

AUSTRALIA

Patents Act 1990

NOTICE OF ENTITLEMENT

(To be filed before acceptance)

I/We, COMERCIAL EUROPA S.C.
of C/Cesar El-guezabal, 34 - 1º - Izda, E-03001, Alicante, Spain

being the applicant in respect of Application No. 38911/93, state the following:-

Part 1 - Must be completed FOR ALL APPLICATIONS.

The person(s) nominated for the grant of the patent:

~~*is / *are the actual inventor(s)~~

or

*has entitlement from the actual inventor(s) who made the invention as a partner of
the firm, Comercial Europa S.C.

(eg by assignment, by mesne assignment, as legal representative of etc)

~~* Part 2 - Must be completed IF THE APPLICATION IS ASSOCIATED with one or more
PROVISIONAL APPLICATIONS.~~

The person (s) nominated for the grant of the patent:

*is / *are the applicant(s) of the provisional application(s) listed on the patent request form

or

has entitlement to make a request under Section 113 in relation to the provisional application(s) listed on
the patent request form

(eg by assignment, by agreement, etc)

~~* Part 3 - Must be completed for ALL CONVENTION APPLICATIONS.~~

The person(s) nominated for the grant of the patent:

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(eg by assignment, by mesne assignment, by consent, etc)

(Continued over)

(January 1992)

~~*The basic application(s) listed on the request form:~~

~~*is/ *are the first application(s) made in a Convention country in respect of the invention~~

~~or~~

~~*was/were not the first application(s) made in a Convention country in respect of the invention, and a request has been made under Section 96 of the Patents Act 1990 (or Section 142AA of the Patents Act 1952) to disregard the following application(s)~~

Part 4 - Must be completed FOR PCT APPLICATIONS.

The person(s) nominated for the grant of the patent:

~~*is/ *are the applicant(s) of the application(s) listed in the declaration under Article 8 of the PCT~~

~~or~~

~~*has entitlement from the applicant(s) of the application(s) listed in the declaration under Article 8 of the PCT who is associated with the inventor and forms with the inventor the firm Comercial Europa S.C.~~

~~(eg by assignment, by mesne assignment, by consent of ..., as legal representative of ...etc)~~

The basic application(s) listed in the declaration made under Article 8 of the PCT

*is / *are the first application(s) made in a Convention country in respect of the invention

or

~~*was/ *were not the first application(s) made in a Convention country in respect of the invention, and a request has been made under Section 96 of the Patents Act 1990 (or Section 142AA of the Patents Act 1952) to disregard the following application(s)~~

~~*The provisional application(s) listed in the declaration made under Article 8 of the PCT~~

~~*was/ *were filed in Australia not more than 12 months before the filing date of this application.~~

Part 5 - Must be completed if the application is a DIVISIONAL APPLICATION.

The person(s) nominated for the grant of the patent:

*is / *are the applicant(s) / patentee(s) of the original application(s) / patent(s)

or

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~~* Part 6 - Must be completed if the application relates to a MICROORGANISM and relies on SECTION 6 of the Act.~~

The person(s) nominated for the grant of the patent:

*is / *are the depositor(s) of the deposit(s) as listed hereafter

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(eg by assignment, by consent, etc)

Deposit List (by number, deposit institution, date)

~~Part 7 - Must be completed if the applicant for a PATENT OF ADDITION is not the applicant or patentee of the main invention.~~

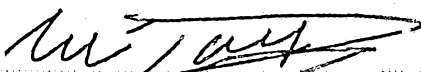
I, _____
the *applicant / *patentee for *application / *patent No. _____

authorise _____
to apply for a further patent for an improvement in, or modification of, the main invention.

(Signature)

(Date)

Note: This part must be signed by the applicant/patentee of the main invention.


