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Señora Jefe de la
DIVISION DE NUEVAS CREACIONES
Superintendencia de Industria y Comercio
E. S. D.

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SUPERINDUSTRIA Y COMERCIO
Radiación: 00034996 00000002 Folio: 2
Fecha (AND): 2002-11-08 16:11:11
Trámite : 002 PATENTES D 1 REGISTRO/ LOS PETICION
Dependencia: 0020 DIVISION DE NUEVAS CREACIONES

Trámite : 002
Evento : 001
Actuación: 538

Referencia : Expediente No. 00.034.996
Solicitante : SCA HYGIENE PRODUCTS AB
Asunto : Solicitud de patente para: **ARTICULO ABSORBENTE
PARA USO EN INTERIORES TIPO HILO**
Fecha de solicitud : 15 de mayo de 2000
Publicada en la : Gaceta No. 516 del 30 de mayo de 2002

1. Yo, Emilio FERRERO, identificado como aparece al pie de mi firma, actuando como apoderado en el asunto de la referencia, atentamente, solicito se efectúe el examen de patentabilidad de la solicitud en referencia según lo establecido en el artículo 44 de la Decisión 486 de la Comisión de la Comunidad Andina. Para tal efecto presento junto con este escrito el recibo No. 02-70,745 por valor de \$318.000.00, que corresponde a la tasa fijada según lo dispuesto en la resolución No. 44691 del 31 de diciembre de 2001.

2. Ruego atentamente a la Señora Jefe se sirva ordenar que se anexe este recibo, para que se efectúe dicho examen y se continúe con el trámite de la solicitud.

Bogotá, 28 NOV 2002
Señora Jefe,



EMILIO FERRERO
T.P.A. No. 31.929

COLO 11256 801 032 9
JBP/MRM/
ID-000662/WPC11256



Industria y Comercio

SUPERINTENDENCIA

Radicacion: 00034996 00000002

Folios: 2

Fecha (AMD): 2002-11-26 16:51:11

Trabite: 002 PATENTES D 1 REGISTRAR/ TIR PETICION

Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

NIT: 800176089-2

RECIBO OFICIAL DE CAJA : 02 - 70,745
FECHA : OCTUBRE 22 DE 2002

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
CAVELIER ABOGADOS	CONSIGNACION	BANCO POPULAR	050-00110-6	7030562	22/10/2002	39,342,000.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01	SOLICITUDES	
		85 EXAMEN DE PATENTABILIDAD DE INVEN	318,000.00
		TOTAL :	\$ 318,000.00

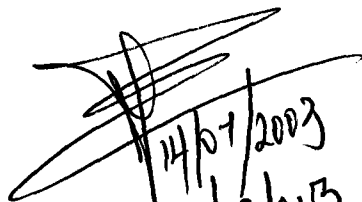
SON: TRESCIENTOS DIEZ Y OCHO MIL PESOS

RESPONSABLE :

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

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Colo 11256-801-032-9


14/07/2003
13/03/003
14/03/003

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2005.04.14

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

2020
Bogotá, D.C., 7 de abril de 2005

Doctor
EMILIO FERRERO
Apoderado

Oficio No. 12376

ASUNTO	Radicación	00-34996
	Trámite	002
	Evento	001
	Actuación	430
	Folios	019

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

1. Documentos estudiados

- Para el presente estudio se tuvo en cuenta el capítulo descriptivo que se encuentra en los folios 2 a 39, los dibujos que se encuentra en los folios 47 a 54 y el capítulo reivindicatorio que se encuentra en los folios 40 a 45 que comprende veintiún (21) reivindicaciones.
- De acuerdo con el folio 98 de la solicitud en estudio, se considerará la prioridad reivindicada sobre la solicitud de Suecia No. 9901758-4 del 14 de mayo de 1999.

2. Objeto de la invención

- La invención propuesta se relaciona con un artículo absorbente diseñado para ser llevado junto con interiores tipo hilo.

En la **reivindicación independiente 1** se define un artículo absorbente, tal como una toalla sanitaria, un protector de incontinencia o un refuerzo de pantaloncito, dicho artículo tiene el propósito de ser llevado junto con unos interiores tipo hilo, tiene una forma alargada esencialmente con una dirección longitudinal y una dirección transversal, un lado superior y un lado inferiores, dos lados paralelos largos, dos lengüetas de sujeción, una primera porción de extremo con el propósito de estar dirigida hacia la parte delantera del usuario y una segunda porción de extremo con el propósito de estar dirigida hacia la parte trasera del usuario, la primera porción de extremo en más amplia que la segunda porción de extremo, **caracterizado en que** la segunda porción de extremo del artículo es como máximo 40 mm en ancho y las lengüetas de sujeción están dispuestas en los lados largos del artículo en por lo menos la segunda porción de extremo, dichas lengüetas de sujeción están diseñadas para asegurar el artículo a los interiores tipo hilo.

- Se afirma que uno de los problemas más importantes a ser resueltos en artículos absorbentes para prendas de vestir tipo hilo es la sujeción de la prenda de vestir ya que el área de entrepierna del hilo es muy pequeño. También es importante por varias razones, para que el artículo case o ajuste de manera correcta y exacta en el interior tipo hilo. Por un lado, el posicionamiento incorrecto del artículo significa que la discreción u la comodidad del usuario sufre, y, por otro lado, es de gran importancia que el artículo, teniendo en cuenta su área de superficie pequeña, debe ser colocado de tal manera que sea capaz de coger y absorber todos los fluidos del cuerpo eliminados. Un aseguramiento seguro y correcto del artículo es por lo tanto desde el punto de vista de derrames
- El objeto de la invención definido se catalogó como **A61F 13/15**, según la Clasificación Internacional de Patentes (IPC).

3. Claridad de la solicitud

El artículo 30 de la Decisión 486 de la Comisión de la Comunidad Andina establece que: "Las reivindicaciones definirán la materia que se desea proteger mediante la patente. Deben ser claras y concisas y estar enteramente sustentadas por la descripción.

Las reivindicaciones podrán ser independientes o dependientes. Una reivindicación será independiente cuando defina la materia que se desea proteger sin referencia a otra reivindicación anterior. Una reivindicación será dependiente cuando defina la materia que se desea proteger refiriéndose a una reivindicación anterior. Una reivindicación que se refiera a dos o más reivindicaciones anteriores se considerará una reivindicación dependiente múltiple".

- En la reivindicación independiente 1 se caracteriza el artículo absorbente únicamente mediante el ancho de la segunda porción de extremo y mediante la disposición de las lengüetas.

En el presente caso solo parece sobresaliente el ancho de la segunda porción de extremo y la disposición de las lengüetas lo cual debe considerarse ya que el estado de la técnica contiene artículos absorbentes con lengüetas y disposición similar. Por ello, la forma de caracterización actual no permite diferenciar claramente la invención respecto al arte previo.

En cuanto a la forma de caracterización es necesario recordar la importancia que tiene la reivindicación independiente en cuanto a la definición completa de la propuesta de la invención y la diferenciación que establece respecto al arte previo a través de los detalles técnicos que generan un aporte tecnológico. Por lo tanto, se recomienda revisar la solicitud e incluir en la parte caracterizante de la reivindicación independiente 1, otros detalles técnicos que permitan conocer el avance tecnológico que representa la propuesta.

