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SEÑOR

SUPERINTENDENTE DE INDUSTRIA Y COMERCIO

DIVISION DE NUEVAS CREACIONES

E. _____ S. _____

SUPERINDUSTRIA Y COMERCIO
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Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

Re: P1.-UNILEVER N.V.- Solicitud de Patente de invención para
"ENVOLTURAS PARA JABONES "-Clase A.47.- Expediente número
00-001.439.-

1. Me refiero a la solicitud de patente arriba nombrada de fecha 13 de Enero del 2000.

2. Anexos me permito presentar a usted:

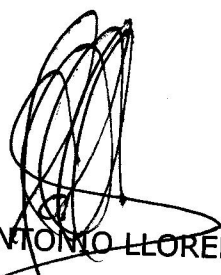
(a) Copia auténtica debidamente certificada **respecto de la cual reclamo prioridad unionista**, a saber la solicitud británica número 9900951.6 del 15 de Enero de 1999, junto con su traducción oficial, **correspondiente a las legalizaciones y reivindicaciones de dicho documento;**

(b) Documento que acredita el traspaso que el autor del invento hace a favor de la sociedad **UNILEVER NV** de sus derechos sobre la presente invención, debidamente legalizado hasta por el Ministerio de Relaciones Exteriores de Colombia bajo el número 124463 de 23 de Febrero de 2000, junto con la Traducción Oficial número 8043, debidamente legalizada hasta por el Ministerio de Relaciones Exteriores de Colombia bajo el número 022259 de 28 de Febrero de 2000; y

36
(c) Copia debidamente autenticada por el Notario Sexto del Circulo de Bogotá, de los documentos que acreditan la calidad de traductor Oficial del señor Eduardo Calado Noguera, quien elaboró la traducción de la solicitud británica número 9900951.6 respecto de la cual se reivindica prioridad en el presente caso.

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

Señor Superintendente,



JOSE ANTONIO LLOREDA
T.P. 10.784
Código 231

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SOAP WRAPPERS

This invention relates to soap wrappers and, in particular, to a bar of soap wrapped by at least a stiffening member and to a package comprising the bar of soap, the stiffening member and a wrapper entirely surrounding each of the bars of soap and the stiffening member.

In the past a considerable effort has been placed into developing special fungicide containing papers and stiffener board for wrapping soap. As cellulose, which is the major constituent of paper, is an excellent growth medium for mould particularly under moist warm conditions, the use of a fungicide (known in the USA as an "antimicotic") is essential in soap packaging to prevent spoilage. These compounds serve as "fungistats"; they prevent the onset of mould growth.

Unfortunately the number of fungicides that can be safely used for soap wrapping are limited at least because some are very toxic to man. In addition moulds can become resistant to fungicides after prolonged exposure which necessitates changing the fungicide about every 7 years. Carbendazim and Thiabendazole have been used in the past but are now ineffective under tropical conditions and a significant amount of development resource has been necessary by the paper makers in developing a suitable second generation fungicide. This has required a long programme of tests and screening, which, after moulds have become resistant again, would need to be repeated if this procedure for avoiding mould growth continues to be adopted.

Similarly, if, additionally, a wrapper, wrapped around each of the bar of soap and stiffening member, comprises a film material having at least respective outer surfaces thereof each provided by a plastics material, mould growth on and
5 within it can be entirely eliminated.

Moreover, as shown with reference to the attached graph 1, since only the folded ends of the wrapper provide a route for moisture escape the rate of water loss is considerably
10 decreased to provide a desired amount of water within the bar. On the other hand the film wrapper of plastics material gives a very effective moisture barrier.

In particular, in microbiological laboratory tests using
15 moulds which are shown to be resistant to Carbendazim both films of plastics material and boards coated with plastics material have been tested for mould attack and both were found to be completely resistant.

Indeed, we find that, even with a "double board" stiffener coated with plastics material, fungus did not encroach through the edges.

Thus, according to one aspect, the present invention
25 provides a bar of soap having, wrapped, laterally of the bar, around at least a longitudinal extent of the bar, a stiffening member comprising a stiff sheet material having at least respective outer surfaces thereof each provided by a plastics material wherein at least part of the stiffening
30 material is transparent.

