

AUSTRALIA
Patents Act

DECLARATION IN SUPPORT OF A CONVENTION APPLICATION FOR A PATENT

In support of the Convention Application made for a patent for an invention entitled:

PERMANENT RECEPTACLE FOR COLLECTING URINE FROM WOMEN

I, Didier BERTRAND..... (Full Name)

of S.A. FEDIT-LORJOT ET AUTRES, 38 Avenue Hoche Paris. (Full Address)
8ème, FRANCE

do solemnly and sincerely declare as follows:

1. I am authorized by Kilrush Limited, the applicant for the patent to make this declaration on its behalf.
2. The basic application/s as defined by section 141 of the Act were made in FRANCE on 30 October 1987, . KILRUSH LIMITED
3. Pierre NIGAY; 10, rue de Paris, F-60200 Compiègne, France. is/are the actual inventor/s of the invention and the facts upon which Kilrush Limited is entitled to make the application are as follows:

The applicant is the assignee of the actual inventor/s.
4. The basic application/s referred to in paragraph 2 of this Declaration was the first application made in a Convention country in respect of the invention the subject of the application.

Declared at Paris..... this 24th..... day of April.. 1990

Didier Bertrand..... (Signature)
Didier BERTRAND (Typed Name)

To: The Commissioner of Patents

PHILLIPS ORMONDE & FITZPATRICK
Our Ref : 165157
POF Code: 1172/114114

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(19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 628793

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PERMANENT RECEPTACLE FOR COLLECTING URINE FROM WOMEN
- International Patent Classification(s)
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- (72) Inventor(s)
PIERRE NIGAY
- (74) Attorney or Agent
PHILLIPS ORMONDE & FITZPATRICK , 367 Collins Street, MELBOURNE VIC 3000
- (56) Prior Art Documents
US 4583983
EP 0185517
- (57) Claim

1. A permanent urine-collecting receptacle for women, of the type having a plate and a beveled oblong duct for cooperating with the urethra, wherein the plate has a raised lip shaped so as to surround the female organs, the said duct being located in the interior zone of the said lip, the said duct being surrounded by a channel having orifices provided therein, and by a dish extending on one side only of said duct, and the duct and the channel communicating with a collecting chamber adjoining the plate.

PCT

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26299 / 88

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DEMANDE INTERNATIONALE PUBLIEE EN VERTU DE LA CONVENTION EN MATIERE DE BREVETS (PCT)

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A1

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(72) Inventeur; et

(75) Inventeur/Déposant (US seulement) : NIGAY, Pierre [FR/FR]; 10, rue de Paris, F-60200 Compiègne (FR).

(74) Mandataire: BERTRAND, Didier; S.A. Fedit-Loriot, 38, avenue Hoche, F-75008 Paris (FR).

(81) Etats désignés: AT (brevet européen), AU, BE (brevet européen), CH (brevet européen), DE (brevet européen), FR (brevet européen), GB (brevet européen), IT (brevet européen), JP, KP, LU (brevet européen), NL (brevet européen), SE (brevet européen), US.

Publiée

Avec rapport de recherche internationale.

(54) Title: PERMANENT RECEPTACLE FOR COLLECTING URINE FROM WOMEN

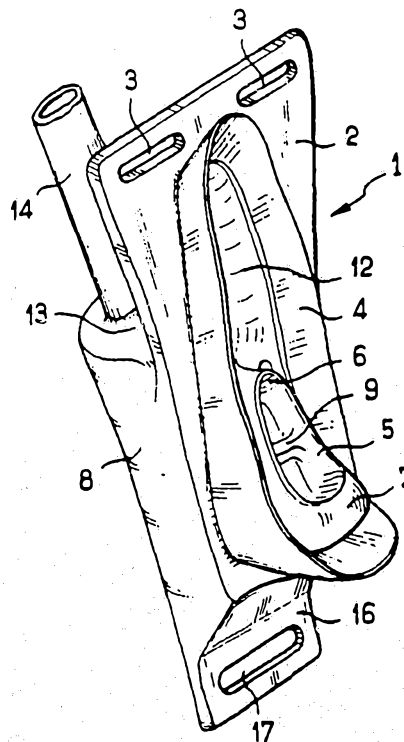
(54) Titre: RECEPTACLE COLLECTEUR PERMANENT D'URINE POUR FEMME

(57) Abstract

A permanent receptacle for collecting urine from women comprises a tray (2) and an oblong bevelled funnel (5) which co-operates with the urethra; the tray has a raised lip (4) conformed to surround the female organs, inside which is located said funnel (5) surrounded by a gutter (10) and, on one side only by a basin (12); the funnel (5) and the gutter (10) communicate with a collecting enclosure adjacent to the tray. The collecting enclosure has emptying means associated with a pumping system.