- En conclusión, la reivindicación independiente 1 no cumpliría con el requisito de claridad de acuerdo con el art. 30 de la Decisión 486.

4. Determinación del estado de la técnica

El artículo 16 de la Decisión 486 de la Comisión establece: "El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización, comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente o, en su caso, de la prioridad reconocida.

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Sólo para el efecto de la determinación de la novedad, también se considerará dentro del estado de la técnica, el contenido de una solicitud de patente en trámite ante la oficina nacional competente, cuya fecha de presentación o de prioridad fuese anterior a la fecha de presentación o de prioridad de la solicitud de patente que se estuviese examinando, siempre que dicho contenido esté incluido en la solicitud de fecha anterior cuando ella se publique o hubiese transcurrido el plazo previsto en el artículo 40.”

- Se consultaron las bases de datos con que cuenta y tiene acceso la entidad y se consideró el **14 de mayo de 1999** como fecha para investigar el estado de la técnica.
- De acuerdo con lo establecido en el artículo 16 se determinó el estado de la técnica y se encontraron los siguientes antecedentes:

No.	Documento No.	Título	Fecha de Publicación
1	US5683373	“SANITARY NAPKIN SHAPED FOR USE WITH A THONG GARMENT”	4 de noviembre de 1997
2	USD394503	“LINER FOR THONG PANTY”	19 de mayo de 1998
3	WO9822060	“ABSORBENT ARTICLE WITH A REINFORCED HUMP”	28 de mayo de 1998

5. Evaluación de los requisitos de patentabilidad

El artículo 14 de la Decisión 486 de la Comisión de la Comunidad Andina establece: “Los Países Miembros otorgarán patentes para las invenciones, sean de producto o de procedimiento, en todos los campos de la tecnología, siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial.”

En cumplimiento con este artículo, se procedió a evaluar los requisitos de novedad, nivel inventivo y aplicación industrial con el fin de establecer la patentabilidad de la invención reivindicada en la solicitud en estudio.

Evaluación del Nivel Inventivo:

El art. 18 de la Decisión 486 de la Comisión de la Comunidad Andina establece: “Se considerará que una invención tiene nivel inventivo, si para una persona del oficio normalmente versada en la materia técnica correspondiente, esa invención no hubiese resultado obvia ni se hubiese derivado de manera evidente del estado de la técnica.”

Respecto al estado de la técnica:

- En el documento **US5683373** (llamado D1 de aquí en adelante) se divulga una toalla sanitaria formada para fijar el contorno de un pantaloncito de tira desde el frente de la usuaria hasta el área de entrepierna de la usuaria. La toalla presenta una forma en “V” de modo que la cima de la “V” puede estar posicionada debajo de la vagina de la usuaria. La toalla es generalmente formada en V con una parte superior abultada y una porción más baja alargada, de modo que la cima de la “V” se mantenga bajo la vagina.
- En el documento **USD394503** (llamado D2 de aquí en adelante) se divulga un diseño industrial de una laminilla de protección sanitaria para pantaloncitos de tira.

- En el documento **WO9822060** (llamado D3 de aquí en adelante) se divulga un artículo absorbente para mujeres tal como una toalla sanitaria que presenta una zona anterior ancha, una zona posterior angosta y una zona de entrepierna que tiene un abultamiento para mejorar la recepción de fluidos.

Respecto a la solicitud en estudio:

- El técnico de nivel medio versado en la materia encargado de resolver el problema puede ser un ingeniero químico que labore en la industria de artículos absorbentes desechables y que atienda a planes de mejoramiento continuo normalmente formulados por las empresas.
- El principio técnico sobre el cual se fundamenta la propuesta y que resuelve el problema técnico parece ser una segunda porción de extremo con un ancho máximo de 40 mm y la presencia de lengüetas de sujeción dispuestas en los lados largos del artículo en por lo menos la segunda porción de extremo que están diseñadas para asegurar el artículo a los interiores tipo hilo. No obstante, si un técnico de nivel medio tuviera acceso a D2 podría verse motivado a desarrollar toallas sanitarias que presenten una porción de extremo de ancho mucho menor que la porción de la parte frontal y a incluir lengüetas en por lo menos una de las porciones como este caso, en la porción más angosta.

La diferencia entre la propuesta y el estado de la técnica representado por D2 se centra en que este último no revela explícitamente que la dimensión del ancho del extremo más angosto deba ser menor que 40 mm. No obstante, un técnico de nivel medio versado en la materia vería obvio ensayar la comodidad y funcionalidad de toallas con diversos anchos y optar por tamaños más pequeños dadas las dimensiones cada vez más angostas de los pantaloncitos de mujer y que podrían ser menores de 40 mm.

Ya en cuanto a las partes que conforman la toalla sanitaria para pantaloncitos de tira, tanto D1 como D3 demuestran que incluir contornos redondeados, miembros adhesivos para sujeción y porciones de entrepierna elevados, resultan evidentes y son conocidos por técnico de nivel medio versados en la materia, de modo que no representan un aporte o contribución.

Así las cosas, proponer un artículo absorbente como el definido en la reivindicación independiente 1 no parece constituir un aporte sorprendente ni representar un salto cualitativo respecto al estado de la técnica.

- Por lo anteriormente expuesto, la invención definida por las reivindicaciones 1 a 21 de la solicitud, podría verse afectado en su nivel inventivo ya que se deriva de manera evidente del estado de la técnica y puede ser obvia para un técnico de nivel medio versado en la materia. Por tanto, no cumpliría con las disposiciones del artículo 18 de la Decisión 486 de la Comisión de la Comunidad Andina.
- Los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

No.	Documento	Reivindicaciones Afectadas	Requisito que afecta
1.	US5683373	1 – 21	Nivel Inventivo
2.	USD394503	1 – 21	Nivel Inventivo
3.	WO9822060	1 – 21	Nivel Inventivo

Se anexan los apartes principales de las anterioridades en el documento adjunto.

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

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


ALIX CARMENZA CESPEDES DE VERGEL
Jefe de División de Nuevas Creaciones

El anterior requerimiento fue notificado por fijación en lista, de fecha 14 ABR. 2005

CONCEPTO TECNICO No. 451	EXAMINADOR TECNICO Código No. 202042
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0-34996



US005683373A

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United States Patent [19]
Darby

[11] **Patent Number:** **5,683,373**
 [45] **Date of Patent:** **Nov. 4, 1997**

[54] **SANITARY NAPKIN SHAPED FOR USE WITH A THONG GARMENT**

[76] **Inventor:** Kamela J. Darby, 701 South Seas Dr.
 #505, Jupiter, Fla. 33477

[21] **Appl. No.:** 636,001

[22] **Filed:** Apr. 22, 1996

[51] **Int. Cl.⁶** A61F 13/15; A61F 13/20

[52] **U.S. Cl.** 604/385.1; 604/387

[58] **Field of Search** 604/385.1, 386,
 604/387, 392, 393, 395, 396, 398

4,687,478 8/1987 Van Tilburg .
 4,804,380 2/1989 Lassen et al. 604/393
 4,806,411 2/1989 Mattingly, III et al. .
 4,940,463 7/1990 Leathers et al. .
 4,950,264 8/1990 Osborn, III .
 5,009,653 4/1991 Osborn III .
 5,037,417 8/1991 Ternstrom et al. .
 5,212,839 5/1993 Sliman et al. 604/395
 5,241,710 9/1993 Lockhart 604/395
 5,267,992 12/1993 Van Tilburg .
 5,358,500 10/1994 Lavon et al. 604/391
 5,383,868 1/1995 Hyun .
 5,388,275 2/1995 Oram 604/391
 5,441,493 8/1995 Gonzalez-Anguiano Marsel et al. .

