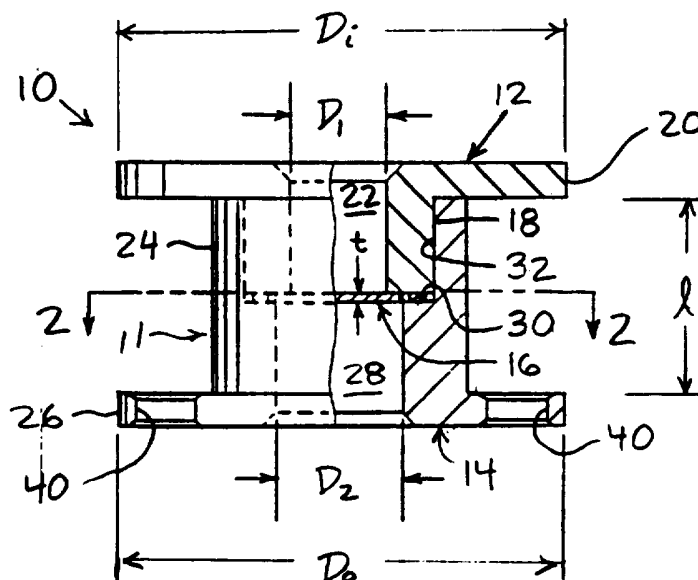




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification⁶ : A61M 5/00</p>	<p>A3</p>	<p>(11) International Publication Number: WO 96/18357</p> <p>(43) International Publication Date: 20 June 1996 (20.06.96)</p>
<p>(21) International Application Number: PCT/US95/15170</p> <p>(22) International Filing Date: 7 December 1995 (07.12.95)</p> <p>(30) Priority Data: 08/353,483 9 December 1994 (09.12.94) US</p> <p>(71)(72) Applicant and Inventor: BAYS, F., Barry [US/US]; 1929 Bays Manor, Clearwater, FL 34634 (US).</p> <p>(74) Agent: EPSTEIN, Robert, H.; Epstein, Edell & Retzer, Suite 400, 1901 Research Boulevard, Rockville, MD 20850 (US).</p>		<p>(81) Designated States: AU, CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published <i>With international search report.</i></p> <p>(88) Date of publication of the international search report: 6 September 1996 (06.09.96)</p>

(54) Title: VALVE ASSEMBLY AND METHOD FOR RELIEVING SYNOVIAL FLUID PRESSURE



(57) Abstract

A device for relieving synovial fluid pressure in a capsule surrounding a body joint includes a valve (16) for placement in the capsule surrounding the joint for regulating passage of synovial fluid from the capsule. The valve (16) can include a valve housing (11) defining a passage between an interior and exterior of the capsule, and a valve member (16) disposed within the valve housing (11) for regulating synovial fluid pressure within the capsule by permitting synovial fluid to drain from the capsule when a predetermined synovial fluid pressure is exceeded. The valve housing (11) can be secured to the capsule with inlet and outlet flanges (24, 26) disposed at opposite ends of the housing (11), and additionally by use of openings (40) formed in the outlet flange (26) to allow passage of sutures and to promote integral tissue fixation over time.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/15170

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :A61M 5/00
US CL :604/9

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. : 137/855; 604/8-10; 623/12

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.
X	US, A, 4,679,546 (VAN WAALWIJK VAN DOORN ET AL.) 14 July 1987, see Figs. 3 and 4, and Abstract.	1-5
X	US, A, 4,568,337 (TREHARNE, III ET AL.) 04 February 1984, see Figs. 1-6.	1-5, 7, 19-23
X	US, A, 3,788,327 (DONOWITZ ET AL.) 29 January 1974, see Figs. 1-6.	1-7
Y	US, A, 1,955,733 (J. BIJUR) 24 April 1934, see Fig. 2.	8-18

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)	*&* 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

29 APRIL 1996

Date of mailing of the international search report

07 JUN 1996

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/15170

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:

- I. Claims 1-18, drawn to a valve assembly.
- II. Claims 19-23, drawn to a method of relieving synovial fluid pressure in a capsule surrounding a joint.

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.