(57) Abrégé

Ce réceptacle collecteur permanent pour recueillir l'urine d'une femme comporte un plateau (2) et une cheminée (5) oblongue biseautée destinée à coopérer avec l'urètre; le plateau comporte une lèvre relevée (4) conformée pour entourer les organes féminins, dans la zone intérieure de laquelle se trouve ladite cheminée (5), entourée d'une rigole (10), et, d'un côté seulement, d'une cuvette (12); la cheminée (5) et la rigole (10) communiquent avec une enceinte collectrice attenante au plateau. L'enceinte collectrice comporte des moyens d'évacuation associés à un système de pompage.



PERMANENT RECEPTACLE FOR COLLECTING URINE FROM WOMEN

The invention relates to a permanent urine-collecting receptacle for women.

5 European patent document A-148 047 and European patent document A-287 441 disclose equipment intended for the incontinent and making it possible to detect and pump the urine collected in the urinary tract in order to store it in a flexible bag, which is generally held by a belt.

10 This equipment is satisfactory but, in some cases collection of the urine is less than perfect, especially when the subject adopts certain positions, in particular a lying position. Furthermore, in cases of both urinary and fecal incontinence, the operation
15 of this equipment is found to be upset by the discharge of feces.

Female incontinence is more widespread than male incontinence and improved collecting receptacles for women have already been proposed.

20 Thus urine drainage devices are known which are worn permanently by the subject. US patent document A-4,583,983 shows such a drainage device, which has a plate and a beveled oblong duct for cooperating with the urethra at the urinary meatus in order to collect the
25 urine, which is then discharged directly under gravity into a flexible bag. Although this drainage device can prove satisfactory in the simplest cases, i.e. when the female organs are of a regular shape and when the subject is in a vertical position, it is clear that it is not
30 satisfactory when the subject is in a lying position and/or when the anatomy of the urinary region is disturbed, for example following the prolapse of an organ.

Temporary collecting receptacles of the urinal kind are also known. For example, European patent



document A-185 517 shows such a urinal which is intended to be used exclusively on a temporary basis by a subject who is lying down. This is totally different from the permanent collecting receptacles to which the present invention relates.

One object of the invention is to prepare a permanent receptacle which avoids or at least reduces the above-mentioned disadvantages.

According to the present invention there is provided a permanent urine-collecting receptacle for women, of the type having a plate and a beveled oblong duct for cooperating with the urethra, wherein the plate has a raised lip shaped so as to surround the female organs, the said duct being located in the interior zone of the said lip, the said duct being surrounded by a channel having orifices provided therein, and by a dish extending on one side only of said duct, and the duct and the channel communicating with a collecting chamber adjoining the plate.

By virtue of a degree of flexibility, the raised lip ensures perfect leaktightness between the collection zone and the outside, in either direction. On the one hand, irrespective of the position of the female subject, the urine passed is collected either by the duct in the most normal case, or by the dish and the channel in other cases, with no leakage to the outside. On the other hand, the rear part of the lip forms a barrier to the discharge of any faeces which might disturb the operation of the device.

The collecting chamber has discharge means which can be a gravity flow orifice connected, for example, to a receiving bag situated lower down; more advantageously, these means are associated with a detection and pumping system, for example the one in the patents cited at the beginning of this specification.

In that case, the discharge means are advan-



tageously provided in the top part of the chamber.

The receptacle is preferably obtained by flow casting from a semi-flexible material such as a natural latex, whose flexibility makes it possible to avoid
5 harshness on the female organs and to fit their contour more easily.

Further characteristics and advantages of the invention will become apparent from the following description of a preferred embodiment. Reference is made
10 to the attached drawings, in which:

- Figure 1 is a $\frac{3}{4}$ perspective of the receptacle of the invention;

- Figure 2 is a top view of the same receptacle; and

15 - Figure 3 is a side view thereof with a partial cutaway.

The receptacle 1 is a semi-flexible semi-rigid article advantageously made of natural latex and obtained by molding.

20 It has a plate 2 in the shape of an inverted isosceles triangle, the upward-pointing base of which has two openings 3 for the passage of front suspension straps.