FOREIGN PATENT DOCUMENTS

862026 2/1941 France .
 3257949 4/1993 Japan .

References Cited

U.S. PATENT DOCUMENTS

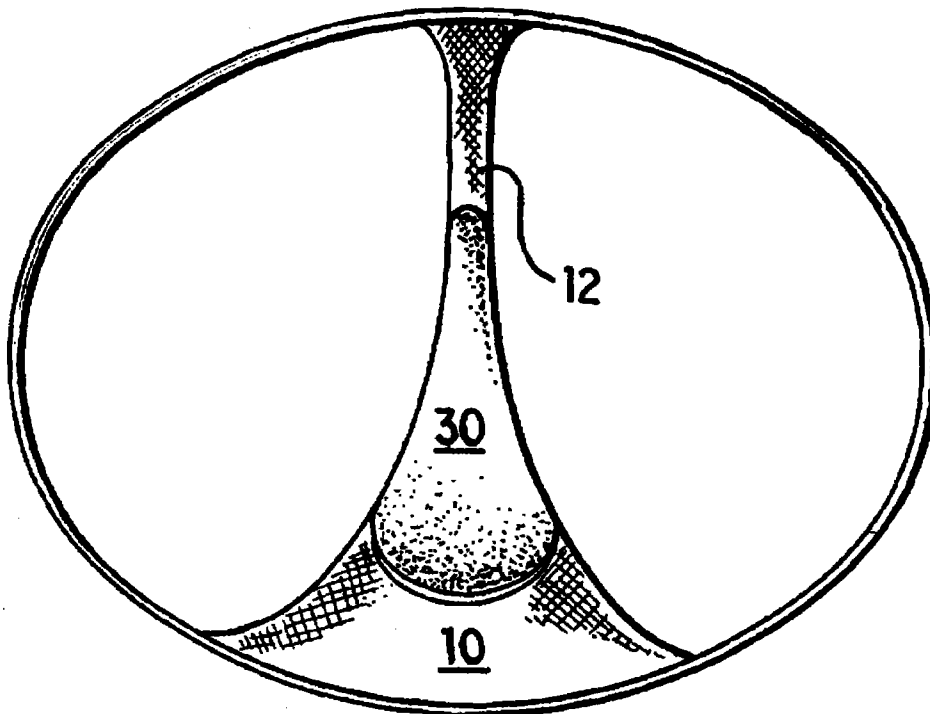
D. 178,455 8/1956 Klein .
 D. 191,649 10/1961 Dudley .
 D. 215,386 9/1969 Glassman .
 D. 234,162 1/1975 Anderson .
 D. 236,385 8/1975 Celander et al. .
 D. 240,562 7/1976 Whitehead et al. .
 D. 240,563 7/1976 Whitehead et al. .
 D. 240,564 7/1976 Whitehead et al. .
 D. 247,368 2/1978 Whitehead .
 4,184,498 1/1980 Franco .
 4,191,609 3/1980 Trokhan .
 4,324,246 4/1982 Mullane .
 4,342,314 8/1982 Radet et al. .
 4,505,707 3/1985 Feeney 604/389
 4,556,146 12/1985 Swanson et al. .
 4,681,577 7/1987 Stern et al. 6604/389

Primary Examiner—David H. Willse
Assistant Examiner—Ki Yong O
Attorney, Agent, or Firm—Frank J. Benasutti

[57] ABSTRACT

A sanitary napkin shaped to fit the contours of a thong garment from the front of the wearer to the crotch of the wearer. The napkin is generally "V" shaped, so that the vertex of the "V" can be positioned below the vagina of the wearer. The napkin is generally V-shaped with a bulb-shaped top end and an elongated lower portion, so that the vertex of the "v" can be positioned below the vagina of the wearer.

4 Claims, 7 Drawing Sheets



SANITARY NAPKIN SHAPED FOR USE WITH A THONG GARMENT

BACKGROUND OF THE INVENTION

1. Technical Field

This invention relates to sanitary napkins designed to receive and contain vaginal discharges such as menses and more particularly to such napkins shaped to accommodate fashionable designs of clothing.

2. Background Art

There is a plethora of sanitary napkin designs to solve a wide variety of problems related to the reception, containment and disposal of the menstrual fluid issuing from a woman at the days of her menstrual period. For example, in the prior art expounded upon in U.S. Pat. No. 4,687,478 issued Aug. 18, 1987 to Kees J. Van Tillburg, et al. and assigned to The Procter & Gamble Company and his later patent based on the same application, U.S. Pat. No. 5,267,992, issued Dec. 7, 1993, there is disclosed a sanitary napkin of a particular shape with two side flaps extending outwardly from the absorbent means, each flap being associated with said absorbent means along non-linear lines of juncture. The patent is of interest for its exposition of the prior art and the problems contained therein. Those problems include reception of the fluid and containment of the fluid; comfort of the wearer; problems regarding disposal of the napkin; and retention of the napkin within the garments of the wearer as well as protection of those garments from staining. The problems also include deformation of the napkin due to conformance of the napkin with the body of the wearer. Those patents disclose, among other things, a shape of the absorbent means in which the width at its center is less than the width of its ends. The attempt is to contour this shape so it is closely attuned to the anatomical dimensions of the crotch region of the user. This ostensibly makes the sanitary napkin more comfortable to wear while, at the same time, making it more effective by rendering it less subject to compression by the legs of the user. For example, in U.S. Pat. No. 4,687,478, it is stated in column 5, lines 63 et seq.,

"It is preferred that the width of the central absorbent pad 212 between lines of juncture 226 and 226' at their nearest approach be from 1 to about 8 centimeters. The width of the central absorbent pad 212 at its ends should be from about 2 to 9 centimeters. Central absorbent pad 212 should be from about 7.6 to about 38 centimeters long."

Not only is it difficult to describe in such dimensional terms a device which is worn by all manner of humans in terms of their dimensions, but also, the description of this device in connection with the clothing which is to be worn by these people at the time they are wearing the device, is even more complicated. For example, at column 7 of the '478 patent beginning at line 67, it is stated:

"Total flexibility of flap 224 permits flap 224 to be positioned around the edge of the crotch portion of a panty without having to alter the natural path of the edge of the crotch portion of the panty. Thus, the edge of the crotch portion of a panty need not be stretched to fit to the second flexible axis of the flap."

The patentee goes on to describe the undergarment of the type commonly worn by many women and well known as a panty. It comprises a front section, a back section, a crotch portion which joins the front and back sections; said crotch portion comprising two side edges and a center crotch portion. Column 9, lines 40 to 45.

The patentee then goes on to define the interaction of the garment with the napkin, stating in column 10 beginning at

line 11, "the edge of the crotch portion of the panty generally contains an elastic material. When a panty is worn, the elastic of the edge of the crotch portion generates an upward force, i.e., against the body due to the energy in the elastic and the fit of the panty. In accordance with this invention, the placement of a folded up wing portion on each side of the napkin between the body and the edges of the crotch portion of the panty results in an upward force generated by the edge of the crotch portion of the panty, pushing a portion of the flaps containing the second axis of flexibility snugly against the body. This results in a gasket-like seal being formed along the axis of flexibility between the flaps and the bottom. This is illustrated in FIG. 7 of the patent.