(Signature)

JOSE MARIA LOPEZ GONZALEZ

5 November 1993

(Date)

(If the applicant is a Company or other legal entity, also indicate the name and standing of the authorized signatory)

Note: This MUST be signed FOR ALL APPLICATIONS

* G...Delete if not appropriate



AU9338911

(12) PATENT ABRIDGMENT (11) Document No. AU-B-38911/93
(19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 660366

- (54) Title
SLIDING LOCK
- International Patent Classification(s)
(51)⁵ B65D 033/16 B65D 005/06 B65D 077/12
(51)⁶ B65D 005/74
- (21) Application No. : 38911/93 (22) Application Date : 18.03.93
(87) PCT Publication Number : WO93/18980
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9200880 U 20.03.92 ES SPAIN
(43) Publication Date : 21.10.93
(44) Publication Date of Accepted Application : 22.06.95
(71) Applicant(s)
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(56) Prior Art Documents
GB 2029203
AU 65356/90 B65B 30/24 33/16
(57) Claim

1. A slide on seal for use in the sealing of containers such as the cartons used for the marketing of milk, fruit juices and the like, said slid on seal comprising:

a tubular body, formed in a resiliently deformable material;

a longitudinal slit along the axial length of the tubular body;

at least one circumferential reinforcement about the periphery of the tubular body; and

a cut in the tubular body at at least one end thereof, said cut positioned generally opposite said slit.



<p>(51) Clasificación Internacional de Patentes⁵ : B65D 33/16, 5/06</p>	<p>A1</p>	<p>(11) Número de publicación internacional: WO 93/18980 (43) Fecha de publicación internacional: 30 de septiembre de 1993 (30.09.93)</p>
<p>(21) Solicitud internacional: PCT/ES93/00018 (22) Fecha de presentación internacional: 18 de marzo de 1993 (18.03.93) (30) Datos relativos a la prioridad: U 9200880 20 de marzo de 1992 ES (20.03.92) (71) Solicitante (para todos los Estados designados salvo US): COMERCIAL EUROPA, S.C. [ES/ES]; C/Cesar El-guezabal, 34 - 1º - Izda, E-03001 Alicante (ES). (72) Inventor; e (75) Inventor/solicitante (sólo US): LOPEZ GONZALEZ, Jose, María [ES/ES]; C/Bilbao, 3 - 5º A, E-03001 Alicante (ES).</p>		<p>(74) Mandatario: CAPITAN GARCIA, Nuria; Pº Marqués de Zafra, 38 (bis), E-28028 Madrid (ES). (81) Estados designados: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, Patente europea (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), Patente OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG). Publicada Con informe de búsqueda internacional. Antes de la expiración del plazo previsto para la modificación de las reivindicaciones, será publicada nuevamente si se reciben tales modificaciones.</p>

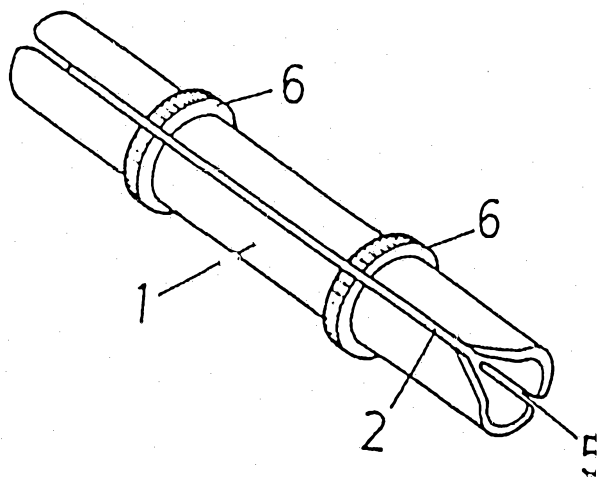
660366

(54) Title: SLIDING LOCK

(54) Título: CIERRE DESLIZANTE

(57) Abstract

Sliding lock comprised of a tubular body (1) presenting a longitudinal slit (2) delimited by facing and proximate edges and by means of which said tubular body is intended to press on the walls of the container (3) by coupling and sliding thereto, the slit ending at one of its extremities into a diverging sector (4) which facilitates the coupling of the tubular body to the container, by acting as a guide for the same. The tubular body may incorporate one or a plurality of peripheral ribs (6) which stiffen its structure and minimize its elastic deformability, as well as an incision (5) at its extremity corresponding to the divergence of its longitudinal in order to improve its deformability in this area during the coupling to the container.