A relatively flexible sealing lip 4, whose
25 closed contour is intended to surround the female organs, is situated on top of the plate 2. The lip 4 widens slightly outwards.

A hollow collecting duct 5, oblong in shape (in top view; cf. Figures 1 and 2) and beveled (in side
30 view; cf. Figures 1 and 3), is provided inside this lip 4, in a lower offset position, the front part 6 of the said duct being lower than its rear part 7. The duct passes right through the plate 2 and communicates with an elongate collecting chamber 8 formed underneath
35 the plate 2 and adjoining the latter.



Between its two substantially parallel edges, the duct 5 possesses an intermediate partition 9, preventing the said edges from closing together.

At the foot of the duct 5 and all around it, a channel 10 can collect and guide the liquid into the chamber 8 through orifices 11 provided in the bottom of the channel. The orifices 11 serve as vents when the chamber 8 is filled through the duct 5.

Towards the upper front part of the zone inside the lip 4, an elongate dish 12 can collect the liquid and direct it towards the channel 10.

Underneath the plate 2, the chamber 8 is provided, on an upper frontal wall 13, with a discharge tube 14 connected to the pumping system described in patents mentioned above. Figure 3 shows the end of the suction pipe 15.

The shape of the chamber 8 and the position of the suction pipe 15 and of the detection electrodes are advantageously designed so as to retain a small permanent quantity of liquid in the bag, thereby avoiding noise phenomena associated with the presence of air in the pumping circuits.

At the bottom of the chamber 8, there is a lug 16 provided with a slit 17 for a lower fixing strap to pass through. If appropriate, this support lug 16 can be joined to a stool-retaining device next to the urine-collecting device.



THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A permanent urine-collecting receptacle for women,
of the type having a plate and a beveled oblong duct for
5 cooperating with the urethra, wherein the plate has a
raised lip shaped so as to surround the female organs, the
said duct being located in the interior zone of the said
lip, the said duct being surrounded by a channel having
orifices provided therein, and by a dish extending on one
10 side only of said duct, and the duct and the channel
communicating with a collecting chamber adjoining the
plate.
2. The receptacle according to claim 1, wherein the
15 collecting chamber has discharge means.
3. The receptacle according to claim 2, wherein the
discharge means are associated with a pumping system.
- 20 4. A permanent urine-collecting receptacle for women,
substantially as herein described with reference to the
accompanying drawings.

25 DATED: 10 July 1992

PHILLIPS ORMONDE & FITZPATRICK

Attorneys for:

30 KILRUSH LIMITED

David B Fitzpatrick



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ABSTRACT OF THE DISCLOSURE

PERMANENT RECEPTACLE FOR COLLECTING URINE FROM WOMEN

A permanent receptacle for collecting urine from women comprises a tray (2) and an oblong bevelled funnel (5) which co-operates with the urethra ; the tray has a raised lip (4) conformed to surround the female organs, inside which is located said funnel (5) surrounded by a gutter (10) and, on one side only by a basin (12) ; the funnel (5) and the gutter (10) communicate with a collecting enclosure adjacent to the tray. The collecting enclosure has emptying means associated with a pumping system.

Figure 1.