The above description is provided to show that the prior art is highly developed in its knowledge and understanding of this device and its interaction with the persons who are using this device for its intended purpose and their garments.

Sanitary napkins come in a wide variety of shapes from oblong, as shown in U.S. Pat. No. 4,556,146 issued Dec. 3, 1985 to James L. Swanson; the double-flared shape shown in the patents just mentioned and U.S. Pat. No. 4,950,264 issued Aug. 21, 1990 to Thomas W. Osborne, III and his U.S. Pat. No. 5,009,653 issued Apr. 23, 1991, as well as Design Pat. No. 215,386 issued Sep. 23, 1969 to Jacob A. Glassman. Oval shapes are also known such as that shown in Design Pat. No. 240,562 issued Jul. 13, 1976 to Howard A. Whitehead, et al., as well as their Design Pat. No. 240,563 issued Jul. 13, 1976, and Howard A. Whitehead's Pat. No. D247368 issued Feb. 28, 1978.

Other shapes include the trapezoidal shape shown in U.S. Design Pat. No. D236385 issued Aug. 19, 1975 to Robert Celandier, et al., and U.S. Pat. No. D240564 issued Jul. 13, 1976 to Howard A. Whitehead, et al. and the modification of the trapezoid shown in U.S. Pat. No. D191649, dated Oct. 24, 1961, which shows the trapezoid with extensions of the type which would extend up the abdomen in the front and to the area between the buttocks in the rear; and the irregular shape of a napkin shown in U.S. Design Pat. No. D234162 patented Jan. 21, 1975 by Find Andersen.

Other attempts to contain the fluid combine the sanitary napkin with a tampon as, for example, is shown in U.S. Pat. No. 5,383,868 issued Jan. 24, 1995 to Kwang H. Hyun.

Many of these napkin designs include adhesive means to attach portions of the napkin to the clothing so that the napkin is not dislodged during use.

SUMMARY OF INVENTION

Heretofore panty shields available on the market were designed to fit a traditional full-sized woman's underwear panty. I have noted that the design is extremely uncomfortable for the growing population of women who wear thong panties and bathing suits. The back portions of the available panty shields is too large to fit in a thong fashion garment, consequently, lumping, folding and sticking outside of the garment.

To define a thong fashion from the rear is a relative task; although well known to the eye of the beholder. In general, a regular panty will embrace along its edges a portion of the thighs of the wearer. A more modified cut is known as the Rio cut in which the edges of the panty from the rear do not embrace the thighs, but rather bisect a portion of the buttocks. The thong, however, minimizes the material between the crotch and the upper portion of the buttocks and does not flare out over any portion of the buttocks until it appears from therebetween prior to its attachment to the waistband used.

Hence, I have noted that shields would have to be custom cut in order to fit comfortably in a thong garment.

Accordingly, there are several objects and advantages of my design of an invention to fit within a thong garment. It is one object of the thong shield that it be much more convenient. The design shape will not be required to be individualized or custom-cut from a prior art napkin. Panty shields that a woman may carry in her purse to have on hand would not require precutting to fit comfortably when used because the thong garment shield would already be cut to size for such a garment. This will eliminate the waste of time in the cutting procedure and the wondering if a "guess" fit will be accurate. Further, such custom cutting normally destroys the efficacy of the devices which have been designed for particular purposes and not for the particular purpose of fitting into a thong garment.

Secondly, the thong garment shield is design to eliminate the lumping, folding, and random sticking out of the current form of panty shield worn along with the thong garment; thus considerably improving the ease of applying the shield to the thong garment in an especially comfortable manner.

The principal advantage, of course, is in the use of this device to allow the modern woman to expand the styles of underwear and other garments she wishes to use at the time of the month when she needs a sanitary napkin. This is dramatically opposed to the prior art which was obviously designed only to be useful in traditional underwear shapes.

Accordingly, it is an object of this invention to provide a sanitary napkin for use with a thong-shaped garment which provides the same degree of confidence in the actual protection being provided as in other panty shields or sanitary napkins, without jeopardizing fashion and style or risking the health of the user (as in the case of the tampon) and which ultimately eliminates all the following scenarios:

Many women during certain times of the month will change their normal fashion because there is no product available on the market to comfortably fit in the thong and french-cut styles that will provide exterior protection;

Many women will decide not to change their fashion, thus only having the option of insertable protection such as tampons with their attendant proven health risk and discomfort; and

Many women will take the time and effort involved to customize their available exterior protection products to fit their underwear comfortably, but may in the process destroy the utilitarian value of such protects.

SUMMARY OF THE INVENTION

In accordance with my invention, the thong napkin provides a narrowing, tapering, anterior shape to exterior feminine protection not found in the prior art.

My invention comprises a sanitary napkin having a contour defining a first end; a second end longitudinally remote from said first end and narrower than said first end; said contour being generally V-shaped such that said second end is at the vertex of said V-shape. Most preferably, the napkin contour is further defined along longitudinally extending peripheral curvilinear edges concave from the first end to the second end and terminates in a rounded vertex. I also contemplate that the profile of said napkin taken in a plane parallel to the longitudinal side of said napkin is defined by variations in thickness from one longitudinal end to the other to provide variation in protection.

In summary, the tapering anterior design offers a slender cut to comfortably and precisely fit in thong garments. Also included are the savings in time and effort as well as the fact

that women can comfortably continue to wear all fashions during their menstruation period.

From what will be described, it will be apparent that this product will also work perfectly well in all conventional and foreign fashions and provide the protection and confidence afforded by the prior art, and therefore can basically take the place of many prior art devices in many cases.

DISCLOSURE OF THE INVENTION

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of a typical prior art thong garment;

FIG. 2 is a perspective view of a typical prior art thong garment with a prior art device applied to it showing the potential wearer in phantom lines, to show positioning of the garment;

FIG. 3 is an elevation of the rear view of the prior art device shown in FIG. 2 applied to a thong garment with the resulting effects shown when the thong is worn by a person as shown in dotted lines;

FIG. 3A is a view similar to FIG. 3, but with another prior art panty garment shown in full view;

FIGS. 4 A, B and C show three plan views of the devices in accordance with my invention of different sizes;

FIGS. 5 A, B and C show left side views of the devices shown in FIGS. 4 A, B and C, respectively;

FIG. 6 is a perspective view of a thong panty shield in accordance with a preferred embodiment of my invention shown disposed in place as it would be used by a wearer of a thong (also shown); and

FIG. 7 is a top view of the device and garment shown in FIG. 6.

DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 1 shows a perspective view of the basic thong garment designated generally 10. This garment normally has minimal material forming the strap 12 between the crotch 14 and waistband 16 in what is the rear R of the garment. The front 18 of the garment is normally tapered and of such a width that it will only cover a portion of the abdomen of the wearer. Normally, the edges do not extend completely across the abdomen to the line of intersection between the thighs and the abdomen of the person. Any type of waistband and connection between the front and back may be used in such a thong garment. The G-string 16 is shown merely for purposes of illustration. It will also be known in the prior art to expand the amount of material at the top 17 of the strap 12 where it joins the G-string 16 in the rear, while still maintaining the narrow band up to that point; the purpose being to expose as much of the buttocks as possible. It will be appreciated by those in the fashion industry, if not those who buy such garments, that the normal panty comes with material extending down to the thigh on either side of the buttocks and that the so-called Brazilian or Rio cut has material which extends only across a portion of the buttocks up to the waistband.

