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(71) Applicant: GORE ENTERPRISE HOLDINGS, INC. [US/US]; 551 Paper Mill Road, P.O. Box 9206, Newark, DE 19714-9206 (US).

(72) Inventors: KNAPP, Michael, N.; 1445 E. Everest Drive, Flagstaff, AZ 86004 (US). WATSON, Woodrow, W.; 8875 Hull Road, Flagstaff, AZ 86004 (US).

(74) Agents: CAMPBELL, John, S. et al.; W.L. Gore & Associates, Inc., 551 Paper Mill Road, P.O. Box 9206, Newark, DE 19714-9206 (US).

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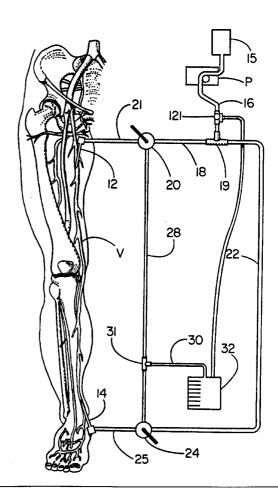
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(54) Title: MEDICAL EVACUATION AND IRRIGATION SYSTEM

(57) Abstract

An irrigation system for use primarily with in situ bypass and valvulotomy procedures. The system includes access to both the proximal and distal ends of a length of vein and allows for irrigation flow to be provided from proximal to distal, distal to proximal or to both proximal and distal ends of the vein simultaneously. The use of the irrigation system provides for a clear field of view by angioscope during medical procedures. Introducers are also described which may be used with the irrigation system or with many other procedures which require access to an internal body conduit.



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a. classification of subject matter IPC 6 A61M3/02 A61 A61M39/06 A61M25/06 A61M39/22 A61M1/00 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) A61M A61B IPC 6 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 practical, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages 1,3,6,25 US 5 084 031 A (TODD ROBERT J ET AL) 28 Α January 1992 see abstract; figures US 4 768 508 A (CHIN ALBERT K ET AL) 6 1 Α September 1988 see column 4, line 12 - line 44; figures 1,25 US 5 562 612 A (FOX MARTIN) 8 October 1996 A.P see abstract; figure 1 1 US 4 881 523 A (HECKELE HELMUT) 21 Α November 1989 see abstract; figures -/--Įχ[¯] Patent family members are listed in annex. Further documents are listed in the continuation of box C. Ospecial 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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "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 "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) "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 docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled document published prior to the international filing date but "&" document member of the same patent family later than the priority date claimed Date of mailing of the international search report Date of the actual completion of the international search 0 6. 03. 98 25 February 1998 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni, Villeneuve, J-M Fax: (+31-70) 340-3016

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	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	I D. L
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Α	US 4 716 901 A (JACKSON ET AL.) 5 January 1988 see claim 1; figures	7-9
Α	US 5 324 262 A (FISCHELL ROBERT E ET AL) 28 June 1994 see abstract; figure 1	7,16
Х	US 5 195 980 A (CATLIN DAVID G) 23 March 1993 see claims; figures	27-38
A	US 5 458 640 A (GERRONE CARMEN J) 17 October 1995 see abstract; figures 4-4B	27,33

ational application No. PCT/IB 97/01113

Box i Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely
Claims Nos.: Decause 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:
Claims Nos pecause 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:
see additional sheet
As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims.
As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee
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 1-17, 25, 26, 27-38
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 X No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

MULTIPLE INVENTIONS

1. Claims: 1-6

Irrigation system with bidirectional fluid path.

2. Claims: 7-17

Introducer sheath with expandable tip.

3. Claims: 18-24

Irrigation system with two access ports.

4. Claims: 25,26

Valve for irrigation system

5. Claims: 27-38 Introducer sheath with sealing member

Information on patent family members

Interna al Application No
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