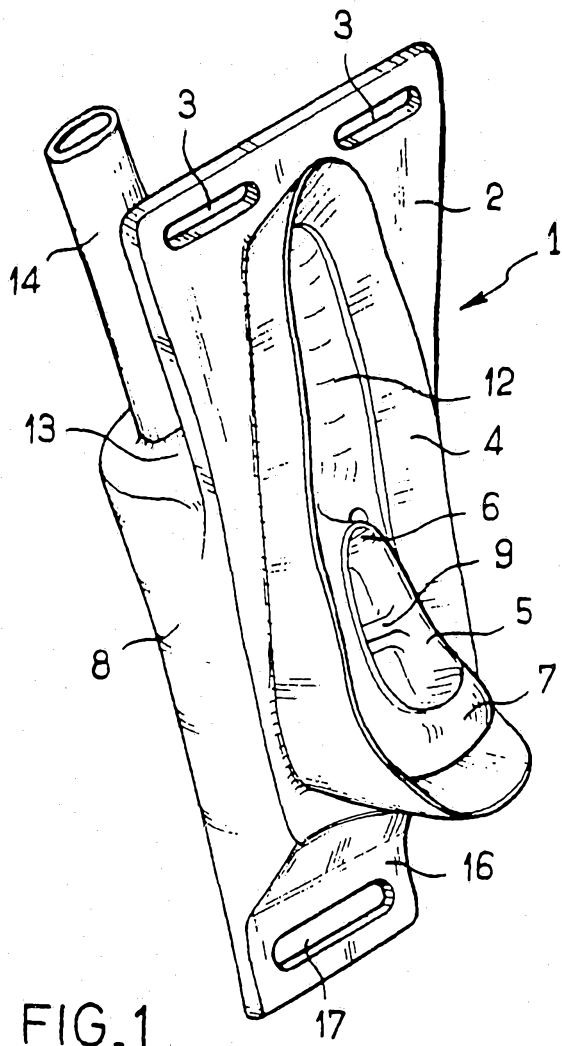


FIG. 1

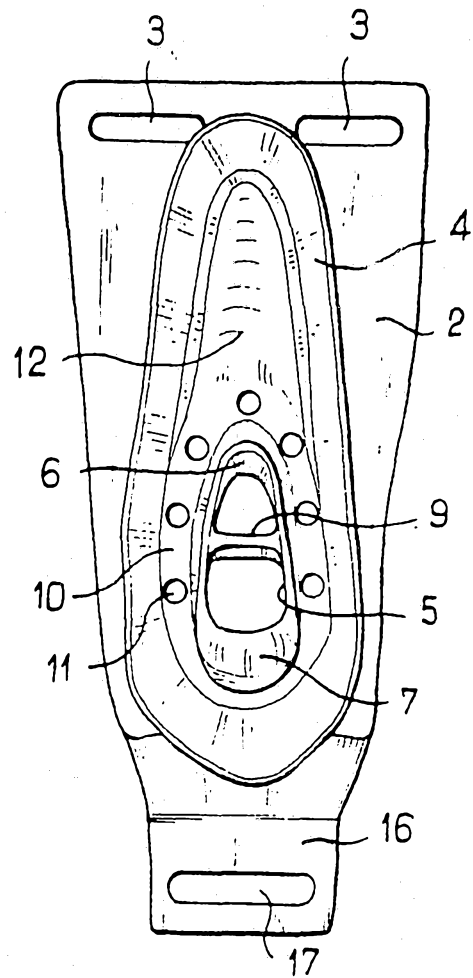


FIG. 2

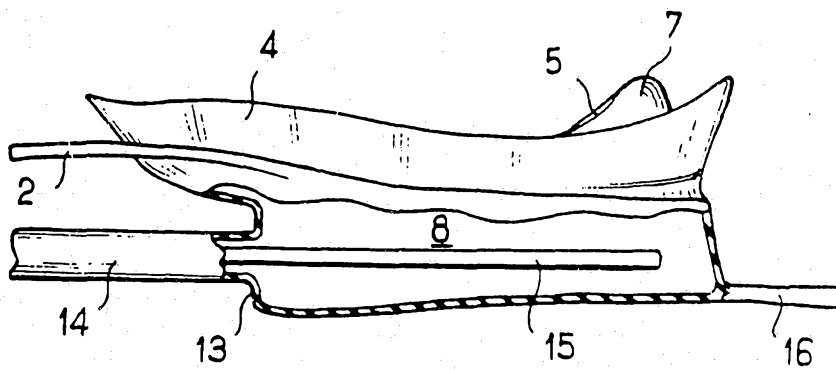


FIG. 3

INTERNATIONAL SEARCH REPORT

International Application No PCT/FP 88/00530

I. CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all) ⁶				
According to International Patent Classification (IPC) or to both National Classification and IPC				
Int. Cl. ⁴ A 61 F 5/455				
II. FIELDS SEARCHED				
Minimum Documentation Searched ⁷				
Classification System	Classification Symbols			
Int. Cl. ⁴ A 61 F				
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸				
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹				
Category ⁹	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³		
A	US, A, 4583983 (C. EINHORN et al.) 22 April 1986, see figures 1-5; column 2, lines 22-45	1		
A	EP, A, 0185517 (M. THOMAS et al.) 25 June 1986, see figures 1-5; column 3, line 41 - column 4, line 44	1		
<p>⁹ Special categories of cited documents: ¹⁰</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </td> <td style="width: 50%; border: none;"> <p>"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</p> <p>"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"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.</p> <p>"&" document member of the same patent family</p> </td> </tr> </table>			<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"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.</p> <p>"&" document member of the same patent family</p>
<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step</p> <p>"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.</p> <p>"&" document member of the same patent family</p>			
IV. CERTIFICATION				
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report			
2 February 1989 (02.02.89)	24 February 1989 (24.02.89)			
International Searching Authority	Signature of Authorized Office:			
European Patent Office				