(57) Resumen

Cierre deslizante, constituido por un cuerpo tubular (1), afectado integralmente por un corte longitudinal (2) determinante de bordes enfrentados y próximos a través de los que dicho cuerpo tubular está destinado a presionar sobre las paredes del envase (3) en su acoplamiento y deslizamiento sobre él, rematándose dicho corte por uno de sus extremos en un sector divergente (4) que facilita el acoplamiento del cuerpo tubular al envase, actuando como guía para el mismo. El cuerpo tubular podrá incorporar uno o más nervios perimetrales (6) que rigidizan su estructura minimizando su deformabilidad elástica, así como una incisión (5) en su extremo correspondiente a la divergencia de su corte longitudinal, para mejorar su deformabilidad en esta zona durante la maniobra de acoplamiento al envase.

A SLIDE-ON SEAL

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D E S C R I P T I O N

OBJECT OF THE INVENTION

This invention consists of a slide-on seal which has been specially designed so as to form a sealing device for different types of cardboard or laminated containers such as the cartons used for the marketing of milk, fruit juices, etc.

The slide-on seal described herein enables the container in question, which has been opened and the contents of which have been partially consumed, to be resealed hermetically in a simple, quick, effective way, pending further consumption of the contents.

BACKGROUND OF THE INVENTION

A large variety of liquid products such as those mentioned above and even some solid products are commercialized in plastic bags, hermetically sealed, which keep the contents protected from the surroundings. At other times, plastified cardboard containers are used such as the well-known "tetra-brik". Usually when this type of container is used, in order to consume the product, an oblique cut is made at the corner of the carton thus forming an opening through which the contents may be poured out. This opening usually measures between 1 and 2cm. although in some cases it may measure more or less.

This type of container poses a two-fold problem. On the one hand, once the carton is opened, the contents run the risk of deteriorating and on the other hand, because of the flexible nature of the carton itself, there exists the likelihood of the contents being spilt while handling the carton.

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DESCRIPTION OF THE INVENTION

The slide-on seal described herein has been conceived with a view to eliminating the above problems in an entirely satisfactory way. This sealing device has a simple structure, is easy to use, very



J. Williams

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effective and assures a water light seal for the carton, once opened, thus protecting the contents both from the deteriorating effect of the surroundings and from being split during use through careless handling of the carton.

In order to achieve this, the invention provides a slide on seal for use in the sealing of containers such as the cartons used for the marketing of milk, fruit juices and the like, said slide on seal comprising:

a tubular body formed in a resiliently deformable material;

a longitudinal slit along the axial length of the tubular body;

at least one circumferential reinforcement about the periphery of the tubular body; and

a cut in the tubular body at at least one end thereof, said cut positioned generally opposite said slit.

The material used for the seal must be sufficiently elastic so as to allow the necessary pressure to be exerted on the sides of the carton which are introduced into the slit, in order to ensure that the opening is sealed all along the line defined by the said slit.

To complement this basic structure, the slit has been designed in a preferred form to end in a divergence of at least one of its extremities. This divergence acts as a guide, enabling the cut sides of the carton to enter the seal easily. Moreover, several reinforcements may be placed around the perimeter of the seal in order to make the structure more rigid, thus preventing the appearance of any permanent deformations which would reduce the seal's usefulness and effectiveness.



DESCRIPTION OF THE DRAWINGS

As a complement to the description given and in order to enable a fuller understanding of the invention, we are attaching a set of drawings which form
 5 an integral part of this descriptive account. These drawings represent an illustrative but not restrictive way the following:

FIG 1 shows a perspective view of the slide-on seal constructed in accordance with this invention;

10 FIG 2 shows a cross-sectional view of the same device;

FIG 3 shows a perspective view of the sealing device used to seal the opening in the corner of the type of carton that is used to commercialise milk, for
 15 example.

