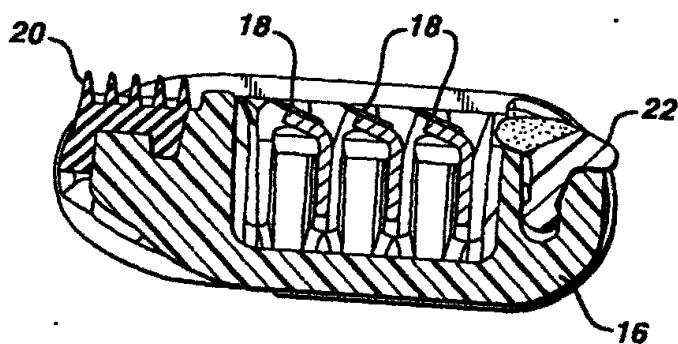
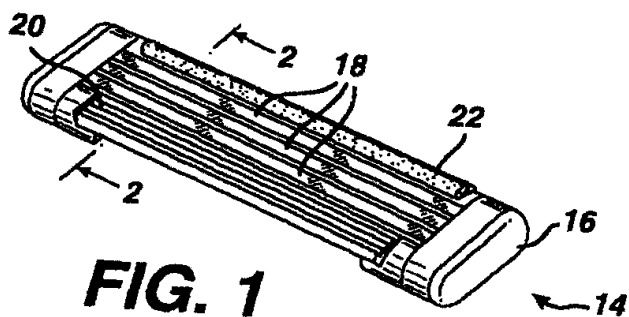


FIG. 5

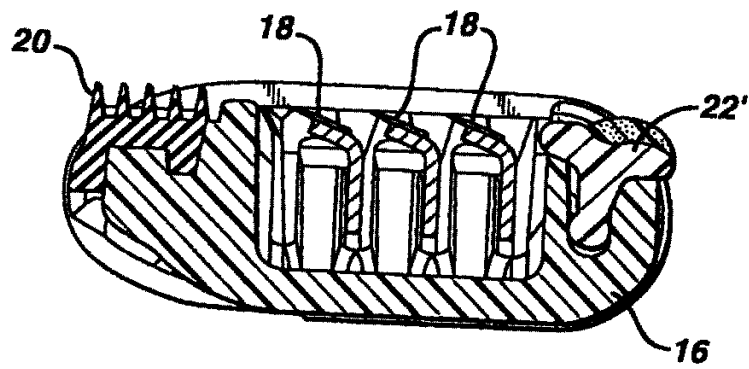


FIG. 6

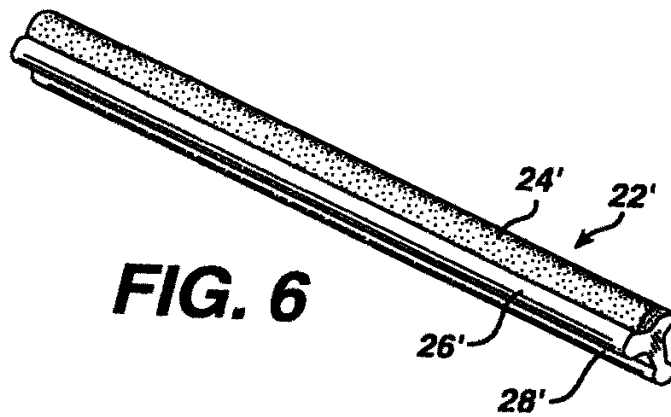
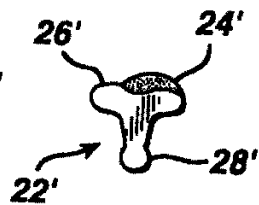


FIG. 7





2do. EXAMEN DE FORMA PATENTE DE INVENCION

Folio 183

Radicación no 01-11998

Concepto Técnico no 429

Clasificación Internacional de Patentes: B26B 21/44

Practicado el examen de acuerdo a lo establecido en el Art. 38 de la Decisión 486 se determinó que esta solicitud de Patente de Invención:

- SI ☒ NO ☐ Contiene un resumen de la invención (Art26-e).
- SI ☒ NO ☐ Contiene el título o nombre de la invención (Art27-d).
- SI ☒ NO ☐ Contiene la descripción de la invención (Art28-b).
- SI ☒ NO ☐ NO ES APLICABLE ☐ Contiene los dibujos necesarios para comprender la invención (Art28-d)
- SI ☒ NO ☐ Contiene una o más reivindicaciones. (Art26-c).
- SI ☐ NO ☐ NO ES APLICABLE ☒ Han sido desarrollados los productos y/o procedimientos a partir de recursos genéticos o de sus productos derivados de los que cualquiera de los Países Miembros es país de origen. (Art. 26- h).
- SI ☐ NO ☐ NO ES APLICABLE ☒ Los productos y/o procedimientos han sido obtenidos o desarrollados a partir de los conocimientos tradicionales de las comunidades indígenas, afroamericanas, o locales de los países miembros, de acuerdo a lo establecido en la Decisión 391 y sus modificaciones y reglamentaciones vigentes.(Art26-i).
- SI ☐ NO ☒ La invención se refiere a un producto relativo a un material biológico. (Art26-J).
- SI ☒ NO ☐ NO ES APLICABLE ☐ La prioridad coincide con la materia reivindicada.
- SI ☒ NO ☐ **CUMPLE LOS REQUISITOS TÉCNICOS**

OBSERVACIONES Y OTROS: SI ☐ NO ☐ ver hoja(s) anexa(s)
▣ NUEVOS DIBUJOS, FOLIOS: 131 - 132

EXAMINADOR TÉCNICO
202051

Bogotá D. C., febrero 14 de 2003



Folio 124

2020
Bogotá DC

Doctor(a)
JOSE ANTONIO LLOREDA
Apoderado(a)

REFERENCIA:	Radicación No.	01-11998
	Trámite	002
	Evento	001
	Actuación	416
	Oficio No.	541
	Folios	001

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en los artículos 26 y 27 de la Decisión 486 de la Comisión de la Comunidad Andina, y en las demás disposiciones vigentes sobre la materia, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial, conforme lo establece el artículo 40 de la misma Decisión.

Cúmplase
Dado en Bogotá DC,

11 MAR. 2003


ALIX CARMENZA CÉSPEDES DE VERGEL
Jefe de la División de Nuevas Creaciones

202051