The provision of a stiffening member, at least a portion of which is transparent, allows the soap to be viewed through

At least each outer surface of the stiffening member is preferably provided by a thermoplastics material. For example, the sheet material of the stiffening member may be a laminate having a core layer of a paper board and
5 respective outer layers each comprising a layer of thermoplastics material, preferably each having a respective thickness, independently of one another, of from 5 to 35 μ m. However, more preferably, the entire sheet is of a thermoplastics material, which may contain from 5 to 30%,
10 preferably 10 to 25%, more preferably about 20%, by weight of the total weight of the stiffening member, of a filler or blowing agent, or total of filler and blowing agent. Typically, the filler is an inert inorganic filler such as talc or clay. Such fillers provide improved stiffness.

15 The thermoplastics material of the stiffening member sheet material is preferably selected from the many types of films suitable for this application. Typically this would be polypropylene, polystyrene, acrylic/butadiene/styrene
20 copolymer and polyethylene terephthalate and PVC. These films may have been either through a mono or bi-orientation process to improve the properties such as clarity, barrier, stiffness etc normally conferred by these processes. However simple case films could be used. The films will
25 preferably be in a form to give maximum stiffness and typically therefore polystyrene would either be BOPS or HIPS and PET would be A-PET.

30 It is especially preferred that the stiff sheet material is free from memory so that it does not unfold from a roll on which it was stored and so that it can be folded around the bar of soap, preferably around the entire peripheral

wrapper are preferably of heat sealable plastics material. Moreover, the edge portions are preferably kept free of printing material etc.

- 5 Thus preferably, the film material of the wrapper comprises at least one layer of a biaxially oriented polypropylene capable of heat sealing. More preferably the film is a laminate of a biaxially oriented polypropylene layer with a low density polyethylene film.

10

Preferred examples of alternative constructions of the wrapper are:

- (a) a laminate of a heat sealable film an internal
15 face of which may bear print material and between which a laminating, for example hot melt, adhesive is applied;

(b) a special BOPP film which is capable of heat sealing; and

20

(c) a laminate of a PET, nylon or low density polyethylene film adhered, for example with a hot melt adhesive, to a heat sealable film.

- 25 A package according to the invention containing a soap bar can be produced by a method comprising the steps of:

folding around at least a longitudinal extent of the bar of soap a stiffening member so that the stiffening member is wrapped laterally around the bar;

- 30 wrapping each of the bar of soap and stiffening member with a wrapper in a manner such as entirely to surround each of the bar of soap and stiffening member and provide overlapping edge portions of the wrapper;

can be applied on the reverse to avoid damage due to scuffing during transport.

2. BOPP films of 15 - 35 μ m thickness, reverse printed
5 and extrusion coated over the ink with 12 - 35 μ m low density
polyethylene (LDPE) or linear low density polyethylene
(LLDPE), or mixtures thereof. Instead of a homopolymer of
LDPE or LLDPE, a copolymer containing each of these can be
used for coating. Moreover, such a homopolymer or copolymer
10 may contain additionally from 2 - 10% ethylene vinyl acetate
(EVA) copolymer units, especially in the LDPE to improve
sealing.

3. Two or more BOPP films of 10 35 μ m thickness
15 laminated together preferably with heat-sealable surfaces
front and back. Print may be sandwiched between the layers
of film.

4. BOPP film of 10 - 35 μ m thickness laminated to LDPE
20 or LLDPE film of 10 - 50 μ m thickness. Combinations of LDPE
and LLDPE in the film can be used and the addition of 2 -
10% ethylene vinyl acetate copolymer to the LDPE film can
improve sealing.

25 5. 100% high density polyethylene film of 10 - 50 μ m
thickness surface printed and lacquered with the seal areas
being free from ink and varnish.

6. 15 - 55 μ m polythene, polypropylene, PVC, PET,
30 films with a heatseal coating (typically a hot melt wax)
applied to the reverse side. Alternatively the coating can

Examples A to H

The following wrapping systems were tested for fungicidal growth and weight loss.