RECOMMENDED CONSTRUCTION OF THIS INVENTION

If we observe the drawings, it can be seen that the slide-on seal proposed by us is constructed from a tubular body (1) which in the practical example
 20 illustrated adopts a cylindrical form. However, it could just as easily adopt any other form such as, for example, a quadrilateral prism, triangle, pentagon, hexagon, etc. and this would not effect the essence of the invention provided that the basic characteristics,
 25 which are essential to its functioning properly, are adhered to. These characteristics are: an appropriate radial elasticity and the existence of a straight longitudinal slit (2) along the entire length of the device, said slit being as narrow as possible (almost of
 30 negligible width) so that a radial deformation of the tubular body (1) is necessary in order to fit it onto the cut corner of the carton (3), as shown in FIG 3, or onto the cut corner of any other type of conventional container having sides of laminated cardboard or
 35 plastic, etc.



In order to facilitate the attaching of the body (1) onto the container in question (3) the longitudinal slit (2) has been designed in such a way that the end that fits onto the carton terminates in a short divergent section (4) which acts as a form of guide to the sides of the carton (3), formed by the cut corner, as they are introduced into the sealing device and slide towards the main operative section of the slit (2).

Moreover, this divergent section (4) is complemented by a small cut (5), preferably opposite it, which facilitates the deformation of the seal at this end where it attaches onto the container.

In accordance with this construction, the seal forms a type of elastic peg with a high sealing tension along its operative edges defined by the longitudinal slit (2). This tension may be increased by placing rigidity reinforcements (6) at suitable intervals around the perimeter of the device. In the practical example illustrated, there are two such reinforcements, but this number may vary without affecting the essence of the invention. Moreover, the reinforcements make the device easier to grip while attaching it to or removing it from the container.



Since the seal has been specially designed for cartons containing food or drink and so as to result in the maximum amount of air being expelled by compressing the carton before it is completely sealed off in order to achieve some degree of vacuum and consequently help keep the contents fresh, the seal should be manufactured in a non-toxic material.

We feel that an expert in the matter will understand the importance of this invention and the benefits that can be derived from it without having to go into any further detail. The materials used, shape, size and location of its elements may all be varied provided that this does not alter the essence of the invention.

The terms used in this description should always be understood in a broad sense and not a restrictive one.

J. Williams

10-12-93



The claims defining the invention are as follows:

1. A slide on seal for use in the sealing of containers such as the cartons used for the marketing of milk, fruit juices and the like, said slid on seal
5 comprising:

a tubular body, formed in a resiliently deformable material;

a longitudinal slit along the axial length of the tubular body;

10 at least one circumferential reinforcement about the periphery of the tubular body; and

a cut in the tubular body at at least one end thereof, said cut positioned generally opposite said slit.

15 2. A slide on seal as claimed in Claim 1 wherein: the longitudinal slit defines closely spaced opposed edges which exert pressure, in use, on a container therebetween.

3. A slide on seal as claimed in either one of
20 Claims 1 and 2 wherein the slit, at at least one of its extremities, ends in a divergent section which facilitates attachment to a container.

4. A slide on seal as claimed in any one of
25 Claims 1 to 3 wherein two spaced apart reinforcements are provided about the tubular body, said reinforcements comprising peripheral ridges projected externally of the tubular body and being integral therewith.

5. A slide on seal substantially as hereinbefore described with reference to the accompanying drawings.

30 DATED this seventh day of April 1995.

COMERCIAL EUROPA S.C.

By its Patent Attorneys

GRANT ADAMS & COMPANY



38911/93

- 1/1 -

FIG. 1

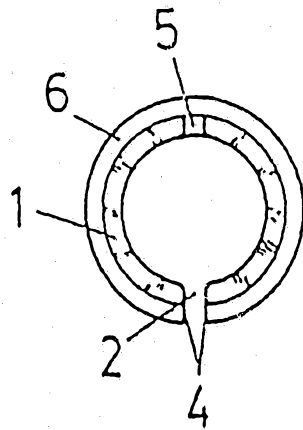
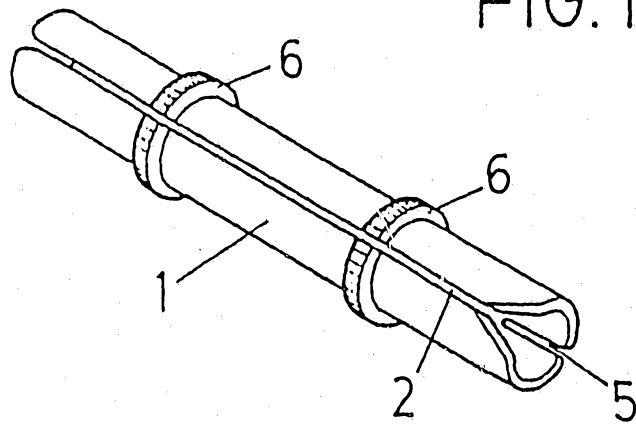