In FIG. 2, there is illustrated the situation in which a thong garment has applied to it the usual type of panty shield as, for example, that disclosed in any number of the prior art patents described hereinabove having an elongated napkin designated generally 20 absorbent portion with wider ends 22, 24 and a narrower center 26. As will be apparent, the wider ends 22a 14 22b in the buttocks portion considerably

overlap the vertical strap 12 of the thong garment 10. This results in the situation shown in FIG. 3 wherein once the garment 10 is put on with the napkin 20 in place, there is a large overhang 22a and 22b on either side of the strap 12 of the garment. Indeed, many prior art devices are designed to wrap around the crotch portion of the garment, but the upper portions of the rear extension of those sanitary napkins would bunch up if they were forced between the buttocks. Indeed, thong garments are made such that the strap fits closely against the body of the user from the crotch up to the waistband. This is contrasted with prior art panties which have material from the waistband down to the thighs or even the Brazilian or Rio cut designated generally 25 in which the material extends from the waistband across a portion of the buttocks as shown in FIG. 3a.

FIG. 6 shows a perspective view of a device designated generally 30 in accordance in the preferred embodiment of this invention, in place within a thong garment 10. FIG. 4A, B and C shows three variations of that napkin varying in accordance with size, but not necessarily in accordance with the overall shape. From those figures, it will be apparent that the portion of the sanitary napkin which would normally cover the vaginal area is wide enough and expanded long enough to cover that area comfortably while being narrow enough at one end so as not to exceed the physical restraints of the size of the garment. Thus, from the widest portion designated generally 32, the napkin periphery proceeds to be concave inwardly along both edges, as at 34, 36, toward one another as it proceeds toward the opposite longitudinal end 38 of the device. That opposite longitudinal end is preferably rounded as shown and is designed to terminate just at the apex of the crotch of the user. That is to say, it is designed to terminate just beyond the lower most portion of the vagina.

The design of the front section of the panty shield remains very much the same as with other panty shields already available in the market and may vary in its contour. Thus, for example, it could have straight sides or be narrower.

The design of the end portion 38, however, is considerably different. First, it tapers much more quicker and more narrowly to a termination point than prior art devices. Secondly, it terminates far shorter than the usual designs. Finally, there is no back portion as there is in the normal design of a sanitary napkin. In sum, this design is configured to fit precisely within thong garments, such as thong panties or bathing suits.

In accordance with my invention, it is desired to provide such a device in various sizes, such as small, medium and large as illustrated in FIG. 5 A, B and C.

By the same token, within each size, it would be possible within the scope of my invention to provide different thicknesses for, such as mini, regular and maxi pad protection. Further, those thicknesses could vary along the length of the device as also shown in FIG. 5 A, B and C.

It is further possible with this invention to have it retained within the confines of the garment in the usual fashion by applying adhesive means, not shown, but known per se.

METHOD OF OPERATION

In operation, the sanitary napkin in accordance with this invention is placed in the thong garment in such a position as to fit comfortably across the lower abdomen of the person wearing the thong with the narrowest tip portion located proximate to and just beyond the lowest portion of the vagina of the wearer, as shown in top view FIG. 7. The device will stay in place by having adhesive means attaching it to the inner fabric of the thong garment. Further, it is noted that because there are no extended transverse or lateral panels on this device, it will be less likely to move from the position in which it is inserted; nor will there be any bunching up or overhang beyond the garment itself.

Thus, the invention provides comfort and ease of use, and, at times, extends to many women who would not otherwise use thong garments during the time of their period, the option of having such garments available to them.

I claim:

1. A feminine sanitary pad having one or more absorbent layers for use in absorbing menstrual fluids of a female wearer of the pad, said pad specifically adapted and configured to fit externally of the vaginal opening of said female wearer and completely within the confines of a thong-shaped garment being worn by said female, said garment having a narrow elongated crotch portion of material which extends in substantially uniform width from the crotch up the back of the garment, said pad to be positioned within said garment to extend upwardly along the inside/front of said thong garment, from a lowermost position starting just rearwardly beyond the lowermost portion of the vagina of said female, the configuration of said pad being an overall v-shaped in plan view, and bulbed at a first top end having a predetermined width, and tapering therefrom longitudinally to a midportion, and from there longitudinally narrowing in an elongated lower end portion terminating in a second end, remote from said first end, said lower end portion having a substantially uniform width, being less than twenty-five per cent of the width of said bulbed first end portion and being less than the width of the narrow elongated crotch portion of the thong garment, and a length greater than one third, but less than one half the total length of the pad from longitudinal end to end.

2. The pad of claim 1 wherein the pad has a contour which is defined along longitudinally extending peripheral curvilinear edges concave from the first end to the second end.

3. The sanitary napkin according to claim 1 wherein said second end terminates in a rounded vertex.

4. The sanitary napkin according to claim 1 wherein the side view profile of said napkin taken in a plane parallel to the longitudinal side between said two ends of said napkin is defined by variations in thickness from one end to the other.

* * * * *

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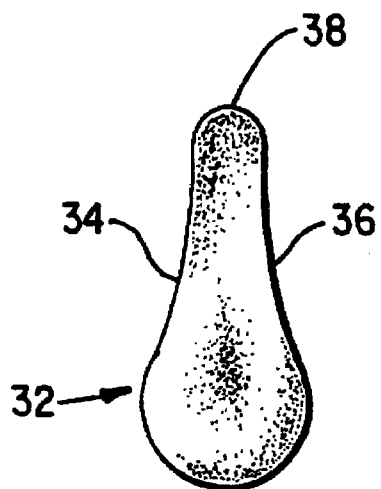


FIG. 4A

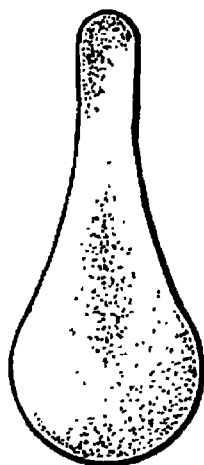


FIG. 4B

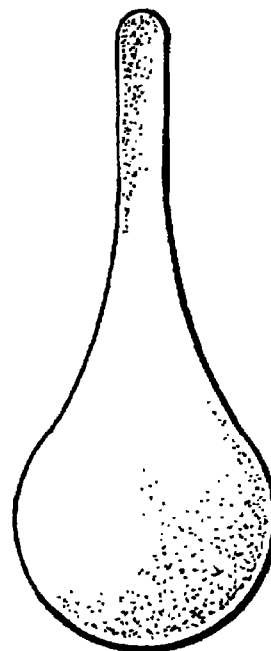


FIG. 4C



FIG. 5A



FIG. 5B



FIG. 5C

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United States Patent [19]

[11] **Patent Number:** Des. 394,503

Perrini

[45] **Date of Patent:** **May 19, 1998

[54] **LINER FOR THONG PANTY**

[76] **Inventor:** Lina Perrini, Flat 4 95 Crawford
Street, London, United Kingdom. WIH
1AN

D. 344,333 2/1994 Paddock D24/125
D. 352,351 11/1994 Garth D24/125
D. 368,519 4/1996 Harrison et al. D24/125
4,681,578 7/1987 Anderson et al. 604/385.1

[**] **Term:** 14 Years

Primary Examiner—Stella Reid

[21] **Appl. No.:** 72,579

[57] **CLAIM**

The ornamental design for a liner for thong panty, as shown.