5

Example	Wrapper	Stiffener ³	Sealing ⁴
A	BOP ¹	Paper ⁵	Part seal
B	BOP ¹	Paper ⁵	No seal
C	BOP ¹	Paper ⁵	Hermetic seal
D	BOP ¹	Plastic	Part seal
E	BOP ¹	Plastic	Hermetic seal
F	Paper ^{2 5}	Paper ⁵	Part seal
G	Paper ^{2 5}	Paper ⁵	No seal
H	Paper ^{2 5}	Paper ⁵	Hermetic seal

Notes:

1 A biaxially oriented polypropylene (BOP) wrapper consisting of a laminate of two layers of BOP having printed material between them, an outer layer of wrapper having a melt index greater than that of the inner layer for hot-melting during heat sealing and the outer layer having a coating of an acrylic polymer to further assist heat sealing.

2 A wrapper having a paper core laminated with an acrylic based varnish forming an outer layer and a hot melt layer of a wax material forming an inner layer.

3 Respective stiffeners of paper and a plastics material each have a stiffness value, when measured as described below, in the longitudinal (machine) direction of 15 Taber Stiffness

Small squares of test packaging material were cut using scissors dipped in alcohol, flamed and cooled. The squares were placed right side up and upside down onto the surface of poured petri dishes of Sabourauds dextrose agar using
5 flamed, alcohol dipped tweezers.

Using a sterile pipette, 0.1 ml of mould inoculum (approximately 10^8 spores ml^{-1}) were dispensed onto the centre of the square of packaging. Using a sterile plastic
10 'hockey stick', the inoculum was spread evenly over the surface of the agar and the packaging material.

The petri dishes were incubated at 28°C for one week and the level of fungal growth on the packaging material and the
15 agar assessed visually.

The following key was used for the visual assessment.

	0	=	no growth
20	10	=	slight growth
	20	=	light, patchy growth
	30	=	moderate growth over whole sample
	40	=	heavy growth over most of sample
	50	=	completely overgrown

25

As controls for comparison, Sabourauds dextrose agar without packaging materials and Sabourauds dextrose agar with preservative-free paper squares were included in the test. These plates showed a reading of 50, but each of the
30 stiffness and wrappers in Examples A to H showed 0 (zero) fungal growth.

CLAIMS:

1. A bar of soap having, wrapped laterally of the bar, around at least a longitudinal extent of the bar, a
5 stiffening member comprising a stiff sheet material having at least respective outer surfaces thereof each provided by a plastics material, wherein at least part of the stiffening material is transparent.
- 10 2. A bar according to claim 1, wherein the stiffness of the stiff sheet material is at least 3 Taber Stiffness Units in each of the longitudinal and transverse directions.
3. A bar according to claim 1 or claim 2, wherein the
15 stiffening member has a weight per unit area of from 50 to 200 g/m².
4. A bar according to any preceding claim, wherein at least each outer surface of the stiff sheet material is a
20 thermoplastics material.
5. A bar according to claim 4, wherein the entire sheet material is of thermoplastics material.
- 25 6. A bar according to claim 5, wherein the thermoplastics material contains from 5 to 30% by weight of the total weight of the stiffening member of a filler and/or blowing agent.
- 30 7. A bar according to claim 5, wherein the thermoplastics material contains an inert inorganic filler.

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15. A package comprising the bar of soap and stiffening member of any preceding claim, and further including

5 a wrapper, wrapped around, in a manner such as entirely to surround, each of the bar of soap and stiffening member, which wrapper comprises a film material, at least part of which is transparent.

10 16. A package as claimed in claim 15 in which a transparent part of the wrapper overlies a transparent part of the stiffening member.

15 17. A package as claimed in claims 15 or 16 wherein the entire wrapper is of a transparent material.

18. A package according to claim 19, wherein the film material has a thickness of from 5 to 50µm.

20 19. A package as claimed in any of claims 15 to 18 in which at least respective outer surfaces of the wrapper are provided by a plastics material.

