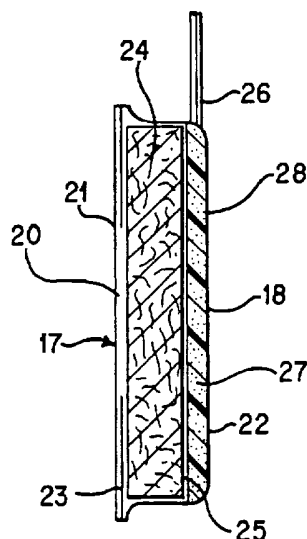


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(21) International Application Number: PCT/US93/07349 (22) International Filing Date: 5 August 1993 (05.08.93) (30) Priority data: 07/927,197 7 August 1992 (07.08.92) US (71) Applicant: BRISTOL-MYERS SQUIBB [US/US]; 345 Park Avenue, New York, NY 10154 (US). (72) Inventors: LAWRENCE, W. Thompson ; 53 Orvis Road, Arlington, MA 02174 (US). STROHL, Clair, L. ; 3 Winston Road, Norfolk, MA 02056 (US). (74) Agent: O'ROURKE, Thomas, A.; Wyatt Gerber Burke & Badie, 645 Madison Avenue, New York, NY 10022 (US).		(81) Designated States: AU, CA, JP, NO, NZ, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> (88) Date of publication of the international search report: 28 April 1994 (28.04.94)

(54) Title: LIQUID REMOVAL SYSTEM**(57) Abstract**

A liquid removal system having an interface device (10) and a vacuum source (60) are described. The interface device (10) has a porous membrane (25) with an entrance zone on one side filled with a fibrous foam or other type of filler material (24). The vacuum source (60) maintains a vacuum on the side of the membrane (25) opposite the entrance zone when the membrane (25) is wetted. Liquid which contacts the wetted porous membrane (25) is removed from the interface device by the vacuum source (60).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US93/07349

A. CLASSIFICATION OF SUBJECT MATTER

IPC(5) : A61F 05/44

US CL : 604/329

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)

U.S. : 604/329, 133, 150, 151, 319, 327

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)

APS

search terms: suction, vacuum, membrane, urine

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, A, 4,980,297 (Haynes et al.) 25 December 1990, col. 7 line 15 - col. 8 line 24.	1, 6, 9, 26
A	US, A, 4,528,703 (Kraus) 16 July 1985, see entire document	1-48
A	US, A, 4,795,449 (Schneider et al.) 03 January 1989, see entire document	1-48
A	US, A, 4,246,901 (Michaud) 27 January 1981, see entire document	1-48

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*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
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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)	*A*	document member of the same patent family
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Date of the actual completion of the international search

27 JANUARY 1994

Date of mailing of the international search report

07 FEB 1994

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US93/07349

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claims Nos.: 19-23
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐

The additional search fees were accompanied by the applicant's protest.

☐

No protest accompanied the payment of additional search fees.