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

FR 8800530
SA 25279

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 15/02/89. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A- 4583983	22-04-86		
EP-A- 0185517	25-06-86	GB-A- 2168252	18-06-86

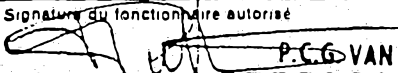
EP 8800530

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

RAPPORT DE RECHERCHE INTERNATIONALE

Demande internationale N° PCT/FR 88/00530

I. CLASSEMENT DE L'INVENTION (si plusieurs symboles de classification sont applicables, les indiquer tous) ⁷		
Selon la classification internationale des brevets (CIB) ou à la fois selon la classification nationale et la CIB		
CIB ⁴ : A 61 F 5/455		
II. DOMAINES SUR LESQUELS LA RECHERCHE A PORTE		
Documentation minimale consultée ⁸		
Système de classification	Symboles de classification	
CIB ⁴	A 61 F	
Documentation consultée autre que la documentation minimale dans la mesure où de tels documents font partie des domaines sur lesquels la recherche a porté ⁹		
III. DOCUMENTS CONSIDERES COMME PERTINENTS ¹⁰		
Catégorie *	Identification des documents cités, ¹¹ avec indication, si nécessaire, des passages pertinents ¹²	N° des revendications visées ¹³
A	US, A, 4583983 (C. EINHORN et al.) 22 avril 1986, voir figures 1-5; colonne 2, lignes 22-45	1
	--	
A	EP, A, 0185517 (M. THOMAS et al.) 25 juin 1986, voir figures 1-5; colonne 3, ligne 41 - colonne 4, ligne 44	1

<p>* Catégories spéciales de documents cités: ¹¹</p> <p>« A » document définissant l'état général de la technique, non considéré comme particulièrement pertinent</p> <p>« E » document antérieur, mais publié à la date de dépôt international ou après cette date</p> <p>« L » document pouvant jeter un doute sur une revendication de priorité ou cité pour déterminer la date de publication d'une autre citation ou pour une raison spéciale (telle qu'indiquée)</p> <p>« O » document se référant à une divulgation orale, à un usage, à une exposition ou tous autres moyens</p> <p>« P » document publié avant la date de dépôt international, mais postérieurement à la date de priorité revendiquée</p> <p>« T » document ultérieur publié postérieurement à la date de dépôt international ou à la date de priorité et n'appartenant pas à l'état de la technique pertinent, mais cité pour comprendre le principe ou la théorie constituant la base de l'invention</p> <p>« X » document particulièrement pertinent: l'invention revendiquée ne peut être considérée comme nouvelle ou comme impliquant une activité inventive</p> <p>« Y » document particulièrement pertinent; l'invention revendiquée ne peut être considérée comme impliquant une activité inventive lorsque le document est associé à un ou plusieurs autres documents de même nature, cette combinaison étant évidente pour une personne du métier.</p> <p>« & » document qui fait partie de la même famille de brevets</p>		
IV. CERTIFICATION		
Date à laquelle la recherche internationale a été effectivement achevée	Date d'expédition du présent rapport de recherche internationale	
2 février 1989	24. 02. 89	
Administration chargée de la recherche internationale	Signature du fonctionnaire autorisé	
OFFICE EUROPEEN DES BREVETS	 P.C.G. VAN DER PUTTEN	

**ANNEXE AU RAPPORT DE RECHERCHE INTERNATIONALE
RELATIF A LA DEMANDE INTERNATIONALE NO.**

FR 8800530
SA 25279

La présente annexe indique les membres de la famille de brevets relatifs aux documents brevets cités dans le rapport de recherche international visé ci-dessus.
Lesdits membres sont contenus au fichier informatique de l'Office européen des brevets à la date du 15/02/89
Les renseignements fournis sont donnés à titre indicatif et n'engagent pas la responsabilité de l'Office européen des brevets.

Document brevet cité au rapport de recherche	Date de publication	Membre(s) de la famille de brevet(s)	Date de publication
US-A- 4583983	22-04-86	Aucun	
EP-A- 0185517	25-06-86	GB-A- 2168252	18-06-86

EPO FORM P0472

Pour tout renseignement concernant cette annexe : voir Journal Officiel de l'Office européen des brevets, No.12/82