20. A packaged product comprising:-

- 25 - a bar of soap having on a surface thereof a visible design, logo, motif, word or mark;
- a stiffening member comprising a stiff sheet material wrapped laterally of the bar around at least a longitudinal extent thereof; and
- 30 - an outer wrapper which entirely surrounds each of the bar of soap and the stiffening member,

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ABSTRACT

A bar of soap having, wrapped laterally of the bar, around
at least a longitudinal extent of the bar, a stiffening
5 member comprising a stiff sheet material having at least
respective outer surfaces thereof each provided by a
plastics material. At least a portion of the stiffening
member is transparent to allow the soap to be viewed.

TRADUCCION OFICIAL NO. 8043

De un documento escrito en inglés.

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Expediente No. 00.001.439

C 3892 (C) / CO

TRASPASO DE INVENTO

Yo, el suscrito, por el presente traspaso a:

UNILEVER N.V.

una compañía holandesa domiciliada en

Weena 455

3013 AL Rotterdam

Holanda

la totalidad de mi derecho para solicitar y obtener una patente en:

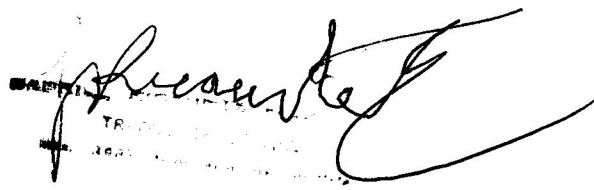
COLOMBIA

sobre un invento hecho por mí, llamado:

ENVOLTURAS PARA JABON

Fechado el día de de 2000

Firmado David Moss

A handwritten signature in black ink is written over a rectangular stamp. The signature is cursive and appears to read 'David Moss'. The stamp contains some text, including 'TRADUCCION OFICIAL' and 'NO. 8043', but it is partially obscured by the signature.

David MOSS, c/o Unilever Research Port Sunlight, Quarry Road East,
Bebington, Wirral, Merseyside, L63 3JW, Reino Unido

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Firmado: M. A. Walker – Notario Público – 14/1/2000

Sello en relieve: Michael Glenn Walker - Notario Público – Heswall

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REINO UNIDO DE LA GRAN BRETAÑA E IRLANDA DEL NORTE

Fecha: Enero 21 de 2000

No D 576848

Este documento tiene la firma/sello de :MA. WALKER

Actuando en su condición de Notario Público.

Firma legible

Sello de caucho: J. GARBRAH

Por el Secretario de Estado Principal de Su Majestad

Para Asuntos Extranjeros y de la Comunidad

Sello impreso y sello en relieve: Ministerio de Asuntos Extranjeros y de la Comunidad –

Londres – Con el escudo inglés en el centro.

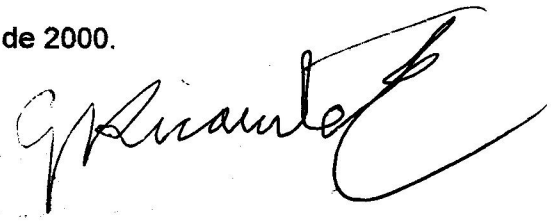
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Es traducción fiel y completa, de la cual queda copia en el archivo de esta oficina de traducciones para su confrontación, a la cual me remito.

El documento fué legalizado en la Oficina de Legalizaciones del Ministerio de Relaciones Exteriores bajo el número 24463 de Febrero 23 de 2000.

Derechos de traducción: \$16.000.00

Santafé de Bogotá, D.C., 24 de Febrero de 2000



ASSIGNMENT OF INVENTION

I/We, the undersigned, do hereby assign to:

UNILEVER N.V.
a Dutch company of
Weena 455
3013 AL Rotterdam
Netherlands

my/our entire right to apply for and to obtain a patent in:

COLOMBIA

on an invention made by me/us, entitled:

SOAP WRAPPERS

Dated the day of 2000

DAVID MOSS

David MOSS, c/o Unilever Research Port Sunlight, Quarry Road East, Bebington, Wirral, Merseyside, L63 3JW,
United Kingdom

dr. G. Wallen

Notary Public

14/1/2000

Notarise/Apostile/Legalise