FIG. 2

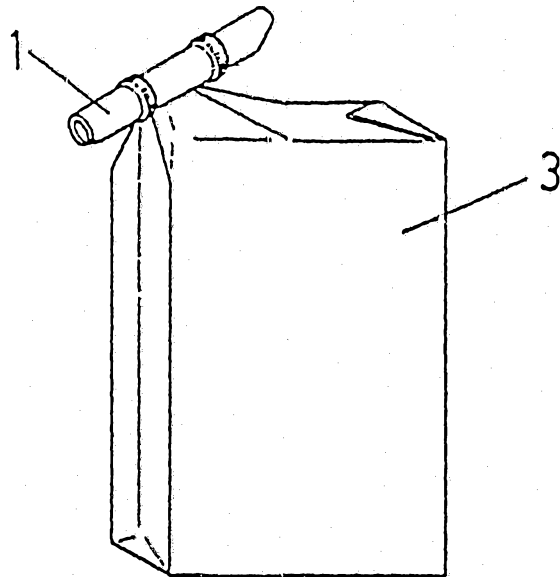


FIG. 3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 93/00018

A. CLASSIFICATION OF SUBJECT MATTER		
Int.Cl.5 B65D33/16; B65D5/06 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
Int.Cl.5 B65D		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO, A, 9 203 994 (AMERICAN INNOTEK, INC.) 19 March 1992 see page 7, line 25 - page 8, line 3; figures 1,6,7	1
A	GB, A, 2 029 203 (FREDLUNDS INGENJORSBYRA AB) 19 March 1980 see abstract; figures	1
A	GB, A, 703 569 (E. ILLINGWORTH AND CO. LTD.) 3 February 1954 see page 2, line 23 - line 26; figures 1,4	1
A	DE, A, 3 801 192 (ICOMA PACKTECHNIK GMBH) 27 July 1989 see column 2, line 39 - line 50; figures 10-12	1
A	FR, A, 976 221 (LABORATORIES PLASTEX SARL) 15 March 1951 see page 2, line 17 - line 19; figure 2	1
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
13 July 1993 (13.07.93)		30 July 1993 (30.07.93)
Name and mailing address of the ISA/ EUROPEAN PATENT OFFICE		Authorized officer
Facsimile No.		Telephone No.

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO. ES 9300018
SA 71981**

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

13/07/93

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A-9203994	19-03-92	None	
GB-A-2029203	19-03-80	None	
GB-A-703569		None	
DE-A-3801192	27-07-89	None	
FR-A-976221		None	