[22] **Filed:** Jun. 19, 1997

DESCRIPTION

[51] **LOC (6) Cl.** 24-04
[52] **U.S. Cl.** D24/125; D24/124
[58] **Field of Search** D24/125, 124;
604/358, 378-380, 385.1, 386, 387, 389,
390

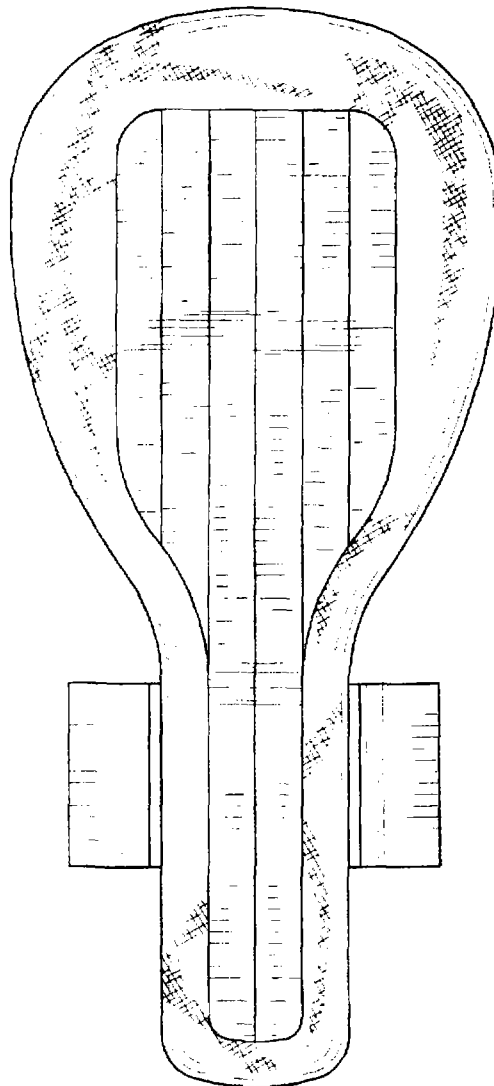
FIG. 1 is a top plan view of a liner for thong panty, showing
my new design;
FIG. 2 is a bottom plan view thereof;
FIG. 3 is a left side elevational view thereof;
FIG. 4 is a right side elevational view thereof;
FIG. 5 is a front elevational view thereof; and
FIG. 6 is a back elevational view thereof.

