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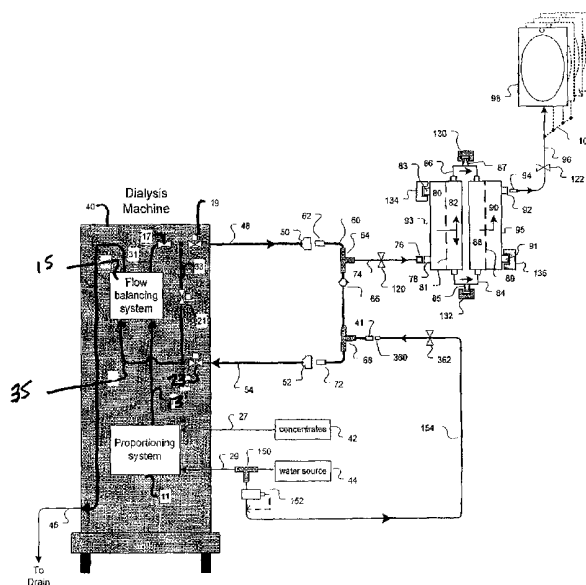
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR GENERATING A STERILE INFUSION FLUID



(57) Abstract: An apparatus and method are provided for generating sterile infusion fluid from non-sterile infusion fluid produced by the machine. In one embodiment, the sterile infusion fluid is produced by a sterile fluid generating device that is an ancillary device designed to operate in conjunction with the existing machine. For example, the sterile fluid generating device is used in conduction with a dialysis machine (40) according to one embodiment resulting in sterile infusion fluid being produced wherein sterile fluid generating device comprises series of valves (19, 21, 23) and connectors (50, 52) in conduits (48, 54) and sterilizing filters (93, 95).



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/50719

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01D 61/24, 61/26, 61/28, 61/32

US CL : Please See Extra Sheet.

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. : 210/85, 86, 87, 90, 97, 103, 104, 109, 117, 121, 136, 137, 143, 195.2, 252, 257.1, 257.2, 258, 645, 646, 739, 741, 744, 805

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	US 5,744,027 A (CONNELL et al) 28 April 1998 (28.04.98), see entire document.	1-21, 25-30
A	US 5,932,103 A (KENLEY et al) 03 August 1999 (03.08.99), see entire document.	1-21, 25-30
A	US 5,660,722 A (NEDERLOF) 26 August 1997 (26.08.97), see entire document.	1-21, 25-30
A	US 5,567,320 A (GOUX et al) 22 October 1996 (22.10.96), see entire document.	1-21, 25-30
A	US 4,834,888 A (POLASCHEGG) 30 May 1989 (30.05.89), see entire document.	1-21, 25-30

☒ 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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier document published on or after the international filing date	"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
"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)	"G" document member of the same patent family
"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	

Date of the actual completion of the international search

27 MARCH 2002

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/50719

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,388,184 A (BROUS et al) 14 June 1983 (14.06.83), see entire document.	1-21, 25-30
A	US 4,107,039 A (LINDSAY, JR. et al) 15 August 1978 (15.08.78), see entire document.	1-21, 25-30

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/50719

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.:
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:

Please See Extra Sheet.

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.:
23-24, 31-33

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.