EPD VOEAM 10479

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

INFORME DE BUSQUEDA INTERNACIONAL

Solicitud Internacional N°

PCT/ES 93/00018

I. CLASIFICACION DE LA INVENCIÓN (caso de ser aplicables varios símbolos de clasificación, indicarlos todos) *		
Según la clasificación internacional de patentes (CIP) o según la clasificación nacional y la CIP CIP. 5 B65D33/16; B65D5/06		
II. SECTORES COMPRENDIDOS POR LA BUSQUEDA		
Documentación mínima consultada ⁷		
Sistema de clasificación	Símbolos de clasificación	
CIP. 5	B65D	
Otra documentación consultada además de la documentación mínima en la medida en que tales documentos forman parte de los sectores comprendidos por la búsqueda ⁸		
III. DOCUMENTOS CONSIDERADOS PERTINENTES ⁹		
Categoría *	Identificación de los documentos citados, ¹¹ con indicación, en caso necesario, de los pasajes pertinentes; ¹²	N° de las reivindicaciones a las que se refieren ¹³
A	WO,A,9 203 994 (AMERICAN INNOTEK, INC.) 19 Marzo 1992 ver página 7, línea 25 - página 8, línea 3; figuras 1,6,7 ---	1
A	GB,A,2 029 203 (FREDLUNDS INGENJORSBYRA AB) 19 Marzo 1980 ver resumen: figuras ---	1
A	GB,A,703 569 (E. ILLINGWORTH AND CO. LTD.) 3 Febrero 1954 ver página 2, línea 23 - línea 26; figuras 1,4 ---	1
A	DE,A,3 801 192 (ICOMA PACKTECHNIK GMBH) 27 Julio 1989 ver columna 2, línea 39 - línea 50; figuras 10-12 ---	1
-/--		
<p>* Categorías especiales de documentos citados:¹⁰</p> <p>"A" documento que define el estado general de la técnica, no considerado como particularmente pertinente</p> <p>"E" documento anterior, publicado ya sea en la fecha de presentación internacional o con posterioridad a la misma</p> <p>"L" documento que pueda plantear dudas sobre una reivindicación de prioridad o que se cita para determinar la fecha de publicación de otra cita o por una razón especial (como la indicada)</p> <p>"O" documento que se refiere a una divulgación oral, a un empleo, a una exposición o a cualquier otro tipo de medio</p> <p>"P" documento publicado antes de la fecha de presentación internacional, pero con posterioridad a la fecha de prioridad reivindicada</p> <p>"T" documento ulterior publicado con posterioridad a la fecha de prioridad y que no pertenece al estado de la técnica pertinente pero que se cita para comprender el principio o la teoría que constituye la base de la invención</p> <p>"X" documento particularmente pertinente: la invención reivindicada no puede considerarse como nueva ni que implique una actividad inventiva</p> <p>"Y" documento particularmente pertinente: la invención reivindicada no puede considerarse que implique una actividad inventiva cuando el documento se asocia a otro u otros documentos de la misma naturaleza, cuya combinación resulta evidente para un experto en la materia</p> <p>"&" documento que forma parte de la misma familia de parentescos</p>		
IV. CERTIFICACION		
Fecha en la que se ha concluido efectivamente la búsqueda internacional	Fecha de expedición del presente informe de búsqueda internacional	
13 JULIO 1993	30. 07. 93	
Administración encargada de la búsqueda internacional	Firma del funcionario autorizado	
OFICINA EUROPEA DE PATENTES	MARTINEZ NAVAR	

EPC FORM (PCT/ES)

III. DOCUMENTOS CONSIDERADOS PERTINENTES (CONTINUACION DE LOS DATOS INDICADOS EN LA SEGUNDA HOJA)		
Categoría *	Identificación de los documentos citados, con indicación, en caso necesario, de los pasajes pertinentes	N° de las reivindicaciones a las que se refieren
A	FR,A,976 221 (LABORATOIRES PLASTEX SARL) 15 Marzo 1951 ver página 2, línea 17 - línea 19; figura 2 -----	1

**ANEXO AL INFORME DE BÚSQUEDA INTERNACIONAL
CORRESPONDIENTE A LA SOLICITUD INTERNACIONAL N° ES 9300018
SA 71981**

El presente anexo indica los miembros de la familia de patentes correspondientes a los documentos de patentes citados en el informe de búsqueda internacional arriba mencionado.
Dichos miembros están contenidos en el archivo informática de la Oficina Europea de Patentes con fecha 13/07/93.
La Oficina Europea de Patentes no es, en ningún caso, responsable de estos datos meramente dados a título informativo.

13/07/93

Documento de patente citado en el informe de búsqueda	Fecha de publicación	Miembro(s) de la familia de patentes	Fecha de publicación
WO-A-9203994	19-03-92	None	
GB-A-2029203	19-03-80	None	
GB-A-703569		None	
DE-A-3801192	27-07-89	None	
FR-A-975221		None	

EOP Formulario P0444

Para mayor información sobre este anexo: ver el Diario Oficial de la Oficina Europea de Patentes, n° 12/82