[56] **References Cited**

U.S. PATENT DOCUMENTS

D. 287,637 1/1987 Grasso D24/125

1 Claim, 3 Drawing Sheets



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U.S. Patent

May 19, 1998

Sheet 1 of 3

Des. 394,503

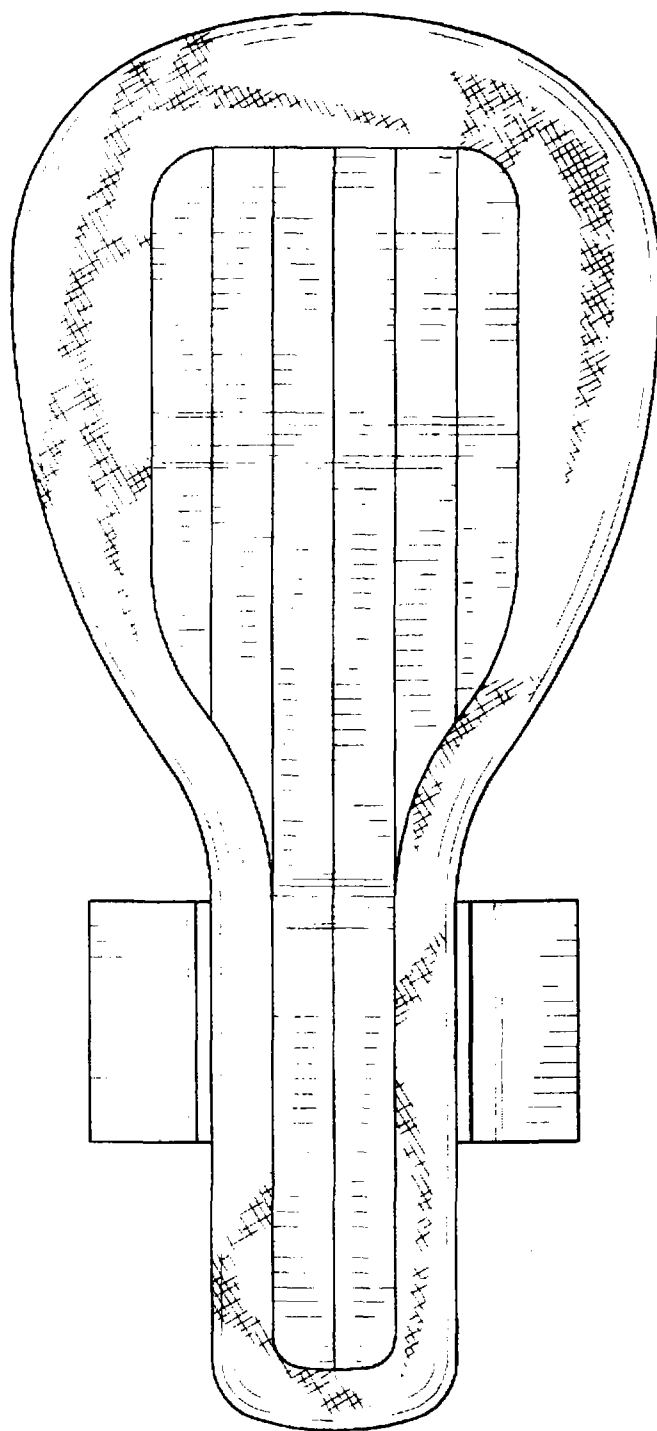


Fig. 1

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U.S. Patent

May 19, 1998

Sheet 2 of 3

Des. 394,503

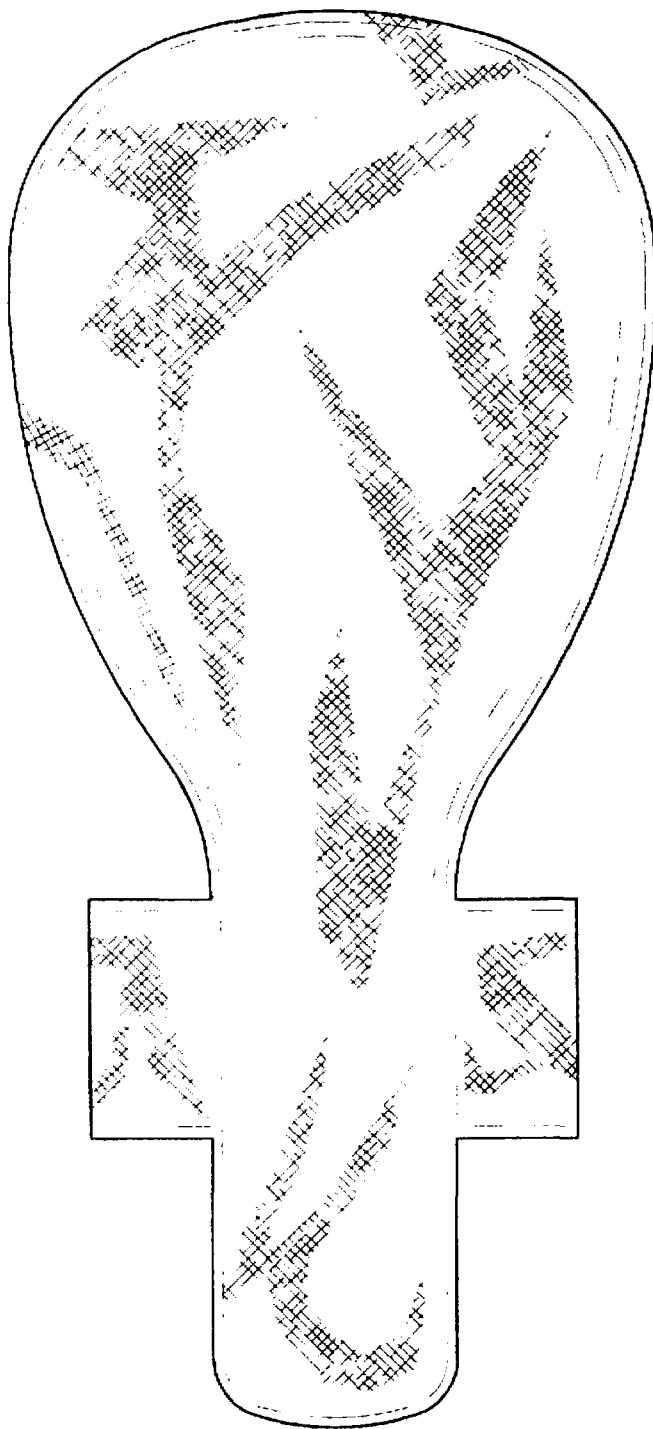


Fig. 2



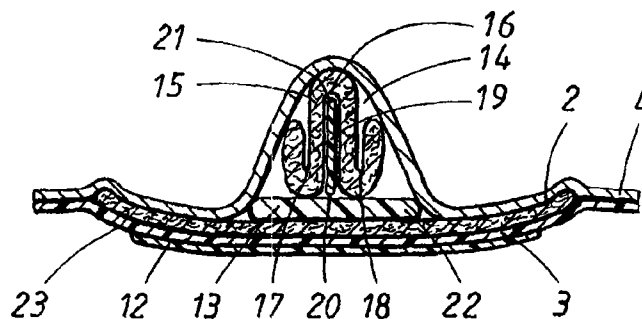
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A61F 13/15		A1	(11) International Publication Number: WO 98/22060
			(43) International Publication Date: 28 May 1998 (28.05.98)
(21) International Application Number: PCT/SE97/01884		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 11 November 1997 (11.11.97)			
(30) Priority Data: 9604225-4 15 November 1996 (15.11.96) SE			
(71) Applicant (for all designated States except US): SCA MÖLNLYCKE AB [SE/SE]; S-405 03 Göteborg (SE).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): GUIDOTTI, Ted [US/SE]; Anneholmsgatan 10, S-412 67 Göteborg (SE). JOHANSSON, Anette [SE/SE]; Ernst Kristenssons gata 4 A, S-416 85 Göteborg (SE). BJÖRKLUND, Camilla [SE/SE]; Glasmästaregatan 4, S-412 62 Göteborg (SE). WIDLUND, Urban [SE/SE]; Pärönvägen 5, S-435 34 Mölnlycke (SE).		Published With international search report. With amended claims.	
(74) Agents: GRAUDUMS, Valdis et al.; Albiñ West AB, P.O. Box 142, S-401 22 Göteborg (SE).			

(54) Title: ABSORBENT ARTICLE WITH A REINFORCED HUMP

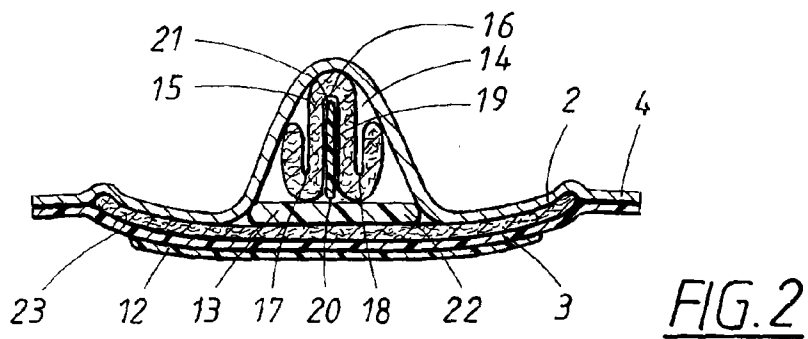
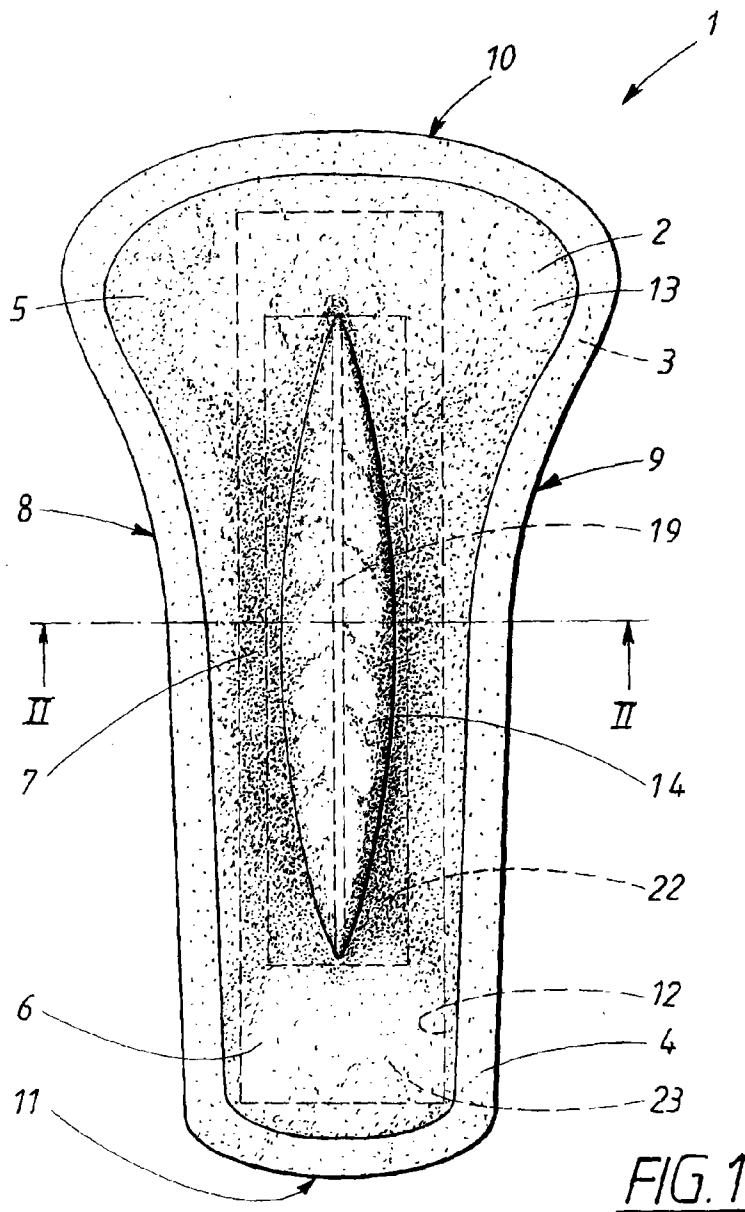
(57) Abstract

The invention relates to an absorbent article intended for female users. A sanitary napkin, a panty-liner or an incontinence guard according to the invention has such a shape and size that it can be substantially accommodated in the crotch region of a pair of panties. The article exhibits a liquid-pervious surface (2), and a liquid-impervious surface (3), and further also an absorbent body (15, 23), arranged between the two surfaces (2, 3). A hump (14) with an anatomically adapted shape is arranged at the liquid-pervious surface (2) of the article and comprises a stiffening element (19) which both in a wet and in a dry state counteracts compression in the thickness direction of the article and which extends between the liquid-pervious surface (2) and the liquid-impervious surface (3).



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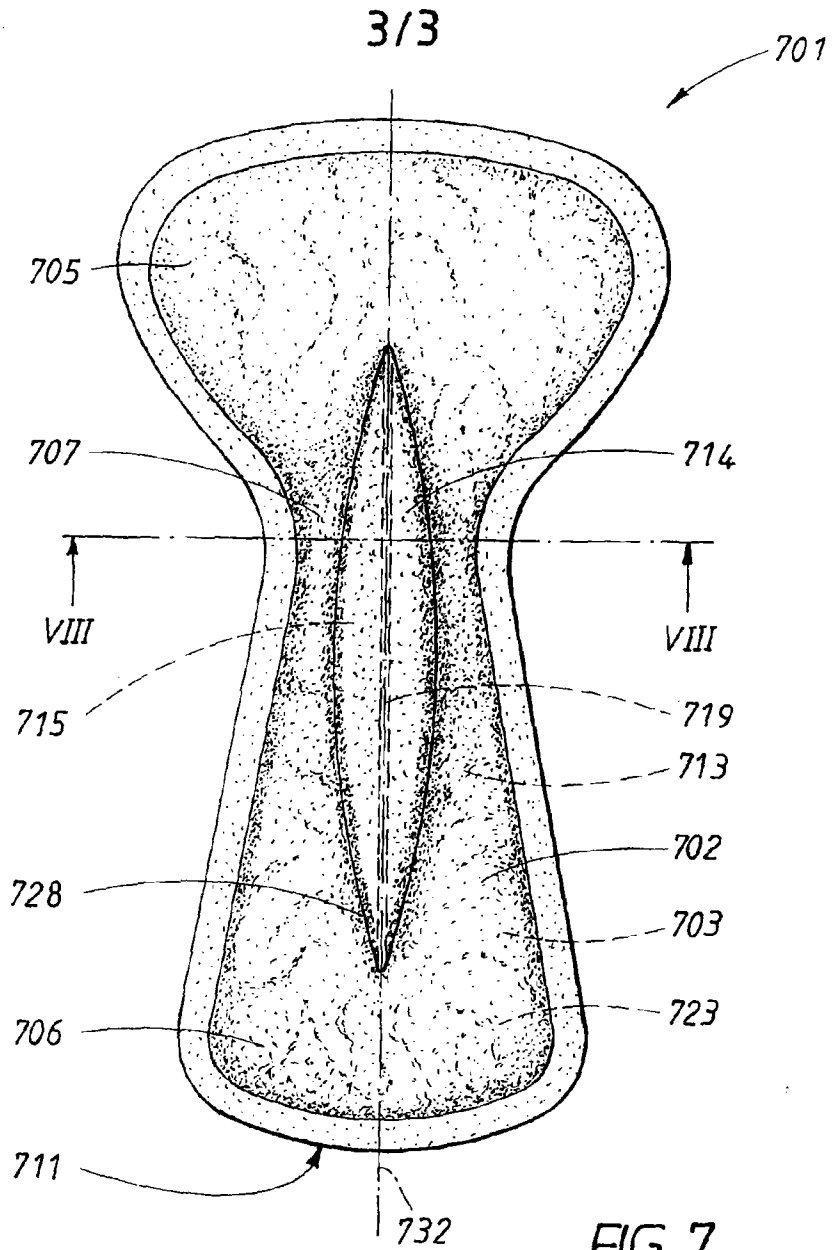


FIG. 7

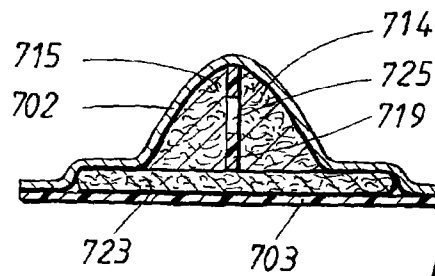


FIG. 8

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CLAIMS:

1. An absorbent article, such as a sanitary napkin, a
10 panty-liner or an incontinence guard intended for female
users, having a shape and size which permit it to be
substantially accommodated in the crotch region of a pair
of panties and having a longitudinal direction, a
transverse direction and a thickness direction, wherein the
15 article exhibits a liquid-pervious surface (2), and a
liquid-impervious surface (3), and further an absorbent
body (15, 23), arranged between the two surfaces (2, 3),
and wherein a hump (14) is arranged at the liquid-pervious
surface (2) of the article,
20 c h a r a c t e r i z e d i n that the hump (14) has an
anatomically adapted shape and comprises a stiffening
element (19) which counteracts compression in the thickness
direction of the article both in a wet and in a dry state
and which extends between the liquid-pervious surface (2)
25 and the liquid-impervious surface (3).
2. Absorbent article according to claim 1,
c h a r a c t e r i z e d i n that the stiffening element
(19) is constituted by a planar piece of material, having
30 a first edge (21) facing the liquid-pervious surface and a
second edge (20) facing the liquid-impervious surface (3).
3. Absorbent article according to claim 2,
c h a r a c t e r i z e d i n that the stiffening element
35 is arranged substantially perpendicularly between the two
surfaces (2, 3) of the article.

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4. Absorbent article according to claim 1, 2 or 3,
characterized in that the stiffening element
(719) allows limited compression of the hump (714) in the
5 thickness direction of the article.

5. Absorbent article according to claim 4,
characterized in that the material in the
stiffening element (719) allows elastic compression of the
10 hump (714).

6. Absorbent article according to claim 4 or 5,
characterized in that the stiffening element
exhibits a cut-out portion (525), which allows compression
15 of the hump (714).

7. Absorbent article according to claim 4 or 5,
characterized in that the stiffening element
(19) exhibits a plurality of longitudinal folds, which
20 enable compression of the hump (14) in the thickness
direction of the article.

8. Absorbent article according to any one of the
preceding claims,
25 characterized in that the stiffening element
(19) is constituted by a rigid plastic layer having a
thickness between 0.2 mm and 2 mm.

9. Absorbent article according to any one of the
preceding claims,
30 characterized in that the stiffening element
(619) is constituted by a rigid piece of material which is
folded or bent and exhibits a fold (629) which is facing
the liquid-pervious surface (2) and extends in the
35 longitudinal direction of the article.

117 119

10. Absorbent article according to claim 9,
c h a r a c t e r i z e d i n that the stiffening element
(619) exhibits at least one supporting edge (630, 631)
5 formed by folding out an edge portion on the material piece
and arranged at the liquid-impervious surface (3) of the
article.